

Water Resources Data California Water Year 1987

Volume 2. Pacific Slope Basins from Arroyo Grande
to Oregon State Line except
Central Valley



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-87-2
Prepared in cooperation with the California Department of
Water Resources and with other agencies

1986

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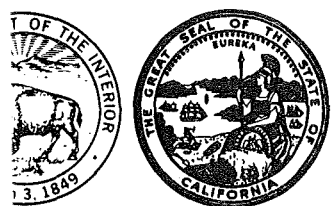
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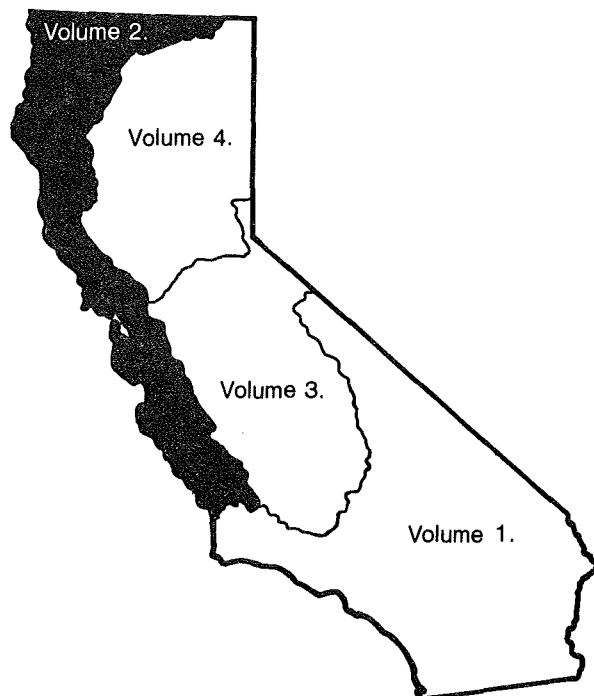


Water Resources Data California

Water Year 1987

Volume 2. Pacific Slope Basins from Arroyo Grande to Oregon State Line except Central Valley

by S.W. Anderson, K.L. Markham, W.F. Shelton and L.F. Trujillo



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-87-2
Prepared in cooperation with the California Department of
Water Resources and with other agencies

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2800 Cottage Way
Sacramento, California 95825

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-88/283	2.	3. Recipient's Accession No.
4. Title and Subtitle Water Resources Data for California, Water Year 1987 Volume 2. Pacific Slope Basins from Arroyo Grande to Oregon State Line Except Central Valley			5. Report Date September 1988
7. Author(s) S. Anderson, K.L. Markham, W.F. Shelton, and L.F. Trujillo			6.
9. Performing Organization Name and Address U.S. Geological Survey, Water Resources Division California District 2800 Cottage Way, Room W-2234 Sacramento, CA 95825			8. Performing Organization Rept. No. USGS-WDR-CA-87-2
12. Sponsoring 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)
			13. Type of Report & Period Covered Annual--Oct. 1, 1986 Sept. 30, 1987
15. Supplementary Notes Prepared in cooperation with the California Department of Water Resources and with other agencies.			14.

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 2 contains discharge records for 123 gaging stations; stage and contents for 7 lakes and reservoirs; and water quality for 29 stations. Also included are 1 partial-record station and 24 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, Water analyses, Water temperatures, Sampling sites, Sediment

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 326
	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; (p), precipitation; (t), water temperature; and (s), sediment]

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WATER RESOURCES DATA -- CALIFORNIA, WATER YEAR 1987

VOLUME 2--PACIFIC SLOPE BASINS FROM ARROYO GRANDE
TO OREGON STATE LINE EXCEPT CENTRAL VALLEY

By S. Anderson, K.L. Markham, W.F. Shelton, and L.F. Trujillo

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 123 streamflow-gaging stations and 1 low-flow partial-record streamflow stations (2) stage and contents records for 7 lakes and reservoirs; and (3) water-quality records for 29 streamflow-gaging 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 was published for ground-water levels and quality.

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-87-3." 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 in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (916) 978-4668.

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:

Alameda County Flood Control and Water Conservation District, Robert Bitten, Director of Public Works.
Alameda County Water District, Roy E. Cloverdale, General Manager.
California Department of Water Resources, David N. Kennedy, Director.
Contra Costa County Flood Control and Water Conservation District, Milton Kubicek, Deputy Director.
Humboldt Bay Municipal Water District, Arthur Bolli, General Manager.

Marin County Department of Public Works, Thomas F. Campanella, Director.
Marin Municipal Water District, Richard W. Rogers, General Manager.
Monterey County Flood Control and Water Conservation District, William Hurst, General Manager-Acting District Engineer.
Monterey Peninsula Water Management District, Bruce Buel, General Manager.
San Benito County Water Conservation and Flood Control District, George W. Thomas, Manager.

San Francisco Water Department, James D. Cooney, General Manager.
San Luis Obispo County Engineering Department, George Protopapas, County Engineer.
San Mateo County, George Zinckraft, Senior Civil Engineer.
Santa Clara Valley Water District, John T. O'Halloran, General Manager.
Santa Cruz County Flood Control and Water Conservation District, Peter Cota-Robles, Director.

Scotts Valley Water District, John Sansing, General Manager.
Sonoma County Planning Department, John Dugan, Director.
Sonoma County Water Agency, Robert F. Beach, General Manager.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army; Bureau of Indian Affairs and National Park Service, U.S. Department of the Interior.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

Runoff during the 1987 water year in the area covered by this volume was about 40 percent of the 1951-80 median of mean annual flow (based on ten representative streamflow records) and ranged from 69 percent of median at the Smith River near Crescent City to 21 percent at Saratoga Creek at Saratoga.

Runoff in California for water year 1987 was about the 10th driest year of this century. The 1987 drought was comparable in intensity to 1920, 1929, 1933, and 1934; it was considered a critically dry year. New monthly mean discharge minimums occurred at the Smith River near Crescent City for June and July; a new record low, daily minimum flow of 386 ft³/s occurred in June. A persistent high-pressure ridge off the California coast displaced the usual winter storm path, leaving most of the State deficient in precipitation. There were three significant storm periods, Jan. 24, Feb. 12-14, and Mar. 5-6. These storms produced no peaks of record, and few peaks above base. Precipitation in the area covered by this volume (based on seven representative precipitation gages) was 64 percent of the long-term average. Precipitation varied from 73 percent at Crescent City to 52 percent at San Francisco International Airport.



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

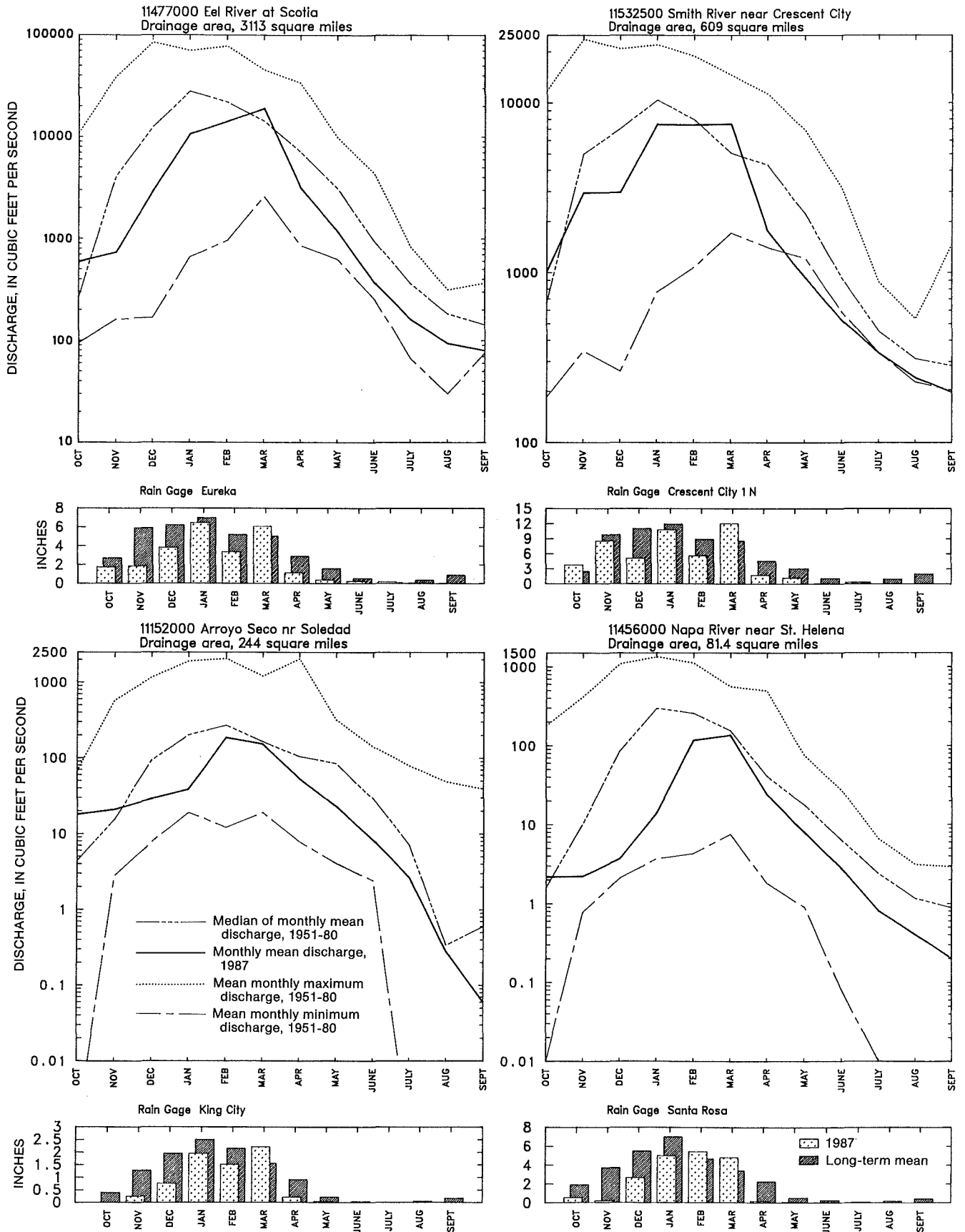


Figure 2. - Comparison of discharge during water year 1987 with long-term discharge statistics and rainfall of four representative gaging stations.

Water Quality

Water samples collected at seven NASQAN stations and one Hydrologic Benchmark station reported in this volume were analyzed for water-quality constituents during the 1987 water year. Dissolved-solids concentrations slightly increased from the previous year and were largest at the Pajaro River near Chittenden, where the median concentration was 760 mg/L. The smallest concentration was in water sampled from the Smith River near Crescent City, where the median concentration was 69 mg/L. The monthly mean dissolved-solids concentrations during water year 1987 are compared in figure 4 with long-term mean dissolved-solids concentrations at two selected stations. Constituents were less than maximum levels recommended by the U.S. Environmental Protection Agency. The largest density of fecal-coliform bacteria was measured in water sampled from the Pajaro River near Chittenden, 2,000 colonies per 100 milliliters (an increase from a maximum density of 1,100 colonies per 100 milliliters reported in 1986).

Of the eight water-quality stations sampled as part of the Golden Gate National Recreation Area study, Rodeo Lagoon at Muir Beach had the largest density of fecal coliform bacteria, 8,000 colonies per 100 milliliters.

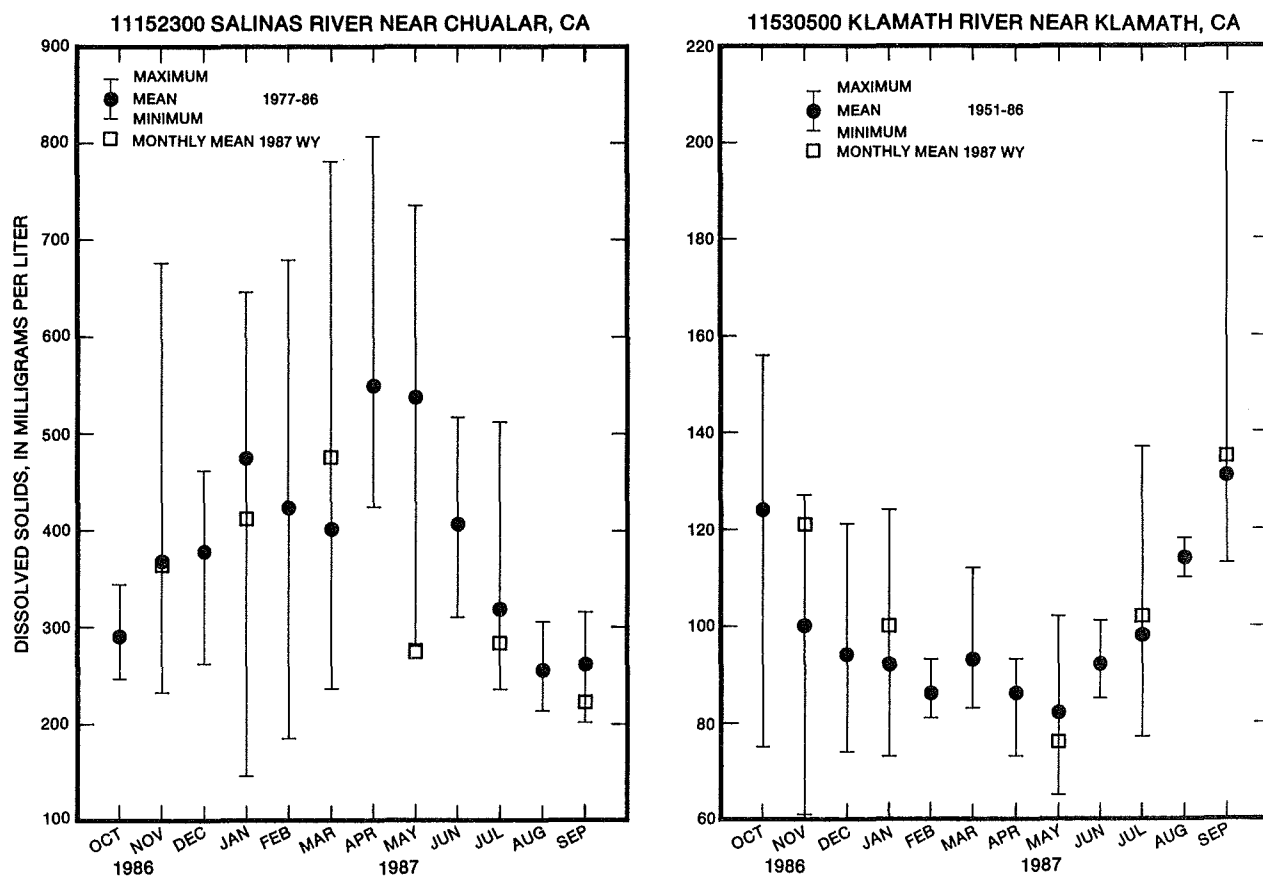


Figure 3. - Comparison of monthly mean dissolved-solids concentrations during water year 1987 with long-term mean dissolved-solids concentrations of two selected stations.

Sediment

Suspended-sediment discharge and concentration were monitored daily at 8 stations and periodically at 26 stations in the area included in this volume. Monthly and annual bedload discharge were estimated for all daily stations. Sediment-monitoring stations are located as far north as Crescent City and as far south as Bryson. Large variations in precipitation and drainage-basin characteristics result in significant differences in sediment-discharge rates.

Sediment discharge was well below normal during the 1987 water year for all the daily sediment stations included in this volume. Annual sediment discharge was 6 percent of average for Cull Creek near Castro Valley (1979-86), 9 percent for Redwood Creek at Orick (1971-1986), and 10 percent for Grass Valley Creek near Lewiston (1976-86).

During the 1987 water year, sediment discharge for the eight daily stations ranged from 0 ton per year for West Fork Permanente Creek near Monta Vista (2.98 square miles drainage area) to 104,000 tons per year for Redwood Creek at Orick (278 square miles drainage area). Annual sediment yield ranged from a minimum of 0 ton per square mile for West Fork Permanente Creek near Monta Vista to a maximum of 449 tons per square mile for Cull Creek near Castro Valley. Monthly suspended-sediment discharges for streams in the Klamath River, Redwood Creek, and San Lorenzo Creek basins are shown in figure 4.

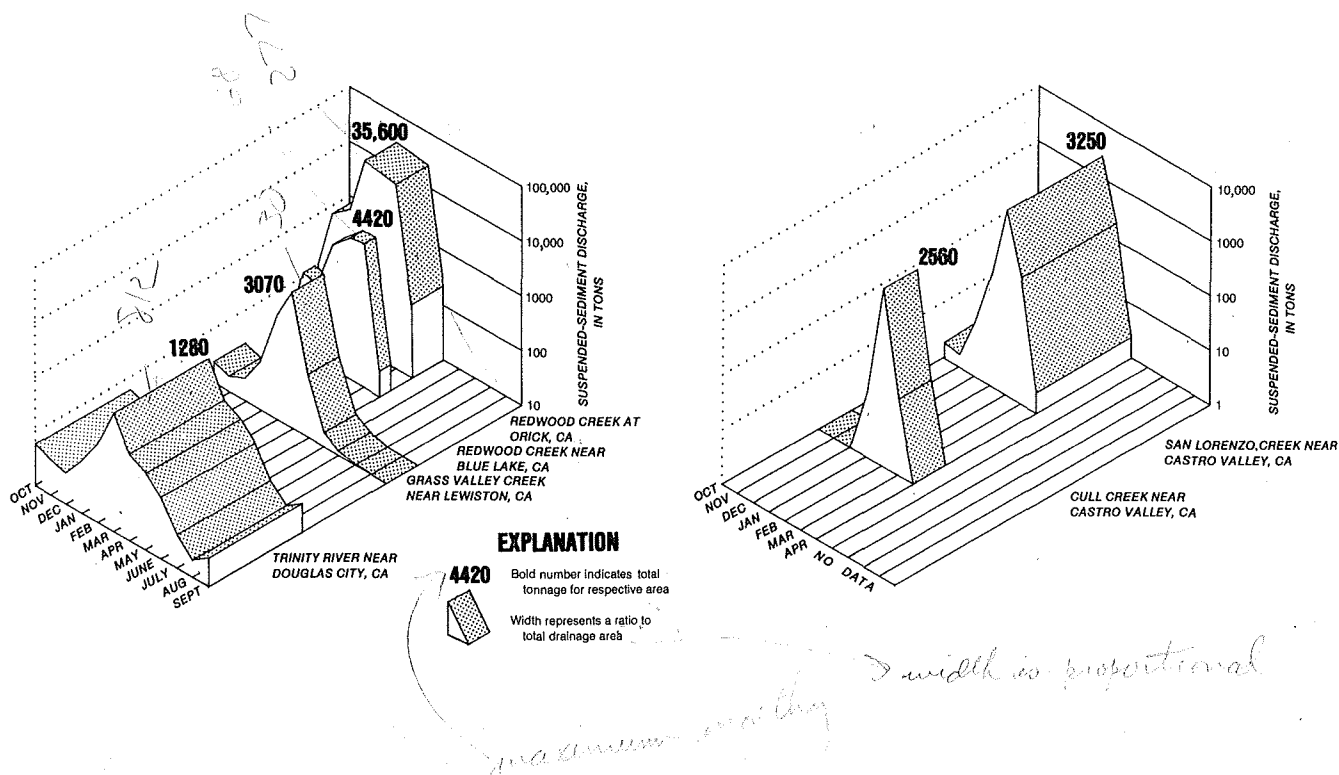


Figure 4. - Monthly suspended-sediment discharge for streams in Klamath River, Redwood Creek, and San Lorenzo Creek basins.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 56 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 408 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 6 through 22. 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 11465350, which appears just to the left of the station name, includes the two-digit part number "11" plus the six-digit downstream-order number "465350." 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. 5).

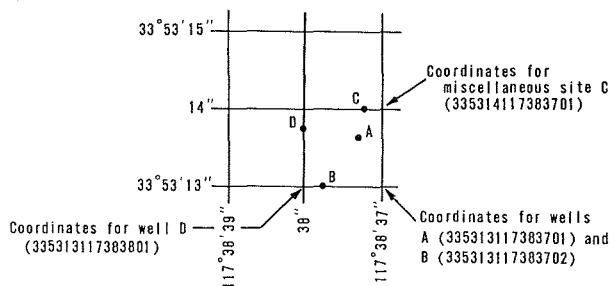


Figure 5. - System for numbering miscellaneous sites (latitude and longitude).

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 6 through 22.

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.

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.

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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.

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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 6 through 22.

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 of 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:

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

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_0 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 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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. Ehlike, 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
11166575	Permanente Creek near Monta Vista	3.86	1985-87
11166578	West Fork Permanente Creek near Monta Vista	2.98	1985-87
11170000	Coyote Creek near Madrone	196	1903-12, 1917-87
11172100	Upper Penitencia Creek at San Jose	21.5	1962-87
11530020	Supply Creek at Hoopa	15.8	1982-87

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
11166575	Permanente Creek near Monta Vista	3.86	T,S	1985-87
11166578	West Fork Permanente Creek near Monta Vista	2.98	T,S	1985-87
11465150	Pena Creek near Geyserville	22.3	S	1979-87
11465200	Dry Creek near Geyserville	162	S	1964-87

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

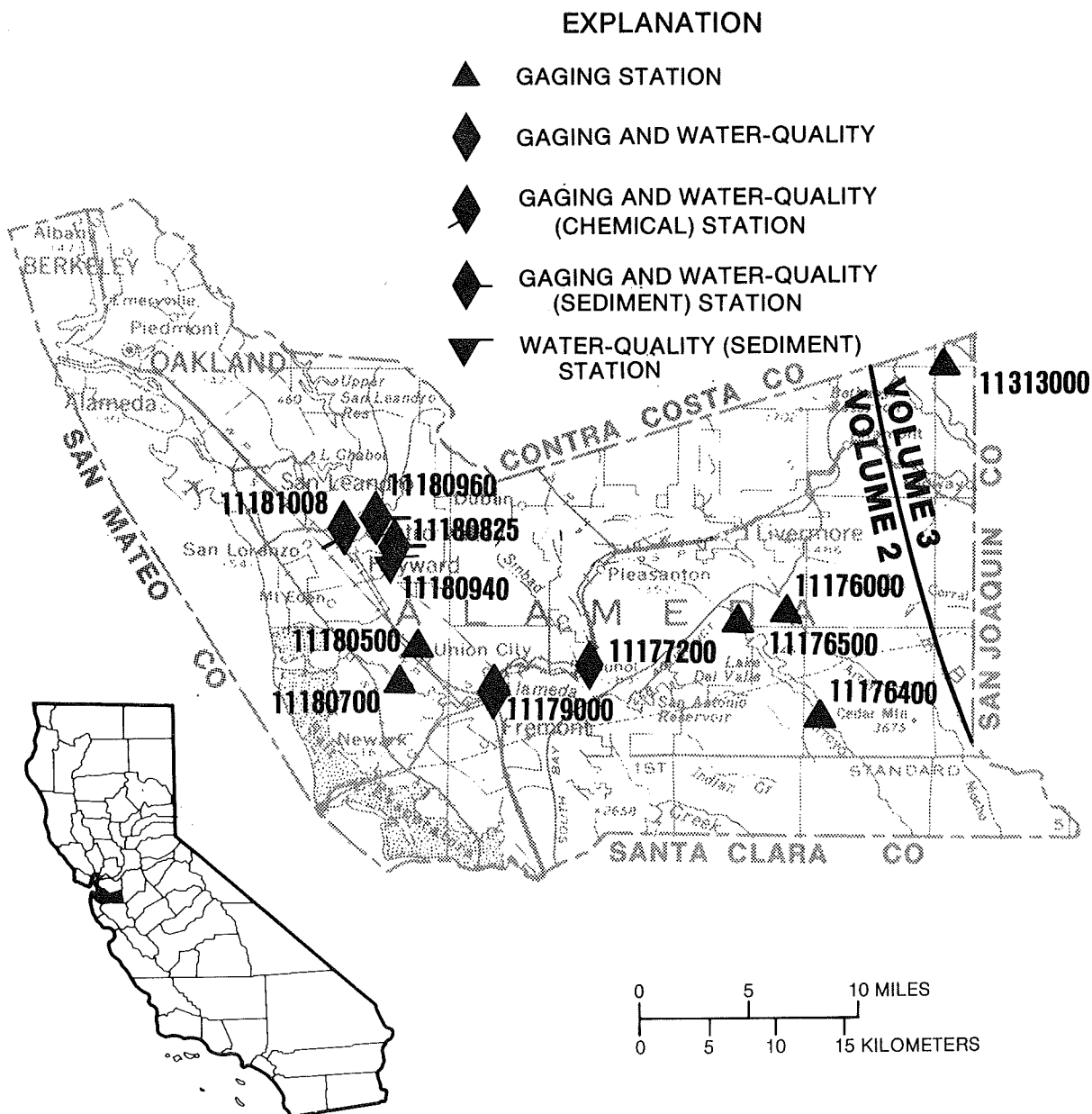


Figure 6. - Location of discharge and water-quality stations in Alameda County.
(Note: Record for station 11313000 published in volume 3.)

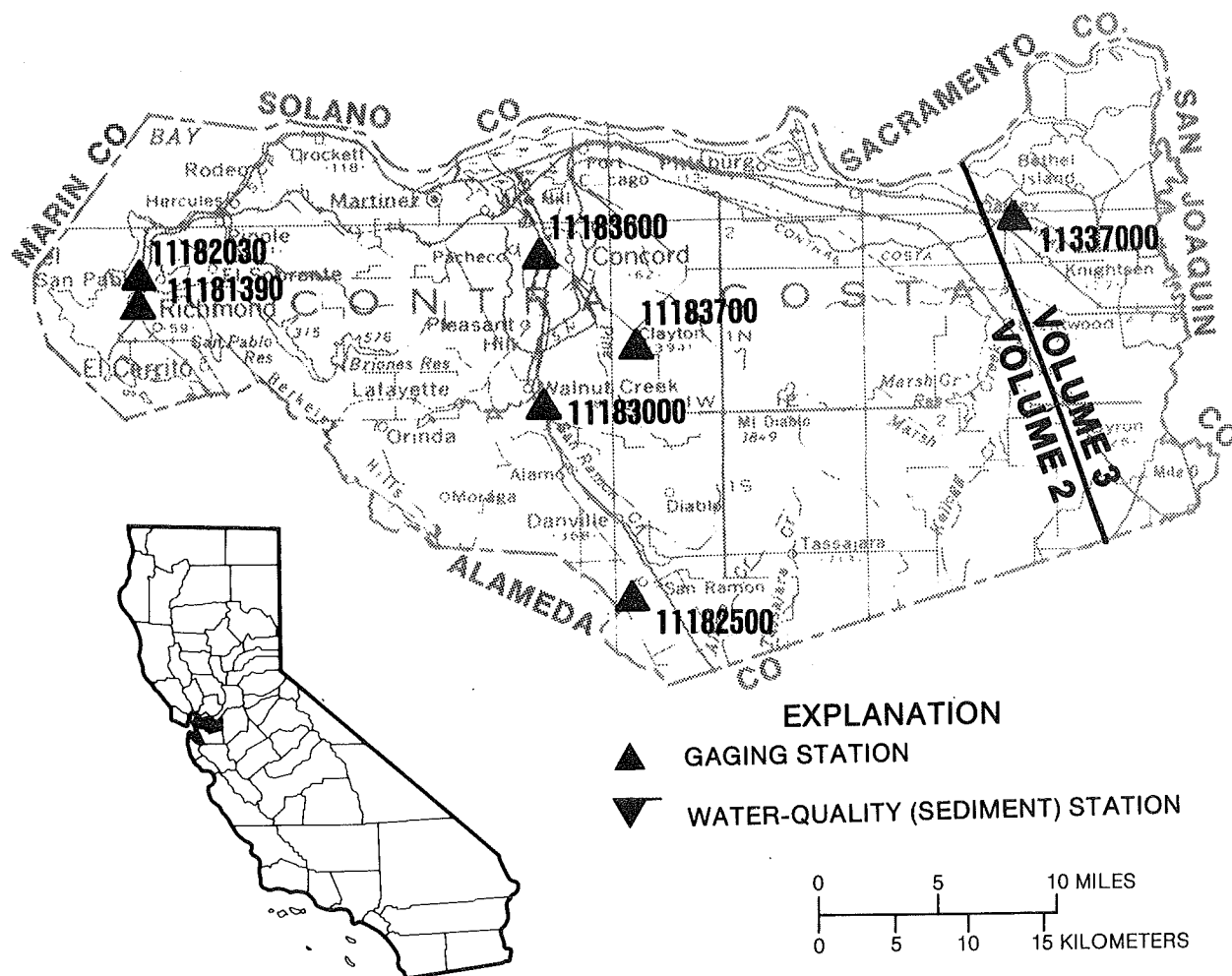


Figure 7. - Location of discharge stations in Contra Costa County.
(Note: Record for station 11337000 published in volume 3.)

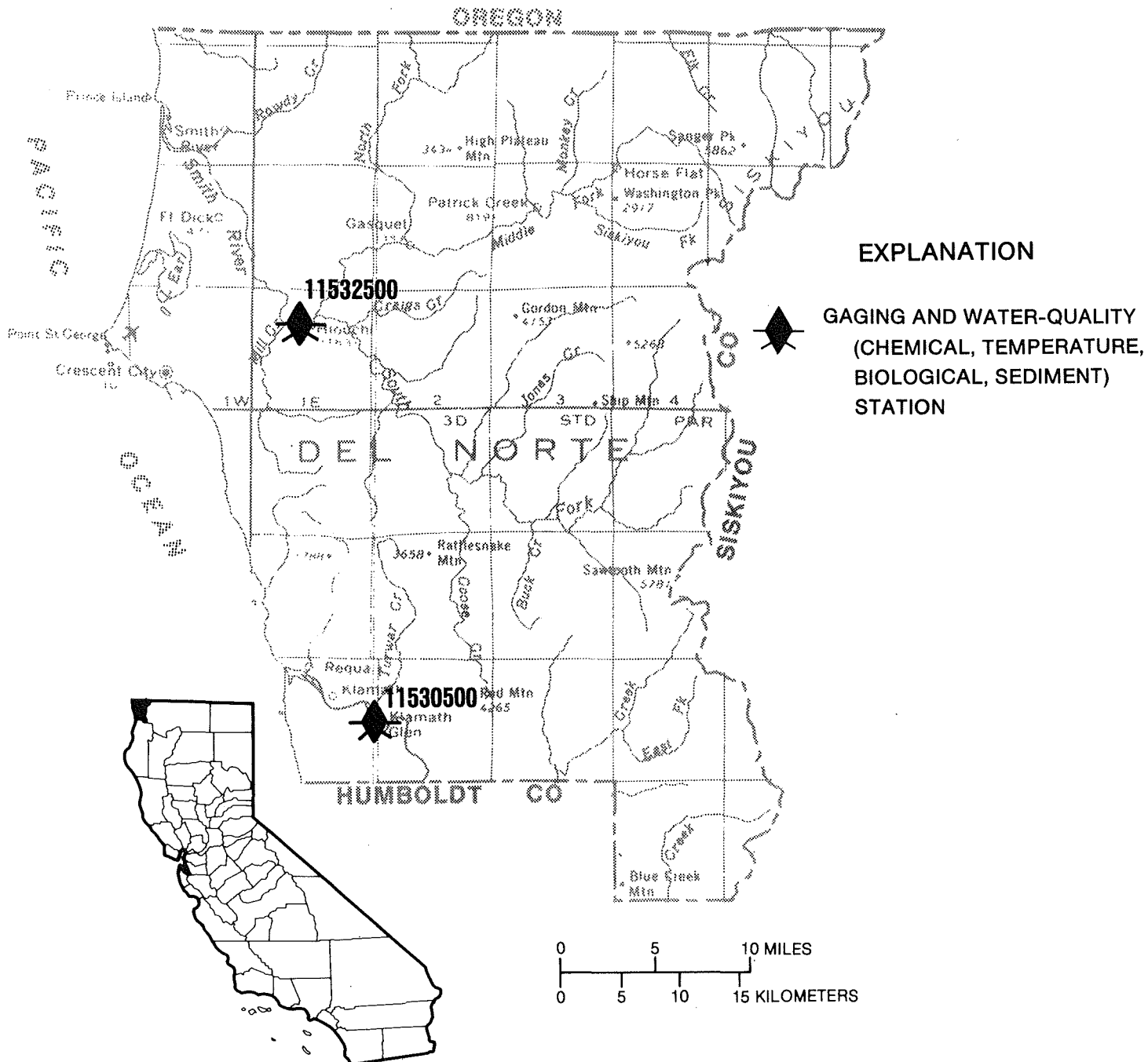


Figure 8. - Location of discharge and water-quality stations in Del Norte County.

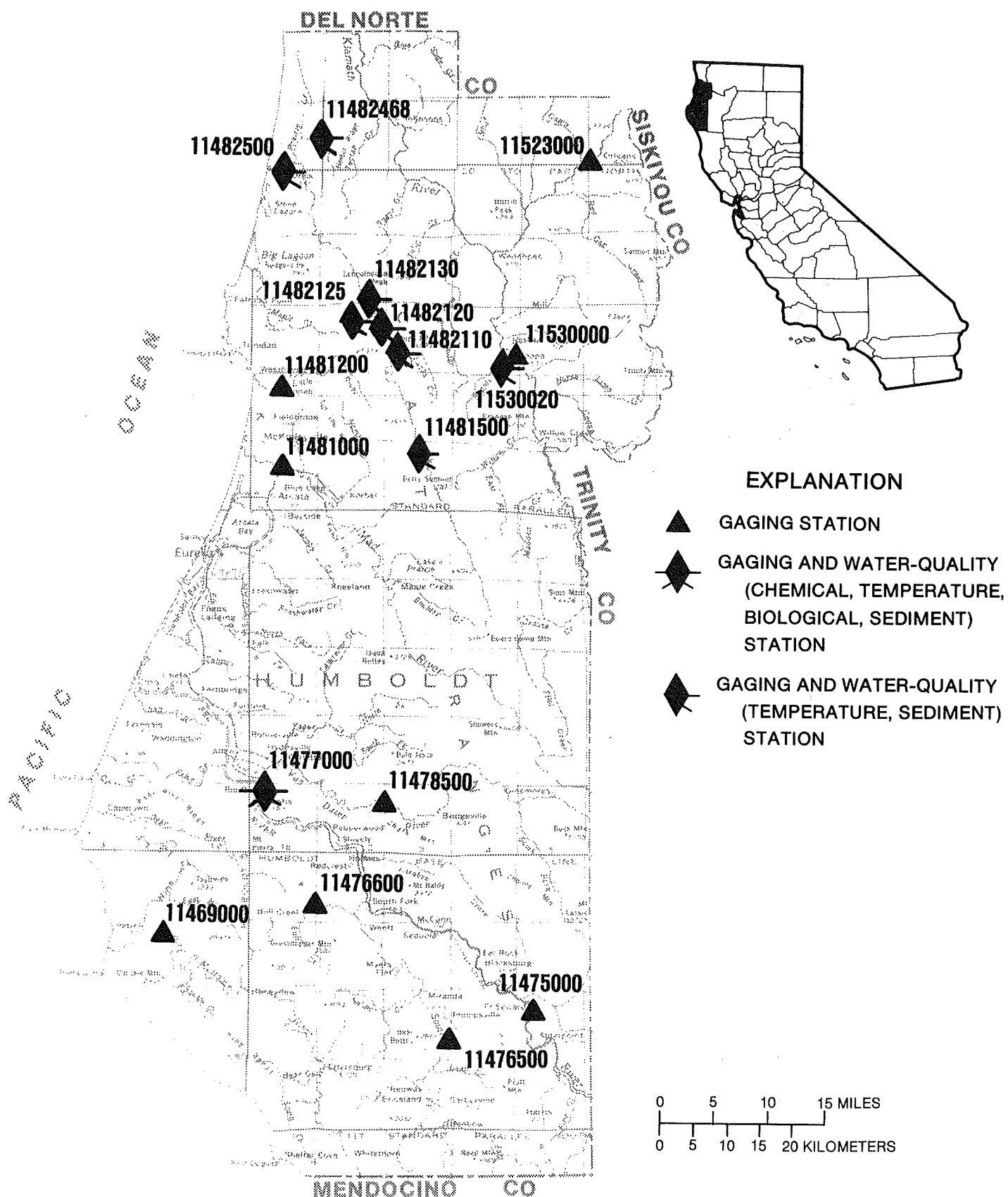


Figure 9. - Location of discharge and water-quality stations in Humboldt County.

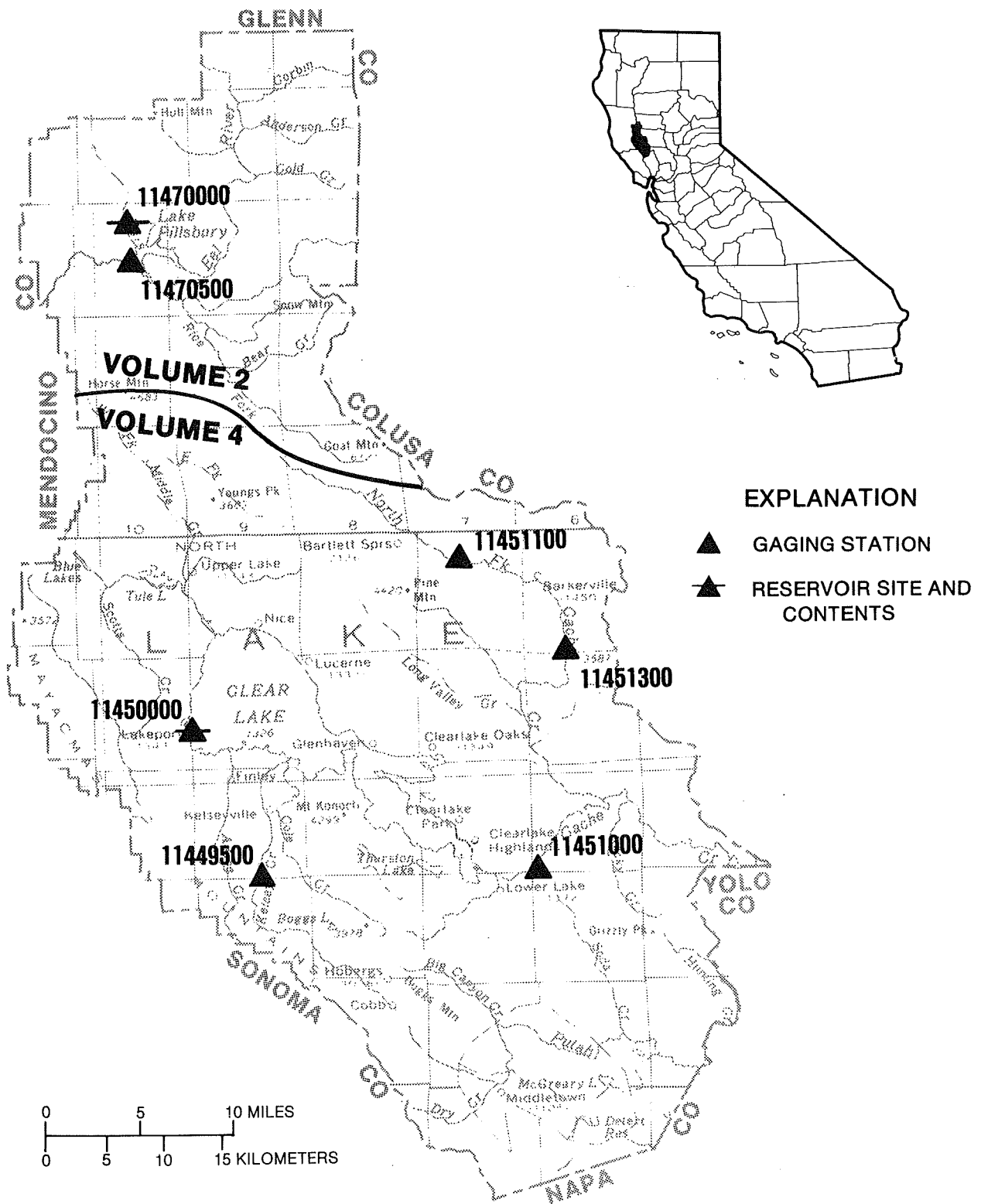
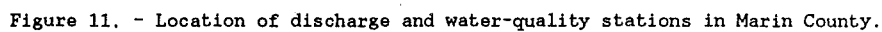


Figure 10. - Location of discharge stations in Lake County.
 (Note: Records for stations 11449500 through 11451300 published in volume 4.)



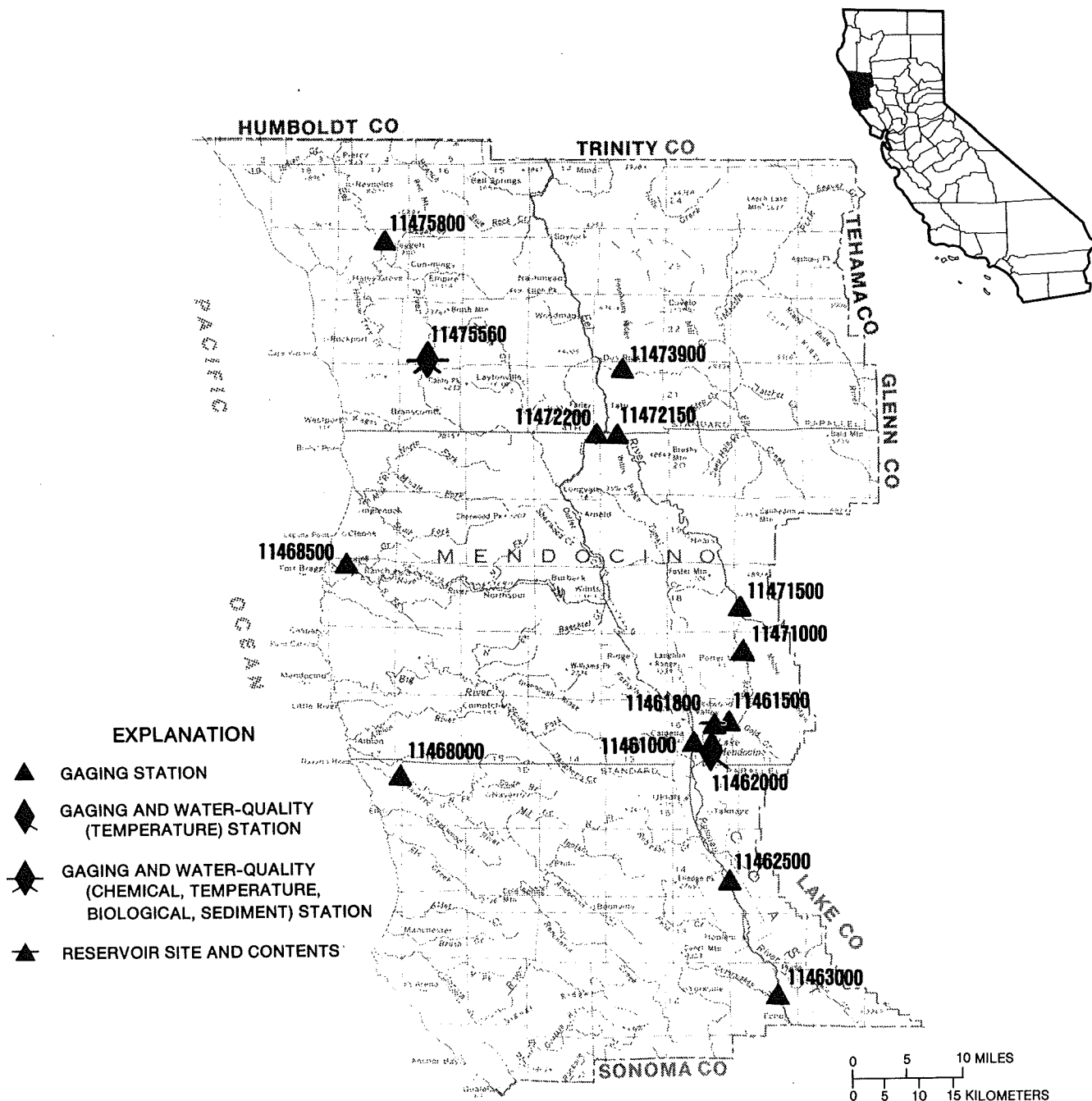


Figure 12. - Location of discharge and water-quality stations in Mendocino County.

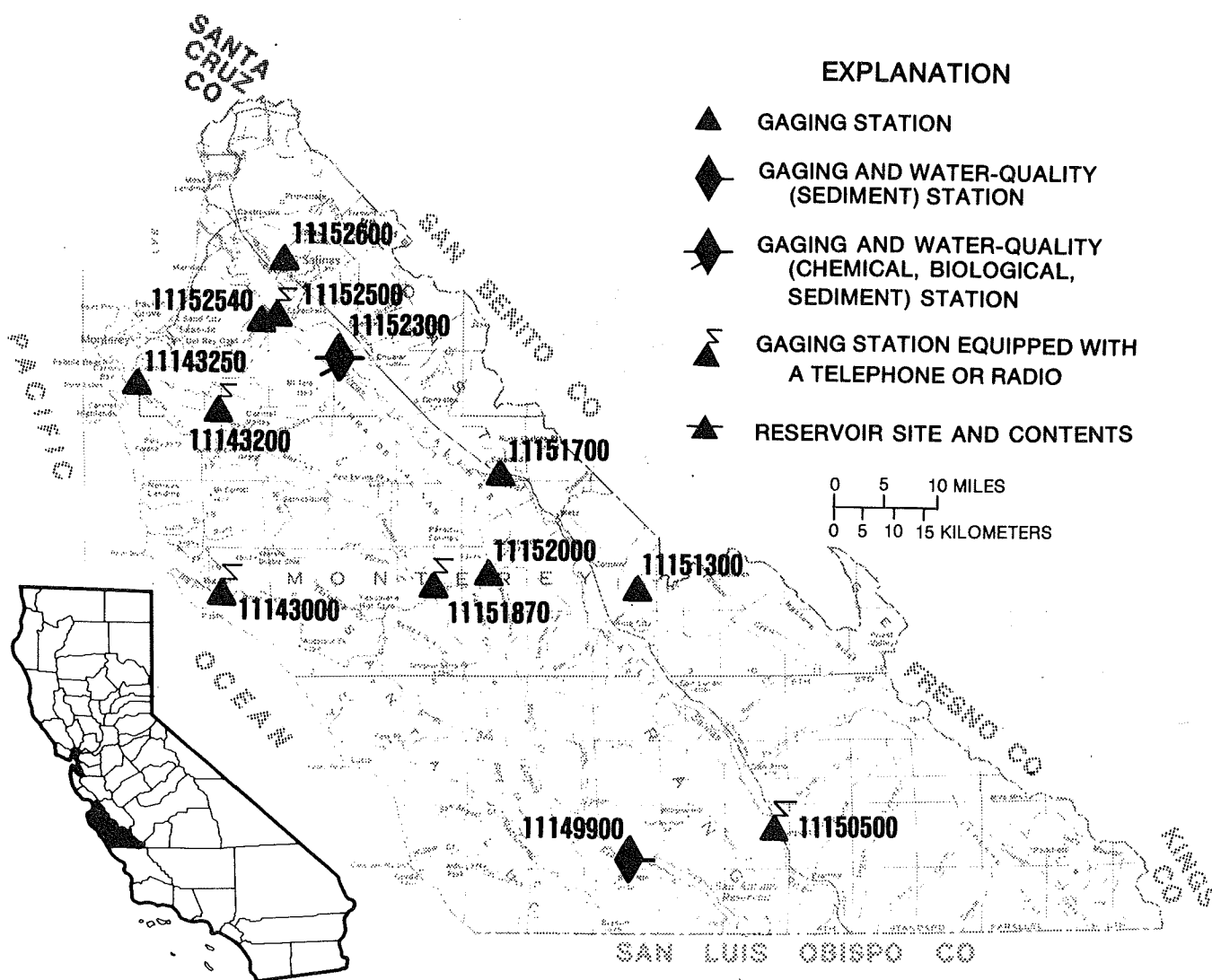


Figure 13. - Location of discharge and water-quality stations in Monterey County.

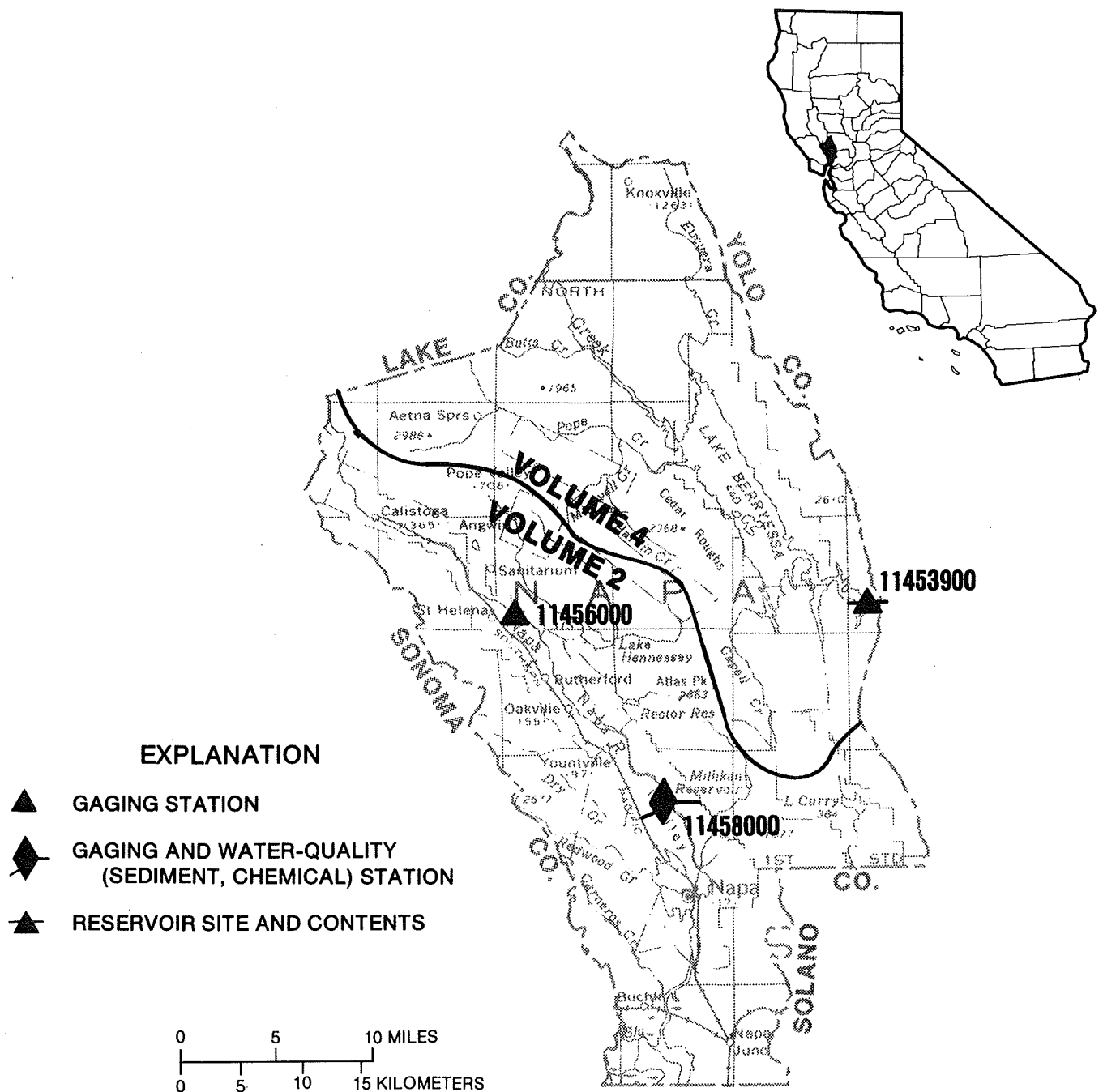
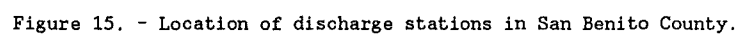


Figure 14. - Location of discharge and water-quality stations in Napa County.
(Note: Record for station 11453900 published in volume 4.)



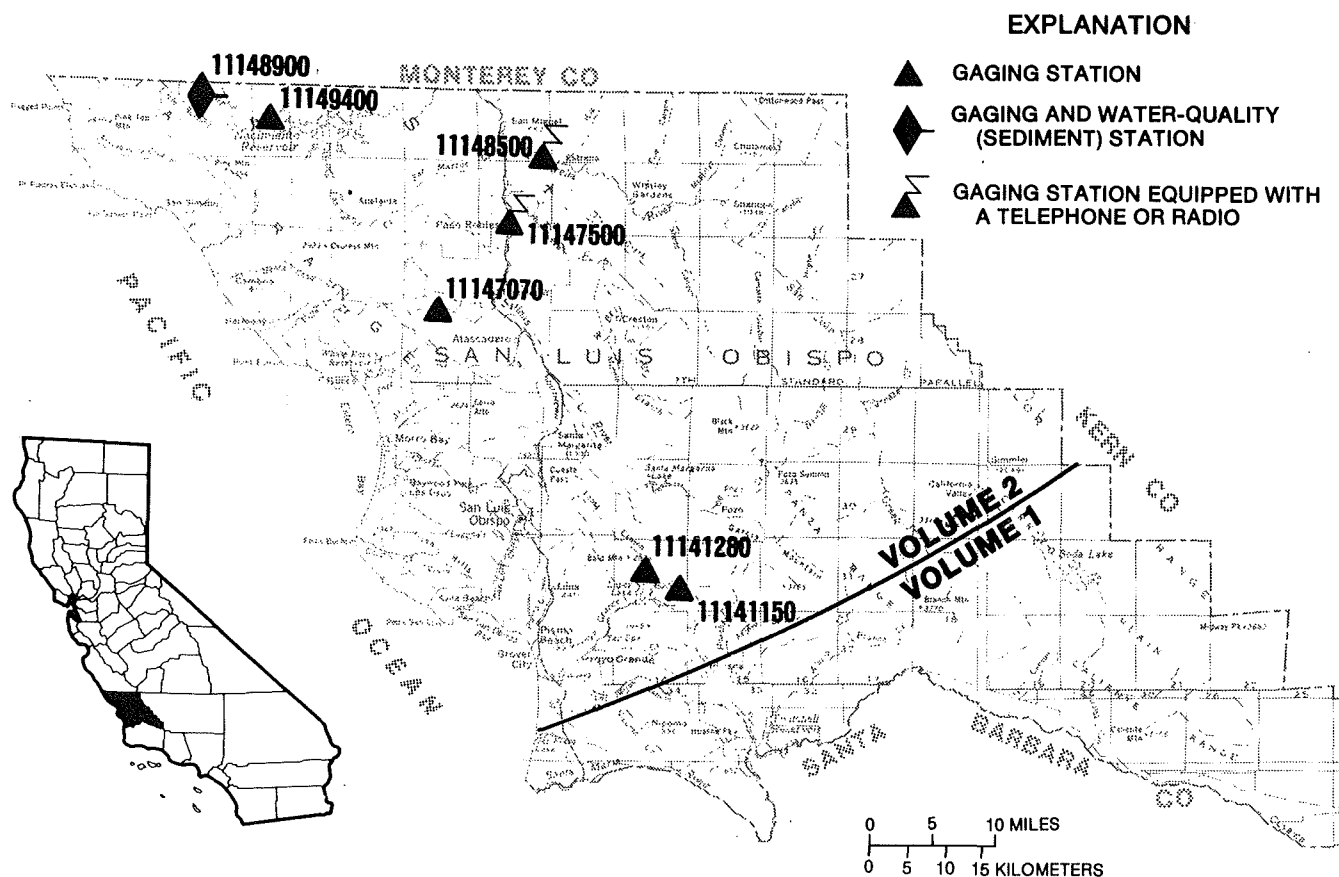
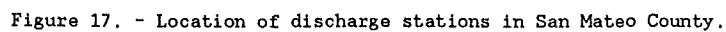


Figure 16. - Location of discharge and water-quality stations in San Luis Obispo County.
(Note: Record for station 11137900 published in volume 1.)



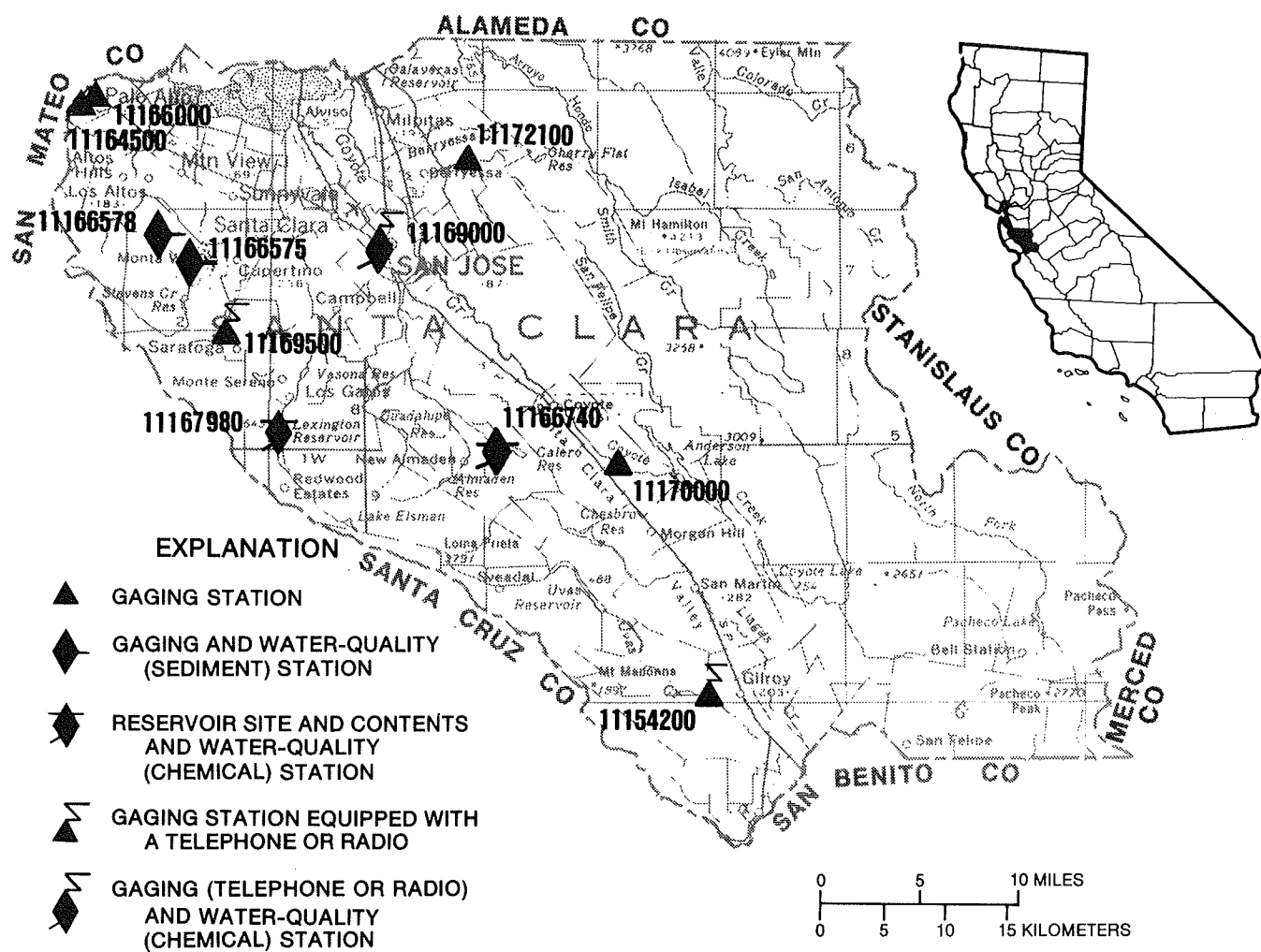
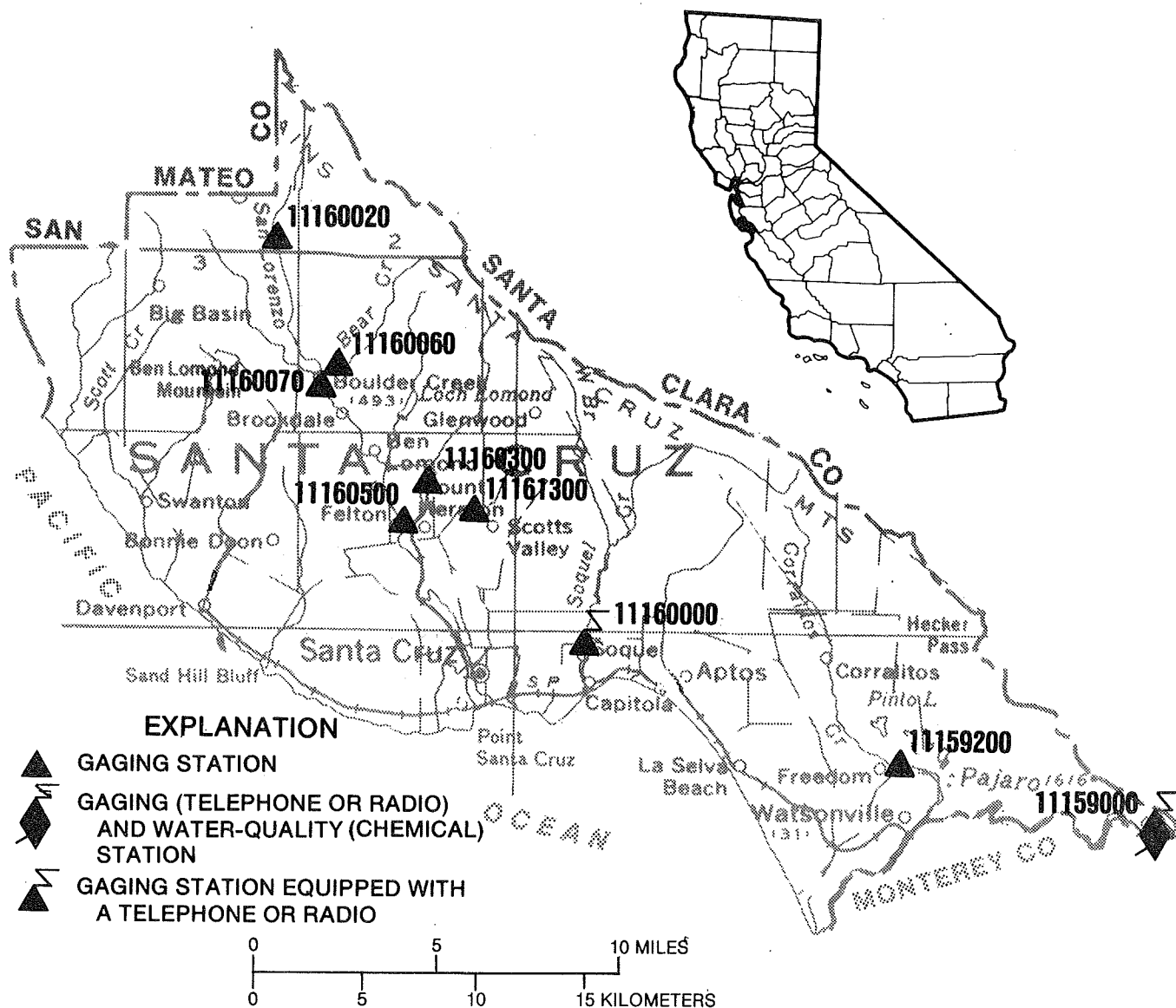


Figure 18. - Location of discharge and water-quality stations in Santa Clara County.



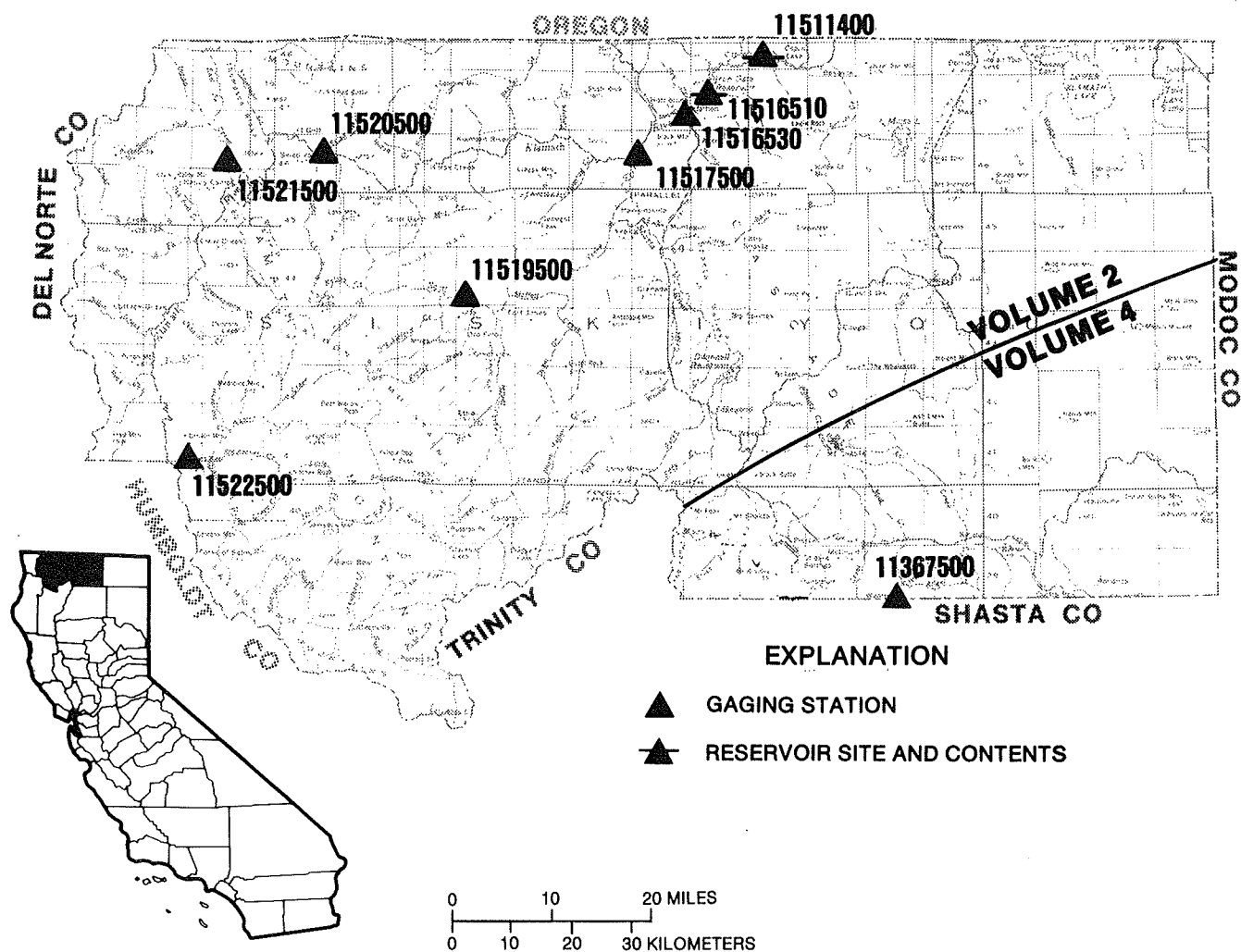
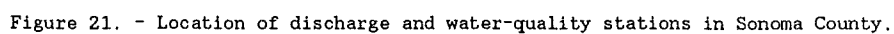


Figure 20. - Location of discharge and water-quality stations in Siskiyou County.
(Note: Records for stations 11341400 and 11367500 published in volume 4.)



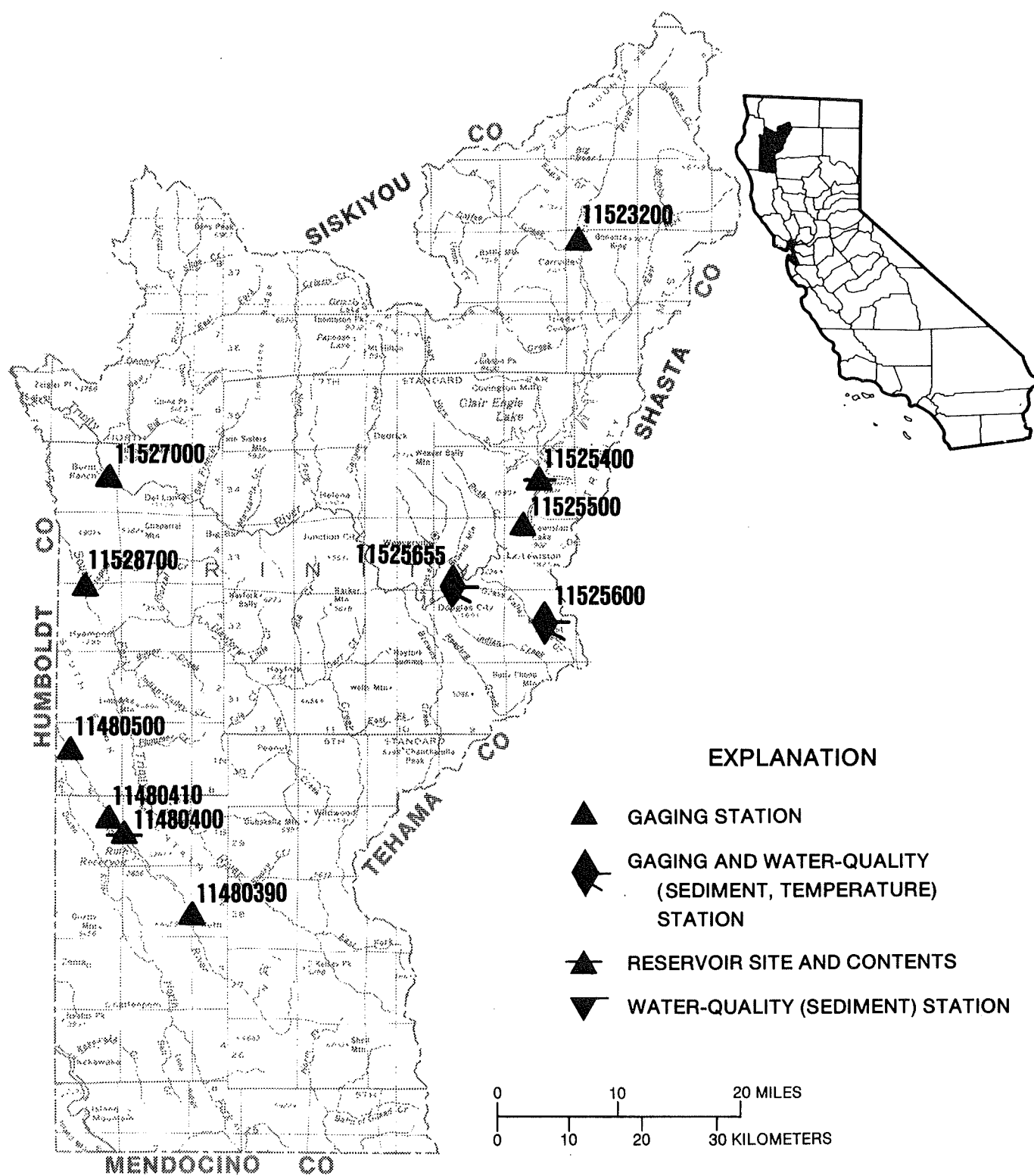


Figure 22. - Location of discharge and water-quality stations in Trinity County.

PACIFIC SLOPE BASINS IN CALIFORNIA

ARROYO GRANDE BASIN

11141150 ARROYO GRANDE ABOVE PHOENIX CREEK, NEAR ARROYO GRANDE, CA

LOCATION.--Lat 35°11'19", long 120°26'03", in Arroyo Grande Grant, San Luis Obispo County, Hydrologic Unit 18060006, on right bank 0.4 mi upstream from county road bridge, 0.45 mi upstream from Phoenix Creek, and 9.2 mi northeast of Arroyo Grande.

DRAINAGE AREA.--13.4 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 560 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 24, 1984, at site 0.4 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 10-23, Nov. 13 to Jan. 27, Feb. 14 to Apr. 13. Records fair except those for estimated daily discharges, which are poor. No regulation or diversion upstream from station except for small stock ponds.

AVERAGE DISCHARGE.--20 years, 3.10 ft³/s, 2,250 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,270 ft³/s, Jan. 25, 1969, gage height, 6.83 ft, in gage well, 6.57 ft from floodmarks, from rating curve extended above 350 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 8.29 ft, Apr. 4, 1978, site and datum then in use; minimum daily discharge, 0.12 ft³/s, Sept. 7, 1977.

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. 13	1200	*99	*6.35	Mar. 5	0915	45	5.97

Minimum daily, 0.35 ft³/s, July 14-15.

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	1.0	.96	1.1	1.2	1.1	1.3	1.3	1.2	.77	.67	.49	.54
2	1.0	1.3	1.1	1.2	1.1	1.3	1.4	1.2	.73	.64	.47	.51
3	1.0	1.3	1.1	1.6	1.1	1.2	1.4	1.1	.74	.62	.51	.52
4	.94	1.3	1.1	4.0	1.2	1.2	1.4	1.1	.74	.59	.53	.55
5	.88	1.3	1.9	2.0	1.2	17	1.4	1.1	.76	.58	.55	.54
6	.88	1.2	1.5	2.3	1.2	6.2	1.4	1.0	.77	.56	.55	.53
7	.97	1.1	1.4	2.9	1.2	2.8	1.3	1.1	.76	.56	.60	.50
8	1.1	1.0	1.2	2.3	1.3	2.0	1.3	1.1	.77	.54	.63	.48
9	1.2	1.0	1.2	1.9	1.4	1.8	1.2	1.1	.75	.54	.58	.49
10	1.2	1.3	1.2	1.7	1.5	1.7	1.2	1.0	.76	.58	.57	.52
11	1.1	1.3	1.2	1.7	1.7	1.6	1.2	1.0	.75	.54	.58	.49
12	1.1	1.2	1.2	1.6	1.6	1.6	1.2	1.0	.73	.48	.60	.54
13	1.1	1.2	1.2	1.6	14	1.9	1.1	1.0	.73	.45	.63	.53
14	1.2	1.2	1.2	1.6	5.4	2.8	.85	.96	.72	.35	.67	.49
15	1.2	1.2	1.2	1.5	2.3	3.0	.95	.98	.69	.35	.64	.47
16	1.2	1.2	1.3	1.5	2.0	2.4	1.0	1.0	.69	.51	.58	.50
17	1.2	1.2	1.3	1.4	1.8	1.9	1.1	1.1	.66	.56	.60	.54
18	1.2	1.4	1.3	1.4	1.7	1.6	1.1	1.1	.65	.48	.61	.58
19	1.2	1.3	1.3	1.4	1.6	2.2	1.1	1.1	.65	.46	.59	.57
20	1.2	1.2	1.5	1.4	1.6	3.8	1.1	1.1	.65	.46	.58	.55
21	1.2	1.3	1.3	1.4	1.6	5.0	1.1	1.1	.64	.47	.60	.52
22	1.1	1.3	1.3	1.4	1.5	3.7	1.1	1.0	.63	.47	.68	.54
23	1.1	1.3	1.3	1.5	1.5	2.8	1.1	1.0	.60	.48	.72	.54
24	1.0	1.2	1.3	1.4	1.5	2.3	1.1	.98	.65	.51	.69	.60
25	1.1	1.2	1.3	1.4	1.4	1.9	1.1	.98	.64	.48	.70	.63
26	1.2	1.2	1.3	1.4	1.4	1.7	1.1	.95	.62	.46	.70	.56
27	1.2	1.2	1.3	1.5	1.3	1.5	1.1	.93	.64	.46	.62	.56
28	1.3	1.2	1.3	1.3	1.3	1.4	1.1	.96	.65	.48	.57	.55
29	1.2	1.2	1.3	1.2	---	1.3	1.1	.93	.64	.49	.54	.56
30	1.1	1.2	1.3	1.1	---	1.3	1.2	.88	.67	.50	.58	.55
31	1.0	---	1.3	1.1	---	1.3	---	.84	---	.49	.59	---
TOTAL	34.37	36.46	39.8	50.9	57.5	83.5	35.10	31.89	20.85	15.81	18.55	16.05
MEAN	1.11	1.22	1.28	1.64	2.05	2.69	1.17	1.03	.70	.51	.60	.54
MAX	1.3	1.4	1.9	4.0	14	17	1.4	1.2	.77	.67	.72	.63
MIN	.88	.96	1.1	1.1	1.1	1.2	.85	.84	.60	.35	.47	.47
AC-FT	68	72	79	101	114	166	70	63	41	31	37	32

CAL YR 1986 TOTAL 2327.38 MEAN 6.38 MAX 215 MIN .79 AC-FT 4620
WTR YR 1987 TOTAL 440.78 MEAN 1.21 MAX 17 MIN .35 AC-FT 874

ARROYO GRANDE BASIN

11141280 LOPEZ CREEK NEAR ARROYO GRANDE, CA

LOCATION.--Lat 35°14'08", long 120°28'17", in SE 1/4 sec.19, T.31 S., R.14 E., San Luis Obispo County, Hydrologic Unit 18060006, on right bank 3.4 mi north of Lopez Lake spillway and 9.2 mi northeast of Arroyo Grande.

DRAINAGE AREA.--20.9 mi².

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

REVISED RECORDS.--CA-85-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 580 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 31, 1984, at site 0.4 mi downstream at different datum.

REMARKS.--Estimated daily discharges: May 24 to July 7. Records good except those for estimated daily discharges, which are fair. Small diversions upstream from station for domestic use.

AVERAGE DISCHARGE.--20 years, 11.4 ft³/s, 8,260 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,830 ft³/s, Jan. 25, 1969, gage height, 9.26 ft in gage well, 10.8 ft from floodmarks, site and datum then in use, from rating curve extended above 300 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 9.62 ft, site and datum then in use, Mar. 1, 1983; minimum daily discharge, 0.30 ft³/s, Aug. 1, 1977.

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)
Feb. 13	1300	*171	*5.57	Mar. 5	1300	152	5.47

Minimum daily, 2.1 ft³/s, Sept. 9, 11.

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	3.9	4.0	4.0	4.3	4.6	4.6	5.7	4.4	3.5	3.0	2.6	2.5
2	4.0	4.0	4.0	4.3	4.6	4.5	5.6	3.9	3.4	3.0	2.6	2.4
3	4.0	4.0	4.0	5.0	4.6	4.3	5.8	3.8	3.4	3.0	2.5	2.3
4	3.8	4.0	4.0	13	4.6	4.3	5.7	3.6	3.4	3.0	2.4	2.5
5	3.8	4.0	4.7	6.7	4.6	62	5.4	3.6	3.4	3.0	2.5	2.6
6	3.8	4.0	5.2	7.3	4.6	53	5.3	3.3	3.4	3.0	2.5	2.5
7	3.7	4.0	4.6	9.2	4.6	25	5.2	3.4	3.4	3.0	2.6	2.5
8	3.7	4.0	4.3	6.5	4.6	16	5.0	3.5	3.3	3.0	2.8	2.2
9	4.0	4.0	4.3	5.7	4.9	12	4.9	3.6	3.3	3.1	2.9	2.1
10	3.8	4.0	4.3	5.3	5.2	10	4.8	3.5	3.3	3.3	2.9	2.2
11	3.7	4.0	4.3	5.3	5.1	8.6	4.7	3.6	3.3	3.3	2.9	2.1
12	3.7	4.0	4.3	5.2	4.9	8.2	4.8	3.8	3.3	3.2	3.0	2.2
13	3.7	4.0	4.3	4.9	46	8.5	4.9	3.6	3.3	3.0	3.0	2.3
14	3.7	4.0	4.3	4.9	18	8.3	4.7	3.5	3.3	3.0	3.0	2.4
15	3.7	4.0	4.3	4.8	11	8.7	4.5	3.6	3.2	2.8	2.9	2.6
16	3.7	4.0	4.6	4.6	8.1	7.5	4.5	3.6	3.2	3.0	2.8	2.5
17	4.0	4.0	4.6	4.6	6.9	7.2	4.6	3.7	3.2	3.1	2.9	2.6
18	4.0	4.6	4.6	4.6	6.1	7.0	4.6	3.7	3.2	3.1	2.9	2.8
19	4.0	4.3	4.6	4.6	5.6	6.7	4.6	3.7	3.2	3.1	2.7	2.5
20	4.0	4.3	5.2	4.6	5.3	6.5	4.5	3.9	3.2	3.1	2.9	2.5
21	3.7	4.4	4.6	4.6	5.3	11	4.2	3.8	3.2	3.2	2.8	2.3
22	3.7	4.5	4.6	4.6	5.3	9.3	4.1	3.6	3.1	3.1	2.7	2.3
23	3.7	4.3	4.6	5.0	4.9	8.2	4.1	3.6	3.1	2.9	2.8	2.3
24	3.7	4.3	4.6	4.8	4.9	8.0	4.1	3.6	3.1	2.9	2.9	2.4
25	3.7	4.3	4.6	4.6	4.8	7.5	4.1	3.6	3.1	2.7	2.8	2.4
26	3.7	4.3	4.6	4.6	4.6	7.0	4.0	3.5	3.1	2.7	2.7	2.4
27	4.0	4.3	4.6	5.3	4.6	6.5	3.9	3.5	3.1	2.7	2.6	2.5
28	4.0	4.0	4.6	5.5	4.5	6.3	3.8	3.5	3.1	2.7	2.6	2.5
29	4.0	4.0	4.6	4.9	---	5.9	3.7	3.5	3.1	2.8	2.5	2.4
30	3.8	4.0	4.6	4.9	---	5.9	5.2	3.5	3.1	2.6	2.5	2.4
31	4.0	---	4.5	4.8	---	5.7	---	3.5	---	2.6	2.5	---
TOTAL	118.7	123.6	139.0	169.0	202.8	354.2	141.0	112.5	97.3	92.0	84.7	72.2
MEAN	3.83	4.12	4.48	5.45	7.24	11.4	4.70	3.63	3.24	2.97	2.73	2.41
MAX	4.0	4.6	5.2	13	46	62	5.8	4.4	3.5	3.3	3.0	2.8
MIN	3.7	4.0	4.0	4.3	4.5	4.3	3.7	3.3	3.1	2.6	2.4	2.1
AC-FT	235	245	276	335	402	703	280	223	193	182	168	143

CAL YR 1986	TOTAL	5050.8	MEAN	13.8	MAX	262	MIN	2.3	AC-FT	10020
WTR YR 1987	TOTAL	1707.0	MEAN	4.68	MAX	62	MIN	2.1	AC-FT	3390

BIG SUR RIVER BASIN

11143000 BIG SUR RIVER NEAR BIG SUR, CA

LOCATION.--Lat 36°14'45", long 121°46'20", in SW 1/4 SW 1/4 sec.29, T.19 S., R.2 E., Monterey County, Hydrologic Unit 18060006, on right bank at downstream side of bridge, 0.4 mi upstream from Post Creek, and 2.6 mi southeast of town of Big Sur.

DRAINAGE AREA.--46.5 mi².

PERIOD OF RECORD.--March 1950 to current year. Prior to October 1959, published as Sur River at Big Sur.

REVISED RECORDS.--WSP 1445: 1952(P), 1953(M). WSP 1715: 1951, drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 240 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1951, nonrecording gage at site 0.9 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Sept. 16-30. Records good except those for summer months, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--37 years, 104 ft³/s, 75,350 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft³/s, Jan. 5, 1978, gage height, 14.30 ft, from rating curve extended above 6,800 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 2.6 ft³/s, Aug. 23, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0815	*2,960	*8.56				

Minimum daily, 9.5 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	23	18	17	21	39	34	62	30	18	15	10	11
2	23	18	17	22	42	33	60	28	17	14	9.7	11
3	23	18	17	46	49	31	59	26	17	14	10	11
4	21	18	17	94	39	30	57	25	16	13	9.9	11
5	21	18	31	41	34	318	54	24	16	13	9.9	12
6	21	18	28	46	31	324	51	23	16	13	9.8	13
7	21	18	21	61	27	194	48	22	15	12	10	13
8	21	19	20	35	24	143	46	23	15	12	11	12
9	21	19	20	28	39	114	45	22	15	12	11	12
10	21	19	19	24	134	99	43	21	14	13	11	12
11	21	18	19	22	176	101	42	20	15	13	11	11
12	22	17	19	21	183	97	40	19	15	13	11	11
13	22	17	19	20	1410	147	39	18	15	12	12	12
14	22	17	19	19	358	130	38	18	15	12	12	13
15	21	18	32	24	191	145	36	18	15	11	12	13
16	20	18	47	26	120	129	35	19	16	11	12	12
17	21	21	27	29	94	115	34	20	15	11	12	12
18	20	28	27	29	78	106	34	22	14	12	12	12
19	20	22	32	28	67	99	33	24	15	11	13	11
20	20	20	35	27	59	91	32	24	15	11	13	11
21	19	19	27	27	56	116	32	24	15	13	12	11
22	19	19	29	27	52	103	32	23	15	13	12	11
23	18	19	37	50	47	105	31	21	14	13	13	11
24	19	19	29	47	45	100	30	21	14	13	13	10
25	19	18	26	45	43	94	30	22	14	12	12	10
26	18	18	24	37	39	89	29	23	14	11	13	10
27	18	18	24	35	37	83	28	21	14	11	14	9.8
28	18	18	23	76	35	78	27	21	14	11	13	9.7
29	19	19	21	45	---	73	27	20	14	11	12	9.6
30	18	17	19	64	---	69	38	19	14	10	11	9.5
31	17	---	20	50	---	66	---	19	---	10	10	---
TOTAL	627	563	762	1166	3548	3456	1192	680	451	376	357.3	337.6
MEAN	20.2	18.8	24.6	37.6	127	111	39.7	21.9	15.0	12.1	11.5	11.3
MAX	23	28	47	94	1410	324	62	30	18	15	14	13
MIN	17	17	17	19	24	30	27	18	14	10	9.7	9.5
AC-FT	1240	1120	1510	2310	7040	6850	2360	1350	895	746	709	670

CAL YR 1986	TOTAL	57180.0	MEAN	157	MAX	2740	MIN	17	AC-FT	113400
WTR YR 1987	TOTAL	13515.9	MEAN	37.0	MAX	1410	MIN	9.5	AC-FT	26810

CARMEL RIVER BASIN

11143200 CARMEL RIVER AT ROBLES DEL RIO, CA

LOCATION.--Lat 36°28'28", long 121°43'40", in Los Laureles Grant, Monterey County, Hydrologic Unit 18060012, on right bank 10 ft downstream from county road bridge at Robles Del Rio, 0.2 mi downstream from Hitchcock Canyon, and 11 mi southeast of town of Carmel.

DRAINAGE AREA.--193 mi².

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

REVISED RECORDS.--WSP 1715: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 270 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 1981, at site 150 ft upstream at same datum.

REMARKS.--Estimated daily discharges: May 31 to July 5. Records good except those for estimated record period and for flows less than 1.0 ft³/s, which are fair. Low flow regulated by Los Padres Reservoir 11 mi upstream, usable capacity, 2,180 acre-ft, and San Clemente Reservoir 4 mi upstream, usable capacity, 796 acre-ft. Diversion from San Clemente Reservoir for municipal supply amounted to 5,590 acre-ft for the current year.

AVERAGE DISCHARGE (unadjusted).--30 years, 95.2 ft³/s, 68,970 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,380 ft³/s, Feb. 28, 1983, gage height, 11.49 ft, from rating curve extended above 2,800 ft³/s on basis of slope-area measurement at gage height 9.97 ft; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 11.7 ft from floodmarks, discharge, 6,930 ft³/s, from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*), from rating curve extended above 1,100 ft³/s on basis of slope-area measurement at gage height 9.97 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	1230	*2,120	*8.14				

Minimum daily, 0.58 ft³/s, 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	5.3	6.6	7.6	7.8	9.9	21	45	13	3.4	2.3	.58	1.1
2	5.4	6.5	7.7	7.4	11	19	43	5.6	3.5	2.3	.58	1.0
3	5.1	6.3	7.5	8.3	16	17	40	4.4	3.4	2.3	.63	.79
4	5.1	6.2	7.3	12	18	17	37	3.9	3.4	2.3	.65	.90
5	5.2	6.1	7.7	12	16	60	39	3.7	3.4	2.7	.59	1.0
6	5.3	6.3	8.0	11	9.3	161	35	3.1	3.4	3.6	.63	1.0
7	5.4	6.6	7.5	11	7.5	109	25	3.0	3.4	3.6	.66	1.0
8	5.6	6.3	7.3	9.6	6.9	84	23	2.9	3.4	2.9	.81	.86
9	5.6	6.2	7.3	8.2	7.8	70	22	2.9	3.4	2.1	.78	.87
10	5.6	6.3	7.3	7.6	7.7	62	20	2.9	3.4	1.5	.95	1.0
11	5.8	6.3	7.1	7.4	7.9	55	17	3.1	3.4	1.4	1.1	1.0
12	5.9	6.0	7.1	7.3	14	49	16	3.2	3.3	1.2	1.0	1.1
13	5.8	5.8	7.1	7.3	947	62	15	3.2	3.3	1.1	1.0	1.2
14	5.8	5.9	7.1	7.2	349	63	11	3.4	3.3	1.0	1.1	1.2
15	5.8	5.9	7.2	7.3	176	97	8.4	3.4	3.2	.97	.99	1.1
16	5.9	6.0	7.5	7.3	117	92	7.8	3.4	3.2	1.0	.86	.99
17	5.8	6.1	7.3	7.3	86	82	7.2	3.2	3.2	1.1	.93	1.2
18	5.8	6.9	7.3	7.3	61	74	6.7	3.1	3.1	1.2	.93	1.3
19	6.0	6.6	7.5	7.2	49	69	6.2	3.3	3.1	1.1	.97	1.0
20	6.0	6.4	7.5	6.5	42	63	5.8	3.8	3.0	1.1	1.0	.84
21	5.9	6.7	7.4	6.7	40	79	7.1	3.8	2.9	1.0	1.0	.65
22	5.8	6.7	7.6	6.8	38	82	5.5	3.6	2.9	.97	.98	.74
23	5.9	6.6	7.6	7.1	34	77	5.4	3.2	2.8	.84	.99	1.1
24	5.8	6.6	7.1	7.1	32	82	6.1	3.2	2.7	.87	1.0	1.2
25	5.8	7.1	7.1	7.1	28	74	6.1	3.5	2.7	.88	1.1	1.2
26	5.8	7.1	7.1	7.0	24	70	6.1	3.7	2.6	.89	1.2	1.3
27	5.7	7.1	9.3	6.9	22	63	6.4	3.6	2.5	.84	1.2	1.3
28	5.6	7.2	9.5	7.2	22	56	6.5	3.7	2.4	.83	1.1	1.2
29	6.5	7.3	8.4	8.2	---	46	7.1	3.7	2.4	.71	1.0	1.4
30	6.6	7.4	9.0	11	---	41	23	3.3	2.3	.77	.98	1.4
31	6.5	---	9.1	11	---	44	---	3.4	---	.73	1.1	---
TOTAL	178.1	195.1	237.1	253.1	2199.0	2040	509.5	117.2	92.4	46.10	28.39	31.94
MEAN	5.75	6.50	7.65	8.16	78.5	65.8	17.0	3.78	3.08	1.49	.92	1.06
MAX	6.6	7.4	9.5	12	947	161	45	13	3.5	3.6	1.2	1.4
MIN	5.1	5.8	7.1	6.5	6.9	17	5.4	2.9	2.3	.71	.58	.65
AC-FT	353	387	470	502	4360	4050	1010	232	183	91	56	63

CAL YR 1986	TOTAL	61257.40	MEAN	168	MAX	4130	MIN	5.1	AC-FT	121500
WTR YR 1987	TOTAL	5927.93	MEAN	16.2	MAX	947	MIN	.58	AC-FT	11760

CARMEL RIVER BASIN

11143250 CARMEL RIVER NEAR CARMEL, CA

LOCATION.--Lat 36°32'20", long 121°52'25", in Canada de la Segunda Grant, Monterey County, Hydrologic Unit 18060012, on right bank 0.3 mi downstream from Potrero Canyon and 3 mi east of Carmel.

DRAINAGE AREA.--246 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 24-26. Records fair except those for estimated daily discharges, which are poor. Low flow regulated by Los Padres Reservoir, capacity, 2,180 acre-ft, and San Clemente Reservoir, capacity, 796 acre-ft. Diversion from San Clemente Reservoir for municipal supply amounted to 5,590 acre-ft for the current year.

AVERAGE DISCHARGE (unadjusted).--25 years, 116 ft³/s, 84,040 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,590 ft³/s, Feb. 28, 1983, gage height, 18.22 ft in gage well, 18.22 ft from floodmarks, from rating curve extended above 2,800 ft³/s on basis of slope-area measurement at gage height 17.35 ft; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	1515	*941	*7.48				

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	10	47					
2					0	9.8	46					
3					0	8.9	45					
4					0	8.7	44					
5					0	14	42					
6					0	96	43					
7					0	89	36					
8					0	76	32					
9					0	67	31					
10					0	60	28					
11					0	54	27					
12					0	51	26					
13					334	54	23					
14					221	61	19					
15					105	80	16					
16					70	85	13					
17					52	79	11					
18					36	75	9.3					
19					29	72	7.9					
20					24	68	4.5					
21					22	76	1.2					
22					23	87	.39					
23					20	80	.18					
24					20	86	.09					
25					17	80	.05					
26					15	74	.01					
27					12	69	0					
28					11	64	0					
29					---	56	0					
30					---	50	0					
31		---			---	47	---		---			---
TOTAL	0	0	0	0	1011	1887.4	552.62	0	0	0	0	0
MEAN	0	0	0	0	36.1	60.9	18.4	0	0	0	0	0
MAX	0	0	0	0	334	96	47	0	0	0	0	0
MIN	0	0	0	0	0	8.7	0	0	0	0	0	0
AC-FT	0	0	0	0	2010	3740	1100	0	0	0	0	0
CAL YR 1986	TOTAL	55148.66	MEAN	151	MAX	4010	MIN	0	AC-FT	109400		
WTR YR 1987	TOTAL	3451.02	MEAN	9.45	MAX	334	MIN	0	AC-FT	6850		

SALINAS RIVER BASIN

11147070 SANTA RITA CREEK NEAR TEMPLETON, CA

LOCATION.--Lat 35°31'26", long 120°45'54", in Asuncion Grant, San Luis Obispo County, Hydrologic Unit 18060005, on left bank 1.6 mi upstream from mouth and 4 mi west of Templeton.

DRAINAGE AREA.--18.2 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 860 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good except those for daily discharges greater than 5.0 ft³/s, which are fair. Some regulation by stockponds and small diversions by irrigation pumps upstream from station.

AVERAGE DISCHARGE.--26 years, 14.8 ft³/s, 10,720 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,060 ft³/s, Jan. 19, 1969, gage height, 11.12 ft in gage well, 11.75 ft from floodmarks, from rating curve extended above 1,300 ft³/s on basis of slope-area measurement of peak flow; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*), from rating curve extended above 720 ft³/s, on basis of slope-area measurement at gage height 11.12 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	1200	*932	*6.60				

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	12	.01	.13	.56	1.8	2.8	.83	.05			
2	0	9.6	.01	.11	.45	1.7	2.3	.60	.04			
3	0	.84	.01	.12	.56	1.6	2.2	.49	.04			
4	0	.22	.01	1.2	.64	1.6	2.1	.39	.03			
5	0	.11	.01	.77	.60	115	1.9	.31	.03			
6	0	.08	.02	.71	.47	150	2.2	.24	.03			
7	0	.08	.02	1.2	.40	45	1.9	.21	.03			
8	0	.06	.03	.72	.36	21	1.6	.21	.02			
9	0	.06	.03	.45	.58	14	1.3	.19	.01			
10	0	.06	.03	.35	2.7	11	1.3	.18	.01			
11	0	.04	.02	.41	2.3	9.9	1.3	.16	0			
12	0	.04	.02	.39	1.7	8.7	1.2	.15	0			
13	0	.03	.02	.33	251	18	1.0	.13	0			
14	0	.02	.03	.33	32	12	1.0	.11	0			
15	0	.02	.04	.36	14	15	.98	.09	0			
16	0	.02	.06	.31	8.0	10	.86	.08	0			
17	0	.02	.08	.26	5.6	8.7	.81	.10	0			
18	0	.03	.08	.26	4.3	8.0	.80	.10	0			
19	0	.02	.10	.25	3.5	7.5	.68	.13	0			
20	0	.02	.28	.19	2.9	6.6	.64	.13	0			
21	0	.02	.26	.13	2.6	14	.59	.14	0			
22	0	.01	.25	.16	2.7	11	.52	.14	0			
23	0	.01	.21	.25	2.6	8.5	.51	.12	0			
24	0	.01	.21	.29	2.2	7.5	.53	.11	0			
25	0	.01	.18	.33	2.6	6.6	.50	.09	0			
26	0	.01	.16	.31	2.1	6.3	.45	.08	0			
27	0	.01	.16	.26	1.9	5.7	.45	.08	0			
28	0	.01	.14	.55	1.9	5.1	.41	.07	0			
29	0	.01	.13	.87	---	4.8	.48	.06	0			
30	7.8	.01	.13	.64	---	7.8	.86	.06	0			
31	12	---	.13	.64	---	9.2	---	.05	---			---
TOTAL	19.8	23.48	2.87	13.28	351.22	553.6	34.17	5.83	.29	0	0	0
MEAN	.64	.78	.093	.43	12.5	17.9	1.14	.19	.010	0	0	0
MAX	12	12	.28	1.2	251	150	2.8	.83	.05	0	0	0
MIN	0	.01	.01	.11	.36	1.6	.41	.05	0	0	0	0
AC-FT	39	47	5.7	26	697	1100	68	12	.6	0	0	0
CAL YR 1986	TOTAL	8349.21	MEAN 22.9	MAX 891	MIN 0	AC-FT 16560						
WTR YR 1987	TOTAL	1004.54	MEAN 2.75	MAX 251	MIN 0	AC-FT 1990						

SALINAS RIVER BASIN

11147500 SALINAS RIVER AT PASO ROBLES, CA

LOCATION.--Lat 35°37'43", Long 120°41'00", in Paso de Robles Grant, San Luis Obispo County, Hydrologic Unit 18060005, on left bank at upstream side of 13th Street Bridge in Paso Robles and 3.5 mi upstream from Huerhuero Creek.

DRAINAGE AREA.--390 mi².

PERIOD OF RECORD.--October 1939 to September 1965, October 1969 to current year.

REVISED RECORDS.--WSP 981: 1942.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 670.61 ft above National Geodetic Vertical Datum of 1929. Prior to June 14, 1951, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records fair. Low flows regulated by Santa Margarita Lake 32 mi upstream beginning in December 1941, usable capacity, 23,000 acre-ft. Diversion from Santa Margarita Lake for San Luis Obispo municipal supply amounted to 4,920 acre-ft for the current year. Small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--44 years, 98.7 ft³/s, 71,510 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,500 ft³/s, Feb. 16, 1980, gage height, 15.99 ft, from rating curve extended above 11,000 ft³/s; maximum gage height, 17.24 ft, Apr. 3, 1958; no flow for long periods in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 25, 1969, reached a stage of 23.8 ft from floodmarks, discharge, 28,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	1845	*1,280	*7.67				
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	.69	14	.05				
2					0	.53	11	.07				
3					0	.53	9.6	.06				
4					0	.53	8.6	.02				
5					0	53	8.2	0				
6					0	356	7.5	0				
7					0	231	6.8	.02				
8					0	106	6.2	0				
9					0	71	5.2	0				
10					0	57	4.2	0				
11					0	44	4.1	0				
12					0	37	3.3	0				
13					232	39	2.7	0				
14					104	38	2.3	0				
15					25	38	1.9	0				
16					15	37	1.7	0				
17					7.9	33	1.5	0				
18					4.4	32	1.0	0				
19					3.1	30	.77	0				
20					2.6	27	.67	0				
21					2.5	29	.62	0				
22					2.4	37	.51	0				
23					1.8	36	.32	0				
24					1.4	29	.24	0				
25					1.0	27	.78	0				
26					.73	24	.32	0				
27					.66	22	.19	0				
28					.65	19	.10	0				
29					---	16	.09	0				
30					---	14	.25	0				
31		---			---	15	---	0	---			---
TOTAL	0	0	0	0	405.14	1499.28	104.66	.22	0	0	0	0
MEAN	0	0	0	0	14.5	48.4	3.49	.007	0	0	0	0
MAX	0	0	0	0	232	356	14	.07	0	0	0	0
MIN	0	0	0	0	0	.53	.09	0	0	0	0	0
AC-FT	0	0	0	0	804	2970	208	.4	0	0	0	0
CAL YR 1986	TOTAL	64329.67	MEAN	176	MAX	4090	MIN	0	AC-FT	127600		
WTR YR 1987	TOTAL	2009.30	MEAN	5.50	MAX	356	MIN	0	AC-FT	3990		

SALINAS RIVER BASIN

11148500 ESTRELLA RIVER NEAR ESTRELLA, CA

LOCATION.--Lat 35°43'02", long 120°38'21", in NW 1/4 NW 1/4 sec.36, T.25 S., R.12 E., San Luis Obispo County, Hydrologic Unit 18060004, on right bank 0.2 mi downstream from mouth of Ranchito Canyon and 1.9 mi northwest of Estrella.

DRAINAGE AREA.--922 mi², not including Carrizo Plains.

PERIOD OF RECORD.--October 1954 to current year. Prior to October 1960, published as Estrella Creek near Estrella.

REVISED RECORDS.--WDR CA-69-1: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 671.59 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Mar. 15-18 and Mar. 24 to Apr. 3. Records fair except those for estimated daily discharges, which are poor. No regulation; pumpage from wells along river for irrigation upstream from station.

AVERAGE DISCHARGE.--33 years, 26.6 ft³/s, 19,270 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft³/s, Feb. 24, 1969, gage height, 10.4 ft, from floodmarks, by slope-area measurement of peak flow; maximum gage height, 10.9 ft, Jan. 25, 1969, from floodmarks; no flow for several months each year.

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. 8	0200	*30	*1.70				

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	.02					
2						0	.02					
3						0	.01					
4						0	0					
5						.48	0					
6						19	0					
7						16	0					
8						26	0					
9						13	0					
10						8.2	0					
11						5.0	0					
12						3.7	0					
13						5.0	0					
14						3.2	0					
15						3.6	0					
16						2.0	0					
17						1.2	0					
18						.68	0					
19						.62	0					
20						.62	0					
21						1.5	0					
22						1.2	0					
23						1.5	0					
24						.85	0					
25						.50	0					
26						.28	0					
27						.17	0					
28						.10	0					
29					---	.07	0					
30					---	.04	0					
31		---			---	.03	---		---			---
TOTAL	0	0	0	0	0	114.54	.05	0	0	0	0	0
MEAN	0	0	0	0	0	3.69	.002	0	0	0	0	0
MAX	0	0	0	0	0	26	.02	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	227	.10	0	0	0	0	0
CAL YR 1986	TOTAL	3767.97	MEAN 10.3	MAX 552	MIN 0	AC-FT 7470						
WTR YR 1987	TOTAL	114.59	MEAN .31	MAX 26	MIN 0	AC-FT 227						

SALINAS RIVER BASIN

11148900 NACIMIENTO RIVER BELOW SAPAQUE CREEK, NEAR BRYSON, CA

LOCATION.--Lat 35°47'19", long 121°05'34", in SW 1/4 NE 1/4 sec.3, T.25 S., R.8 E., San Luis Obispo County, Hydrologic Unit 18060005, on left bank just downstream from Sapaque Creek and 1.4 mi south of Bryson.

DRAINAGE AREA.--162 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1971 to current year.

REVISED RECORDS.--WDR CA-82-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 800 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 12-16. Records fair except those for estimated daily discharges, which are poor. No storage or diversion upstream from station.

AVERAGE DISCHARGE.--16 years, 210 ft³/s, 152,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,000 ft³/s, Jan. 16, 1978, gage height, 32.00 ft, from rating curve extended above 7,900 ft³/s on basis of slope-area measurement of peak flow; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	1200	*8,060	*17.36				

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	.79	5.4	24	39	54	20	4.5			
2		0	.78	5.3	21	37	51	18	4.0			
3		0	.80	5.7	20	36	49	16	3.5			
4		0	.93	5.8	20	35	48	15	3.0			
5		0	3.8	4.8	19	590	46	14	2.6			
6		0	3.9	31	18	780	43	12	2.5			
7		0	3.6	44	17	385	41	11	2.2			
8		0	4.4	36	15	233	39	10	1.9			
9		0	5.1	27	16	166	38	9.9	1.7			
10		0	4.6	21	67	132	36	9.0	1.3			
11		0	4.2	18	113	117	34	8.1	1.1			
12		.01	4.2	16	71	103	33	6.8	.90			
13		.01	4.2	14	3770	121	32	6.2	.78			
14		.01	4.2	12	689	106	29	5.8	.64			
15		.01	4.4	11	290	129	29	5.3	.61			
16		.01	7.6	11	181	112	28	4.9	.55			
17		.13	7.8	9.7	130	100	27	5.0	.48			
18		.69	9.6	9.5	104	92	25	5.3	.46			
19		.67	8.5	9.3	88	84	24	6.2	.37			
20		.46	8.4	8.8	75	79	23	6.9	.29			
21		.46	16	8.5	66	112	22	7.5	.26			
22		.46	13	8.4	64	121	21	7.8	.23			
23		.46	9.2	11	58	101	20	7.1	.19			
24		.46	7.4	11	55	98	19	6.4	.15			
25		.55	6.9	11	52	88	18	5.9	.14			
26		.56	6.6	11	48	82	18	6.0	.12			
27		.61	6.3	11	43	74	17	6.1	.09			
28		.64	6.0	12	41	69	16	6.1	.05			
29		.69	5.8	15	---	65	15	5.9	.02			
30		.69	5.6	19	---	60	17	5.3	0			
31		---	5.6	25	---	57	---	4.8	---			---
TOTAL	0	7.58	180.20	543.6	6175	4403	912	264.3	34.63	0	0	0
MEAN	0	.25	5.81	17.5	221	142	30.4	8.53	1.15	0	0	0
MAX	0	.69	16	58	3770	780	54	20	4.5	0	0	0
MIN	0	0	.78	5.3	15	35	15	4.8	0	0	0	0
AC-FT	0	15	357	1080	12250	8730	1810	524	69	0	0	0

CAL YR 1986 TOTAL 102330.78 MEAN 280 MAX 10000 MIN 0 AC-FT 203000
WTR YR 1987 TOTAL 12520.31 MEAN 34.3 MAX 3770 MIN 0 AC-FT 24830

SALINAS RIVER BASIN

11148900 NACIMIENTO RIVER BELOW SAPAQUE CREEK, NEAR BRYSON, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year. Published as station 11148800 "near Bryson" in water years 1958-59, 1961-71.

WATER TEMPERATURE: Water years 1972-73.

SEDIMENT DATA: Water years 1972 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1971 to September 1973.

SUSPENDED-SEDIMENT DISCHARGE: October 1971 to September 1973.

REMARKS.--Zero bedload discharge observed for flows less than 107 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						
19...	1520	8.7	10.0	4	0.09	--
JAN						
22...	1105	8.3	4.0	3	0.07	--
FEB						
10...	1450	106	12.0	4	1.1	--
13...	1500	6750	12.5	732	13300	65
20...	1045	76	10.0	1	0.21	--
MAR						
19...	1130	85	12.0	1	0.23	--
APR						
14...	1345	31	19.5	2	0.17	--

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 .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
FEB												
24...	1150	10.0	1	55	1	2	4	7	16	39	73	100
24...	1155	10.0	1	55	1	2	12	58	84	96	100	--
24...	1200	10.0	1	55	2	12	30	49	63	77	93	100
24...	1205	10.0	1	55	2	15	51	83	95	99	100	--
24...	1210	10.0	1	55	2	26	83	96	97	98	100	--
MAR												
19...	1330	12.0	4	85	2	20	65	86	95	99	100	--

SALINAS RIVER BASIN

11149400 NACIMIENTO RIVER BELOW NACIMIENTO DAM, NEAR BRADLEY, CA

LOCATION.--Lat 35°45'41", long 120°51'16", in NE 1/4 NE 1/4 sec.14, T.25 S., R.10 E., San Luis Obispo County, Hydrologic Unit 18060005, Camp Roberts Military Reservation, on left bank 2.2 mi downstream from Nacimiento Dam, and 7.6 mi southwest of Bradley.

DRAINAGE AREA.--329 mi².

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

REVISED RECORDS.--WDR CA-84-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 597 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good except those for discharges below 10 ft³/s, which are poor. Flow regulated by Lake Nacimiento (formerly Nacimiento Reservoir) beginning in February 1957, usable capacity, 340,000 acre-ft. No diversion upstream from station.

AVERAGE DISCHARGE (unadjusted).--30 years, 293 ft³/s, 212,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,340 ft³/s, Feb. 25, 1969, gage height, 10.92 ft; no flow for many days in 1958-63, 1965, and 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 687 ft³/s, July 20, gage height, 4.28 ft; minimum daily, 2.1 ft³/s, Dec. 12-14.

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	235	125	119	125	110	5.0	15	80	36	272	555	478
2	174	125	119	124	110	4.7	15	80	36	287	555	453
3	133	123	119	125	110	4.4	15	80	36	347	440	467
4	133	123	117	126	110	4.0	15	80	36	343	461	479
5	132	122	117	125	110	6.7	15	80	36	341	504	467
6	131	122	67	125	103	5.9	15	78	36	338	538	445
7	132	122	3.9	125	96	9.0	15	78	36	331	535	428
8	131	122	3.1	123	55	17	15	78	35	275	502	413
9	131	122	2.8	122	53	17	15	78	35	274	582	401
10	131	121	2.3	122	64	15	15	78	35	371	582	390
11	129	122	2.2	122	65	14	15	78	35	464	580	383
12	128	121	2.1	122	35	14	14	78	35	459	530	378
13	128	119	2.1	122	11	15	14	74	35	415	561	378
14	128	120	2.1	122	20	14	14	69	35	417	548	378
15	128	119	58	122	20	13	14	69	272	406	558	378
16	128	119	125	121	21	12	14	69	465	405	497	378
17	128	120	125	119	14	13	14	69	471	407	547	188
18	128	121	125	119	4.1	13	15	69	474	395	537	340
19	128	119	125	119	5.4	13	15	71	416	393	518	377
20	128	119	125	117	5.7	13	31	65	222	387	505	377
21	128	120	125	118	6.1	12	44	39	223	266	519	376
22	128	121	221	116	6.3	12	43	38	225	414	514	381
23	128	119	126	117	5.9	12	41	38	234	395	510	364
24	128	119	125	116	5.8	13	62	38	232	357	503	379
25	128	119	125	114	5.8	13	79	38	231	493	496	373
26	128	119	125	113	5.6	13	79	38	226	489	491	307
27	128	119	125	113	5.6	19	80	38	217	417	456	256
28	136	119	125	113	5.3	23	80	38	216	421	434	262
29	125	119	124	113	---	16	80	38	249	438	449	335
30	125	119	125	113	---	16	80	38	272	419	444	378
31	125	---	125	111	---	16	---	37	---	508	362	---
TOTAL	4151	3619	2832.6	3704	1168.6	387.7	978	1919	5142	11944	15813	11387
MEAN	134	121	91.4	119	41.7	12.5	32.6	61.9	171	385	510	380
MAX	235	125	221	126	110	23	80	80	474	508	582	479
MIN	125	119	2.1	111	4.1	4.0	14	37	35	266	362	188
AC-FT	8230	7180	5620	7350	2320	769	1940	3810	10200	23690	31370	22590
CAL YR 1986	TOTAL	71756.8	MEAN	197	MAX	4470	MIN	1.7	AC-FT	142300		
WTR YR 1987	TOTAL	63045.9	MEAN	173	MAX	582	MIN	2.1	AC-FT	125100		

SALINAS RIVER BASIN

11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CA

LOCATION.--Lat 35°53'48", long 121°05'14", in Los Ojitos Grant, Monterey County, Hydrologic Unit 18060005, on downstream side of highway bridge, 0.4 mi upstream from Tule Canyon, and 3.3 mi south of Lockwood.

DRAINAGE AREA.--217 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

REVISED RECORDS.--WDR CA-82-2: Drainage area, gage datum.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 795.00 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 28, 1975, at datum 5.00 ft higher.

REMARKS.--Estimated daily discharges: June 5-17. Records fair except those for period of estimated daily discharges, which are poor. No regulation; some pumping upstream from station.

AVERAGE DISCHARGE.--22 years, 119 ft³/s, 86,220 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,000 ft³/s, Jan. 26, 1969, gage height, 8.25 ft, datum then in use; maximum gage height, 12.64 ft, from floodmarks, Jan. 26, 1983; no flow for several months in each year.

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)
Feb. 13	1445	*3,390	*9.63				

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			.00	7.9	19	34	63	22	4.9			
2			.00	7.9	20	31	60	21	4.2			
3			.00	9.2	20	26	58	19	3.4			
4			.00	20	19	25	57	17	2.8			
5			.00	34	18	233	54	17	2.3			
6			.00	31	18	515	52	16	1.8			
7			.00	32	17	281	48	15	1.5			
8			.00	32	18	208	47	14	1.2			
9			.00	24	19	173	45	13	.96			
10			.00	21	21	150	43	12	.76			
11			.00	19	26	137	42	10	.60			
12			.00	17	33	124	40	8.1	.46			
13			2.8	16	1130	131	40	8.1	.35			
14			6.1	15	521	123	38	8.1	.27			
15			7.3	14	287	118	37	6.9	.20			
16			9.5	14	195	105	36	7.2	.14			
17			11	13	148	96	35	7.1	.00			
18			11	13	119	94	32	7.8	.00			
19			11	12	106	91	31	8.0	.00			
20			11	11	96	87	31	8.0	.00			
21			11	12	85	93	29	8.1	.00			
22			12	12	77	103	29	7.8	.00			
23			11	12	69	93	27	7.1	.00			
24			11	13	62	89	26	6.5	.00			
25			11	14	55	85	25	6.8	.00			
26			10	14	47	81	23	7.0	.00			
27			9.4	13	43	78	21	6.8	.00			
28			8.6	14	39	74	20	6.6	.00			
29			8.0	14	---	71	19	6.4	.00			
30			7.9	18	---	69	21	5.9	.00			
31			7.9	18	---	67	---	5.6	---			
TOTAL	.00	.00	177.50	517.0	3327	3685	1129	319.9	25.84	.00	.00	.00
MEAN	.00	.00	5.73	16.7	119	119	37.6	10.3	.86	.00	.00	.00
MAX	.00	.00	12	34	1130	515	63	22	4.9	.00	.00	.00
MIN	.00	.00	.00	7.9	17	25	19	5.6	.00	.00	.00	.00
AC-FT	.0	.0	352	1030	6600	7310	2240	635	51	.0	.0	.0
CAL YR 1986	TOTAL	94954.56	MEAN	260	MAX	7120	MIN	.00	AC-FT	188300		
WTR YR 1987	TOTAL	9181.21	MEAN	25.2	MAX	1130	MIN	.00	AC-FT	18210		

SALINAS RIVER BASIN

11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CA--Continued

WATER-QUALITY RECORDS

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

WATER TEMPERATURE: Water years 1966-73.

SEDIMENT DATA: Water years 1966 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1965 to September 1973.

SUSPENDED-SEDIMENT DISCHARGE: October 1965 to September 1973.

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)
DEC					
23...	1235	11	14.0	8	0.24
JAN					
22...	1345	12	12.5	3	0.10
FEB					
10...	1655	21	17.0	5	0.28
24...	1605	61	11.0	22	3.6
MAR					
19...	1755	89	--	22	5.3
APR					
14...	1745	38	21.5	8	0.82
MAY					
14...	1830	6.5	26.0	2	0.04

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
DEC								
23...	1250	14.0	1	11	--	--	3	23
23...	1252	14.0	1	11	--	--	2	13
23...	1254	14.0	1	11	--	--	2	16
23...	1256	14.0	1	11	--	--	5	29
23...	1258	14.0	1	11	--	1	3	8
23...	1300	14.0	1	11	--	--	3	10
23...	1302	14.0	1	11	--	1	4	10
23...	1304	14.0	1	11	1	1	4	11
23...	1306	14.0	1	11	--	1	2	5
FEB								
24...	1645	11.0	9	62	--	--	4	16
MAR								
19...	1834	--	1	89	--	--	1	19
19...	1836	--	1	89	--	--	1	11
19...	1838	--	1	89	--	--	3	19
19...	1840	--	1	89	--	--	2	17
19...	1842	--	1	89	--	--	3	16
19...	1844	--	1	89	--	--	4	16
19...	1846	--	1	89	--	1	6	20
19...	1848	--	1	89	--	1	10	23
19...	1850	--	1	89	1	2	6	13

SALINAS RIVER BASIN

11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.
	% FINER THAN 1.00 MM	% FINER THAN 2.00 MM	% FINER THAN 4.00 MM	% FINER THAN 8.00 MM	% FINER THAN 16.0 MM	% FINER THAN 32.0 MM	% FINER THAN 64.0 MM
DEC							
23...	52	78	90	95	100	--	--
23...	35	55	67	75	88	94	100
23...	34	50	62	71	84	96	100
23...	57	79	88	92	99	100	--
23...	22	38	52	67	86	100	--
23...	26	43	58	71	86	100	--
23...	26	46	61	72	89	100	--
23...	31	50	64	76	90	100	--
23...	20	43	57	68	92	100	--
FEB							
24...	38	60	72	81	92	100	--
MAR							
19...	64	91	97	98	100	--	--
19...	39	65	77	88	97	100	--
19...	58	86	94	96	100	--	--
19...	43	60	70	78	90	100	--
19...	40	59	69	74	85	100	--
19...	30	45	59	72	80	85	100
19...	41	68	84	90	97	100	--
19...	39	66	81	90	100	--	--
19...	29	43	50	60	83	100	--

PARTICLE SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	TEMPER- ATURE WATER (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	STREAM WIDTH (FT)	SEDI- MENT DIS- CHARGE, BEDLOAD	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
						(TONS/ DAY)	
DEC							
23...	1245	14.0	29	11	38.0	1.6	1
JAN							
22...	1355	12.5	29	12	38.0	0.93	1
FEB							
10...	1725	17.0	29	21	36.0	9.2	--
24...	1620	11.0	22	61	85.0	130	--
MAR							
19...	1815	--	17	89	68.0	332	--
APR							
14...	1800	21.5	23	38	37.0	44	--
MAY							
14...	1835	26.0	12	6.5	28.5	1.7	--
DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM
DEC							
23...	4	34	72	85	89	93	100
JAN							
22...	3	32	74	86	88	91	100
FEB							
10...	1	19	64	90	96	99	100
24...	1	17	58	85	94	98	100
MAR							
19...	1	19	64	90	96	99	100
APR							
14...	1	25	68	91	97	99	100
MAY							
14...	3	30	75	93	98	100	--

SALINAS RIVER BASIN

11150500 SALINAS RIVER NEAR BRADLEY, CA

LOCATION.--Lat 35°55'49", long 120°52'04", in SW 1/4 NW 1/4 sec.14, T.23 S., R.10 E., Monterey County, Hydrologic Unit 18060005, on left bank 6 mi northwest of Bradley and 7 mi downstream from San Antonio River.

DRAINAGE AREA.--2,535 mi².

PERIOD OF RECORD.--October 1948 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1285: 1950. WDR CA-84-2: 1978.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 442.69 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Santa Margarita Lake beginning in December 1941, usable capacity, 23,000 acre-ft; Lake Nacimiento (formerly Nacimiento Reservoir) beginning in February 1957, usable capacity, 340,000 acre-ft; and Lake San Antonio beginning in December 1965, usable capacity, 330,000 acre-ft. Several small diversions upstream from station.

AVERAGE DISCHARGE (unadjusted).--39 years, 495 ft³/s, 358,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 117,000 ft³/s, Feb. 24, 1969, gage height, 20.34 ft, from floodmarks; no flow at times in 1951, 1954-55, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 707 ft³/s, Aug. 15, gage height, 5.40 ft; minimum daily, 21 ft³/s, Mar. 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	262	221	235	125	117	25	53	304	464	413	522	315
2	244	220	240	127	116	24	52	318	457	400	524	472
3	241	220	201	134	120	22	51	320	438	423	470	372
4	248	225	191	162	120	21	49	308	391	477	318	440
5	251	230	194	134	121	38	46	309	368	499	418	445
6	251	247	192	137	120	114	45	318	366	505	476	438
7	242	246	133	137	117	391	44	321	361	488	503	421
8	155	247	90	137	100	285	41	336	363	439	477	407
9	208	241	76	128	85	189	40	383	360	407	561	394
10	234	243	71	123	85	143	40	392	399	385	623	389
11	232	246	67	123	77	122	38	405	398	397	639	383
12	236	236	67	125	78	103	34	452	398	407	581	366
13	244	228	64	126	80	98	34	451	404	406	585	348
14	240	215	59	123	70	91	32	451	400	360	575	335
15	238	221	60	128	123	89	57	466	329	340	630	330
16	233	229	105	129	79	83	87	564	328	351	535	330
17	231	225	162	119	66	79	98	552	405	355	535	301
18	230	230	173	118	58	75	123	557	438	350	535	172
19	226	227	180	125	50	73	132	548	450	336	529	290
20	179	234	184	125	42	70	135	551	321	337	516	314
21	124	241	182	123	36	72	139	545	396	253	540	305
22	125	240	205	120	34	70	153	525	415	311	555	309
23	128	240	261	124	33	71	161	510	413	312	562	304
24	185	237	190	123	31	71	168	508	366	381	547	323
25	222	228	190	124	31	65	187	505	357	342	530	314
26	234	215	190	125	30	62	205	510	347	455	518	308
27	243	220	192	123	29	59	213	512	344	419	494	199
28	247	223	191	122	27	60	235	512	341	353	411	222
29	261	219	181	120	---	61	234	497	360	365	421	230
30	243	227	147	120	---	58	242	456	410	398	439	313
31	231	---	127	120	---	55	---	459	---	409	401	---
TOTAL	6868	6921	4800	3929	2075	2839	3168	13845	11587	12073	15970	10089
MEAN	222	231	155	127	74.1	91.6	106	447	386	389	515	336
MAX	262	247	261	162	123	391	242	564	464	505	639	472
MIN	124	215	59	118	27	21	32	304	321	253	318	172
AC-FT	13620	13730	9520	7790	4120	5630	6280	27460	22980	23950	31680	20010
CAL YR 1986	TOTAL	201495	MEAN 552	MAX 10700	MIN 24	AC-FT 399700						
WTR YR 1987	TOTAL	94164	MEAN 258	MAX 639	MIN 21	AC-FT 186800						

SALINAS RIVER BASIN

11151300 SAN LORENZO CREEK BELOW BITTERWATER CREEK, NEAR KING CITY, CA

LOCATION.--Lat 36°16'05", long 121°03'55", in NE 1/4 sec.23, T.19 S., R.8 E., Monterey County, Hydrologic Unit 18060005, on left bank 1.3 mi downstream from Bitterwater Creek, 5 mi northeast of King City, and 10 mi upstream from mouth.

DRAINAGE AREA.--233 mi².

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

REVISED RECORDS.--WDR CA-85-2: 1969-84 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 431.64 ft above National Geodetic Vertical Datum of 1929. October 1958 to Apr. 24, 1967, at site 500 ft upstream at datum 5.00 ft higher. Apr. 25, 1967, to July 12, 1981, at site 200 ft upstream.

REMARKS.--Estimated daily discharges: Feb. 24 to Mar. 4. Records fair except those for estimated daily discharges, which are poor. No regulation; small diversions upstream from station by ranchers and sand-processing plant.

AVERAGE DISCHARGE.--29 years, 14.5 ft³/s, 10,510 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft³/s, Jan. 25, 1969, gage height, 15.33 ft, in gage well, 16.2 ft, from floodmarks, from rating curve extended above 7,100 ft³/s on basis of slope-area measurement of peak flow; no flow many days in 1961 and 1973.

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	0500	*377	*5.57				

Minimum daily, 0.13 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	4.2	2.6	2.1	2.6	2.6	2.9	3.0	1.5	.42	.34	.22	.34
2	3.3	2.8	2.1	2.4	2.4	2.8	2.4	1.4	.40	.37	.22	.34
3	2.7	3.1	2.0	2.7	3.5	2.7	2.3	1.1	.35	.39	.20	.34
4	2.3	2.9	2.0	13	3.0	2.7	2.4	1.0	.34	.38	.20	.32
5	1.9	2.8	2.3	10	2.8	60	2.3	.93	.32	.39	.18	.39
6	1.9	2.7	3.0	7.9	2.6	223	2.3	.73	.40	.36	.17	.49
7	1.8	2.3	2.3	6.6	2.5	53	2.2	.70	.44	.34	.17	.60
8	1.5	2.1	2.3	5.1	2.5	24	2.2	.74	.39	.32	.13	.63
9	1.4	2.6	2.3	4.2	3.4	13	2.2	.74	.39	.29	.14	.60
10	1.5	2.6	2.3	3.1	4.7	7.6	2.0	.64	.39	.29	.15	.56
11	1.7	2.4	2.3	2.8	5.2	4.9	1.8	.52	.39	.33	.14	.52
12	2.1	2.3	2.4	2.6	3.1	3.4	1.9	.52	.39	.34	.16	.56
13	2.2	2.2	2.3	2.6	60	3.1	2.0	.49	.38	.37	.16	.70
14	2.3	1.9	2.3	2.6	78	3.3	2.0	.44	.34	.35	.21	.84
15	2.0	1.8	2.4	2.6	27	6.7	1.9	.39	.39	.28	.23	.92
16	1.9	1.8	2.9	2.4	17	7.5	1.7	.47	.39	.25	.22	1.0
17	2.0	1.8	2.6	2.3	12	3.2	1.5	.50	.39	.24	.25	.87
18	2.0	2.2	2.6	2.7	8.0	2.8	1.4	.55	.39	.24	.28	.79
19	2.1	2.1	2.6	2.6	6.3	2.7	1.6	.56	.39	.27	.38	.83
20	2.2	2.0	2.8	2.7	5.4	2.7	1.4	.57	.44	.32	.48	.79
21	2.4	2.0	2.6	2.7	5.0	6.2	1.4	.63	.45	.34	.50	.79
22	2.6	2.0	2.6	2.6	5.0	36	1.2	.66	.44	.34	.48	.73
23	2.7	2.0	2.7	3.2	4.5	27	1.1	.51	.37	.34	.44	.61
24	2.8	1.9	2.3	3.1	3.9	27	1.2	.47	.34	.34	.45	.65
25	2.7	1.8	2.4	2.9	3.6	17	1.1	.45	.32	.34	.49	.83
26	2.7	1.8	2.3	2.8	3.4	12	1.0	.50	.28	.34	.47	.80
27	2.7	1.8	2.3	2.6	3.2	8.3	.95	.52	.25	.33	.45	.87
28	2.8	1.9	2.3	2.8	3.0	6.1	.86	.51	.26	.29	.48	.94
29	3.0	2.0	2.3	2.8	---	5.3	.92	.45	.29	.28	.46	.90
30	3.0	2.0	2.3	3.1	---	4.4	2.5	.45	.33	.24	.39	.71
31	2.7	---	2.4	3.1	---	3.7	---	.44	---	.22	.34	---
TOTAL	73.1	66.2	74.4	115.2	283.6	585.0	52.73	20.08	11.06	9.86	9.24	20.26
MEAN	2.36	2.21	2.40	3.72	10.1	18.9	1.76	.65	.37	.32	.30	.68
MAX	4.2	3.1	3.0	13	78	223	3.0	1.5	.45	.39	.50	1.0
MIN	1.4	1.8	2.0	2.3	2.4	2.7	.86	.39	.25	.22	.13	.32
AC-FT	145	131	148	228	563	1160	105	40	22	20	18	40
CAL YR 1986	TOTAL	5609.87	MEAN	15.4	MAX	633	MIN	.38	AC-FT	11130		
WTR YR 1987	TOTAL	1320.73	MEAN	3.62	MAX	223	MIN	.13	AC-FT	2620		

SALINAS RIVER BASIN

11151700 SALINAS RIVER AT SOLEDAD, CA

LOCATION.--Lat 36°24'40", long 121°19'06", on boundary between San Vicente and Los Coches Grants, Monterey County, Hydrologic Unit 18060005, near right bank on upstream end of pier on U.S. Highway 101, 0.9 mi south of Soledad, and 1 mi upstream from Arroyo Seco River.

DRAINAGE AREA.--3,563 mi².

PERIOD OF RECORD.--October 1968 to September 1978, October 1983 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 170 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 20 to May 1. Records fair. Flow regulated by Santa Margarita Lake beginning in December 1941, usable capacity, 23,000 acre-ft; Lake Nacimiento (formerly Nacimiento Reservoir) beginning in February 1957, usable capacity, 340,000 acre-ft; and by Lake San Antonio beginning in December 1965, usable capacity, 330,000 acre-ft. Several small diversions for irrigation upstream from station.

AVERAGE DISCHARGE (unadjusted).--14 years (water years 1969-78, 1984-87), 453 ft³/s, 328,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 106,000 ft³/s, Feb. 25, 1969, gage height, 23.31 ft; maximum gage height, 23.39 ft, Jan. 26, 1969; no flow Mar. 9-16, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 649 ft³/s, Feb. 13, gage height, 10.32 ft; minimum daily, 1.1 ft³/s, 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	155	119	175	152	120	34	25	5.1	242	90	50	173
2	150	123	173	145	118	34	24	3.5	239	98	64	155
3	131	133	173	142	116	31	21	3.2	210	108	102	146
4	118	131	166	163	109	27	20	2.7	193	113	117	186
5	114	127	153	161	102	32	19	1.1	184	144	95	179
6	110	129	160	163	98	63	18	6.8	166	180	58	205
7	104	128	165	166	99	149	16	7.5	144	188	55	230
8	98	131	160	155	101	108	15	11	156	181	67	225
9	94	138	136	150	109	155	13	16	157	166	79	197
10	81	144	117	148	105	159	11	18	143	141	85	181
11	81	146	102	145	100	143	11	37	134	115	113	167
12	92	148	90	146	94	123	11	55	143	102	129	160
13	102	142	80	143	210	108	12	66	145	120	137	159
14	106	139	75	142	134	100	11	82	149	119	127	164
15	104	135	74	141	145	95	12	100	165	100	137	163
16	103	136	75	138	119	86	12	116	160	80	149	154
17	104	147	75	135	117	83	12	133	122	68	180	141
18	97	155	85	132	109	73	12	195	113	60	161	139
19	96	155	105	132	98	68	13	229	136	62	165	118
20	108	155	123	127	87	60	11	254	153	72	170	88
21	108	155	133	124	79	60	10	267	161	66	164	111
22	93	158	143	119	74	49	9.5	266	129	61	160	122
23	80	166	145	123	70	47	9.0	262	132	35	172	124
24	72	174	156	125	66	45	8.5	261	126	35	197	125
25	65	175	170	125	58	45	8.0	290	112	37	199	123
26	71	171	169	129	51	40	7.5	306	95	44	197	127
27	92	169	170	126	44	38	7.0	294	91	62	195	136
28	104	173	170	131	37	36	6.5	292	95	89	181	145
29	111	170	169	132	---	33	6.0	288	100	80	176	98
30	118	169	164	131	---	30	5.5	278	99	60	160	81
31	120	---	165	127	---	28	---	257	---	54	175	---
TOTAL	3182	4441	4216	4318	2769	2182	376.5	4402.9	4394	2930	4216	4522
MEAN	103	148	136	139	98.9	70.4	12.6	142	146	94.5	136	151
MAX	155	175	175	166	210	159	25	306	242	188	199	230
MIN	65	119	74	119	37	27	5.5	1.1	91	35	50	81
AC-FT	6310	8810	8360	8560	5490	4330	747	8730	8720	5810	8360	8970
CAL YR 1986	TOTAL	171107.2	MEAN	469	MAX	9540	MIN	5.6	AC-FT	339400		
WTR YR 1987	TOTAL	41949.4	MEAN	115	MAX	306	MIN	1.1	AC-FT	83210		

SALINAS RIVER BASIN

11152000 ARROYO SECO NEAR SOLEDAD, CA

LOCATION.--Lat 36°16'50", long 121°19'18", in SW 1/4 NE 1/4 sec.16, T.19 S., R.6 E., Monterey County, Hydrologic Unit 18060005, on right bank under county road bridge, 1.5 mi downstream from Vaquero Creek, and 10 mi south of Soledad.

DRAINAGE AREA.--244 mi².

PERIOD OF RECORD.--November 1901 to current year. Records for water year 1902 incomplete; yearly estimate published in WSP 1315-B.

REVISED RECORDS.--WSP 881: 1902-9 (yearly summary only). WSP 1565: 1916-19, 1920-21(M), 1922, 1926-27, 1928-30(M), 1932, 1934, 1936(M). WSP 1715: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 339.20 ft above National Geodetic Vertical Datum of 1929. Prior to June 16, 1929, nonrecording gage, and June 16, 1929, to Dec. 2, 1941, water-stage recorder at site 1 mi upstream at different datum. Dec. 3, 1941, to Sept. 30, 1959, water-stage recorder at datum 2.00 ft higher. Jan. 30 to Mar. 26, 1969, nonrecording gage at bridge at same datum.

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

AVERAGE DISCHARGE.--86 years, 172 ft³/s, 124,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,300 ft³/s, Apr. 3, 1958, gage height, 16.40 ft, datum then in use, from rating curve extended above 12,000 ft³/s on basis of slope-area measurement at gage height 16.30 ft; no flow at times during several years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	1200	*5,430	*7.10				

No flow Aug. 25 to Sept. 1 and Sept. 19-30.

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	20	19	21	26	43	64	82	41	15	4.3	.83	0
2	19	19	22	26	40	56	79	37	14	3.0	.65	.02
3	19	19	22	28	40	55	77	35	12	3.8	.59	.10
4	19	19	22	81	42	53	76	32	11	4.1	.57	.15
5	18	19	22	67	38	492	74	30	11	3.9	.56	.16
6	18	19	32	55	35	521	70	28	10	4.0	.52	.16
7	18	19	34	68	35	283	68	26	9.9	3.7	.49	.20
8	18	19	29	56	34	205	65	26	9.6	3.5	.48	.18
9	17	19	27	47	32	168	63	26	9.5	3.1	.43	.12
10	16	19	26	41	50	143	62	25	9.3	2.8	.39	.14
11	17	19	26	37	78	134	59	23	8.7	2.8	.38	.12
12	17	19	26	35	76	123	58	21	8.3	2.7	.35	.10
13	18	19	26	32	2390	162	57	20	7.7	2.5	.34	.10
14	18	19	26	31	625	147	56	20	7.6	2.7	.30	.09
15	18	19	27	29	300	178	54	19	7.3	2.7	.27	.08
16	17	20	44	28	200	154	51	19	7.5	2.2	.27	.09
17	17	21	43	28	156	138	48	19	8.2	2.2	.25	.05
18	17	26	32	28	128	126	46	17	8.6	1.9	.25	.02
19	18	30	30	28	113	119	46	19	7.5	2.0	.19	0
20	18	25	29	26	101	111	45	20	7.6	1.7	.16	0
21	18	24	33	26	92	138	43	21	7.5	1.8	.12	0
22	18	23	32	26	88	143	41	21	7.2	2.2	.10	0
23	18	23	32	30	84	131	39	20	6.6	2.6	.06	0
24	18	22	34	41	82	138	38	19	5.9	2.5	.02	0
25	18	21	31	34	80	125	37	19	5.7	2.7	0	0
26	18	21	31	34	73	116	36	20	5.2	2.4	0	0
27	18	21	28	31	71	109	35	21	4.9	2.1	0	0
28	18	21	27	33	68	103	34	19	4.6	1.7	0	0
29	18	21	27	49	---	97	33	17	4.5	1.4	0	0
30	19	21	27	43	---	92	37	17	4.4	1.3	0	0
31	19	---	27	49	---	89	---	16	---	1.1	0	---
TOTAL	557	625	895	1193	5194	4713	1609	713	246.8	81.4	8.57	1.88
MEAN	18.0	20.8	28.9	38.5	186	152	53.6	23.0	8.23	2.63	.28	.063
MAX	20	30	44	81	2390	521	82	41	15	4.3	.83	.20
MIN	16	19	21	26	32	53	33	16	4.4	1.1	0	0
AC-FT	1100	1240	1780	2370	10300	9350	3190	1410	490	161	17	3.7
CAL YR 1986	TOTAL	112665.00	MEAN	309	MAX	6540	MIN	10	AC-FT	223500		
WTR YR 1987	TOTAL	15837.65	MEAN	43.4	MAX	2390	MIN	0	AC-FT	31410		

SALINAS RIVER BASIN

11152300 SALINAS RIVER NEAR CHUALAR, CA
(National stream-quality accounting network station)

LOCATION.--Lat 36°33'14", long 121°32'53", in Guadalupe Y Llanitos de Los Correos Grant, Monterey County, Hydrologic Unit 18060005, near left bank on downstream side of bridge on Chualar-River Road and 2 mi southwest of Chualar.

DRAINAGE AREA.--4,042 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR CA-85-2: 1983-84(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 68.00 ft above National Geodetic Vertical Datum of 1929. Prior to January 1979, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Mar. 1-6 and July 7-13. Records fair except those for estimated discharges, which are poor. Daily discharges prior to January 1979 determined by discharge measurements at this site correlated to streamflow for Salinas River at Soledad (station 11151700) and Salinas River near Spreckels (station 11152500). Flow regulated by Santa Margarita Lake beginning in December 1941, usable capacity, 23,000 acre-ft; Lake Nacimiento (formerly Nacimiento Reservoir) beginning in February 1957, usable capacity, 340,000 acre-ft; and Lake San Antonio beginning in December 1965, usable capacity, 330,000 acre-ft. Large withdrawals from ground-water and small surface-water diversions for municipal use and for irrigation upstream from station.

AVERAGE DISCHARGE.--11 years, 629 ft³/s, 455,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,000 ft³/s, Mar. 3, 1983, gage height, 14.92 ft, from rating curve extended above 21,000 ft³/s; no flow at times during most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,730 ft³/s, Feb. 14, gage height, 7.77 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	86	50	114	100	74	26	16	0	77	18	0	43
2	85	49	116	94	72	22	12	0	72	0	0	43
3	79	53	114	95	74	19	8.1	0	65	0	0	34
4	66	59	112	106	74	17	3.7	0	56	0	0	29
5	59	61	107	108	76	30	.70	0	53	.07	0	40
6	58	59	103	111	75	130	0	0	48	21	0	40
7	59	61	101	110	71	199	0	0	40	45	0	50
8	53	61	102	108	73	143	0	0	38	50	0	59
9	49	63	97	103	72	112	0	0	42	45	0	57
10	42	68	84	101	79	123	0	0	41	30	0	50
11	36	72	73	101	69	117	0	0	34	15	0	44
12	45	74	64	100	66	108	0	0	30	8.0	0	38
13	49	73	56	98	221	99	0	0	28	4.8	0	33
14	55	71	51	97	1350	93	0	0	29	9.3	0	32
15	54	71	48	94	362	90	0	0	34	9.7	0	34
16	52	71	49	93	222	82	0	0	40	2.4	0	32
17	51	74	48	89	163	76	0	0	38	0	13	27
18	51	81	45	88	147	69	0	0	21	0	35	24
19	48	83	52	86	131	65	0	0	15	0	37	21
20	50	84	63	86	111	60	0	0	22	0	40	13
21	54	86	72	82	93	58	0	4.3	29	0	44	2.9
22	53	87	80	79	83	54	0	37	36	0	43	8.0
23	45	90	87	80	79	51	0	51	24	0	41	13
24	33	94	89	80	75	47	0	59	19	0	47	15
25	27	99	96	79	65	45	0	68	11	0	55	15
26	20	101	101	79	54	41	0	78	8.5	0	57	14
27	26	103	101	80	41	36	0	83	.74	0	57	17
28	41	106	101	82	33	32	0	83	0	0	54	21
29	48	109	101	81	---	27	0	83	0	0	49	23
30	47	111	101	82	---	24	0	83	8.1	0	45	5.3
31	50	---	100	80	---	19	---	80	---	0	42	---
TOTAL	1571	2324	2628	2852	4105	2114	40.50	709.3	959.34	258.27	659	877.2
MEAN	50.7	77.5	84.8	92.0	147	68.2	1.35	22.9	32.0	8.33	21.3	29.2
MAX	86	111	116	111	1350	199	16	83	77	50	57	59
MIN	20	49	45	79	33	17	0	0	0	0	0	2.9
AC-FT	3120	4610	5210	5660	8140	4190	80	1410	1900	512	1310	1740

CAL YR 1986 TOTAL 245413.20 MEAN 672 MAX 15700 MIN 0 AC-FT 486800
WTR YR 1987 TOTAL 19097.61 MEAN 52.3 MAX 1350 MIN 0 AC-FT 37880

SALINAS RIVER BASIN

11152300 SALINAS RIVER NEAR CHUALAR, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

CHEMICAL DATA: Water years 1977 to current year.

BIOLOGICAL DATA: Water years 1977-81.

SPECIFIC CONDUCTANCE: Water years 1977-81.

WATER TEMPERATURE: Water years 1977-81.

SEDIMENT DATA: Water years 1977 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1977 to September 1981.

WATER TEMPERATURE: January 1977 to September 1981.

INSTRUMENTATION.--Water-quality monitor from January 1977 to September 1981.

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 HG)	TUR- BID- ITY (NTU)	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)	HARD- NESS (MG/L AS CACO3)
NOV												
17...	1315	74	553	8.4	15.0	760	4.2	11.1	111	K8	K28	210
JAN												
12...	1415	100	655	8.4	8.5	765	2.1	12.5	107	K2	K13	250
MAR												
11...	1300	115	762	8.4	18.0	765	450	9.8	103	K750	K900	270
MAY												
22...	1130	40	441	8.5	19.0	765	46	9.6	103	260	490	190
JUL												
13...	1220	4.8	443	8.6	27.0	760	4.8	8.7	110	K9	K42	180
SEP												
14...	1400	32	382	8.6	24.0	765	9.2	9.5	113	K25	K28	160

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)
NOV												
17...	63	49	21	35	26	1	2.2	162	8	145	146	100
JAN												
12...	86	59	25	44	27	1	2.2	200	--	164	165	120
MAR												
11...	96	63	28	51	29	1	2.8	212	2	178	177	140
MAY												
22...	51	47	18	23	21	0.7	2.1	173	--	142	141	74
JUL												
13...	39	43	18	23	21	0.8	2.6	157	9	143	143	69
SEP												
14...	34	38	16	20	21	0.7	1.6	141	8	128	127	51

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)
NOV												
17...	25	0.20	16	364	340	0.50	--	--	--	--	--	--
JAN												
12...	37	0.20	19	412	410	0.56	<0.010	1.50	0.010	<0.010	0.30	0.040
MAR												
11...	46	0.30	19	475	460	0.65	<0.010	2.00	0.020	0.020	1.1	0.140
MAY												
22...	16	0.30	17	274	280	0.37	<0.010	0.130	0.020	0.020	1.0	0.200
JUL												
13...	18	0.30	17	283	280	0.38	<0.010	0.470	0.020	0.040	0.40	0.070
SEP												
14...	14	0.20	16	222	230	0.30	<0.010	0.160	0.010	0.020	0.80	0.040

See footnotes at end of table.

SALINAS RIVER BASIN

11152300 SALINAS RIVER NEAR CHUALAR, 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 17...	--	--	<10	2	43	<0.5	<1	<1	<3	1	5
JAN 12...	0.050	0.050	<10	2	53	<0.5	<1	<1	<3	2	5
MAR 11...	0.110	0.100	--	--	--	--	--	--	--	--	--
MAY 22...	0.070	0.050	20	2	41	<0.5	<1	<1	<3	1	6
JUL 13...	<0.050	0.030	--	--	--	--	--	--	--	--	--
SEP 14...	0.030	0.020	<10	<1	31	<0.5	<1	<1	<3	2	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)
NOV 17...	<5	14	3	<0.1	<10	<1	<1	<1	310	<6	7
JAN 12...	<5	18	3	<0.1	<10	<1	2	<1	360	<6	4
MAR 11...	--	--	--	--	--	--	--	--	--	--	--
MAY 22...	<5	13	2	<0.1	<10	2	<1	<1	280	<6	<3
JUL 13...	--	--	--	--	--	--	--	--	--	--	--
SEP 14...	<5	<4	<1	<0.1	<10	2	1	<1	240	<6	7

K Results based on colony count outside 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 LOCA- TION, 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, OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	SEDI- MENT, SUS- PENDED (MG/L)
JAN									
12...*	1355	19.0	656	8.4	8.5	765	12.4	106	8
12...*	1400	32.0	653	8.4	8.5	765	12.5	107	9
12...*	1403	41.0	656	8.4	8.5	765	12.5	107	10
12...*	1405	51.0	654	8.4	8.5	765	12.5	107	8
12...*	1407	62.0	653	8.4	8.5	765	12.6	107	10

* Instantaneous streamflow at the time of cross-sectional measurement: Jan. 12, 100 ft³/s.

SALINAS RIVER BASIN

11152300 SALINAS RIVER NEAR CHUALAR, 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- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 17...	1220	74	15.0	18	3.6	91
JAN 12...	1410	100	8.5	9	2.4	--
MAR 11...	1250	115	18.0	1140	354	99
MAY 22...	1325	40	22.5	135	15	99
JUL 13...	1215	4.8	27.0	10	0.13	--
SEP 14...	1350	32	24.0	28	2.4	92

SALINAS RIVER BASIN

11152500 SALINAS RIVER NEAR SPRECKELS, CA

LOCATION.--Lat 36°37'52", long 121°40'17", in Nacional Grant, Monterey County, Hydrologic Unit 18060005, on right bank on downstream side of bridge on Salinas-Monterey highway, 0.8 mi upstream from El Toro Creek, 1.6 mi northwest of Spreckels, and 2 mi south of Salinas.

DRAINAGE AREA.--4,156 mi².

PERIOD OF RECORD.--January 1900 to August 1901, October 1929 to current year. Records for water year 1930 incomplete; yearly estimate published in WSP 1315-B. Published as "near Salinas" 1900-01.

CHEMICAL DATA: Water years 1952-54, 1958-70, 1972-79. Published incorrectly as station 11152300 "near Chualar" in 1967.

BIOLOGICAL DATA: Water years 1975-77.

SPECIFIC CONDUCTANCE: Water years 1975 to January 1977, daily.

WATER TEMPERATURE: Water years 1967-79, daily. Published incorrectly as station 11152300 "near Chualar" in 1967-69.

SUSPENDED-SEDIMENT DISCHARGE: Water years 1950-51; 1967-79, daily; 1986, monthly. Published incorrectly as station 11152300 "near Chualar" in 1967-69.

TURBIDITY: Water year 1973.

REVISED RECORDS.--WSP 1565: 1930, 1935, 1945. WSP 1715: 1959. WDR CA-85-2: 1983. WSP 1929: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 20.56 ft above National Geodetic Vertical Datum of 1929. 1900-01, May 10 to July 29, 1940, nonrecording gages at site 0.3 mi downstream at different datum. July 29, 1940, to May 22, 1969, water-stage recorder at site 0.3 mi downstream at datum 0.69 ft lower. May 23, 1969, to Jan. 13, 1970, nonrecording gage at same site and datum. Mar. 17, 1941, to June 30, 1961, supplementary nonrecording gages.

REMARKS.--Estimated daily discharges: Mar. 11-13, Apr. 2-3, and June 20-23. Records fair except those during summer months and those for periods of estimated daily discharges, which are poor. Flow regulated by Santa Margarita Lake beginning in 1941, usable capacity, 23,000 acre-ft; Lake Nacimiento (formerly Nacimiento Reservoir) beginning in February 1957, usable capacity, 340,000 acre-ft; and by Lake San Antonio beginning in December 1965, usable capacity, 330,000 acre-ft. Large withdrawals from ground water and small surface-water diversions for municipal use and for irrigation of about 95,000 acres upstream from station. Low flows consist primarily of waste water from Alisal sewage-disposal plant.

AVERAGE DISCHARGE.--58 years (water years 1930-87), 446 ft³/s, 323,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 83,100 ft³/s, Feb. 26, 1969, gage height, 26.51 ft, site and datum then in use; maximum gage height, 26.85 ft, Jan. 16, 1952, site and datum then in use, from floodmarks; no flow at times in 1929-40.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,240 ft³/s, Feb. 14, gage height, 9.47 ft; minimum daily, 0.30 ft³/s, July 13.

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	1.0	64	78	45	34	4.6	.70	1.0	.80	2.3	3.3
2	3.7	1.2	71	76	43	24	3.5	.78	.65	1.4	2.6	3.3
3	7.2	.78	77	76	44	19	3.4	.77	1.0	1.4	2.5	3.2
4	9.6	.78	72	99	41	16	3.7	.72	1.1	1.4	2.7	3.2
5	6.7	.78	78	89	37	14	2.4	.79	1.1	1.4	2.7	3.4
6	3.5	.78	74	96	35	33	1.7	.79	1.2	1.3	2.6	3.5
7	2.9	1.0	65	120	33	111	1.1	.76	1.2	1.3	2.5	3.2
8	2.5	1.0	63	99	32	154	1.1	.82	1.2	1.3	2.6	3.4
9	3.5	1.0	67	93	33	97	.80	.86	.85	.65	2.7	3.4
10	2.4	1.0	61	82	35	91	.87	.87	1.1	.72	2.7	1.9
11	1.8	.78	48	76	38	95	.88	.87	.78	.39	2.7	3.0
12	1.5	.78	37	71	36	85	.85	.68	1.2	.35	2.7	3.3
13	1.5	.78	29	69	175	80	.82	.87	1.2	.30	2.7	3.5
14	1.5	.65	21	64	1610	76	.79	.73	1.2	.32	2.7	3.3
15	1.5	6.2	17	62	684	74	.80	.93	1.1	.39	2.6	3.4
16	1.5	9.0	15	58	305	64	.66	1.0	.70	.51	2.7	3.3
17	1.2	11	15	58	175	56	.89	1.0	1.2	.61	2.5	3.2
18	1.5	15	14	58	131	52	.88	.90	.98	.65	1.5	3.1
19	1.5	22	12	56	122	46	.83	.65	.92	.73	1.1	3.2
20	1.5	26	16	53	116	41	.78	.99	.69	.79	1.9	3.3
21	.50	30	27	51	108	41	.34	.73	.65	1.1	.97	3.1
22	1.0	31	40	48	101	37	.70	.99	.60	1.3	2.2	3.1
23	1.2	32	50	49	88	35	.53	1.1	.65	1.2	2.5	3.2
24	1.0	36	53	47	82	31	.70	1.1	1.3	1.8	2.4	3.3
25	1.2	44	56	47	76	22	.76	1.1	.95	2.8	2.5	3.0
26	1.5	47	67	45	66	19	.76	1.0	1.5	2.8	2.6	3.0
27	1.2	52	76	46	55	17	.72	.99	1.6	2.6	2.6	3.2
28	1.0	55	79	51	46	12	.55	.69	1.5	2.7	2.8	3.0
29	1.2	58	78	46	---	8.7	.69	.91	1.6	2.7	2.7	3.1
30	1.0	59	79	50	---	6.5	.50	1.1	1.5	2.8	3.0	2.9
31	1.0	---	79	48	---	5.3	---	1.1	---	2.1	3.2	---
TOTAL	72.60	545.51	1600	2061	4392	1496.5	37.60	27.29	32.22	40.61	76.47	95.3
MEAN	2.34	18.2	51.6	66.5	157	48.3	1.25	.88	1.07	1.31	2.47	3.18
MAX	9.6	59	79	120	1610	154	4.6	1.1	1.6	2.8	3.2	3.5
MIN	.50	.65	12	45	32	5.3	.34	.65	.60	.30	.97	1.9
AC-FT	144	1080	3170	4090	8710	2970	75	54	64	81	152	189

CAL YR 1986 TOTAL 203374.28 MEAN 557 MAX 13300 MIN .13 AC-FT 403400
WTR YR 1987 TOTAL 10477.10 MEAN 28.7 MAX 1610 MIN .30 AC-FT 20780

SALINAS RIVER BASIN

11152540 EL TORO CREEK NEAR SPRECKELS, CA

LOCATION.--Lat 36°35'00", long 121°42'50", in El Toro Grant, Monterey County, Hydrologic Unit 18060005, on right bank 0.3 mi downstream from San Benancio Gulch and 4.7 mi southwest of Spreckels.

DRAINAGE AREA.--31.9 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 210 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 16, 1983, at site 700 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Feb. 13, Feb. 16-24, Mar. 8-13, Apr. 7-20, June 5-13, 19-22. Records fair except those for estimated daily discharges and for flow less than 0.15 ft³/s, which are poor. No regulation or diversion upstream from station except for small stock ponds. Low flow at times affected by irrigation runoff from upstream golf course.

AVERAGE DISCHARGE.--26 years, 1.80 ft³/s, 1,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 630 ft³/s, Mar. 2, 1983, gage height, 6.10 ft, site and datum then in use, from rating curve extended above 93 ft³/s on basis of slope-area measurement at gage height 6.07 ft; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0745	e*30	*2.10				

e Estimated on basis of peak flow at nearby streams.

No flow July 26 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	.05	.13	.12	.13	.18	.15	.11	.07	.05	.02		
2	.04	.08	.13	.11	.54	.22	.15	.06	.03	.02		
3	.03	.08	.12	1.3	.33	.22	.10	.06	.05	.02		
4	.03	.08	.15	1.1	.17	.24	.26	.06	.04	.02		
5	.03	.09	.33	.20	.14	.59	.07	.05	.03	.02		
6	.03	.08	.23	.26	.12	.46	.04	.05	.03	.02		
7	.03	.08	.18	.15	.09	.30	.04	.04	.03	.02		
8	.04	.09	.13	.11	.10	.20	.05	.06	.02	.02		
9	.05	.08	.09	.16	.11	.18	.05	.06	.01	.02		
10	.04	.08	.13	.13	.09	.17	.05	.06	.01	.02		
11	.04	.08	.15	.19	.11	.17	.05	.07	.01	.02		
12	.09	.08	.14	.19	.59	.16	.05	.05	.01	.02		
13	.06	.08	.20	.19	6.0	.16	.05	.05	.01	.02		
14	.04	.09	.11	.19	.37	.99	.04	.04	.01	.02		
15	.05	.09	.16	.19	.37	.58	.04	.05	.01	.02		
16	.06	.09	.25	.17	.16	.19	.05	.05	.01	.01		
17	.06	.10	.20	.11	.17	.12	.05	.05	.01	.01		
18	.07	.17	.25	.14	.17	.12	.05	.07	.01	.01		
19	.07	.08	.24	.14	.17	.18	.05	.06	.01	.01		
20	.07	.10	.15	.13	.17	.12	.05	.05	.02	.01		
21	.08	.11	.10	.13	.17	1.3	.05	.07	.02	.01		
22	.07	.11	.24	.15	.17	.38	.05	.07	.02	.01		
23	.09	.12	.19	.32	.17	.31	.06	.05	.02	.01		
24	.09	.13	.23	.18	.15	.16	.10	.06	.02	.01		
25	.08	.10	.22	.17	.14	.16	.05	.08	.02	.01		
26	.06	.12	.15	.18	.15	.17	.06	.09	.02	0		
27	.11	.11	.11	.15	.16	.16	.06	.08	.02	0		
28	.18	.13	.11	.50	.18	.12	.06	.07	.02	0		
29	.19	.14	.11	.13	---	.13	.07	.05	.02	0		
30	.17	.09	.11	.97	---	.12	.25	.05	.02	0		
31	.16	---	.10	.18	---	.12	---	.06	---	0		---
TOTAL	2.26	2.99	5.13	8.35	11.44	8.65	2.21	1.84	.61	.40	0	0
MEAN	.073	.10	.17	.27	.41	.28	.074	.059	.020	.013	0	0
MAX	.19	.17	.33	1.3	6.0	1.3	.26	.09	.05	.02	0	0
MIN	.03	.08	.09	.11	.09	.12	.04	.04	.01	0	0	0
AC-FT	4.5	5.9	10	17	23	17	4.4	3.6	1.2	.8	0	0

CAL YR 1986 TOTAL 496.35 MEAN 1.36 MAX 114 MIN .01 AC-FT 985
WTR YR 1987 TOTAL 43.88 MEAN .12 MAX 6.0 MIN 0 AC-FT 87

TEMLADERO SLOUGH BASIN

11152600 GABILAN CREEK NEAR SALINAS, CA

LOCATION.--Lat 36°45'21", long 121°36'34", in La Natividad Grant, Monterey County, Hydrologic Unit 18060011, on left bank at downstream side of county road bridge, 0.3 mi downstream from small left-bank tributary, and 6.2 mi northeast of Salinas.

DRAINAGE AREA.--36.7 mi².

PERIOD OF RECORD.--October 1970 to current year. January 1959 to September 1970 in reports of Monterey County Flood Control and Water Conservation District.

REVISED RECORDS.--WDR CA-84-2: 1978, 1980-83.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since Oct. 9, 1975. Elevation of gage is 200 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 9, 1975, on right bank at different datum.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by small diversions, storage reservoirs, and return flow from irrigated areas.

AVERAGE DISCHARGE.--17 years, 5.07 ft³/s, 3,670 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 898 ft³/s, Apr. 1, 1974, gage height, 11.13 ft, at datum then in use, from rating curve extended above 260 ft³/s on basis of slope-area measurement of peak flow; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 60 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0915	*179	*3.01				

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						
2				0	0	0						
3				0	0	0						
4				0	0	0						
5				0	0	.02						
6				0	0	.01						
7				0	0	0						
8				0	0	0						
9				0	0	0						
10				0	0	0						
11				0	0	0						
12				0	3.1	0						
13				0	58	0						
14				0	5.4	0						
15				0	.33	0						
16				0	0	0						
17				0	0	0						
18				0	0	0						
19				0	0	0						
20				0	0	0						
21				0	0	0						
22				0	0	0						
23				0	0	0						
24				0	0	0						
25				0	0	0						
26				0	0	0						
27				0	0	0						
28				.02	0	0						
29				0	---	0						
30				0	---	0						
31		---		0	---	0	---		---			---
TOTAL	0	0	0	.02	66.83	.03	0	0	0	0	0	0
MEAN	0	0	0	.0006	2.39	.001	0	0	0	0	0	0
MAX	0	0	0	.02	58	.02	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	.04	133	.06	0	0	0	0	0	0

CAL YR 1986	TOTAL	1786.97	MEAN	4.90	MAX	250	MIN	0	AC-FT	3540
WTR YR 1987	TOTAL	66.88	MEAN	.18	MAX	58	MIN	0	AC-FT	133

PAJARO RIVER BASIN

11154200 UVAS CREEK NEAR GILROY, CA

LOCATION.--Lat 36°59'32", long 121°34'21", in Las Animas Grant, Santa Clara County, Hydrologic Unit 18060002, on left bank 400 ft upstream from county road bridge, 0.4 mi southwest of Gilroy, and 3.9 mi downstream from Bodfish Creek.

DRAINAGE AREA.--71.2 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 190 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 4-9, Feb. 13, Feb. 16-18, and Mar. 6-13. Records fair except those for estimated daily discharges, which are poor. Flow regulated by Uvas Reservoir 10 mi upstream, capacity, 10,000 acre-ft. Diversion upstream from station for irrigation.

AVERAGE DISCHARGE.--28 years, 44.9 ft³/s, 32,530 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,200 ft³/s, Feb. 17, 1986, gage height, 21.82 ft, from rating curve extended above 4,500 ft³/s on basis of slope-area measurement of peak flow; no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,700 ft³/s, Feb. 13, gage height, 15.89 ft, from rating curve extended above 910 ft³/s on basis of slope-area measurement at gage height 21.82 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	.07					
2					0	0	0					
3					0	0	0					
4					0	0	0					
5					0	0	0					
6					0	55	0					
7					0	24	0					
8					0	7.0	0					
9					0	2.5	0					
10					0	1.3	0					
11					0	.80	0					
12					.29	.58	0					
13					727	1.0	0					
14					154	16	0					
15					80	38	0					
16					40	20	0					
17					21	12	0					
18					12	8.2	0					
19					7.7	7.0	0					
20					6.0	5.8	0					
21					4.9	26	0					
22					3.8	29	0					
23					3.9	22	0					
24					1.9	20	0					
25					.49	14	0					
26					.02	10	0					
27					0	7.6	0					
28					0	6.5	0					
29					---	5.2	0					
30					---	4.0	0					
31		---			---	1.4	---		---			---
TOTAL	0	0	0	0	1063.00	344.88	.07	0	0	0	0	0
MEAN	0	0	0	0	38.0	11.1	.002	0	0	0	0	0
MAX	0	0	0	0	727	55	.07	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	2110	684	.1	0	0	0	0	0
CAL YR 1986	TOTAL	46972.90	MEAN 129	MAX 6520	MIN 0	AC-FT 93170						
WTR YR 1987	TOTAL	1407.95	MEAN 3.86	MAX 727	MIN 0	AC-FT 2790						

PAJARO RIVER BASIN

11156500 SAN BENITO RIVER NEAR WILLOW CREEK SCHOOL, CA

LOCATION.--Lat 36°36'34", long 121°12'07", in SE 1/4 SE 1/4 sec.21, T.15 S., R.7 E., San Benito County, Hydrologic Unit 18060002, on left bank 0.9 mi northwest of Willow Creek School, 1.3 mi downstream from Willow Creek, and 10 mi northwest of San Benito.

DRAINAGE AREA.--249 mi².

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1565: 1948(M), 1949. WSP 1315-B: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 925.52 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 28, 1948, and Nov. 11, 1955, to Sept. 30, 1965, at site 0.9 mi downstream at different datum. Jan. 28, 1948, to Nov. 10, 1955, and Oct. 1, 1965, to Oct. 22, 1970, at present site at datum 2.37 ft higher.

REMARKS.--No estimated daily discharges. Records good except those for daily discharge above 20 ft³/s, which are fair. Low flow regulated by Hernandez Reservoir 40 miles upstream beginning in December 1961, capacity, 18,500 acre-ft. Small diversions upstream from station for irrigation.

AVERAGE DISCHARGE.--48 years, 26.5 ft³/s, 19,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,210 ft³/s, Apr. 3, 1958, gage height, 8.35 ft, site and datum then in use, from rating curve extended above 600 ft³/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of February 1938 reached a stage of about 9.0 ft, from floodmarks at former site 0.9 mi downstream, referenced to datum used at that site.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	1300	*71	*5.13				

Minimum daily, 0.35 ft³/s, Sept. 13, 18-30.

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	9.2	4.0	3.5	3.5	4.1	5.6	4.4	26	25	17	1.6	.41
2	9.0	4.0	3.6	3.4	4.2	5.3	4.4	27	24	17	1.3	.41
3	8.3	4.2	3.6	3.6	4.6	4.9	4.2	28	23	17	1.1	.41
4	7.9	4.2	3.6	7.2	4.2	4.6	4.5	28	23	18	.93	.41
5	7.6	4.5	3.6	5.6	4.1	10	4.4	28	23	18	.87	.39
6	7.1	4.1	3.8	6.9	4.1	24	4.0	29	24	18	.85	.36
7	6.8	4.0	3.7	8.2	4.1	14	4.0	29	23	17	.77	.41
8	6.5	4.0	3.5	6.7	4.0	10	3.9	32	23	17	.70	.41
9	6.3	3.9	3.5	6.4	4.3	8.2	3.5	28	22	16	.70	.41
10	6.3	4.0	3.5	5.6	5.5	7.4	3.3	24	22	16	.63	.41
11	6.2	3.9	3.5	5.2	5.3	7.1	3.1	24	22	16	.59	.41
12	5.8	3.7	3.5	5.0	5.3	6.8	3.1	23	22	16	.59	.40
13	6.0	3.7	3.5	4.6	30	6.8	3.0	23	21	16	.59	.35
14	6.0	3.6	3.4	4.6	24	7.4	2.9	22	22	16	.52	.41
15	5.7	3.6	3.3	4.4	15	8.9	2.6	22	24	16	.52	.41
16	5.8	3.6	3.3	4.0	12	7.4	2.3	24	24	16	.51	.41
17	5.6	3.6	3.3	4.0	9.8	6.7	2.1	25	23	15	.44	.39
18	5.6	3.9	3.3	4.1	8.9	6.2	1.9	25	23	9.6	.41	.35
19	5.6	3.8	3.3	4.0	8.2	6.3	2.0	27	23	7.5	.41	.35
20	5.6	3.3	3.5	3.9	7.7	6.6	2.0	27	22	6.2	.41	.35
21	5.5	3.3	3.5	3.8	7.4	8.1	1.9	28	22	5.8	.41	.35
22	5.2	3.3	3.6	3.9	7.1	9.2	1.7	28	22	5.5	.41	.35
23	5.0	3.3	3.6	4.2	6.8	7.6	1.6	27	21	4.7	.41	.35
24	4.9	3.3	3.5	4.2	6.8	6.9	1.6	27	19	4.4	.41	.35
25	4.8	3.3	3.6	4.0	6.8	6.2	7.3	29	18	4.1	.41	.35
26	4.6	3.4	3.5	3.9	6.6	5.6	17	29	18	3.8	.41	.35
27	4.3	3.5	3.5	3.8	6.3	5.1	18	28	18	3.3	.41	.35
28	4.0	3.5	3.5	4.1	5.8	5.0	20	27	18	3.0	.41	.35
29	4.0	3.4	3.5	4.1	---	4.9	21	27	19	2.7	.41	.35
30	4.0	3.3	3.5	4.3	---	4.7	26	26	18	2.3	.41	.35
31	4.0	---	3.5	4.3	---	4.4	---	26	---	1.9	.41	---
TOTAL	183.2	111.2	108.6	145.5	223.0	231.9	181.7	823	651	346.8	18.95	11.36
MEAN	5.91	3.71	3.50	4.69	7.96	7.48	6.06	26.5	21.7	11.2	.61	.38
MAX	9.2	4.5	3.8	8.2	30	24	26	32	25	18	1.6	.41
MIN	4.0	3.3	3.3	3.4	4.0	4.4	1.6	22	18	1.9	.41	.35
AC-FT	363	221	215	289	442	460	360	1630	1290	688	38	23

CAL YR 1986	TOTAL	12420.50	MEAN	34.0	MAX	800	MIN	1.5	AC-FT	24640
WTR YR 1987	TOTAL	3036.21	MEAN	8.32	MAX	32	MIN	.35	AC-FT	6020

PAJARO RIVER BASIN

11158600 SAN BENITO RIVER AT STATE HIGHWAY 156, NEAR HOLLISTER, CA

LOCATION.--Lat 36°51'07", long 121°25'44", in San Justo Grant, San Benito County, Hydrologic Unit 18060002, on right bank at downstream side of bridge on State Highway 156 and 1.6 mi west of Hollister.

DRAINAGE AREA.--607 mi².

PERIOD OF RECORD.--October 1970 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: Sept. 4-30. Records fair except those for estimated daily discharges, which are poor. Low flows regulated by Hernandez Reservoir 73 mi upstream, capacity, 18,500 acre-ft. Some diversions upstream from station for irrigation. Percolation ponds are constructed upstream from station during summer months.

AVERAGE DISCHARGE.--17 years, 36.9 ft³/s, 26,730 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,900 ft³/s, Mar. 1, 1983, gage height, 11.97 ft, from rating curve extended above 4,100 ft³/s; no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 14	0315	*209	*3.13				

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	3.9	0	0	0	0	3.3	.89					0
2	3.8	0	0	0	.37	2.5	.69					0
3	3.5	0	0	.86	0	2.3	.28					0
4	2.6	0	0	.54	0	2.1	.44					2.2
5	2.2	.04	0	0	0	8.1	.15					6.5
6	1.7	.22	0	.03	0	8.6	0					6.6
7	1.1	.01	0	0	0	16	.30					5.4
8	1.2	0	0	0	0	17	.36					3.8
9	1.2	0	0	0	0	12	0					2.4
10	1.2	.10	0	0	.24	9.3	0					2.0
11	.75	.03	0	0	.71	7.4	0					2.2
12	.25	.03	0	0	24	4.7	0					1.2
13	.13	.02	0	0	63	4.7	0					1.2
14	.62	.02	0	0	52	7.8	0					1.0
15	.51	0	0	0	20	4.4	0					.86
16	.15	0	0	0	12	4.6	0					1.2
17	0	0	0	0	11	5.2	0					1.6
18	0	0	0	0	14	4.0	0					1.6
19	0	0	.12	0	14	5.2	0					1.5
20	0	0	0	0	11	5.3	0					1.8
21	0	0	0	0	8.4	9.3	0					1.9
22	0	0	0	0	8.1	6.8	0					1.3
23	0	0	0	0	7.6	6.2	0					1.5
24	0	0	0	0	7.3	5.7	0					4.2
25	0	0	0	0	6.3	3.4	0					1.2
26	0	0	0	0	5.3	2.8	0					.79
27	0	0	0	0	4.1	2.4	0					.64
28	0	0	0	0	3.4	1.9	0					.44
29	0	0	0	0	---	.96	0					.24
30	0	0	0	0	---	1.6	0					.05
31	0	---	0	0	---	1.1	---		---			---
TOTAL	24.81	.47	.12	1.43	272.82	176.66	3.11	0	0	0	0	55.32
MEAN	.80	.016	.004	.046	9.74	5.70	.10	0	0	0	0	1.84
MAX	3.9	.22	.12	.86	63	17	.89	0	0	0	0	6.6
MIN	0	0	0	0	0	.96	0	0	0	0	0	0
AC-FT	49	.9	.2	2.8	541	350	6.2	0	0	0	0	110
CAL YR 1986	TOTAL	6614.64	MEAN	18.1	MAX	1430	MIN	0	AC-FT	13120		
WTR YR 1987	TOTAL	534.74	MEAN	1.47	MAX	63	MIN	0	AC-FT	1060		

PAJARO RIVER BASIN

11159000 PAJARO RIVER AT CHITTENDEN, CA
(National stream-quality accounting network station)

LOCATION.--Lat 36°54'01", long 121°35'48", in Salsipuedes Grant, Santa Cruz County, Hydrologic Unit 18060002, on left bank at downstream side of bridge on State Highway 129, 0.6 mi downstream from Pescadero Creek, 0.6 mi southeast of Chittenden, and 2.3 mi downstream from San Benito River.

DRAINAGE AREA.--1,186 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1954, published as "near Chittenden."

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 82.28 ft above National Geodetic Vertical Datum of 1929. Prior to May 13, 1949, nonrecording gage on former bridge 100 ft downstream at same datum except for periods in 1947 and 1948 when a water-stage recorder was in use.

REMARKS.--Estimated daily discharges: Apr 20 to May 15. Records fair except those for estimated daily discharges, which are poor. Low flows regulated by Hernandez Reservoir, capacity, 18,500 acre-ft; Pacheco Lake, capacity, 6,140 acre-ft; Chesbro Reservoir, capacity, 8,090 acre-ft; Uvas Reservoir, capacity, 9,950 acre-ft; and San Felipe Lake. Many diversions upstream from station for irrigation.

AVERAGE DISCHARGE.--48 years, 162 ft³/s, 117,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,000 ft³/s, Dec. 24, 1955, gage height, 32.46 ft, from rating curve extended above 8,300 ft³/s on basis of slope-conveyance study; maximum gage height, 33.11 ft, Apr. 3, 1958; no flow at times in July and August 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1938 reached a stage of 31.3 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	1615	*1,870	*12.29				

Minimum daily, 3.2 ft³/s, Sept. 9, 11.

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	16	19	22	25	47	42	19	15	6.9	6.3	5.4
2	14	16	20	23	26	47	41	18	12	7.0	6.7	4.8
3	13	16	20	25	28	46	41	18	12	6.6	5.7	5.2
4	13	16	20	35	28	45	39	17	12	7.3	5.8	5.4
5	13	16	20	31	27	55	38	17	12	8.2	8.7	4.9
6	13	16	23	26	27	85	36	17	12	7.7	9.0	5.2
7	13	16	22	26	27	69	34	17	12	7.1	9.5	4.7
8	13	16	21	24	27	67	35	17	12	8.4	12	3.8
9	13	16	21	24	28	62	34	17	12	7.4	12	3.2
10	14	16	22	23	28	57	33	16	12	9.4	8.0	3.3
11	15	17	22	23	30	54	33	16	13	12	5.8	3.2
12	15	17	24	23	33	51	31	16	14	11	5.1	3.4
13	15	17	23	23	1020	53	31	16	15	11	7.5	4.9
14	14	18	23	23	422	51	30	16	14	10	10	6.1
15	14	19	23	23	233	74	29	15	13	9.3	10	4.9
16	15	18	23	23	183	60	28	16	10	10	9.1	6.4
17	15	20	23	23	143	52	27	16	10	9.4	8.8	6.3
18	15	19	22	23	117	49	28	17	9.5	10	9.1	6.0
19	16	19	23	23	91	49	26	17	9.1	10	8.8	7.1
20	16	19	23	24	78	46	25	17	8.6	9.2	8.2	6.4
21	16	20	23	23	69	51	24	17	8.5	9.5	8.7	7.4
22	16	19	23	23	65	75	23	17	8.1	11	7.5	6.6
23	16	18	24	24	61	59	22	16	7.6	9.9	5.8	6.6
24	17	18	24	25	58	55	22	16	7.8	9.1	4.4	5.2
25	16	19	23	24	55	53	21	16	8.3	8.5	3.8	4.6
26	17	19	23	23	52	50	21	17	9.1	7.7	4.3	4.9
27	16	19	23	24	49	48	20	16	11	9.1	5.6	5.2
28	16	19	22	28	48	46	20	15	10	9.1	6.2	4.4
29	17	19	22	28	---	45	19	14	10	9.1	6.8	4.1
30	16	19	22	26	---	42	19	15	9.0	7.8	6.5	4.1
31	16	---	22	26	---	42	---	16	---	6.1	5.9	---
TOTAL	461	532	688	764	3078	1685	872	510	328.6	274.8	231.6	153.7
MEAN	14.9	17.7	22.2	24.6	110	54.4	29.1	16.5	11.0	8.86	7.47	5.12
MAX	17	20	24	35	1020	85	42	19	15	12	12	7.4
MIN	13	16	19	22	25	42	19	14	7.6	6.1	3.8	3.2
AC-FT	914	1060	1360	1520	6110	3340	1730	1010	652	545	459	305

CAL YR 1986	TOTAL	125302.6	MEAN	343	MAX	12700	MIN	9.8	AC-FT	248500
WTR YR 1987	TOTAL	9578.7	MEAN	26.2	MAX	1020	MIN	3.2	AC-FT	19000

PAJARO RIVER BASIN

11159000 PAJARO RIVER AT CHITTENDEN, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952 to current year.

CHEMICAL DATA: Water years 1952 to current year.

BIOLOGICAL DATA: Water years 1978-81.

SPECIFIC CONDUCTANCE: Water years 1978-81.

WATER TEMPERATURE: Water years 1978-81.

SEDIMENT DATA: Water years 1978 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1978 to September 1981.

WATER TEMPERATURE: May 1978 to September 1981.

INSTRUMENTATION.--Water-quality monitor from May 1978 to September 1981.

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												
15...	1230	23	1150	8.4	10.0	760	7.4	10.7	95	130	110	490
MAR												
10...	1430	57	1080	8.3	15.0	765	15	10.4	103	200	160	430
JUN												
15...	1420	12	1150	8.2	21.0	760	6.6	8.4	95	2000	1400	460
SEP												
15...	1205	4.5	1320	8.3	17.0	765	1.9	9.1	94	180	140	480

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												
15...	120	87	66	69	23	1	1.6	451	369	368	140	75
MAR												
10...	120	76	58	76	28	2	2.3	379	311	309	160	77
JUN												
15...	100	80	64	84	28	2	2.4	464	380	360	110	86
SEP												
15...	79	79	68	120	35	2	3.3	483	396	399	120	130

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)
DEC											
15...	0.20	24	731	680	0.99	0.020	5.80	0.050	0.060	0.80	0.060
MAR											
10...	0.20	19	608	650	0.83	0.020	6.10	0.030	0.020	1.3	0.080
JUN											
15...	0.30	25	--	670	0.91	0.040	6.10	0.080	0.070	2.0	0.260
SEP											
15...	0.30	26	788	790	1.1	0.020	1.70	0.090	0.070	0.70	0.400

See footnote at end of table.

PAJARO RIVER BASIN

11159000 PAJARO RIVER AT CHITTENDEN, 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 15...	0.050	0.050	<10	1	110	<0.5	<1	<1	<3	2	8
MAR 10...	0.060	0.050	60	2	110	<0.5	<1	<1	<3	2	6
JUN 15...	0.220	0.200	<10	3	110	<0.5	<1	3	<3	3	12
SEP 15...	0.320	0.280	10	3	110	0.7	<1	<1	<3	4	24

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 15...	<5	20	180	0.2	<10	1	2	<1	570	<6	8
MAR 10...	<5	18	130	0.3	<10	8	1	<1	570	<6	6
JUN 15...	<5	23	150	0.2	<10	4	2	<1	590	<6	8
SEP 15...	<5	11	180	0.2	<10	8	1	<1	600	<6	11

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

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 15...	1245	23	10.0	48	3.0	58
MAR 10...	1420	57	15.0	30	4.6	85
JUN 15...	1410	12	21.0	24	0.78	84
SEP 15...	1200	4.5	17.0	10	0.12	55

PAJARO RIVER BASIN

11159200 CORRALITOS CREEK AT FREEDOM, CA

LOCATION.--Lat 36°56'22", long 121°46'10", in Los Corralitos Grant, Santa Cruz County, Hydrologic Unit 18060002, on right bank just upstream from Green Valley Road bridge, 0.2 mi north of Freedom, and 2.3 mi north of Watsonville.

DRAINAGE AREA.--27.8 mi².

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 80 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 7 to Nov. 5 and Feb. 13 to Mar. 6. Records fair except those for estimated daily discharges, which are poor. No regulation; Watsonville Water Works can divert up to 8.0 ft³/s upstream from station for municipal supply, domestic use, and irrigation.

AVERAGE DISCHARGE.--31 years, 16.4 ft³/s, 11,880 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,610 ft³/s, Jan. 4, 1982, gage height, 16.66 ft, from rating curve extended above 1,400 ft³/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached a stage of 15.6 ft, from floodmarks, discharge, 3,620 ft³/s based on contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0700	*1,460	*7.61				

No flow June 21 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	.43	.62	.79	2.3	2.1	2.0	3.2	.28	.07			
2	.27	.67	.75	1.7	4.4	2.0	.92	.26	.04			
3	.21	.71	.72	13	6.3	1.9	.64	.26	.06			
4	.19	.73	.71	13	3.6	1.9	.53	.24	.09			
5	.13	.75	2.9	5.3	2.5	50	.48	.23	.07			
6	.11	.78	1.4	5.7	1.9	35	.46	.20	.07			
7	.10	.79	.86	5.1	1.6	15	.44	.20	.06			
8	.10	.80	.84	3.1	1.2	11	.44	.23	.11			
9	.10	.84	.85	2.4	1.4	8.2	.44	.25	.12			
10	.09	.92	.84	2.1	1.6	7.4	.44	.21	.13			
11	.09	.90	.90	2.5	2.6	16	.41	.20	.13			
12	.09	.89	.95	2.3	94	14	.38	.20	.10			
13	.09	.87	.98	1.6	320	25	.36	.21	.09			
14	.09	.84	.88	1.6	35	32	.34	.19	.07			
15	.09	.85	1.5	1.5	24	29	.37	.20	.06			
16	.08	.90	2.3	1.4	10	20	.37	.17	.08			
17	.08	.85	1.2	1.5	6.9	15	.39	.16	.05			
18	.08	.55	2.8	1.4	5.1	13	.37	.20	.04			
19	.08	.35	2.5	1.4	4.0	11	.30	.17	.06			
20	.08	.27	4.2	1.2	3.4	8.5	.30	.13	.01			
21	.09	.52	2.2	1.2	3.0	30	.30	.12	0			
22	.10	.64	2.2	1.8	2.8	18	.27	.12	0			
23	.12	.80	2.3	4.7	2.6	19	.29	.12	0			
24	.15	.82	1.5	2.0	2.5	14	.30	.11	0			
25	.19	.98	1.3	2.2	2.4	12	.29	.15	0			
26	.25	1.0	1.3	1.5	2.3	9.1	.30	.13	0			
27	.31	.89	1.2	1.7	2.2	7.3	.31	.14	0			
28	.38	.80	1.1	6.6	2.1	6.2	.31	.14	0			
29	.47	.83	.99	3.6	---	5.2	.30	.13	0			
30	.52	.79	1.0	4.4	---	4.5	.61	.12	0			
31	.57	---	1.3	2.6	---	4.0	---	.11	---			---
TOTAL	5.73	22.95	45.26	102.4	551.5	447.2	14.86	5.58	1.51	0	0	0
MEAN	.18	.77	1.46	3.30	19.7	14.4	.50	.18	.050	0	0	0
MAX	.57	1.0	4.2	13	320	50	3.2	.28	.13	0	0	0
MIN	.08	.27	.71	1.2	1.2	1.9	.27	.11	0	0	0	0
AC-FT	11	46	90	203	1090	887	29	11	3.0	0	0	0

CAL YR 1986	TOTAL	12397.06	MEAN	34.0	MAX	1510	MIN	.08	AC-FT	24590
WTR YR 1987	TOTAL	1196.99	MEAN	3.28	MAX	320	MIN	0	AC-FT	2370

SOQUEL CREEK BASIN

11160000 SOQUEL CREEK AT SOQUEL, CA

LOCATION.--Lat 36°59'29", long 121°57'17", in NE 1/4 sec.10, T.11 S., R.1 W., Santa Cruz County, Hydrologic Unit 18060001, on left bank 0.2 mi upstream from highway bridge in town of Soquel and 0.4 mi downstream from Bates Creek.

DRAINAGE AREA.--40.2 mi².

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WSP 1715: Drainage area. WSP 2129: 1958, 1959-60(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 21.38 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Feb. 16 to Mar. 4. Records good except those for estimated daily discharges, which are poor. No regulation; small diversion upstream from station for irrigation.

AVERAGE DISCHARGE.--36 years, 45.2 ft³/s, 32,750 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft³/s, Dec. 23, 1955, gage height, 22.33 ft, from rating curve extended above 2,900 ft³/s on basis of slope-area measurement of peak flow; no flow on several days during August and September 1977.

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)
Feb. 13	0700	*2,270	*7.75				

Minimum daily, 0.70 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	4.7	4.4	4.9	5.9	7.8	7.6	8.4	8.1	3.5	2.7	.93	1.1
2	4.3	4.2	4.9	6.5	13	7.6	8.4	6.3	3.3	2.4	1.0	.96
3	4.0	4.2	4.8	35	18	7.5	9.2	5.9	3.3	2.0	1.1	.94
4	3.8	4.2	4.5	29	12	7.5	8.6	5.5	3.2	2.0	.98	.88
5	3.7	4.1	8.8	12	8.9	166	8.2	5.3	3.1	1.9	.93	.88
6	3.8	4.1	7.3	11	7.6	105	8.0	4.9	3.1	1.9	1.1	.83
7	3.7	3.9	5.8	9.0	6.8	36	7.5	5.1	3.2	1.9	1.0	.83
8	3.8	4.4	5.1	7.2	6.5	24	7.2	4.6	2.9	1.9	1.0	.74
9	3.7	4.3	4.6	6.7	6.9	20	7.4	4.8	3.0	1.9	1.0	.70
10	3.9	4.4	4.6	6.3	9.7	20	8.4	4.6	3.2	2.0	1.0	.81
11	4.1	4.3	4.6	5.7	16	38	9.3	4.8	3.1	2.3	.90	.83
12	4.1	4.5	4.8	5.5	240	29	9.3	4.5	3.0	2.2	.97	.77
13	4.1	4.4	4.9	5.4	946	75	9.2	4.3	2.9	2.0	.98	.89
14	4.0	4.5	5.0	5.2	69	61	8.8	4.1	3.0	1.9	1.1	1.0
15	4.1	4.6	7.0	5.2	52	55	8.4	4.1	3.2	2.0	.97	.89
16	4.1	4.6	9.2	5.0	23	33	7.9	4.1	2.9	2.7	.91	.77
17	4.1	4.6	6.5	5.2	16	25	7.8	4.1	2.7	1.9	1.0	.83
18	4.1	4.5	9.2	5.1	13	22	8.4	4.5	2.5	1.8	1.1	.82
19	4.1	4.4	9.9	5.4	11	19	8.1	4.7	2.6	1.6	1.1	.80
20	4.4	4.5	15	5.6	10	17	7.5	4.8	2.6	1.4	1.0	.75
21	4.4	4.6	7.5	5.5	9.3	45	7.4	4.2	2.6	1.4	.87	.73
22	4.2	4.8	6.4	5.7	8.9	25	7.2	4.2	2.3	1.4	.82	.84
23	4.3	4.8	6.4	11	8.6	24	7.5	4.1	2.3	1.2	.72	.93
24	4.4	4.6	5.6	9.1	8.4	19	6.9	3.8	2.2	1.1	.82	1.0
25	4.4	4.6	5.5	8.2	8.2	16	6.7	4.0	2.3	1.3	.83	.99
26	4.4	4.7	5.0	6.9	8.0	13	6.1	4.3	2.3	1.1	1.1	.85
27	4.3	4.8	4.9	7.3	7.8	12	6.2	4.1	2.3	1.1	1.1	.92
28	4.2	4.9	4.8	18	7.7	11	6.0	4.2	2.3	1.0	.98	.93
29	4.6	5.0	4.6	12	---	10	6.1	4.0	2.7	1.0	1.0	.92
30	4.5	5.0	4.6	12	---	9.2	12	3.8	2.8	1.0	.97	.87
31	4.3	---	4.8	9.7	---	8.8	---	3.5	---	1.1	1.0	---
TOTAL	128.6	134.9	191.5	287.3	1560.1	968.2	238.1	143.3	84.4	53.1	30.28	26.00
MEAN	4.15	4.50	6.18	9.27	55.7	31.2	7.94	4.62	2.81	1.71	.98	.87
MAX	4.7	5.0	15	35	946	166	12	8.1	3.5	2.7	1.1	1.1
MIN	3.7	3.9	4.5	5.0	6.5	7.5	6.0	3.5	2.2	1.0	.72	.70
AC-FT	255	268	380	570	3090	1920	472	284	167	105	60	52

CAL YR 1986	TOTAL	31727.30	MEAN	86.9	MAX	3220	MIN	3.2	AC-FT	62930
WTR YR 1987	TOTAL	3845.78	MEAN	10.5	MAX	946	MIN	.70	AC-FT	7630

SAN LORENZO RIVER BASIN

11160020 SAN LORENZO RIVER NEAR BOULDER CREEK, CA

LOCATION.--Lat 37°12'24", long 122°08'38", in NE 1/4 SW 1/4 sec.25, T.8 S., R.3 W., Santa Cruz County, Hydrologic Unit 18060001, on right bank 22 ft upstream from culvert on State Highway 9, 100 ft upstream from small right-bank tributary, and 5.8 mi north of town of Boulder Creek.

DRAINAGE AREA.--6.17 mi².

PERIOD OF RECORD.--July 1968 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 710 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 13 to June 30 and Aug. 19 to Sept. 30. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--19 years, 7.48 ft³/s, 5,420 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,050 ft³/s, Jan. 4, 1982, gage height, 11.48 ft, from rating curve extended above 230 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 0.08 ft³/s, Aug. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 90 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0615	*112	*3.81				
Minimum daily, 0.23 ft ³ /s, Sept. 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	.90	.69	.75	1.2	1.0	1.1	1.6	1.3	.82	.55	.44	.31
2	.88	.67	.72	1.2	1.7	1.1	1.6	1.2	.82	.52	.41	.30
3	.88	.66	.72	4.2	1.6	1.1	1.6	1.2	.81	.52	.37	.29
4	.87	.59	.72	1.9	1.1	1.2	1.5	1.1	.72	.52	.35	.28
5	.87	.60	1.4	1.2	1.0	5.7	1.5	1.1	.72	.52	.34	.27
6	.87	.60	.92	1.5	.91	3.8	1.4	1.0	.71	.55	.32	.29
7	.86	.61	.81	1.2	.88	2.7	1.4	1.0	.71	.52	.39	.29
8	.86	.69	.81	1.1	.72	2.5	1.4	1.0	.70	.49	.43	.29
9	.87	.68	.81	.95	.74	2.3	1.3	1.0	.70	.49	.42	.28
10	.88	.67	.81	.91	.82	2.3	1.3	.98	.70	.52	.45	.26
11	.91	.68	.80	.91	1.3	2.8	1.3	.92	.70	.56	.46	.26
12	.91	.66	.81	.91	8.5	6.8	1.3	.92	.70	.56	.47	.27
13	.89	.68	.81	.84	40	9.2	1.2	.92	.70	.52	.48	.30
14	.81	.72	.81	.81	5.3	6.3	1.2	.92	.67	.42	.51	.30
15	.77	.77	1.2	.82	4.1	5.1	1.2	.90	.62	.37	.61	.29
16	.78	.72	1.1	.81	2.6	3.7	1.1	.84	.64	.39	.52	.27
17	.75	.72	.82	.82	2.1	2.8	1.1	.84	.69	.40	.43	.27
18	.73	.76	1.5	.87	1.9	2.6	1.1	.84	.64	.51	.38	.29
19	.72	.82	1.2	.85	1.7	2.5	1.0	.90	.64	.44	.34	.29
20	.71	.80	1.1	.81	1.6	2.1	1.0	.87	.62	.42	.35	.29
21	.73	.81	1.1	.81	1.5	3.4	1.0	.85	.62	.39	.35	.28
22	.71	.81	1.2	.81	1.5	3.2	1.0	.82	.62	.43	.33	.27
23	.69	.78	1.2	1.3	1.4	3.7	1.0	.78	.62	.40	.33	.27
24	.72	.75	1.1	1.2	1.3	3.2	1.0	.72	.61	.40	.36	.27
25	.70	.72	1.0	1.1	1.3	2.9	.98	.72	.56	.44	.31	.28
26	.71	.72	.95	.89	1.2	2.5	1.0	.78	.51	.50	.32	.26
27	.71	.72	.91	1.0	1.1	2.3	.96	.86	.50	.52	.33	.26
28	.73	.72	.91	2.0	1.1	2.1	.98	.79	.50	.52	.33	.24
29	.73	.82	.93	1.1	---	1.9	1.0	.71	.50	.48	.33	.23
30	.76	.80	.91	2.0	---	1.8	1.5	.77	.53	.50	.33	.23
31	.72	---	.97	1.3	---	1.8	---	.82	---	.51	.33	---
TOTAL	24.63	21.44	29.80	37.32	89.97	96.5	36.52	28.37	19.60	14.88	12.12	8.28
MEAN	.79	.71	.96	1.20	3.21	3.11	1.22	.92	.65	.48	.39	.28
MAX	.91	.82	1.5	4.2	40	9.2	1.6	1.3	.82	.56	.61	.31
MIN	.69	.59	.72	.81	.72	1.1	.96	.71	.50	.37	.31	.23
AC-FT	49	43	59	74	178	191	72	56	39	30	24	16
CAL YR 1986	TOTAL	4175.04	MEAN	11.4	MAX	469	MIN	.59	AC-FT	8280		
WTR YR 1987	TOTAL	419.43	MEAN	1.15	MAX	40	MIN	.23	AC-FT	832		

SAN LORENZO RIVER BASIN

11160060 BEAR CREEK AT BOULDER CREEK, CA

LOCATION.--Lat 37°07'40", long 122°06'57", in NW 1/4 NW 1/4 sec.29, T.9 S., R.2 W., Santa Cruz County, Hydrologic Unit 18060001, on left bank on downstream side of private road bridge in town of Boulder Creek and 0.3 mi upstream from mouth.

DRAINAGE AREA.--16.0 mi².

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 460 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 10, Nov. 14 to Dec. 5, Apr. 21 to May 17, May 26-30, June 22-30, and July 9-27. Records fair except those for estimated daily discharges, which are poor. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--10 years, 22.1 ft³/s, 16,010 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,480 ft³/s, Jan. 4, 1982, gage height, 13.30 ft, from rating curve extended above 600 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 0.11 ft³/s, Sept. 3, 23, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*), from rating curve extended above 410 ft³/s on basis of slope-area measurement at gage height 13.30 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0445	*643	*4.78				

Minimum daily, 0.11 ft³/s, Sept. 3, 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	1.7	.95	.86	1.4	2.4	1.6	4.3	2.0	1.3	.40	.35	.15
2	1.5	.92	.86	1.8	3.7	1.6	4.0	1.7	1.2	.40	.21	.12
3	1.4	.92	.85	13	3.9	1.5	4.0	1.6	1.1	.40	.16	.11
4	1.3	.92	.85	5.9	2.6	1.9	3.9	1.6	1.0	.27	.16	.12
5	1.2	.91	4.0	2.5	2.2	33	3.7	1.5	1.0	.33	.17	.15
6	1.1	.91	2.3	2.8	1.8	14	3.7	1.5	1.2	.33	.16	.18
7	1.1	.91	1.6	2.3	1.7	8.4	3.7	1.5	1.1	.38	.18	.16
8	1.0	.91	1.3	1.8	1.6	6.7	3.5	1.4	1.2	.52	.19	.17
9	1.0	.90	1.3	1.6	1.5	5.6	3.5	1.4	1.0	.44	.21	.19
10	.99	.90	1.3	1.5	2.2	5.8	3.2	1.4	.94	.40	.21	.21
11	.99	.90	1.2	1.5	3.8	8.4	3.0	1.3	.87	.43	.21	.21
12	.98	.94	1.2	1.3	67	13	2.9	1.3	.94	.40	.22	.19
13	.98	.99	1.2	1.3	224	23	2.9	1.3	.79	.39	.25	.18
14	.98	.97	1.2	1.1	16	16	2.9	1.3	.71	.38	.27	.22
15	.97	.95	2.9	1.4	13	14	2.8	1.2	.72	.41	.21	.25
16	.97	.94	3.0	1.5	6.4	11	2.7	1.2	.81	.39	.22	.24
17	.97	.93	1.3	1.5	4.4	8.7	2.6	1.2	.77	.38	.26	.24
18	.96	.93	1.7	1.7	3.5	7.7	2.5	1.2	.64	.36	.24	.21
19	.96	.92	2.2	1.3	2.9	6.7	2.6	1.2	.62	.37	.25	.23
20	.96	.92	2.4	1.3	2.5	6.0	2.6	1.3	.64	.36	.19	.21
21	.96	.91	1.6	1.4	2.3	13	2.5	1.3	.65	.34	.19	.16
22	.95	.91	1.8	1.5	2.3	8.7	2.4	1.3	.60	.32	.19	.14
23	.95	.90	2.0	3.6	2.0	10	2.3	1.2	.58	.32	.20	.11
24	.95	.90	1.5	4.1	2.1	9.0	2.2	1.3	.56	.31	.16	.12
25	.94	.89	1.4	3.7	2.0	8.0	2.1	1.3	.55	.31	.15	.13
26	.94	.89	1.3	2.7	1.8	7.0	2.1	1.3	.43	.30	.16	.15
27	.94	.88	1.2	4.1	1.8	6.3	2.0	1.3	.45	.29	.17	.15
28	.94	.88	1.2	6.2	1.6	5.5	1.9	1.3	.42	.29	.18	.14
29	.97	.87	1.2	3.2	---	5.2	1.9	1.3	.44	.32	.18	.15
30	1.1	.87	1.2	7.8	---	4.6	2.8	1.3	.41	.40	.18	.16
31	1.0	---	1.3	3.6	---	4.5	---	1.3	---	.47	.17	---
TOTAL	32.65	27.44	49.22	90.4	383.0	276.4	87.2	42.3	23.64	11.41	6.25	5.15
MEAN	1.05	.91	1.59	2.92	13.7	8.92	2.91	1.36	.79	.37	.20	.17
MAX	1.7	.99	4.0	13	224	33	4.3	2.0	1.3	.52	.35	.25
MIN	.94	.87	.85	1.1	1.5	1.5	1.9	1.2	.41	.27	.15	.11
AC-FT	65	54	98	179	760	548	173	84	47	23	12	10

CAL YR 1986	TOTAL	11967.16	MEAN	32.8	MAX	1430	MIN	.85	AC-FT	23740
WTR YR 1987	TOTAL	1035.06	MEAN	2.84	MAX	224	MIN	.11	AC-FT	2050

SAN LORENZO RIVER BASIN

11160070 BOULDER CREEK AT BOULDER CREEK, CA

LOCATION.--Lat 37°07'36", long 122°07'18", in NW 1/4 NE 1/4 sec.30, T.9 S., R.2 W., Santa Cruz County, Hydrologic Unit 18060001, on right bank under bridge on State Highway 9 in town of Boulder Creek and 750 ft upstream from mouth.

DRAINAGE AREA.--11.3 mi².

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

REVISED RECORDS.--WDR CA-84-2: 1980, 1982-83.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 470 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 14 to Dec. 4, Dec. 7-13, and Dec. 25 to Jan. 1. Records fair except those for estimated daily discharges, which are poor. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--11 years, 20.6 ft³/s, 14,920 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,500 ft³/s, Jan. 4, 1982, gage height, 9.50 ft, from rating curve extended above 330 ft³/s on basis of slope-area measurement at gage height 6.03 ft; minimum daily, 0.35 ft³/s, Oct. 16, 17, 1977.

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)
Feb. 13	0500	*805	*4.17				

Minimum daily, 0.65 ft³/s, Sept. 10-11, 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	1.1	.82	1.6	3.5	4.2	7.5	4.2	2.3	1.5	.97	.72
2	1.3	.99	.81	2.9	8.8	4.3	7.4	3.8	2.3	1.4	.95	.72
3	1.3	.97	.81	17	6.6	4.2	7.4	3.8	2.2	1.3	.88	.72
4	1.3	.91	.80	4.2	4.6	4.5	6.6	3.6	2.0	1.3	.96	.69
5	1.2	.88	6.0	2.5	3.6	56	6.2	3.5	2.0	1.3	.97	.69
6	1.2	.92	3.3	3.0	3.5	22	6.2	3.3	2.0	1.3	1.0	.72
7	1.2	1.0	1.9	2.2	3.1	12	6.2	3.3	2.0	1.4	1.1	.72
8	1.3	1.0	1.6	1.6	3.1	9.6	5.8	3.3	2.0	1.4	1.1	.72
9	1.2	1.0	1.4	1.5	3.2	8.4	5.6	3.3	2.0	1.2	1.0	.72
10	1.2	.96	1.3	1.4	3.9	11	5.4	3.1	2.0	1.3	.97	.65
11	1.3	.91	1.3	1.4	6.3	16	5.2	2.9	2.0	1.2	.90	.65
12	1.2	.97	1.5	1.4	114	39	5.5	2.9	2.0	1.2	.88	.73
13	1.2	.97	1.5	1.4	274	48	5.1	2.9	2.0	1.1	.92	.80
14	1.2	.93	3.0	1.4	30	30	5.0	2.9	1.8	1.1	.88	.80
15	1.1	.90	6.1	1.4	27	24	4.9	2.8	1.7	.97	.88	.73
16	1.1	.90	4.4	1.5	14	16	4.9	2.7	1.8	.97	.88	.72
17	1.2	.94	2.6	2.7	11	13	4.6	2.7	1.9	.97	.88	.72
18	1.3	.94	4.6	1.8	9.7	12	4.6	2.7	1.8	.97	.87	.76
19	1.1	.93	5.3	1.5	8.2	11	4.6	2.9	1.8	.97	.80	.80
20	1.1	.90	4.4	1.5	7.0	9.7	4.3	2.8	1.7	.97	.80	.79
21	1.2	.90	2.7	1.5	6.3	26	4.3	2.7	1.7	.97	.80	.74
22	1.1	.89	3.1	1.6	5.9	15	4.3	2.6	1.7	.97	.80	.72
23	1.1	.88	3.0	3.4	5.6	15	4.3	2.5	1.7	.97	.80	.72
24	1.1	.87	2.5	3.3	5.8	13	4.2	2.3	1.7	.97	.86	.76
25	1.0	.86	2.1	2.5	4.9	12	4.3	2.3	1.5	.93	.72	.78
26	.88	.85	1.7	1.9	4.6	11	4.0	2.4	1.4	.88	.75	.72
27	.88	.84	1.5	4.9	4.6	9.7	4.1	2.6	1.4	.90	.80	.72
28	.86	.83	1.4	9.6	4.3	9.2	4.0	2.2	1.4	.97	.80	.72
29	.91	.82	1.3	3.8	---	8.7	4.1	2.1	1.4	.97	.80	.65
30	.97	.82	1.3	9.2	---	8.2	5.7	2.2	1.5	.97	.80	.65
31	1.0	---	1.4	4.4	---	7.9	---	2.3	---	.97	.80	---
TOTAL	35.30	27.58	75.44	100.0	587.1	490.6	156.3	89.6	54.7	34.29	27.32	21.75
MEAN	1.14	.92	2.43	3.23	21.0	15.8	5.21	2.89	1.82	1.11	.88	.73
MAX	1.3	1.1	6.1	17	274	56	7.5	4.2	2.3	1.5	1.1	.80
MIN	.86	.82	.80	1.4	3.1	4.2	4.0	2.1	1.4	.88	.72	.65
AC-FT	70	55	150	198	1160	973	310	178	108	68	54	43

CAL YR 1986 TOTAL 9804.82 MEAN 26.9 MAX 941 MIN .80 AC-FT 19450
WTR YR 1987 TOTAL 1699.98 MEAN 4.66 MAX 274 MIN .65 AC-FT 3370

SAN LORENZO RIVER BASIN

11160300 ZAYANTE CREEK AT ZAYANTE, CA

LOCATION.--Lat 37°05'10", long 122°02'45", in SE 1/4 sec.2, T.10 S., R.2 W., Santa Cruz County, Hydrologic Unit 18060001, on left bank at downstream side of bridge on Zayante Road in town of Zayante, 0.4 mi upstream from Lompico Creek, 2.0 mi east of Ben Lomond, and 3.2 mi upstream from mouth.

DRAINAGE AREA.--11.1 mi².

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

GAGE.--Water-stage recorder and steel plate low-flow control. Elevation of gage is 390 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Jan. 14, 1979, at datum 0.12 ft higher.

REMARKS.--Estimated daily discharges: Mar. 5-25, June 12-28, and July 4-6. Records good except those for estimated daily discharges, which are poor. No known regulation; small diversion upstream from station for individual use.

AVERAGE DISCHARGE.--30 years, 12.4 ft³/s, 8,980 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,620 ft³/s, Jan. 14, 1978, gage height, 8.52 ft, from rating curve extended above 1,200 ft³/s on basis of slope-area measurement at gage height 7.70 ft; maximum gage height, 8.86 ft, Jan. 4, 1982; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0515	*555	*3.99				

Minimum daily, 0.12 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	.94	.89	.86	1.5	1.9	3.2	2.5	1.3	.92	.45	.28	.23
2	.87	.80	.86	1.7	2.8	3.2	2.4	1.2	.85	.51	.20	.21
3	.86	.80	.85	5.6	3.1	3.2	2.3	1.3	.80	.55	.19	.27
4	.79	.80	.85	2.8	2.2	3.2	2.2	1.3	.78	.48	.25	.31
5	.79	.80	1.9	1.7	2.0	35	2.1	1.2	.87	.41	.27	.43
6	.80	.75	1.4	1.7	1.8	20	1.9	1.2	.80	.36	.25	.57
7	.78	.70	1.2	1.5	1.7	8.8	1.9	1.1	.78	.31	.24	.49
8	.76	.74	1.1	1.3	1.6	5.3	1.8	1.1	.76	.28	.12	.38
9	.76	.74	1.1	1.3	1.7	4.5	1.7	1.1	.75	.30	.25	.37
10	.81	.80	1.1	1.2	2.2	5.4	1.6	1.0	.76	.35	.21	.40
11	.87	.74	1.1	1.2	2.6	9.0	1.5	1.0	.76	.41	.25	.40
12	.85	.77	1.1	1.2	61	20	1.4	1.1	.74	.41	.30	.35
13	.85	.83	1.1	1.1	197	23	1.3	1.0	.72	.53	.33	.41
14	.82	.83	1.2	1.1	12	14	1.3	.95	.70	.52	.30	.55
15	.78	.86	1.8	1.1	12	11	1.2	.95	.70	.35	.31	.50
16	.79	.86	2.3	1.1	6.9	8.4	1.2	.98	.66	.25	.29	.44
17	.81	.86	1.5	1.1	5.4	6.9	1.1	.99	.64	.28	.26	.38
18	.80	.87	1.7	.94	4.6	6.0	1.1	1.0	.61	.26	.25	.39
19	.83	.90	2.0	.91	4.2	5.2	1.1	1.0	.59	.25	.26	.40
20	.85	.91	1.9	.99	3.9	4.7	1.0	1.0	.57	.20	.24	.49
21	.88	.89	1.5	1.0	3.8	11	1.1	1.0	.54	.26	.21	.39
22	.87	.88	1.6	1.0	3.7	7.0	1.1	1.1	.53	.35	.20	.36
23	.85	.85	1.6	1.9	3.6	7.4	1.1	.96	.51	.36	.21	.39
24	.87	.87	1.4	1.8	3.6	5.3	1.1	.99	.49	.36	.21	.42
25	.85	.89	1.3	1.7	3.5	4.1	1.1	1.0	.47	.25	.22	.42
26	.88	.83	1.3	1.4	3.3	3.8	1.1	1.1	.46	.32	.26	.43
27	.88	.82	1.3	1.6	3.2	3.4	1.1	1.1	.45	.38	.32	.36
28	.88	.83	1.2	3.5	3.2	3.1	1.1	1.0	.44	.33	.31	.25
29	.97	.87	1.2	2.1	---	3.0	1.2	1.0	.43	.24	.26	.24
30	1.0	.90	1.2	2.9	---	2.8	2.1	.96	.51	.28	.22	.26
31	.94	---	1.3	2.3	---	2.6	---	.97	---	.30	.22	---
TOTAL	26.28	24.88	41.82	52.24	358.5	253.5	44.7	32.95	19.59	10.89	7.69	11.49
MEAN	.85	.83	1.35	1.69	12.8	8.18	1.49	1.06	.65	.35	.25	.38
MAX	1.0	.91	2.3	5.6	197	35	2.5	1.3	.92	.55	.33	.57
MIN	.76	.70	.85	.91	1.6	2.6	1.0	.95	.43	.20	.12	.21
AC-FT	52	49	83	104	711	503	89	65	39	22	15	23
CAL YR 1986	TOTAL	10487.34	MEAN	28.7	MAX	1270	MIN	.68	AC-FT	20800		
WTR YR 1987	TOTAL	884.53	MEAN	2.42	MAX	197	MIN	.12	AC-FT	1750		

SAN LORENZO RIVER BASIN

11160500 SAN LORENZO RIVER AT BIG TREES, CA

LOCATION.--Lat 37°02'40", long 122°04'17", in Zayante Grant, Santa Cruz County, Hydrologic Unit 18060001, on right bank 20 ft upstream from bridge on Henry Cowell State Park Road, 200 ft upstream from Shingle Mill Creek, 0.3 mi downstream from Zayante Creek, 0.9 mi northwest of Big Trees station on Southern Pacific railroad, and 5.3 mi northwest of Santa Cruz.

DRAINAGE AREA.--106 mi².

PERIOD OF RECORD.--October 1936 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

CHEMICAL DATA: Water years 1906-7, 1952-67, 1969-70, 1973-75, 1977, 1980-81.

WATER TEMPERATURE: Water years 1966-82, daily.

SEDIMENT DISCHARGE: Water years 1973-82, daily; 1986, monthly.

REVISED RECORDS.--WSP 1315-B: 1938(M). WSP 1715: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 227.00 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 6, 1972, at site 1.3 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Low flow partially regulated by Loch Lomond Reservoir since 1961, capacity, 8,820 acre-ft, and by a fiber dam located 500 ft upstream from gage. Many small diversions above station for domestic supply.

AVERAGE DISCHARGE.--51 years, 138 ft³/s, 99,980 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,400 ft³/s, Dec. 23, 1955, gage height, 22.55 ft, site and datum then in use, from rating curve extended above 11,000 ft³/s on basis of slope-area measurement of maximum flow; maximum gage height, 28.85 ft, Jan. 5, 1982; minimum, 0.8 ft³/s, regulated, June 25, 1939; minimum daily, 5.6 ft³/s, July 27, 28, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0545	*3,220	*9.69				

Minimum daily, 9.9 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	22	21	20	27	33	33	44	22	22	16	11	11
2	20	20	20	26	54	31	43	19	22	15	11	10
3	20	20	20	117	54	27	38	19	22	15	11	11
4	19	20	20	61	37	22	35	21	22	15	11	11
5	21	20	34	34	32	336	34	24	22	14	11	11
6	19	19	27	37	30	169	33	23	22	14	11	11
7	19	19	23	32	27	96	32	24	22	14	11	11
8	19	19	22	27	27	77	36	22	20	13	11	12
9	19	20	21	25	28	62	34	18	17	13	12	14
10	20	20	21	25	33	61	28	19	17	13	12	11
11	19	19	21	24	42	93	28	19	18	14	11	11
12	19	20	21	24	408	90	28	18	18	15	11	11
13	19	20	21	23	1360	226	26	20	17	14	11	11
14	20	20	22	22	222	138	25	21	18	13	11	11
15	20	21	32	21	192	132	25	21	18	13	11	11
16	19	21	37	21	112	97	24	21	17	13	10	11
17	19	21	25	22	86	74	26	20	17	13	10	11
18	19	20	27	23	72	67	30	21	17	13	11	11
19	20	20	34	22	62	62	31	21	16	13	11	11
20	18	20	34	22	48	55	28	22	16	13	11	11
21	19	21	25	22	46	123	30	22	15	13	10	10
22	19	21	26	22	46	84	24	22	15	13	10	10
23	19	23	26	35	35	89	20	22	16	12	11	11
24	19	21	24	39	40	72	19	22	15	12	10	11
25	20	20	23	35	37	62	18	22	15	12	10	10
26	21	20	22	28	35	57	18	22	15	12	11	11
27	20	20	22	32	33	52	18	22	15	12	11	11
28	20	21	22	69	33	48	17	22	16	12	11	11
29	21	21	22	37	---	46	18	22	16	12	10	10
30	21	21	21	62	---	43	31	22	16	11	10	9.9
31	21	---	23	41	---	41	---	22	---	11	10	---
TOTAL	610	609	758	1057	3264	2665	841	657	534	408	334	327.9
MEAN	19.7	20.3	24.5	34.1	117	86.0	28.0	21.2	17.8	13.2	10.8	10.9
MAX	22	23	37	117	1360	336	44	24	22	16	12	14
MIN	18	19	20	21	27	22	17	18	15	11	10	9.9
AC-FT	1210	1210	1500	2100	6470	5290	1670	1300	1060	809	662	650

CAL YR 1986	TOTAL	84296.0	MEAN	231	MAX	9680	MIN	18	AC-FT	167200
WTR YR 1987	TOTAL	12064.9	MEAN	33.1	MAX	1360	MIN	9.9	AC-FT	23930

SAN LORENZO RIVER BASIN

11161300 CARBONERA CREEK AT SCOTT'S VALLEY, CA

LOCATION.--Lat 37°03'02", long 120°00'45", in San Augustin Grant, Santa Cruz County, Hydrologic Unit 18060001, on right bank at east city limits of Scott's Valley, 1.1 mi upstream from Glen Canyon Road, 3.3 mi east of Felton, and 4.1 mi upstream from Branciforte Creek.

DRAINAGE AREA.--3.60 mi².

PERIOD OF RECORD.--February 1985 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 550 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from gage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 934 ft³/s, Mar. 15, 1986, gage height, 9.48 ft, from rating curve extended above 190 ft³/s on basis of slope-area measurement of peak flow; no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 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)
Feb. 12	2015	*458	*7.29				

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	.04	0	0	.95	.42	.96	.70	.33	0	0	0	0
2	0	0	0	.24	8.9	1.2	.80	.19	0	0	0	0
3	0	0	0	14	1.8	1.7	.85	.10	0	0	.01	0
4	0	0	0	.97	.85	1.8	.56	.07	0	.07	0	0
5	0	0	2.9	.39	.61	52	.57	.02	0	0	0	.16
6	0	0	.10	2.9	.55	9.8	.58	.04	0	.04	0	0
7	.02	0	.02	.48	.47	4.8	.56	.02	0	0	.01	.08
8	0	0	.02	.27	.41	3.4	.54	.08	0	0	0	0
9	0	0	.02	.28	1.3	2.6	.43	.03	0	.02	0	.16
10	.02	0	.02	.22	2.2	6.6	.34	.09	0	0	0	0
11	0	0	.02	.17	2.9	6.1	.30	.05	0	0	0	0
12	0	0	.02	.13	120	8.2	.44	.22	0	0	0	0
13	.01	0	.02	.16	125	4.9	.19	.10	0	0	.07	0
14	.05	0	.02	.14	10	9.8	.24	.02	0	0	0	0
15	.05	.05	3.2	.10	18	4.8	.12	.02	0	0	0	0
16	.33	0	.38	.08	5.0	3.1	.27	.03	0	0	0	.03
17	.39	0	.06	.07	3.4	2.4	.31	.02	0	0	0	.04
18	.02	0	1.6	.07	2.8	2.0	.07	.16	0	0	0	0
19	.01	0	3.8	.09	2.2	1.8	.06	.41	0	0	0	0
20	.02	0	.61	.08	1.9	1.5	.13	.34	0	0	.07	0
21	.02	0	.13	.07	1.7	12	.09	.19	0	0	.01	0
22	.02	0	.70	.38	1.5	2.4	.04	.08	0	0	.14	0
23	.03	0	.14	2.8	1.6	5.1	.04	.09	.01	0	.22	0
24	.01	0	.23	2.4	1.3	2.1	.18	.06	0	.01	0	0
25	.01	0	.25	.47	1.2	1.7	.03	.11	0	0	0	0
26	0	0	.44	.25	1.1	1.5	.03	.17	.04	0	0	.10
27	0	0	.06	3.3	1.0	1.3	.09	.01	0	0	0	0
28	0	0	.14	2.6	1.0	1.1	.03	.01	0	.05	0	0
29	.02	0	.05	.57	---	.99	.24	.01	0	0	.03	0
30	.12	0	.05	3.8	---	.85	3.4	0	0	0	.01	.25
31	.01	---	.73	.64	---	.89	---	0	---	0	0	---
TOTAL	1.20	.05	15.73	39.07	319.11	159.39	12.23	3.07	.05	.19	.57	.82
MEAN	.039	.002	.51	1.26	11.4	5.14	.41	.099	.002	.006	.018	.027
MAX	.39	.05	3.8	14	125	52	3.4	.41	.04	.07	.22	.25
MIN	0	0	0	.07	.41	.85	.03	0	0	0	0	0
AC-FT	2.4	.10	31	77	633	316	24	6.1	.10	.4	1.1	1.6

CAL YR 1986	TOTAL	3356.28	MEAN	9.20	MAX	352	MIN	0	AC-FT	6660
WTR YR 1987	TOTAL	551.48	MEAN	1.51	MAX	125	MIN	0	AC-FT	1090

PESCADERO CREEK BASIN

11162500 PESCADERO CREEK NEAR PESCADERO, CA

LOCATION.--Lat 37°15'39", long 122°19'40", in SW 1/4 sec.5, T.8.S., R.4 W., San Mateo County, Hydrologic Unit 18050006, on left bank at downstream side of highway bridge, 3.0 mi east of Pescadero, and 5.3 mi upstream from mouth.

DRAINAGE AREA.--45.9 mi².

PERIOD OF RECORD.--April 1951 to current year.

CHEMICAL DATA: Water year 1977, monthly.

WATER TEMPERATURE: Water years 1965-79, daily; 1980, 1986, monthly.

SEDIMENT DISCHARGE: Water years 1971, 1973, 1980, daily; 1986, monthly.

REVISED RECORDS.--WSP 1445: 1952-53(M). WSP 1715: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 62.3 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Minor regulation from swimming pools in San Mateo County Memorial Park and Portola State Park during summer months. Small diversions upstream from station by pumping.

AVERAGE DISCHARGE.--36 years, 44.0 ft³/s, 31,880 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,420 ft³/s, Dec. 23, 1955, gage height, 21.27 ft, from rating curve extended above 2,700 ft³/s on basis of slope-area measurement of peak flow; no flow at times.

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)
Feb. 13	0800	*702	*5.72				

Minimum daily, 0.42 ft³/s, Aug. 11, Sept. 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	4.0	3.7	3.9	3.7	9.0	7.7	12	5.4	3.4	1.6	1.1	.66
2	3.8	3.5	3.9	4.6	10	7.7	12	4.8	3.2	2.0	1.1	.42
3	3.6	3.3	3.9	28	17	7.3	12	4.5	2.9	1.8	1.1	.50
4	3.4	3.2	3.9	30	11	7.3	12	4.3	2.6	1.6	.74	.50
5	3.3	3.1	6.3	11	8.7	35	11	4.2	2.4	1.8	.83	.50
6	3.0	3.2	8.9	9.1	7.3	42	9.8	4.2	2.5	1.6	.83	.57
7	3.0	3.0	5.6	9.4	6.5	26	9.5	4.0	2.5	1.3	.65	.50
8	3.0	2.9	4.6	7.1	6.0	20	8.9	3.7	2.5	1.3	.65	.50
9	3.1	2.9	4.4	6.0	5.7	16	8.4	3.4	2.4	1.3	.83	.56
10	3.0	2.9	4.2	5.5	5.7	15	8.0	3.4	2.4	1.3	.50	.74
11	3.1	3.0	4.2	5.0	7.0	19	7.7	3.4	1.2	1.3	.42	.75
12	3.2	3.0	4.1	4.8	21	18	7.4	3.5	1.1	1.2	.74	.75
13	3.2	3.1	4.0	4.8	347	89	7.3	3.4	2.2	1.2	.57	.75
14	3.2	3.0	4.2	4.8	69	61	7.0	3.3	2.2	1.2	.83	.94
15	3.2	3.0	5.1	4.3	46	65	6.9	3.2	2.1	1.1	.74	.96
16	3.2	3.2	8.7	3.9	34	43	6.5	3.2	2.0	1.1	.94	3.4
17	3.2	3.3	7.8	3.9	26	32	6.4	3.3	2.1	1.1	.94	1.6
18	3.2	3.3	8.7	3.9	21	28	6.2	3.5	2.1	1.1	.96	1.2
19	3.0	4.0	9.6	4.1	17	24	6.1	3.7	2.0	.96	.75	.94
20	3.2	4.0	7.5	4.2	14	20	5.9	3.7	2.1	1.1	.85	.74
21	3.2	4.3	5.8	4.2	13	37	5.7	3.9	2.0	1.3	.85	.75
22	3.3	4.2	5.7	4.2	12	34	5.5	3.5	2.0	1.1	.85	.65
23	3.5	4.2	7.0	6.7	11	34	5.4	3.4	2.0	1.1	.75	.66
24	3.3	4.0	6.5	8.1	11	33	5.2	3.4	2.0	1.3	.75	.56
25	3.2	3.9	5.2	6.7	9.8	27	5.2	3.6	1.8	1.3	.66	.58
26	3.2	3.9	4.6	6.3	8.9	24	5.7	3.8	1.8	1.3	.66	.50
27	3.0	3.9	4.3	6.0	8.2	21	5.1	4.0	1.8	1.2	.75	.57
28	3.0	3.7	4.2	17	7.9	18	4.8	4.0	1.6	1.1	.85	.65
29	3.2	3.9	3.8	12	---	16	4.8	3.9	1.6	1.1	.85	.57
30	3.7	3.9	3.7	13	---	15	5.2	3.6	1.6	1.1	.66	.65
31	3.9	---	3.4	13	---	13	---	3.4	---	1.1	.66	---
TOTAL	101.4	104.5	167.7	255.3	770.7	855.0	223.6	116.6	64.1	39.96	24.36	23.62
MEAN	3.27	3.48	5.41	8.24	27.5	27.6	7.45	3.76	2.14	1.29	.79	.79
MAX	4.0	4.3	9.6	30	347	89	12	5.4	3.4	2.0	1.1	3.4
MIN	3.0	2.9	3.4	3.7	5.7	7.3	4.8	3.2	1.1	.96	.42	.42
AC-FT	201	207	333	506	1530	1700	444	231	127	79	48	47

CAL YR 1986	TOTAL	22786.40	MEAN	62.4	MAX	2580	MIN	2.9	AC-FT	45200
WTR YR 1987	TOTAL	2746.84	MEAN	7.53	MAX	347	MIN	.42	AC-FT	5450

SAN GREGORIO CREEK BASIN

11162570 SAN GREGORIO CREEK AT SAN GREGORIO, CA

LOCATION.--Lat 37°19'33", long 122°23'08", in San Gregorio Grant, San Mateo County, Hydrologic Unit 18050006, on right bank at downstream side of bridge on Old Coast Highway, 0.1 mi south of town of San Gregorio, and 1.4 mi upstream from mouth.

DRAINAGE AREA.--50.9 mi².

PERIOD OF RECORD.--October 1969 to current year.

SEDIMENT DISCHARGE: Water year 1986, monthly.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 11.40 ft above National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--18 years, 42.4 ft³/s, 30,720 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,910 ft³/s, Jan. 4, 1982, gage height, 21.28 ft, from rating curve extended above 560 ft³/s on basis of slope-area measurement of peak flow; no flow many days in 1972 and 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*), from rating curve extended above 790 ft³/s on basis of slope-area measurement at gage height 21.28 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0545	*2,710	*9.62				

Minimum daily, 0.01 ft³/s, several days in July, 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	4.1	2.7	3.4	4.4	10	12	14	5.1	2.0	.39	.02	.01
2	3.6	2.2	3.3	6.9	38	12	14	4.0	1.6	.31	.01	.01
3	3.1	2.3	3.2	33	36	12	15	4.0	1.6	.46	.01	.01
4	2.6	2.1	3.3	20	15	12	13	4.0	1.2	.60	.01	.01
5	2.6	2.4	7.2	10	11	35	12	3.4	.82	1.2	.01	.01
6	2.6	2.6	6.9	10	9.7	30	11	3.2	.76	.89	.01	.01
7	2.6	2.2	4.5	9.5	8.7	19	10	3.0	.89	.56	.01	.01
8	2.6	2.2	3.8	6.6	7.8	17	9.4	2.8	1.0	.59	.01	.01
9	2.6	2.5	3.5	5.4	7.7	15	8.8	2.9	.99	.63	.01	.01
10	2.8	2.5	3.2	4.6	7.8	15	8.3	3.4	1.1	.45	.02	.01
11	3.2	2.4	3.3	4.1	9.4	18	7.8	2.9	1.0	.27	.01	.01
12	3.2	2.3	3.5	3.8	118	20	7.2	2.4	.79	.50	.01	.01
13	3.1	2.5	3.5	3.7	1100	50	7.1	1.9	.84	.68	.01	.01
14	3.0	3.1	3.7	3.5	147	71	6.6	1.9	.74	.50	.02	.01
15	2.9	3.0	4.3	3.1	117	60	6.2	1.4	1.0	.19	.02	.01
16	2.6	3.0	5.7	3.0	58	38	5.7	1.7	.95	.03	.02	.01
17	2.4	3.0	4.5	3.0	40	30	5.5	2.0	.55	.03	.02	.01
18	2.3	3.1	8.7	3.0	30	27	5.5	2.5	.36	.02	.02	.01
19	2.5	3.9	9.0	3.0	25	24	5.4	2.3	.76	.01	.02	.01
20	2.6	4.3	8.3	3.0	22	20	5.1	2.5	.87	.02	.01	.01
21	2.6	4.4	5.8	2.9	19	71	4.6	2.1	1.1	.03	.02	.01
22	2.6	4.4	5.3	3.0	18	43	4.4	2.4	1.2	.02	.02	.02
23	2.2	4.1	7.4	9.7	17	77	4.4	1.8	.64	.01	.02	.02
24	2.4	3.8	5.6	8.4	16	49	4.1	1.9	.49	.01	.02	.02
25	2.0	3.4	4.9	8.2	15	37	3.9	2.6	.22	.01	.02	.02
26	2.5	3.2	4.4	7.0	14	30	3.7	2.9	.17	.02	.01	.03
27	2.6	3.2	4.3	6.9	13	25	3.7	2.6	.16	.02	.01	.02
28	2.8	3.3	4.1	24	13	22	3.6	2.7	.09	.03	.01	.03
29	3.0	3.5	4.1	11	---	19	3.3	2.5	.39	.02	.01	.03
30	3.2	3.5	4.0	30	---	17	5.4	1.7	.38	.01	.01	.03
31	3.2	---	3.8	15	---	15	---	1.6	---	.01	.01	---
TOTAL	86.1	91.1	150.5	269.7	1943.1	942	218.7	82.1	24.66	8.52	.44	.43
MEAN	2.78	3.04	4.85	8.70	69.4	30.4	7.29	2.65	.82	.27	.014	.014
MAX	4.1	4.4	9.0	33	1100	77	15	5.1	2.0	1.2	.02	.03
MIN	2.0	2.1	3.2	2.9	7.7	12	3.3	1.4	.09	.01	.01	.01
AC-FT	171	181	299	535	3850	1870	434	163	49	17	.9	.9

CAL YR 1986	TOTAL	22709.68	MEAN 62.2	MAX 2250	MIN .35	AC-FT 45040
WTR YR 1987	TOTAL	3817.35	MEAN 10.5	MAX 1100	MIN .01	AC-FT 7570

PILARCITOS CREEK BASIN

11162630 PILARCITOS CREEK AT HALF MOON BAY, CA

LOCATION.--Lat 37°28'00", long 122°25'59", on north boundary of Miramontes Grant, San Mateo County, Hydrologic Unit 18050006, on left bank 50 ft downstream from State Highway 1, 0.3 mi northwest of town of Half Moon Bay, and 1.0 mi upstream from mouth.

DRAINAGE AREA.--27.2 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 17, 1983, at site 800 ft downstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. Flow slightly regulated by storage in Pilarcitos Lake 10 mi upstream, capacity, 3,100 acre-ft. Water is diverted to city of San Francisco water system; small diversions for irrigation upstream from station by pumping.

AVERAGE DISCHARGE (unadjusted).--21 years, 16.2 ft³/s, 11,740 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,750 ft³/s, Jan. 4, 1982, gage height, 13.08 ft, site and datum then in use, from rating curve extended above 1,000 ft³/s on basis of contracted-opening measurement of peak flow; no flow at times in most year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*), from rating curve extended above 200 ft³/s on basis of slope-area measurement at gage height 9.97 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 22	1145	232	3.32	Feb. 13	0500	*742	*5.93

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	.08	2.7	.46	9.3	25	2.2	3.6	1.4	.22	.09		
2	0	1.4	.35	11	57	2.2	5.8	1.9	.16	.09		
3	0	6.6	.35	57	45	2.2	5.7	1.8	.10	.13		
4	0	1.2	3.8	36	34	2.4	4.6	1.5	.08	.09		
5	0	3.1	19	18	30	7.9	4.4	.96	.14	.19		
6	0	2.5	5.1	22	29	2.5	4.2	.63	.07	.24		
7	0	.78	3.2	16	27	2.1	4.0	.17	.32	.06		
8	0	.56	3.7	11	27	1.9	3.0	.32	.32	0		
9	.39	1.2	2.0	9.8	26	1.9	3.1	.60	.32	0		
10	.85	1.4	.48	9.1	27	2.2	3.7	.96	.43	0		
11	3.3	.49	.34	7.8	31	2.6	3.8	.77	.30	0		
12	5.9	.33	.38	8.4	70	6.5	3.1	.55	.17	0		
13	6.0	.59	1.6	7.6	334	6.2	2.4	.40	.18	.01		
14	5.5	1.1	2.2	6.4	75	8.1	2.3	.53	.26	0		
15	5.1	.50	8.1	6.3	57	6.7	1.5	.63	.31	0		
16	4.3	1.0	7.5	5.2	30	11	1.7	.76	.11	0		
17	3.8	.78	3.1	4.0	18	7.3	1.7	.80	.01	0		
18	3.1	.62	22	3.4	14	4.0	1.5	.80	.04	0		
19	3.0	4.2	13	3.8	11	4.1	1.5	.88	.17	0		
20	2.1	2.1	7.3	2.0	8.8	3.6	1.5	.64	.27	0		
21	4.5	4.9	4.3	1.7	7.4	22	1.0	.47	.91	0		
22	5.1	2.4	18	3.3	6.3	12	1.0	.33	1.2	0		
23	3.9	1.7	6.8	16	5.8	15	.91	.35	0	0		
24	2.4	1.4	3.4	14	5.0	11	.91	.43	0	0		
25	.87	1.3	3.4	15	4.4	9.7	1.0	.51	.01	0		
26	1.4	1.2	3.4	11	3.5	8.2	1.5	.47	0	0		
27	1.4	.66	3.4	21	3.2	6.0	1.0	.37	.02	0		
28	1.7	.90	3.3	39	2.7	6.0	1.0	.31	.04	0		
29	2.7	.83	2.2	25	---	5.3	1.3	.24	.33	0		
30	2.1	.55	1.7	42	---	4.8	6.0	.27	.11	0		
31	2.8	---	4.2	27	---	4.0	---	.30	---	0		---
TOTAL	72.29	48.99	158.06	469.1	1014.1	191.6	78.72	21.05	6.60	.90	0	0
MEAN	2.33	1.63	5.10	15.1	36.2	6.18	2.62	.68	.22	.029	0	0
MAX	6.0	6.6	22	57	334	22	6.0	1.9	1.2	.24	0	0
MIN	0	.33	.34	1.7	2.7	1.9	.91	.17	0	0	0	0
AC-FT	143	97	314	930	2010	380	156	42	13	1.8	0	0

CAL YR 1986 TOTAL 7792.20 MEAN 21.3 MAX 936 MIN 0 AC-FT 15460
WTR YR 1987 TOTAL 2061.41 MEAN 5.65 MAX 334 MIN 0 AC-FT 4090

COLMA CREEK BASIN

11162720 COLMA CREEK AT SOUTH SAN FRANCISCO, CA

LOCATION.--Lat 37°39'14", long 122°25'31", in Buri Buri Grant, San Mateo County, Hydrologic Unit 18050004, on left bank in Orange Memorial Park, 1.0 mi southwest of South San Francisco Post Office.

DRAINAGE AREA.--10.8 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 12.53 ft above National Geodetic Vertical Datum of 1929. Recording raingages at Skyline College, altitude 700 ft at site 2.9 mi southwest of gaging station, and on San Bruno Mountain, altitude 930 ft at site 2.7 mi northwest of gaging station.

REMARKS.--Daily discharges for the 1986 and 1987 water years were synthesized from a distributed rainfall-runoff model and a low-flow regression model. Records poor. Low flow affected by return flow from urban irrigation.

AVERAGE DISCHARGE.--24 years, 7.60 ft³/s, 5,510 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,880 ft³/s Jan. 16, 1973, gage height, 11.80 ft (datum then in use); no flow Oct. 5, 26, 1963, and many days in August 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 3	1115	1,190	3.96	Mar. 14	1035	*1,460	*4.36
Feb. 13	0035	1,080	3.80				

Minimum daily, 1.1 ft³/s, Oct. 1, Sept. 29, 30.

EXTREMES FOR 1986 WATER YEAR (NOT PREVIOUSLY PUBLISHED).--

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 29	Unknown	e934	Unknown	Feb. 17	Unknown	*2,670	*6.14
Jan. 31	Unknown	e1,040	Unknown	Mar. 10	Unknown	1,500	4.42

e Estimated on basis of peak flows generated by rainfall-runoff model.
Minimum daily, 0.66 ft³/s, Nov. 18.

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	.70	.77	40	2.7	2.9	3.2	2.3	1.5	1.2	1.2	1.1	.98
2	.72	.79	29	1.1	34	3.0	2.2	1.3	1.2	1.2	1.0	1.1
3	.70	.79	9.8	17	15	2.8	2.2	13	1.3	1.2	1.0	1.1
4	.83	.79	3.1	69	3.7	2.7	2.1	5.2	1.3	1.2	1.1	1.0
5	1.0	.77	14	39	4.6	2.6	3.9	1.4	1.2	1.2	.98	.92
6	.88	.76	11	3.2	2.5	2.6	17	1.4	1.4	1.2	1.0	.92
7	.86	.83	36	2.1	2.2	101	2.4	1.3	1.2	1.1	.94	.97
8	.88	.74	1.5	1.8	2.0	54	2.2	1.4	1.3	1.1	.94	.92
9	.79	9.4	1.3	1.6	1.9	82	2.0	1.4	1.3	1.2	.98	.92
10	.84	34	1.2	1.5	1.8	124	2.1	1.3	1.2	1.2	.97	.94
11	.94	2.6	1.1	1.4	1.8	13	2.0	1.2	1.2	1.2	1.0	1.0
12	.84	.91	1.1	1.3	61	7.2	1.8	1.4	1.2	1.1	1.0	.95
13	.83	.74	1.0	1.2	32	45	1.8	1.2	1.2	1.1	1.0	.92
14	.83	.70	.98	37	219	6.4	1.8	1.2	1.2	1.1	1.0	.95
15	.92	.72	.92	37	92	122	22	1.2	1.2	1.1	.98	.92
16	.86	.72	.92	65	131	40	25	1.2	1.2	1.1	.92	2.9
17	.84	.68	1.3	19	309	6.2	2.9	1.2	1.7	1.0	.92	6.4
18	.88	.66	.91	2.9	155	5.5	1.6	1.2	1.4	1.0	.92	1.2
19	.88	.67	1.1	2.8	24	5.1	1.6	1.2	1.2	1.1	.92	.95
20	40	4.8	.92	2.4	11	4.6	1.5	1.2	1.2	1.2	1.0	.92
21	28	.84	.91	1.8	9.3	4.2	1.6	1.4	1.2	1.3	1.0	.86
22	1.6	.72	.84	10	6.0	3.9	1.5	1.3	1.3	1.4	1.0	.88
23	1.7	3.3	.86	4.3	5.2	3.6	1.8	1.3	1.3	2.2	1.0	1.0
24	.95	175	.84	1.9	4.8	3.3	1.4	1.3	1.3	1.1	1.0	7.5
25	.88	19	.84	1.7	4.6	3.1	1.6	1.3	1.3	1.0	.97	1.3
26	.86	1.2	.91	1.7	4.2	2.9	1.5	1.4	1.3	1.0	1.0	6.4
27	.81	1.1	.84	1.7	3.6	2.7	1.4	1.3	1.2	1.0	1.2	3.0
28	.79	57	.79	1.7	3.4	2.6	1.7	1.2	2.4	1.3	1.0	1.2
29	.88	49	29	71	---	2.6	1.5	1.3	1.2	1.1	.97	1.1
30	.86	2.0	3.9	20	---	2.5	1.4	1.3	1.3	1.2	1.0	1.1
31	.79	---	1.3	89	---	2.5	---	1.2	---	1.2	.97	---
TOTAL	94.14	372.00	198.18	513.8	1147.5	666.8	115.8	55.7	39.1	36.6	30.78	51.22
MEAN	3.04	12.4	6.39	16.6	41.0	21.5	3.86	1.80	1.30	1.18	.99	1.71
MAX	40	175	40	89	309	124	25	13	2.4	2.2	1.2	7.5
MIN	.70	.66	.79	1.1	1.8	2.5	1.4	1.2	1.2	1.0	.92	.86
AC-FT	187	738	393	1020	2280	1320	230	110	78	73	61	102
a	.51	2.85	1.66	1.94	4.78	3.40	.78	.15	.06	.11	.12	.88
b	.80	4.02	2.07	5.36	10.87	6.47	.76	.24	0	.21	0	1.41
CAL YR 1985 TOTAL	1651.50			MEAN 4.52	MAX 175	MIN 0	AC-FT 3280					
WTR YR 1986 TOTAL	3321.62			MEAN 9.10	MAX 309	MIN .66	AC-FT 6590					

a Precipitation, in inches, at San Bruno Mountain gage.

b Precipitation, in inches, at Skyline College gage.

COLMA CREEK BASIN

11162720 COLMA CREEK AT SOUTH SAN FRANCISCO, 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	1.1	2.1	1.5	24	2.1	2.0	1.9	4.4	1.6	1.6	1.9	1.5
2	1.2	1.6	1.7	2.4	57	2.0	38	1.6	1.7	1.5	2.0	1.6
3	1.2	1.9	2.1	126	4.0	2.0	1.8	1.5	1.5	1.5	2.0	1.6
4	1.2	1.9	4.1	18	2.7	9.8	1.8	1.6	1.5	1.5	2.2	1.6
5	1.2	1.5	45	2.3	2.3	70	1.7	1.6	1.6	1.5	2.3	1.6
6	1.3	1.5	1.7	36	2.1	2.7	1.6	1.6	1.5	1.6	2.0	1.6
7	1.4	1.6	1.5	2.2	2.1	2.3	1.6	1.7	1.8	1.6	2.0	1.5
8	1.3	1.5	1.3	1.7	2.1	4.6	1.6	1.6	1.6	1.6	1.9	1.6
9	1.3	1.6	1.3	1.7	2.3	2.1	1.6	1.6	1.6	1.8	1.9	1.5
10	1.5	1.6	1.2	1.7	20	8.6	1.5	1.5	1.6	2.0	1.9	1.4
11	1.4	1.6	1.6	1.5	7.3	3.2	1.5	1.5	1.5	1.5	1.9	1.3
12	1.4	1.6	9.1	1.5	159	26	1.6	1.5	1.5	1.6	3.0	1.3
13	1.6	1.7	1.3	1.4	121	2.9	1.6	1.5	1.5	1.6	2.7	1.3
14	1.5	2.0	1.3	1.5	12	36	1.5	1.6	1.5	1.7	2.0	1.4
15	1.6	1.5	28	1.5	32	2.6	1.5	1.6	1.5	1.7	1.9	1.4
16	1.5	1.5	2.1	1.5	3.9	2.4	1.6	1.4	1.5	1.7	1.9	1.3
17	1.6	1.6	1.5	1.5	3.2	4.0	1.5	1.4	1.4	1.6	1.9	1.3
18	1.6	1.7	8.6	1.6	2.9	9.1	1.5	1.4	1.4	1.6	1.9	1.4
19	1.6	4.6	26	1.6	2.6	2.5	1.5	1.6	1.5	1.6	1.8	1.4
20	2.4	1.7	3.2	1.4	2.5	2.3	1.5	1.5	1.5	1.7	1.9	1.3
21	2.1	12	1.7	1.5	2.6	3.3	1.6	1.5	1.5	1.7	1.8	1.3
22	2.0	1.8	25	19	2.3	3.4	1.6	1.5	1.5	1.8	1.7	1.3
23	2.1	1.5	2.0	33	2.6	25	1.4	1.4	1.6	1.8	1.8	1.2
24	3.4	1.4	1.6	18	2.2	3.0	1.5	1.5	1.6	2.0	1.8	1.3
25	2.1	1.3	1.5	2.2	2.1	2.5	1.5	1.5	1.8	2.3	1.9	1.2
26	1.9	1.3	1.5	1.8	2.1	2.2	1.5	1.7	1.7	1.8	1.8	1.2
27	3.8	1.4	1.5	44	1.9	2.2	1.6	1.5	1.6	1.8	1.7	1.2
28	1.8	1.9	1.6	7.0	2.0	2.1	1.5	1.5	1.6	1.7	1.8	1.2
29	4.4	7.0	1.5	2.3	---	2.0	1.6	1.5	1.6	1.9	1.7	1.1
30	2.9	2.0	1.5	15	---	1.9	20	1.4	1.6	2.0	1.6	1.1
31	2.4	---	11	2.5	---	1.9	---	4.5	---	1.9	1.6	---
TOTAL	57.8	67.9	194.5	377.3	460.9	246.6	102.2	53.2	46.9	53.2	60.2	41.0
MEAN	1.86	2.26	6.27	12.2	16.5	7.95	3.41	1.72	1.56	1.72	1.94	1.37
MAX	4.4	12	45	126	159	70	38	4.5	1.8	2.3	3.0	1.6
MIN	1.1	1.3	1.2	1.4	1.9	1.9	1.4	1.4	1.4	1.5	1.6	1.1
AC-FT	115	135	386	748	914	489	203	106	93	106	119	81
a	.07	.10	1.27	2.64	1.48	.94	.17	.11	.03	.01	0	0
b	.18	.24	2.04	4.24	4.15	2.72	.75	.12	.01	0	0	0

CAL YR 1986 TOTAL 2977.50 MEAN 8.16 MAX 309 MIN .86 AC-FT 5910
WTR YR 1987 TOTAL 1761.70 MEAN 4.83 MAX 159 MIN 1.1 AC-FT 3490

a Precipitation, in inches, at San Bruno Mountain gage.
b Precipitation, in inches, at Skyline College gage.

REDWOOD CREEK BASIN

11162800 REDWOOD CREEK AT REDWOOD CITY, CA

LOCATION.--Lat 37°26'58", long 122°13'57", in Pulgas Grant, San Mateo County, Hydrologic Unit 18050004, at Menlo Country Club, on right bank 200 ft upstream from Alameda de las Pulgas bridge and 2.5 mi south of Redwood City Old Post Office.

DRAINAGE AREA.--1.82 mi².

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

REVISED RECORDS.--WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 83.92 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Low flow at times affected by return flow from urban irrigation.

AVERAGE DISCHARGE.--28 years, 1.20 ft³/s, 869 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 644 ft³/s, Jan. 31, 1963, gage height, 9.36 ft, from rating curve extended above 180 ft³/s on basis of slope-area measurement of maximum flow and computation of maximum flow through culvert; maximum gage height, 11.55 ft, Nov. 29, 1970 (backwater from culvert trash racks); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0200	*224	*5.40				

Minimum daily, 0.01 ft³/s, Nov. 7-9, 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	.04	.02	.05	.26	.31	.38	.37	.17	.08	.05	.02	.02
2	.04	.02	.06	.18	2.5	.39	.40	.15	.06	.04	.02	.02
3	.03	.02	.06	6.6	.70	.43	.60	.15	.05	.04	.04	.03
4	.04	.02	.18	.83	.42	.38	.36	.14	.06	.04	.03	.04
5	.03	.02	.92	.30	.33	3.0	.31	.12	.06	.04	.02	.04
6	.03	.02	.06	1.5	.30	.73	.37	.12	.07	.07	.03	.03
7	.03	.01	.06	.46	.27	.52	.36	.11	.07	.06	.02	.03
8	.03	.01	.06	.26	.25	.44	.33	.11	.06	.06	.02	.03
9	.03	.01	.07	.24	.34	.38	.28	.10	.05	.05	.03	.03
10	.04	.02	.07	.20	.27	.71	.29	.10	.05	.05	.04	.03
11	.04	.02	.09	.19	.48	.57	.27	.10	.06	.03	.02	.03
12	.03	.01	.09	.18	24	1.9	.25	.29	.04	.03	.02	.03
13	.03	.02	.10	.20	47	1.1	.24	.08	.03	.04	.02	.03
14	.03	.02	.11	.15	2.1	2.2	.29	.07	.04	.05	.03	.03
15	.03	.02	.79	.15	3.5	.85	.21	.07	.06	.04	.02	.02
16	.03	.02	.24	.14	1.3	.62	.22	.06	.06	.03	.02	.02
17	.03	.02	.09	.13	1.0	.53	.21	.08	.04	.04	.02	.23
18	.03	.02	1.3	.13	.85	.49	.20	.11	.05	.03	.02	.04
19	.04	.02	.23	.15	.75	.51	.19	.08	.05	.03	.02	.04
20	.04	.02	.18	.12	.65	.42	.18	.08	.05	.04	.02	.06
21	.04	.05	.13	.13	.66	3.2	.18	.09	.04	.06	.02	.06
22	.04	.03	.40	.16	.60	.74	.17	.07	.04	.06	.02	.05
23	.06	.02	.19	1.7	.72	1.1	.18	.06	.06	.06	.02	.05
24	.09	.02	.13	.48	.56	.58	.19	.09	.05	.05	.02	.06
25	.02	.03	.12	.24	.47	.53	.19	.16	.05	.03	.04	.04
26	.02	.02	.11	.21	.43	.46	.18	.23	.06	.04	.02	.03
27	.02	.12	.10	2.2	.39	.42	.17	.27	.05	.04	.02	.04
28	.02	.05	.10	1.1	.38	.41	.19	.19	.04	.05	.02	.04
29	.03	.04	.11	.35	---	.38	.22	.18	.04	.03	.02	.03
30	.03	.04	.11	1.8	---	.37	.42	.16	.04	.06	.02	.03
31	.03	---	.19	.40	---	.38	---	.14	---	.04	.02	---
TOTAL	1.07	.78	6.50	21.14	91.53	25.12	8.02	3.93	1.56	1.38	.72	1.26
MEAN	.035	.026	.21	.68	3.27	.81	.27	.13	.052	.045	.023	.042
MAX	.09	.12	1.3	6.6	.47	3.2	.60	.29	.08	.07	.04	.23
MIN	.02	.01	.05	.12	.25	.37	.17	.06	.03	.03	.02	.02
AC-FT	2.1	1.5	13	42	182	50	16	7.8	3.1	2.7	1.4	2.5

CAL YR 1986 TOTAL 703.59 MEAN 1.93 MAX 99 MIN .01 AC-FT 1400
WTR YR 1987 TOTAL 163.01 MEAN .45 MAX 47 MIN .01 AC-FT 323

SAN FRANCISQUITO CREEK BASIN

11164500 SAN FRANCISQUITO CREEK AT STANFORD UNIVERSITY, CA

LOCATION.--Lat 37°25'24", long 122°11'18", in San Francisquito Grant, Santa Clara County, Hydrologic Unit 18050003, at golf course on right bank 1.1 mi downstream from Los Trancos Creek, 1.1 mi west of Stanford University Post Office, and 5 mi downstream from Searsville Lake.

DRAINAGE AREA.--37.4 mi².

PERIOD OF RECORD.--October 1930 to September 1941, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 115.75 ft above National Geodetic Vertical Datum of 1929. Recording raingage at 345 Middlefield Road in Menlo Park, 2.5 mi northeast of gage.

REMARKS.--Estimated daily discharges: Jan. 26, 27, and Apr. 8. Records good. Flow slightly regulated by Searsville Lake, capacity, 952 acre-ft. Diversions of about 800 acre-ft each year above station to Los Trancos and Lagunita Canals for irrigation on Stanford University campus below station. Low flow affected by wastewater from Stanford Linear Accelerator.

AVERAGE DISCHARGE.--48 years, 20.4 ft³/s, 14,780 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,560 ft³/s, Dec. 22, 1955, gage height, 13.60 ft; no flow at times.

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)
Feb. 13	0545	*1,540	*5.78				

No flow, May 18, 19, 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	.67	.65	.77	.96	1.8	4.5	.70	.01	.14	.96	.85	.63
2	.61	.40	.73	1.1	8.7	4.7	.34	.01	.05	.93	.81	.52
3	.57	.10	.66	26	5.2	4.5	.86	.01	.21	.72	.82	.69
4	.55	.12	.70	6.1	2.0	4.4	1.2	.06	.01	.64	.93	.68
5	.54	.16	2.9	2.6	1.8	14	.52	.01	.10	.65	.92	.78
6	.40	.47	1.1	4.9	1.7	11	.13	.11	.09	.62	.91	.64
7	.44	.25	1.2	3.8	1.8	7.1	1.7	.11	.11	.71	.94	.66
8	.61	.27	.67	1.7	1.7	5.8	.02	.09	.19	.77	.91	.77
9	.49	.29	.61	1.4	1.6	5.3	.60	.09	.12	.70	.97	.72
10	.57	.36	.63	1.2	1.7	5.0	1.0	.07	.32	.63	.95	.46
11	.56	.29	.66	1.2	1.9	6.4	1.1	.04	.50	.74	1.3	.30
12	.54	.30	.66	1.1	63	9.0	1.0	.10	.04	.97	1.0	.56
13	.46	.31	.83	1.1	606	23	.82	.10	.06	.93	.56	.55
14	.56	.40	.84	.99	62	25	.74	.06	.07	.99	.65	.54
15	.52	.46	2.0	1.0	47	24	.55	.05	.78	1.1	.64	.51
16	.54	.51	1.8	.98	24	9.7	.41	.06	1.1	1.1	.66	.53
17	.50	.48	1.1	.94	15	4.3	.29	.01	1.3	1.1	.70	.63
18	.43	.72	3.5	1.0	11	3.0	.17	0	1.2	1.1	.74	.57
19	.44	.68	2.0	.98	8.4	2.6	.11	0	1.1	1.1	.70	.59
20	.63	.77	1.2	1.1	8.5	1.8	.09	.02	.92	1.1	.82	.61
21	.67	.70	.88	1.1	8.1	27	.08	.39	.84	1.2	.89	.52
22	.65	.69	1.2	1.3	7.0	15	.02	0	.82	1.1	.63	1.1
23	.64	.71	1.2	4.9	6.4	12	.03	.29	.81	1.2	.66	1.3
24	.59	.66	1.0	2.2	5.9	8.8	.02	.59	.85	1.1	.57	1.2
25	.63	.65	.89	1.9	4.7	5.3	.02	.90	.81	1.1	.65	.92
26	.64	.66	.79	1.6	3.4	3.7	.02	.78	.89	1.1	.55	1.0
27	.61	.73	.77	3.2	4.4	2.9	.02	.58	.82	1.0	.62	.97
28	.54	.69	.78	10	4.6	2.4	.02	.47	.89	1.0	.62	.96
29	.63	.68	.77	2.0	---	1.9	.02	.30	.93	1.0	.68	1.1
30	.67	.73	.77	6.3	---	1.6	.15	.20	.87	1.0	.77	1.1
31	.60	---	.84	2.3	---	1.0	---	.16	---	.99	.92	---
TOTAL	17.50	14.89	34.45	96.95	919.3	256.7	12.75	5.67	16.94	29.35	24.34	22.11
MEAN	.56	.50	1.11	3.13	32.8	8.28	.43	.18	.56	.95	.79	.74
MAX	.67	.77	3.5	26	606	27	1.7	.90	1.3	1.2	1.3	1.3
MIN	.40	.10	.61	.94	1.6	1.0	.02	0	.01	.62	.55	.30
AC-FT	35	30	68	192	1820	509	25	11	34	58	48	44
a	0	.02	1.35	2.07	3.33	1.22	.97	0	0	0	0	0

CAL YR 1986	TOTAL	17073.33	MEAN	46.8	MAX	2600	MIN	.10	AC-FT	33860
WTR YR 1987	TOTAL	1450.95	MEAN	3.98	MAX	606	MIN	0	AC-FT	2880

a Precipitation, in inches.

MATADERO CREEK BASIN

11166000 MATADERO CREEK AT PALO ALTO, CA

LOCATION.--Lat 37°25'18", long 122°08'04", in Rincon de San Francisco Grant, Santa Clara County, Hydrologic Unit 18050003, on right bank on Ash Street 150 ft upstream from Lambert Avenue Bridge and 2.1 mi southeast of Palo Alto Post Office.

DRAINAGE AREA.--7.26 mi².

PERIOD OF RECORD.--July 1952 to current year.

REVISED RECORDS.--WDR CA-80-2: 1971-74, 1978, 1971-72(P). WDR CA-82-2: 1973-74, 1978(P).

GAGE.--Water-stage recorder. Datum of gage is 22.07 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 25, 1958, at site 150 ft downstream at different datum.

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

AVERAGE DISCHARGE.--35 years, 2.42 ft³/s, 1,750 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,500 ft³/s, Jan. 24, 1983, gage height, 6.51 ft, from rating extended above 600 ft³/s on basis of step-backwater computation at gage heights 7.63 and 8.00 ft, and slope-conveyance computations at 5.97 and 6.87 ft; maximum gage height, 9.88 ft, Dec. 23, 1955, site and datum then in use (backwater from culvert); no flow at times.

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)
Feb. 13	0345	*388	*2.82				

Minimum daily, 0.07 ft³/s, June 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	.39	.43	.36	.40	.76	1.1	1.0	2.6	.32	.14	.21	.33
2	.28	.31	.30	.44	5.1	2.1	1.0	1.4	.29	.36	.20	.23
3	.40	.21	.35	19	1.4	1.0	5.2	1.6	.28	.14	.18	.38
4	.31	.50	.37	1.9	.86	1.7	1.0	.80	.38	.14	.24	.39
5	.28	.49	5.4	1.0	.72	6.4	.96	.62	.28	.11	.20	.22
6	.33	.40	.47	6.2	.65	2.2	.76	.54	.31	.10	.28	.19
7	.42	.71	.37	1.3	.63	2.0	.86	.47	.28	.16	.26	.20
8	.34	.25	.35	.83	.63	1.3	.55	.49	.25	.16	.34	.26
9	.36	.26	.42	.76	.63	2.0	.59	.70	.29	.54	.24	.29
10	.42	.31	.31	.72	.63	1.5	.78	1.6	.20	1.0	.18	.36
11	.36	.35	.30	.66	1.3	1.9	.54	1.0	.28	.77	.21	.35
12	.82	.49	.25	.63	38	8.2	.48	1.4	.16	.78	.26	.31
13	.40	.37	.27	.63	99	4.7	.45	1.5	.17	.86	.31	.27
14	.39	.53	.31	.63	5.9	7.1	.55	.90	.15	.33	.56	.27
15	.33	.37	5.5	.55	7.6	2.8	.55	.86	.14	.52	.41	.23
16	.86	.35	1.1	.52	3.1	2.2	.56	.32	.18	.37	.41	.24
17	.41	.37	.55	.48	3.1	2.0	.50	.33	.09	.29	.21	.28
18	.34	.55	5.1	.48	2.8	2.2	.52	.24	.11	.47	.40	.23
19	.34	.42	.74	.59	2.1	2.5	.86	.31	.12	.32	.86	.18
20	.32	.46	.83	.61	2.2	1.8	.87	.39	.13	.29	1.5	.10
21	.46	.67	.50	.55	2.1	12	.74	.32	.26	.43	1.3	.15
22	.43	.43	1.1	.55	1.9	2.7	.68	.32	.17	.50	.81	.17
23	.35	.41	.58	5.7	2.3	3.8	.63	.32	.20	.50	.27	.29
24	.44	.53	.37	1.0	1.7	2.3	1.2	1.3	.07	.51	.17	.23
25	.33	.54	.35	.77	2.2	1.9	1.1	1.9	.28	1.4	.23	.22
26	.34	.43	.35	.72	1.2	2.5	.61	1.2	.14	1.4	.22	.23
27	.30	.35	.35	4.2	1.8	1.9	.67	1.3	.14	1.4	.29	.12
28	.38	.44	.35	4.0	1.5	1.5	.73	.44	.09	1.5	.31	.13
29	.40	.45	.35	.95	---	1.5	1.0	.33	.12	1.6	.35	.26
30	.27	.35	.35	9.4	---	.55	2.1	.48	.13	.88	.28	.27
31	.78	---	.35	1.1	---	1.0	---	.44	---	.20	.25	---
TOTAL	12.58	12.73	28.65	67.27	191.81	88.35	28.04	26.42	6.01	18.17	11.94	7.38
MEAN	.41	.42	.92	2.17	6.85	2.85	.93	.85	.20	.59	.39	.25
MAX	.86	.71	5.5	19	99	12	5.2	2.6	.38	1.6	1.5	.39
MIN	.27	.21	.25	.40	.63	.55	.45	.24	.07	.10	.17	.10
AC-FT	25	25	57	133	380	175	56	52	12	36	24	15

CAL YR 1986	TOTAL	1848.18	MEAN 5.06	MAX 223	MIN .13	AC-FT 3670
WTR YR 1987	TOTAL	499.35	MEAN 1.37	MAX 99	MIN .07	AC-FT 990

PERMANENTE CREEK BASIN

11166575 PERMANENTE CREEK NEAR MONTA VISTA, CA

LOCATION.--Lat 37°19'43", long 122°05'03", in NW 1/4 NE 1/4 sec.16, T.7 S., R.2 W., Santa Clara County, Hydrologic Unit 18050003, on left bank on downstream side of private road bridge, 0.8 mi upstream from West Fork Permanente Creek tributary, 1.5 mi northwest of Monta Vista, and 2.8 mi southwest of Los Altos.

DRAINAGE AREA.--3.86 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1984 to September 1987 (discontinued).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 380 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good except those for daily discharges greater than 2.0 ft³/s, which are fair. Some regulation of flow by rock quarry 1.1 mi upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 571 ft³/s, Feb. 18, 1986, gage height, 7.28 ft, from rating curve extended above 76 ft³/s on basis of slope-area measurement of peak flow; no flow Oct. 6, 1985, Aug. 14-16, 1986, June 2 to Sept. 30, 1987.

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. 13	0545	*34	*4.38				

No flow June 2 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	.28	.15	.25	.49	.59	1.3	.97	.52	.01			
2	.15	.18	.25	.43	.68	1.2	.96	.52	0			
3	.11	.24	.30	2.6	.52	1.1	1.2	.47	0			
4	.08	.18	.35	1.0	.52	1.1	.96	.38	0			
5	.04	.22	.61	.87	.52	2.6	.93	.38	0			
6	.03	.19	.45	1.5	.52	1.5	.88	.40	0			
7	.03	.15	.42	.65	.45	1.3	.86	.44	0			
8	.05	.17	.33	.63	.45	1.1	.86	.45	0			
9	.05	.18	.33	.56	.38	.96	.90	.41	0			
10	.04	.33	.33	.55	.38	.91	1.0	.36	0			
11	.04	.82	.37	.47	.47	.92	1.5	.35	0			
12	.03	.44	.41	.43	3.0	2.8	.69	.34	0			
13	.01	.38	.40	.38	9.1	1.5	.87	.33	0			
14	.01	.38	.38	.41	2.1	2.0	.59	.33	0			
15	.01	.38	.45	.41	2.5	1.3	.57	.33	0			
16	.01	.38	.35	.40	2.0	1.1	.73	.31	0			
17	.01	.41	.31	.38	2.0	1.1	.77	.30	0			
18	.01	.45	.53	.41	1.8	1.2	.73	.37	0			
19	.01	.43	.48	.39	1.9	1.3	.64	.38	0			
20	.01	.32	.43	.30	1.8	1.3	.58	.49	0			
21	.21	.26	.38	.33	1.4	2.8	.54	.34	0			
22	.16	.70	.52	.34	1.3	1.3	.63	.22	0			
23	.04	.72	.55	.65	1.3	1.5	.63	.11	0			
24	.03	.57	.68	.39	1.4	1.3	.59	.10	0			
25	.03	.29	.68	.37	1.4	1.3	.52	.09	0			
26	.03	.28	.68	.33	1.3	1.2	.49	.08	0			
27	.03	.33	.68	.78	1.4	1.2	.38	.08	0			
28	.03	.33	.61	.76	1.4	1.2	.38	.07	0			
29	.08	.36	.45	.59	---	1.0	.38	.05	0			
30	.11	.29	.39	1.2	---	.96	.68	.04	0			
31	.15	---	.41	.68	---	.96	---	.01	---			---
TOTAL	1.91	10.51	13.76	19.68	42.58	42.31	22.41	9.05	.01	0	0	0
MEAN	.062	.35	.44	.63	1.52	1.36	.75	.29	.0003	0	0	0
MAX	.28	.82	.68	2.6	9.1	2.8	1.5	.52	.01	0	0	0
MIN	.01	.15	.25	.30	.38	.91	.38	.01	0	0	0	0
AC-FT	3.8	21	27	39	84	84	44	18	.02	0	0	0
CAL YR 1986	TOTAL	1870.71	MEAN	5.13	MAX	175	MIN	0	AC-FT	3710		
WTR YR 1987	TOTAL	162.22	MEAN	.44	MAX	9.1	MIN	0	AC-FT	322		

PERMANENTE CREEK BASIN

11166575 PERMANENTE CREEK NEAR MONTA VISTA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1985 to September 1987 (discontinued).

WATER TEMPERATURE: November 1984 September 1987 (discontinued).

SEDIMENT DATA: November 1984 to September 1987 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: November 1984 to September 1987 (discontinued).

SEDIMENT DISCHARGE: November 1984 to September 1987 (discontinued).

REMARK:--Sediment samples were collected on most days where a water temperature is published. Published concentration values were determined from total-load samples taken at the lip of a concrete control structure.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 5,800 mg/L, Feb. 26, 1986; minimum daily mean, no flow several days in each year.

SEDIMENT LOAD: Maximum daily, 9,730 tons, Feb. 19, 1986; minimum daily, 0 ton many days in each year.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 1,610 mg/L, Feb. 13; minimum daily mean, no flow June 2 to Sept. 30.

SEDIMENT LOAD: Maximum daily, 84 tons, Feb. 13; minimum daily, 0 ton many days.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
1	---	---	---	---	---	---	15.0	---	---
2	---	---	---	---	12.0	14.0	14.0	---	19.0
3	---	---	---	11.0	11.0	---	---	---	---
4	---	---	10.5	10.0	10.0	---	---	---	---
5	---	---	---	11.0	11.0	13.0	---	---	---
6	---	13.5	---	10.0	---	---	13.0	---	---
7	---	---	---	10.5	---	---	16.0	21.5	---
8	17.5	---	---	10.0	---	---	---	---	---
9	---	---	---	---	---	15.0	---	---	---
10	---	---	---	---	14.5	---	---	---	---
11	---	---	---	---	---	---	---	---	---
12	---	---	---	7.5	13.0	---	---	---	---
13	---	---	---	6.0	14.5	---	---	---	---
14	---	---	---	7.0	---	13.0	---	17.0	---
15	---	13.0	---	5.5	---	---	19.0	---	---
16	---	---	---	---	---	11.0	---	---	---
17	---	---	---	---	11.5	---	---	---	---
18	---	---	11.0	---	---	13.0	---	15.5	---
19	---	---	---	---	---	---	---	---	---
20	---	---	---	8.5	---	---	---	---	---
21	---	---	---	7.5	---	10.5	---	---	---
22	---	---	11.0	---	---	---	---	---	---
23	---	---	10.5	9.0	9.5	---	---	---	---
24	---	---	---	---	10.0	14.0	---	---	---
25	---	---	---	---	10.5	14.0	---	---	---
26	---	---	---	12.5	10.5	---	---	13.5	---
27	---	---	---	11.5	---	---	---	---	---
28	---	---	---	11.0	---	---	---	---	---
29	---	---	10.5	11.0	---	---	---	---	---
30	---	---	---	---	---	14.0	---	---	---
31	---	---	---	---	---	13.0	---	---	---

PERMANENTE CREEK BASIN

11166575 PERMANENTE CREEK NEAR MONTA VISTA, CA--Continued

SEDIMENT DISCHARGE, TOTAL (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	.28	5	.00	.15	8	.00	.25	20	.01
2	.15	5	.00	.18	8	.00	.25	20	.01
3	.11	5	.00	.24	8	.01	.30	20	.02
4	.08	5	.00	.18	8	.00	.35	20	.02
5	.04	6	.00	.22	8	.00	.61	118	.26
6	.03	9	.00	.19	8	.00	.45	21	.03
7	.03	15	.00	.15	8	.00	.42	19	.02
8	.05	21	.00	.17	8	.00	.33	18	.02
9	.05	15	.00	.18	8	.00	.33	16	.01
10	.04	10	.00	.33	8	.01	.33	15	.01
11	.04	10	.00	.82	8	.02	.37	13	.01
12	.03	10	.00	.44	9	.01	.41	12	.01
13	.01	10	.00	.38	10	.01	.40	10	.01
14	.01	10	.00	.38	10	.01	.38	10	.01
15	.01	10	.00	.38	10	.01	.45	15	.02
16	.01	10	.00	.38	10	.01	.35	14	.01
17	.01	10	.00	.41	10	.01	.31	10	.01
18	.01	10	.00	.45	10	.01	.53	20	.04
19	.01	10	.00	.43	10	.01	.48	14	.03
20	.01	10	.00	.32	10	.01	.43	8	.01
21	.21	10	.01	.26	10	.01	.38	5	.01
22	.16	10	.00	.70	10	.02	.52	263	.83
23	.04	9	.00	.72	10	.02	.55	32	.05
24	.03	8	.00	.57	10	.02	.68	26	.05
25	.03	8	.00	.29	10	.01	.68	22	.04
26	.03	8	.00	.28	10	.01	.68	18	.03
27	.03	8	.00	.33	10	.01	.68	13	.02
28	.03	8	.00	.33	12	.01	.61	9	.01
29	.08	8	.00	.36	18	.02	.45	6	.01
30	.11	8	.00	.29	20	.02	.39	5	.01
31	.15	8	.00	---	---	---	.41	5	.01
TOTAL	1.91	---	0.01	10.51	---	0.28	13.76	---	1.64
JANUARY			FEBRUARY			MARCH			
1	.49	5	.01	.59	9	.01	1.3	40	.14
2	.43	5	.01	.68	14	.04	1.2	52	.17
3	2.6	811	13	.52	6	.01	1.1	43	.13
4	1.0	37	.10	.52	4	.01	1.1	40	.12
5	.87	31	.07	.52	11	.02	2.6	188	1.9
6	1.5	127	1.0	.52	9	.01	1.5	35	.14
7	.65	22	.04	.45	7	.01	1.3	10	.04
8	.63	19	.03	.45	7	.01	1.1	10	.03
9	.56	16	.02	.38	7	.01	.96	20	.05
10	.55	14	.02	.38	7	.01	.91	7	.02
11	.47	10	.01	.47	5	.01	.92	20	.05
12	.43	10	.01	3.0	508	11	2.8	486	14
13	.38	10	.01	9.1	1610	84	1.5	43	.19
14	.41	9	.01	2.1	70	.46	2.0	113	1.3
15	.41	5	.01	2.5	124	1.1	1.3	22	.08
16	.40	5	.01	2.0	36	.19	1.1	13	.04
17	.38	5	.01	2.0	42	.23	1.1	11	.03
18	.41	5	.01	1.8	40	.19	1.2	21	.07
19	.39	5	.01	1.9	35	.18	1.3	10	.04
20	.30	5	.00	1.8	31	.15	1.3	10	.04
21	.33	5	.00	1.4	26	.10	2.8	261	2.9
22	.34	5	.00	1.3	22	.08	1.3	15	.05
23	.65	25	.08	1.3	21	.07	1.5	30	.14
24	.39	6	.01	1.4	23	.09	1.3	18	.06
25	.37	5	.00	1.4	68	.26	1.3	7	.02
26	.33	5	.00	1.3	70	.25	1.2	5	.02
27	.78	83	.90	1.4	43	.16	1.2	6	.02
28	.76	73	.24	1.4	40	.15	1.2	7	.02
29	.59	13	.02	---	---	---	1.0	8	.02
30	1.2	30	.18	---	---	---	.96	9	.02
31	.68	10	.02	---	---	---	.96	5	.01
TOTAL	19.68	---	15.84	42.58	---	98.81	42.31	---	21.86

PERMANENTE CREEK BASIN

11166575 PERMANENTE CREEK NEAR MONTA VISTA, CA--Continued

SEDIMENT DISCHARGE, TOTAL (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	.97	4	.01	.52	7	.01	.01	25	.00
2	.96	7	.02	.52	9	.01	.00	0	.00
3	1.2	27	.10	.47	11	.01	.00	0	.00
4	.96	9	.02	.38	13	.01	.00	0	.00
5	.93	9	.02	.38	15	.02	.00	0	.00
6	.88	7	.02	.40	17	.02	.00	0	.00
7	.86	4	.01	.44	19	.02	.00	0	.00
8	.86	2	.00	.45	20	.02	.00	0	.00
9	.90	9	.02	.41	25	.03	.00	0	.00
10	1.0	10	.03	.36	27	.03	.00	0	.00
11	1.5	10	.04	.35	29	.03	.00	0	.00
12	.69	10	.02	.34	31	.03	.00	0	.00
13	.87	13	.04	.33	33	.03	.00	0	.00
14	.59	10	.02	.33	35	.03	.00	0	.00
15	.57	13	.02	.33	33	.03	.00	0	.00
16	.73	13	.03	.31	31	.03	.00	0	.00
17	.77	10	.02	.30	29	.02	.00	0	.00
18	.73	10	.02	.37	27	.03	.00	0	.00
19	.64	10	.02	.38	25	.03	.00	0	.00
20	.58	10	.02	.49	32	.06	.00	0	.00
21	.54	10	.01	.34	38	.03	.00	0	.00
22	.63	10	.02	.22	36	.02	.00	0	.00
23	.63	10	.02	.11	34	.01	.00	0	.00
24	.59	10	.02	.10	31	.01	.00	0	.00
25	.52	10	.01	.09	44	.01	.00	0	.00
26	.49	9	.01	.08	56	.01	.00	0	.00
27	.38	7	.01	.08	56	.01	.00	0	.00
28	.38	7	.01	.07	52	.01	.00	0	.00
29	.38	7	.01	.05	46	.01	.00	0	.00
30	.68	18	.05	.04	39	.00	.00	0	.00
31	---	---	---	.01	32	.00	---	---	---
TOTAL	22.41	---	0.67	9.05	---	0.62	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	162.22		139.73						

PERMANENTE CREEK BASIN

11166575 PERMANENTE CREEK NEAR MONTA VISTA, CA--Continued

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

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, TOTAL (MG/L)	SEDI- MENT, DISCH, SUSP. + BED MA- TERIAL (T/DAY)	SED. TOTAL, FALL DIAM. % FINER THAN .002 MM	SED. TOTAL, FALL DIAM. % FINER THAN .004 MM	SED. TOTAL, FALL DIAM. % FINER THAN .008 MM	SED. TOTAL, FALL DIAM. % FINER THAN .016 MM
DEC									
05...	0310	--	0.86	494	1.1	--	--	--	--
05...	0550	--	0.86	164	0.38	--	--	--	--
FEB									
13...	0345	13.5	16	5280	228	32	39	48	58

DATE	SED. TOTAL, FALL DIAM. % FINER THAN .031 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN .062 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN .125 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN .250 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN .500 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN 1.00 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN 2.00 MM	SED. TOTAL, SIEVE DIAM. % FINER THAN 4.00 MM
DEC								
05...	--	85	89	100	--	--	--	--
05...	--	81	86	100	--	--	--	--
FEB								
13...	66	73	82	90	95	98	99	100

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- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB						
13...	0530	31	13.5	7100	594	88

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
MAR								
18...	1310	13.0	5	1.3	1	2	5	10
AUG								
14...	0845	--	5	0.0	5	6	8	12
DATE	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
MAR								
18...	16	24	33	42	58	77	100	--
AUG								
14...	15	18	22	27	33	51	88	100

PERMANENTE CREEK BASIN

11166575 PERMANENTE CREEK NEAR MONTA VISTA CA--Continued

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

DATE	TIME	TEMPER- ATURE WATER (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	STREAM WIDTH (FT)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
FEB 13...	0545	13.5	9	31	12.0	66	1

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
FEB 13...	14	26	37	52	67	81	100

PERMANENTE CREEK BASIN

11166578 WEST FORK PERMANENTE CREEK NEAR MONTA VISTA, CA

LOCATION.--Lat 37°19'59", long 122°05'58", in NE 1/4 SW 1/4 sec.8, T.7 S., R.2 W., Santa Clara County, Hydrologic Unit 18050003, on left bank 0.9 mi upstream from mouth, 2.6 mi northwest of Monta Vista, and 2.7 mi south of Los Altos.

DRAINAGE AREA.--2.98 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1984 to September 1987 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 420 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. No flow since Aug. 25, 1986. No regulation; several stock ponds upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 140 ft³/s, Feb. 18, 1986, gage height, 6.56 ft, from rating curve extended above 49 ft³/s; no flow several months each year.

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

PERMANENTE CREEK BASIN

11166578 WEST FORK PERMANENTE CREEK NEAR MONTA VISTA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1985 to September 1987 (discontinued).

WATER TEMPERATURE: Water years 1985 to September 1987 (discontinued).

SEDIMENT DATA: Water years 1985 to September 1987 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: March 1985 to September 1987 (discontinued).

SEDIMENT DISCHARGE: February 1985 to September 1987 (discontinued).

REMARKS.--Sediment table omitted for period of no flow, Oct. 1 to Sept. 30.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 1,850 mg/L, Feb. 19, 1986; minimum daily mean, no flow many days in each year.

SEDIMENT LOAD: Maximum daily, 380 tons, Feb. 19, 1986; minimum daily, 0 ton many days in each year.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: No flow during year.

SEDIMENT LOAD: No flow during year.

GUADALUPE RIVER BASIN

11166740 CALERO RESERVOIR NEAR ALMADEN, CA

WATER-QUALITY RECORDS

LOCATION.--Lat 37°11'00", long 121°47'28", in San Vicente Grant, Santa Clara County, Hydrologic Unit 18050003, at center of dam of Arroyo Calero, 1.7 mi northeast of New Almaden and 6 mi southeast of Edenvale.

DRAINAGE AREA.-- 6.93 mi².

PERIOD OF RECORD.--

MONTHLY CONTENTS: January 1936 to September 1985. Prior to October 1959, published in WSP 1735.

CHEMICAL DATA: Water years 1978-79, 1984 to current year.

BIOLOGICAL DATA: Water years 1978-79, 1984 to current year.

REVISED RECORDS.--WDR CA-79-2: Drainage area.

REMARKS.--Reservoir is formed by earthfill dam completed to crest elevation 482.55 ft in 1936 and raised to 483.5 ft in 1962. Capacity, 10,160 acre-ft between elevations 393.7 ft, center of outlet tunnel, and 483.5 ft, crest of spillway. Water released down Arroyo Calero for ground-water recharge by percolation and minor irrigation. Up to 100 ft³/s diverted from Almaden Reservoir to Calero Reservoir at times. Beginning in 1986 up to 180 ft³/s was diverted from San Luis Reservoir at times. Lake elevation provided by Santa Clara Valley Water District; not reviewed by U.S. Geological Survey.

AT DAM (LAT 37°10'57", long 121°47'25", T.9 S., R.2 E., Santa Clara County, Hydrologic Unit 18050003)

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAM- PLING DEPTH (M)	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 (PER- CENT SATUR- ATION) (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	ELEV- ATION ABOVE NGVD (FEET)
OCT 1986									
15...	0927	0.50	304	8.5	18.0	755	11.0	117	466.64
15...	0928	1.0	304	8.5	18.0	755	11.0	117	466.64
15...	0929	2.0	304	8.5	18.0	755	10.9	116	466.64
15...	0930	3.0	304	8.5	18.0	755	10.9	116	466.64
15...	0931	4.0	304	8.5	18.0	755	10.8	115	466.64
15...	0932	5.0	304	8.4	18.0	755	10.8	115	466.64
15...	0933	6.0	304	8.4	18.0	755	10.8	115	466.64
15...	0934	7.0	304	8.4	18.0	755	10.6	113	466.64
15...	0935	8.0	304	8.0	18.0	755	8.5	90	466.64
15...	0936	9.0	304	8.0	17.5	755	8.2	87	466.64
15...	0937	10.0	304	7.9	17.5	755	7.8	83	466.64
15...	0938	11.0	304	7.9	17.5	755	7.8	83	466.64
15...	0939	12.0	304	7.9	17.5	755	7.6	80	466.64
15...	0940	13.0	303	7.9	17.5	755	7.7	81	466.64
15...	0941	14.0	303	7.9	17.5	755	7.7	81	466.64
15...	0942	15.0	303	7.9	17.5	755	7.3	77	466.64
15...	0943	16.0	303	7.8	17.5	755	7.2	76	466.64
AUG 1987									
13...	1429	0.50	465	8.7	23.5	750	8.8	106	466.87
13...	1430	1.0	464	8.7	23.5	750	8.8	105	466.87
13...	1431	2.0	465	8.7	23.5	750	8.9	106	466.87
13...	1432	3.0	465	8.7	23.5	750	8.8	105	466.87
13...	1433	4.0	464	8.7	23.0	750	8.8	105	466.87
13...	1434	5.0	465	8.7	23.0	750	8.8	105	466.87
13...	1435	6.0	465	8.7	23.0	750	8.8	105	466.87
13...	1436	7.0	468	8.1	21.5	750	6.7	78	466.87
13...	1437	8.0	466	8.0	21.0	750	6.3	72	466.87
13...	1438	9.0	467	8.0	21.0	750	6.1	70	466.87
13...	1439	10.0	465	8.0	21.0	750	6.3	72	466.87
13...	1440	11.0	466	8.1	21.0	750	6.2	71	466.87
13...	1441	12.0	466	8.0	21.0	750	6.2	71	466.87
13...	1442	13.0	465	8.0	21.0	750	6.1	70	466.87
13...	1443	14.0	466	8.0	21.0	750	6.0	68	466.87
13...	1444	15.0	465	8.0	21.0	750	6.0	68	466.87
13...	1445	16.0	465	8.0	20.5	750	6.1	69	443.87
13...	1446	17.0	466	7.9	20.5	750	5.9	67	466.87
DATE	TIME	SAM- PLING DEPTH (M)	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)	HARD- NESS WH WAT TOT FLD MG/L AS CACO3
OCT 1986									
15...	1005	1.0	304	8.5	18.0	755	11.0	117	130
15...	1030	8.0	304	8.0	18.0	755	8.5	90	130
15...	1040	15.0	303	7.9	17.5	755	7.3	77	130
AUG 1987									
13...	1515	1.0	464	8.7	23.5	750	8.8	105	110
13...	1545	8.0	466	8.0	21.0	750	6.3	72	110
13...	1555	15.0	465	8.0	21.0	750	6.0	68	120

GUADALUPE RIVER BASIN

11166740 CALERO RESERVOIR NEAR ALMADEN, CA--Continued

AT DAM--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 1986									
15...	29	14	14	19	0.5	1.8	121	26	11
15...	29	14	14	19	0.5	1.8	121	26	11
15...	29	14	14	19	0.5	1.8	120	25	11
AUG 1987									
13...	22	13	48	48	2	2.9	92	39	66
13...	22	13	48	48	2	2.9	90	39	66
13...	24	14	51	48	2	2.6	88	39	63
DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT 1986									
15...	0.20	8.7	180	<0.010	<0.100	--	<0.010	<0.010	--
15...	0.20	9.2	180	<0.010	<0.100	--	<0.010	<0.010	--
15...	0.20	11	180	<0.010	<0.100	--	0.050	0.050	0.75
AUG 1987									
13...	0.10	7.9	250	<0.010	<0.100	--	<0.010	<0.050	--
13...	0.10	8.3	250	<0.010	<0.100	--	0.010	<0.050	0.59
13...	0.10	9.4	260	<0.010	0.100	0.110	0.040	0.040	0.86
DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 1986									
15...	--	0.90	0.20	--	0.010	<0.010	<0.010	90	<3
15...	--	0.70	0.30	--	0.020	0.020	<0.010	90	3
15...	0.25	0.80	0.30	--	0.010	<0.010	<0.010	90	4
AUG 1987									
13...	--	0.90	0.70	--	0.030	0.010	<0.010	160	6
13...	--	0.60	0.70	--	0.030	0.020	<0.010	160	4
13...	0.46	0.90	0.50	1.0	0.030	0.030	0.020	160	6
DATE	TIME	TRANS- PAR- ENCY (SECCHI DISK) (M)							
OCT 1986									
15...	0955	1.30							
AUG 1987									
13...	1458	1.10							
DATE	TIME	SAM- PLING DEPTH (M)	TUR- BID- ITY (NTU)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)				
OCT 1986									
15...	1005	1.0	4.2	4.20	0.600				
15...	1020	3.0	--	3.90	0.500				
15...	1020	3.0	--	3.90	0.500				
15...	1025	5.0	--	3.80	0.400				
AUG 1987									
13...	1515	1.0	6.5	4.40	0.700				
13...	1530	2.0	4.9	4.20	0.700				
13...	1535	3.0	4.3	5.10	0.800				

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

GUADALUPE RIVER BASIN

11166740 CALERO RESERVOIR NEAR ALMADEN, CA--Continued

AT DAM--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA
WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

PHYTOPLANKTON

DATE TIME DEPTH (M)	10/15/86 1005 1	10/15/86 1020 3	10/15/86 1025 5
ORGANISM	CELLS/ML CELL VOLUME UM ³ /ML	CELLS/ML CELL VOLUME UM ³ /ML	CELLS/ML CELL VOLUME UM ³ /ML
BACILLARIOPHYTA (Diatoms)			
Order Centrales			
<u>Melosira granulata</u>	--	--	--
var. <u>angustissima</u>	--	--	227
<u>Melosira lirata</u>	85	3407	--
Order Pennales			
<u>Asterionella formosa</u>	13689	4969682	5311
<u>Diploneis</u> sp.	57	8317	1928116
<u>Fragilaria crotonensis</u>	5335339	3434045	110338
CHLOROPHYTA (Green algae)			
<u>Ankistrodesmus falcatus</u>	227	5454	--
<u>Chlorella</u> sp.	114	2346	57
<u>Chlorococcum</u> sp.	170	30531	--
<u>Closteriopsis longissima</u>	114	599889	28
<u>Coelastrum scabrum</u> ?	1590	285556	1477
<u>Crucigenia apiculata</u>	909	8571	--
<u>Crucigenia tetrapedia</u>	2499	3750	909
<u>Dictyosphaerium</u> sp.	170	9241	--
<u>Elakotothrix</u> sp.	--	--	114
<u>Mesotaenium</u> sp.	57	928	--
<u>Oocystis</u> sp.	114	8571	227
<u>Pediastrum tetras</u>	398	100529	--
<u>Pediastrum duplex</u>	--	--	--
var. <u>gracillimum</u>	1020	47334	2897
<u>Scenedesmus quadricauda</u> ?	114	3481	--
<u>Scenedesmus</u> sp.	--	--	--
<u>Schroederia judayi</u>	57	1611	57
<u>Selenastrum minutum</u>	57	2686	57
<u>Sphaerocystis schroederi</u>	625	40906	454
<u>Staurastrum</u> sp.	28	104412	--
CHRYSOPHYTA (Golden-brown algae)			
<u>Kephyrion</u> sp.	--	--	57
<u>Mallomonas akrokomos</u>	57	6138	--
CYANOPHYTA (Blue-green algae)			
<u>Aphanizomenon</u> sp.	--	--	227
<u>Aphanocapsa</u>	--	--	--
delicatissima	9258	7271	9997
<u>Aphanothece</u> sp.	5112	10840	--
<u>Chroococcus dispersus</u>	--	--	1079
<u>Coelosphaerium</u> sp.	454	2892	--
<u>Gloeocapsa</u> sp.	909	476	--
<u>Microcystis aeruginosa</u>	625	24245	--
<u>Oscillatoria</u> sp.	--	--	--
<u>Synechococcus</u> sp.	4090	10858	4658
EUGLENOPHYTA (Euglenoids)			
<u>Trachelomonas</u> sp.	28	83171	--
PYRRHOPHYTA (Dinoflagellates)			
<u>Ceratium hirundinella</u>	57	2376900	--
CRYPTOPHYTA (Cryptomonads)			
<u>Rhodomonas minuta</u>	1534	60401	2186
TOTAL CELLS/mL	49,559	25,587	40,158
TOTAL ALGAL BIOMASS AS BIOVOLUME (UM ³ /ML)	12,254,437	3,915,228	7,997,739
NUMBER OF SPECIES	31	21	18

Phytoplankton analyzed by Chadwick and Associates.

GUADALUPE RIVER BASIN

11166740 CALERO RESERVOIR NEAR ALMADEN, CA--Continued

AT DAM--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA
WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

PHYTOPLANKTON

DATE	8/13/87		8/13/87		8/13/87	
TIME	1515		1530		1535	
DEPTH (M)	1		2		3	
ORGANISM	CELLS/ML	CELL VOLUME UM ³ /ML	CELLS/ML	CELL VOLUME UM ³ /ML	CELLS/ML	CELL VOLUME UM ³ /ML
BACILLARIOPHYTA (Diatoms)						
Order Centrales						
<u>Cyclotella stelligera</u>	28	1195	85	3627	--	--
<u>Stephanodiscus alpinus</u>	28	766325	--	--	--	--
Order Pennales						
<u>Fragilaria crotonensis</u>	57	79344	--	--	114	158688
CHLOROPHYTA (Green algae)						
<u>Carteria sp.</u>	28	100555	--	--	85	305257
<u>Chlorella sp.</u>	114	2346	--	--	57	1173
<u>Coccomyxa sp.</u>	1761	18653	568	6016	341	3612
<u>Gloeocystis sp.</u>	--	--	170	1591027	114	1066924
<u>Oocystis pusilla</u>	--	--	--	--	17	223
<u>Oocystis sp.</u>	284	154303	--	--	--	--
<u>Schroederia judayi</u>	85	2366	57	1587	57	1587
<u>Sphaerocystis Schroeteri</u>	284	18587	--	--	170	11126
CYANOPHYTA (Blue-green algae)						
<u>Aphanocapsa delicatissima</u>	9629	17015	3635	6423	1590	2810
<u>Aphanothece nidulans</u>	--	--	20164	20164	64809	64809
<u>Aphanothece saxicola</u>	21016	22007	7214	7554	15563	16297
<u>Aphanothece sp. 1</u>	9656	4955	57	29	12155	6237
<u>Aphanothece sp. 2</u>	170	1394	--	--	11133	84611
<u>Aphanothece sp. 3</u>	4544	34534	4714	35826	--	--
<u>Chroococcus dispersus</u>	395	5584	398	5626	2329	32924
<u>Chroococcus sp.</u>	--	--	57	1910	57	1910
<u>Dactylococcopsis fascicularis</u>	57	245	28	120	--	--
<u>Merismopedia tenuissima</u>	3181	2498	--	--	--	--
<u>Microcystis incerta</u>	--	--	--	--	1704	89
<u>Oscillatoria sp.</u>	--	--	170	1579	284	2639
<u>Synechococcus sp.</u>	--	--	170	1389	2670	21815
PYRRHOPHYTA (Dinoflagellates)						
<u>Ceratium hirundinella</u>	28	777684	--	--	--	--
CRYPTOPHYTA (Cryptomonads)						
<u>Cryptomonas sp.</u>	28	35144	--	--	--	--
<u>Rhodomonas minuta</u>	--	--	114	10944	--	--
TOTAL CELLS/mL	51,373		37,601		113,249	
TOTAL ALGAL BIOMASS AS BIOVOLUME (UM ³ /ML)	2,044,734		1,693,821		1,782,734	
NUMBER OF SPECIES	19		15		18	

Phytoplankton analyzed by Chadwick and Associates.

GUADALUPE RIVER BASIN

11166740 CALERO RESERVOIR NEAR ALMADEN, CA--Continued

AT CALERO CREEK ABOVE CALERO RESERVOIR (Lat 37°10'38", long 121°45'45", T.9 S., R.2 E., Santa Clara County, Hydrologic Unit 18050003)

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)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	HARD- NESS (MG/L AS CACO3)
JUL 1986 24...	1400	125	270	7.8	14.5	25	755	9.0	89	110
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)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
JUL 1986 24...		5	26	11	13	20	0.6	1.7	105	28
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, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
JUL 1986 24...		9.2	0.20	11	160	0.22	0.010	0.500	0.030	0.040
DATE		NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
JUL 1986 24...		0.47	0.50	0.30	1.0	0.050	0.030	0.030	80	43

GUADALUPE RIVER BASIN

11166740 CALERO RESERVOIR NEAR ALMADEN, CA--Continued

AT CALERO CREEK ABOVE CALERO RESERVOIR (Lat 37°10'38", long 121°45'45", T.9 S., R.2 E., Santa Clara County, Hydrologic Unit 18050003)

WATER QUALITY DATA, WATER YEAR 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)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS (MG/L AS CACO3)
AUG 1987 12...	1345	180	455	8.8	20.0	1.7	750	9.2	103	100
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)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
AUG 1987 12...		23	20	13	50	50	2.0	2.9	80	40
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, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG 1987 12...		70	0.10	9.0	250	0.34	<0.010	0.200	0.010	<0.010
DATE		NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
AUG 1987 12...		0.49	0.50	0.80	0.70	0.080	0.050	0.030	170	3

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

GUADALUPE RIVER BASIN

11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA

WATER-QUALITY RECORDS

LOCATION.--Lat 37°12'06", long 121°59'17", in SE 1/4 sec.29, T.8 S., R.1 W., Santa Clara County, Hydrologic Unit 18050003, at center of dam on Los Gatos Creek and 1.7 mi south of Los Gatos.

DRAINAGE AREA.-- 36.9 mi².

PERIOD OF RECORD.--

MONTHLY CONTENTS: December 1952 to September 1985. Prior to October 1959 published in WSP 1735.

CHEMICAL DATA: Water years 1978-79, 1984 to current year.

BIOLOGICAL DATA: Water years 1978-79, 1984 to current year.

REMARKS.--Reservoir is formed by earthfill dam completed in 1952. Capacity, 20,210 acre-ft between elevations 519 ft, invert at outlet tunnel, and 649.9 ft, crest of spillway. Dead storage, 31 acre-ft. Water released down Los Gatos Creek for irrigation and ground-water recharge by percolation. Lake elevation provided by Santa Clara Valley Water District; not reviewed by U.S. Geological Survey.

AT DAM (Lat 37°11'57", long 121°59'12", T.8 S., R.1 W., Santa Clara County, Hydrologic Unit 18050003)

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAM- PLING DEPTH (M)	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 (PER- CENT SATUR- ATION)	ELEV- ATION ABOVE NGVD (FEET)
OCT 1986								
15...	1342	0.50	350	8.3	18.5	750	9.8	107
15...	1343	1.0	350	8.3	18.5	750	9.7	105
15...	1344	2.0	350	8.3	18.5	750	9.5	103
15...	1345	3.0	350	8.3	18.5	750	9.4	102
15...	1346	4.0	349	8.2	18.5	750	9.3	101
15...	1347	5.0	349	8.2	18.0	750	9.3	100
15...	1348	6.0	349	8.2	18.0	750	9.2	99
15...	1349	7.0	349	8.2	18.0	750	9.0	97
15...	1350	8.0	350	8.1	18.0	750	9.0	97
15...	1351	9.0	350	8.1	18.0	750	9.0	97
15...	1352	10.0	350	8.1	18.0	750	9.0	97
15...	1353	11.0	350	8.1	18.0	750	8.7	94
15...	1354	12.0	349	8.1	18.0	750	8.8	95
15...	1355	13.0	349	8.0	18.0	750	8.7	94
15...	1356	14.0	349	8.0	18.0	750	8.6	92
15...	1357	15.0	349	8.0	18.0	750	8.7	93
15...	1358	16.0	349	8.0	18.0	750	8.7	93
15...	1359	17.0	349	8.0	18.0	750	8.7	93
15...	1400	18.0	349	8.0	18.0	750	8.6	92
15...	1401	19.0	348	7.9	18.0	750	8.6	92
15...	1402	20.0	348	7.9	18.0	750	8.5	91
15...	1403	21.0	348	7.9	18.0	750	8.3	89
15...	1404	22.0	347	7.9	18.0	750	8.4	90
APR 1987								
09...	0916	0.50	451	8.5	16.0	750	10.4	107
09...	0917	1.0	451	8.5	16.0	750	10.0	103
09...	0918	2.0	451	8.5	16.0	750	9.9	102
09...	0919	3.0	451	8.5	16.0	750	9.9	102
09...	0920	4.0	451	8.5	15.5	750	9.5	97
09...	0921	5.0	452	8.2	14.5	750	8.7	86
09...	0922	6.0	451	8.1	13.5	750	8.4	82
09...	0923	7.0	451	8.1	13.0	750	7.8	76
09...	0924	8.0	448	8.0	12.5	750	7.7	74
09...	0925	9.0	447	8.0	12.5	750	7.5	72
09...	0926	10.0	446	8.0	12.5	750	7.4	70
09...	0927	11.0	447	8.0	12.5	750	7.4	70
09...	0928	12.0	446	7.9	12.5	750	7.3	69
09...	0929	13.0	446	7.8	12.5	750	7.4	70
09...	0930	14.0	445	7.8	12.0	750	7.2	68
09...	0931	15.0	445	7.8	12.0	750	7.2	68
09...	0932	16.0	445	7.8	12.0	750	7.1	67
09...	0933	17.0	446	7.8	12.0	750	7.0	66

GUADALUPE RIVER BASIN

11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA--Continued

AT DAM--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAM- PLING DEPTH (M)	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)	ELEV- ATION ABOVE NGVD (FEET)
JUN 1987									
18...	0935	0.50	494	8.1	20.5	765	8.3	92	583.77
18...	0936	1.0	496	8.1	20.5	765	8.3	92	583.77
18...	0937	2.0	498	8.1	20.5	765	8.2	91	583.77
18...	0938	3.0	498	8.1	20.5	765	8.1	90	583.77
18...	0939	4.0	498	8.2	20.5	765	8.0	88	583.77
18...	0940	5.0	500	8.2	20.5	765	8.0	88	583.77
18...	0941	6.0	500	8.1	20.5	765	8.0	88	583.77
18...	0942	7.0	512	7.4	19.0	765	2.6	28	583.77
18...	0943	8.0	513	7.3	18.5	765	0.9	10	583.77
18...	0944	9.0	507	7.3	17.5	765	0.2	2	583.77
18...	0945	10.0	508	7.2	16.5	765	0.0	1	583.77
18...	0946	11.0	503	7.2	16.0	765	0.0	0	583.77
18...	0947	12.0	497	7.2	15.5	765	0.0	0	583.77
18...	0948	13.0	493	7.2	15.5	765	0.0	0	583.77
18...	0949	14.0	492	7.1	15.0	765	0.0	0	583.77
18...	0950	15.0	487	7.1	15.0	765	0.0	0	583.77
JUL									
16...	0934	0.50	511	8.3	22.5	740	7.1	85	579.56
16...	0935	1.0	511	8.3	22.5	740	7.3	87	579.56
16...	0936	2.0	511	8.3	22.5	740	7.3	87	579.56
16...	0937	3.0	512	8.3	22.5	740	7.2	86	579.56
16...	0938	4.0	512	8.3	22.5	740	6.9	82	579.56
16...	0939	5.0	512	8.3	22.5	740	6.9	82	579.56
16...	0940	6.0	513	8.3	22.5	740	6.9	82	579.56
16...	0941	7.0	513	8.3	22.5	740	6.9	82	579.56
16...	0942	8.0	513	8.3	22.5	740	6.1	73	579.56
16...	0943	9.0	511	7.7	19.5	740	2.0	23	579.56
16...	0944	10.0	505	7.6	18.5	740	0.2	2	579.56

TRANS-
PAR-
ENCY
(SECCHI
DISK)
(M)

OCT 1986		
15...	1410	1.50
APR 1987		
09...	1015	1.20
JUN		
18...	1047	1.45
JUL		
16...	0955	0.80

DATE	TIME	SAM- PLING DEPTH (M)	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)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3
OCT 1986										
15...	1420	1.0	350	8.3	18.5	750	9.7	105	160	27
15...	1440	9.0	350	8.1	18.0	750	9.0	97	160	27
15...	1455	20.0	348	7.9	18.0	750	8.5	91	160	26
APR 1987										
09...	1040	1.0	451	8.5	16.0	750	10.0	103	210	62
09...	1135	5.0	452	8.2	14.5	750	8.7	86	210	62
09...	1200	12.0	446	7.9	12.5	750	7.3	69	210	64
JUN										
18...	1100	1.0	494	8.1	20.5	765	8.3	92	230	71
18...	1138	7.0	512	7.4	19.0	765	2.6	28	230	70
18...	1155	14.0	492	7.1	15.0	765	0.0	0	230	66
JUL										
16...	1024	1.0	512	8.3	22.5	740	7.3	87	240	67
16...	1103	10.0	505	7.6	18.5	740	0.2	2	240	70

GUADALUPE RIVER BASIN

11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA--Continued

AT DAM--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 1986										
15...	40	14	12	14	0.4	1.8	131	42	9.3	0.20
15...	40	14	13	15	0.5	1.8	131	42	9.3	0.20
15...	40	14	12	14	0.4	1.9	132	42	9.3	0.20
APR 1987										
09...	55	18	16	14	0.5	2.3	149	76	10	0.20
09...	55	18	16	14	0.5	2.2	149	77	10	0.20
09...	55	18	15	13	0.5	2.2	147	75	10	0.20
JUN										
18...	59	21	18	14	0.5	2.3	163	93	11	0.20
18...	59	21	18	14	0.5	2.4	164	95	11	0.20
18...	59	19	16	13	0.5	2.3	160	87	11	0.20
JUL										
16...	60	21	17	13	0.5	2.8	169	99	12	0.30
16...	61	21	18	14	0.5	2.4	169	110	11	0.30
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)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT 1986										
15...	9.3	--	210	--	<0.010	<0.100	--	<0.010	<0.010	--
15...	9.4	--	210	--	<0.010	<0.100	<0.100	<0.010	<0.010	--
15...	9.4	--	210	--	<0.010	<0.100	--	<0.010	<0.010	--
APR 1987										
09...	9.8	--	280	0.480	0.020	0.500	--	0.040	0.040	0.56
09...	9.8	--	280	0.580	0.020	0.600	--	0.040	0.040	0.96
09...	11	--	270	0.660	0.040	0.700	--	0.050	0.020	0.55
JUN										
18...	0.7	309	300	--	<0.010	<0.100	<0.100	0.020	0.020	1.1
18...	1.5	308	310	--	0.020	<0.100	<0.100	0.030	0.040	0.87
18...	9.5	305	300	0.480	0.020	0.500	0.460	0.070	0.070	0.63
JUL										
16...	0.9	325	310	--	<0.010	<0.100	<0.100	0.010	0.030	0.49
16...	2.8	--	330	--	<0.010	<0.100	0.150	0.050	0.050	0.35
DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	
OCT 1986										
15...	--	1.0	<0.20	--	<0.010	<0.010	<0.010	60	<3	
15...	--	1.1	0.50	--	0.030	0.050	<0.010	60	4	
15...	--	0.90	0.50	--	0.010	<0.010	<0.010	60	4	
APR 1987										
09...	0.36	0.60	0.40	1.1	0.010	<0.010	<0.010	60	3	
09...	0.26	1.0	0.30	1.6	0.010	<0.010	<0.010	60	<3	
09...	0.38	0.60	0.40	1.3	0.020	0.010	<0.010	60	<3	
JUN										
18...	0.28	1.1	0.30	--	0.030	0.010	<0.010	--	--	
18...	0.36	0.90	0.40	--	0.030	0.010	<0.010	--	--	
18...	0.23	0.70	0.30	1.2	0.040	0.010	<0.010	--	--	
JUL										
16...	0.47	0.50	0.50	--	0.020	<0.010	<0.010	--	--	
16...	0.35	0.40	0.40	--	0.030	0.010	<0.010	70	5	

See footnote at end of table.

GUADALUPE RIVER BASIN

11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA--Continued

AT DAM--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAM- PLING DEPTH (M)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	
JUL 1987								
16...	1103	10.0	10	1	<1	<1	<1	
DATE		COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, DIS- SOLVED (UG/L AS PB)	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)	ZINC, DIS- SOLVED (UG/L AS ZN)
JUL 1987								
16...	2	<5	<0.1	6	<1	<1	5	
DATE	TIME	SAM- PLING DEPTH (M)	TUR- BID- ITY (NTU)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)			
OCT 1986								
15...	1420	1.0	2.5	2.10	<0.100			
15...	1430	3.0	--	0.900	<0.100			
15...	1435	5.0	--	1.30	0.100			
APR 1987								
09...	1040	1.0	1.7	1.70	0.200			
09...	1105	2.0	2.5	1.40	0.100			
09...	1125	3.0	3.0	1.30	0.100			
JUN								
18...	1100	1.0	2.7	2.10	0.300			
18...	1118	2.0	3.0	2.20	0.200			
18...	1128	3.0	2.9	2.10	0.200			
JUL								
16...	1024	1.0	2.8	3.80	0.500			
16...	1042	2.0	2.4	3.20	0.500			
16...	1052	3.0	2.3	3.10	0.400			

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

GUADALUPE RIVER BASIN

11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA--Continued

AT DAM--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA
WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

PHYTOPLANKTON

DATE	10/15/86		10/15/86		10/15/86	
TIME	1420		1430		1435	
DEPTH (M)	1		3		5	
ORGANISM	CELLS/ML	CELL VOLUME UM ³ /ML	CELLS/ML	CELL VOLUME UM ³ /ML	CELLS/ML	CELL VOLUME UM ³ /ML
BACILLARIOPHYTA (Diatoms)						
Order Centrales						
<u>Cyclotella kutzingiana</u>	341	55612	852	138949	170	27724
<u>Cyclotella stelligera</u>	85	1947	114	2617	170	3893
Order Pennales						
<u>Asterionella formosa</u>	483	193307	199	79644	--	--
<u>Fragilaria crotonensis</u>	--	--	341	219331	--	--
CHLOROPHYTA (Green algae)						
<u>Chlorella</u> sp.	--	--	--	--	57	1173
<u>Chlorococcum</u> sp.	--	--	--	--	57	1910
<u>Closterium</u> sp.	28	13626	--	--	--	--
<u>Mesotaenium</u> sp.	--	--	--	--	114	1122
<u>Oocystis</u> sp.	397	29933	85	6409	--	--
<u>Selenastrum minutum</u>	--	--	28	1695	--	--
<u>Staurastrum</u> sp.	--	--	28	104412	--	--
CHRYSOPHYTA (Golden-brown algae)						
<u>Dinobryon</u>						
<u>divergens</u>	284	72848	57	14621	--	--
<u>Kephyrion</u> sp.	--	--	85	800	114	1074
<u>Mallomonas</u>						
<u>akrokomos</u> ?	28	12667	--	--	--	--
<u>Mallomonas</u> sp.	28	115261	--	--	--	--
CYANOPHYTA (Blue-green algae)						
<u>Aphanocapsa</u>						
<u>delicatissima</u>	39930	20908	21130	11064	29820	15614
<u>Aphanothece</u> sp.	--	--	--	--	114	114
<u>Chroococcus dispersus</u>	398	5627	114	1612	341	4821
<u>Lyngbya</u> sp.	227	232	--	--	--	--
<u>Synechococcus</u> sp.	398	1426	568	2036	170	609
CRYPTOPHYTA (Cryptomonads)						
<u>Cryptomonas marsonii</u>	85	531420	--	--	--	--
<u>Cryptomonas</u> sp.	28	15763	57	31527	--	--
<u>Rhodomonas minuta</u>	227	29759	398	52177	57	7473
TOTAL CELLS/ML	42,967		24,056		31,184	
TOTAL ALGAL BIOMASS AS BIOVOLUME (UM ³ /ML)	1,100,336		666,894		65,527	
NUMBER OF SPECIES	15		14		11	

Phytoplankton analyzed by Chadwick and Associates.

GUADALUPE RIVER BASIN

11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA--Continued

AT DAM--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA
WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

PHYTOPLANKTON

DATE	4/9/87		4/9/87		4/9/87	
TIME	1040		1105		1105	
DEPTH (M)	1		2		3	
ORGANISM	CELLS/ML	CELL VOLUME UM ³ /ML	CELLS/ML	CELL VOLUME UM ³ /ML	CELL/ML	CELL VOLUME UM ³ /ML
BACILLARIOPHYTA (Diatoms)						
Order Centrales						
<u>Cyclotella kutzingiana</u>	57	29089	--	--	341	173910
<u>Cyclotella stelligera</u>	6984	251424	5197	187092	6816	24537
<u>Melosira lirata</u>	28	1779	14	890	--	--
Order Pennales						
<u>Diatoma vulgare</u>	7	25000	--	--	--	--
<u>Nitzschia acicularis</u>	--	--	7	1835	--	--
<u>Synedra rumpens</u>	14	2977	--	--	--	--
CHLOROPHYTA (Green algae)						
<u>Chlamydomonas sp.</u>	85	1202	--	--	--	--
<u>Chlorella sp.</u>	170	1752	85	876	--	--
<u>Nephrocytium agardhianum</u>	--	--	--	--	1136	68758
<u>Oocystis pusilla</u>	426	75479	57	10099	170	30121
CHRYSTOPHYTA (Golden-brown algae)						
<u>Kephyrion sp.</u>	28	578	28	578	--	--
<u>Mallomonas akrokomas</u>	85	22355	--	--	57	14991
CYANOPHYTA (Blue-green algae)						
<u>Aphanocapsa</u>						
<u>delicatissima</u>	852	1022	568	682	4090	4908
<u>Aphanocapsa elachista</u>	114	478	--	--	--	--
<u>Chroococcus dispersus</u>	653	4702	4885	35172	2726	19627
<u>Chroococcus limneticus</u>	--	--	199	4095	--	--
<u>Dactylococcopsis</u>						
<u>fascicularis</u>	852	4044	1136	5339	966	4540
<u>Dactylococcopsis sp.</u>	--	--	--	--	170	493
<u>Synechococcus sp.</u>	710	2130	4374	13122	2556	7668
CRYPTOPHYTA (Cryptomonads)						
<u>Rhodomonas minuta</u>	170	13430	398	31442	341	26939
TOTAL CELLS/ML		11,235		16,948		19,369
TOTAL ALGAL BIOMASS AS BIOVOLUME (UM ³ /ML)		437,441		291,222		376,492
NUMBER OF SPECIES		16		12		11

Phytoplankton analyzed by Chadwick and Associates.

GUADALUPE RIVER BASIN

11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA--Continued

AT DAM--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA
WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

PHYTOPLANKTON

DATE TIME DEPTH (M)	6/18/87 1100 1	6/18/87 1118 2	6/18/87 1128 3			
ORGANISM	CELLS/ML	CELL VOLUME UM ³ /ML	CELLS/ML	CELL VOLUME UM ³ /ML	CELLS/ML	CELL VOLUME UM ³ /ML
BACILLARIOPHYTA (Diatoms)						
Order Centrales						
<u>Cyclotella ocellata</u>	2329	1935228	1590	1321179	2897	2407195
<u>Cyclotella stelligera</u>	398	36459	284	26016	--	--
Order Pennales						
<u>Achnanthes sp.</u>	--	--	57	10260	--	--
CHLOROPHYTA (Green algae)						
<u>Ankistrodesmus braunii</u>	--	--	57	2045	57	2045
<u>Carteria sp.</u>	--	--	28	49479	--	--
<u>Chlorella sp.</u>	511	5266	170	1752	568	5854
<u>Chlorococcum humicola</u>	227	3209	--	--	284	4015
<u>Crucigenia tetrapedia</u>	227	30872	--	--	--	--
<u>Elakotothrix sp.</u>	114	2321	--	--	--	--
<u>Gloeocystis sp.</u>	--	--	454	29713	--	--
<u>Kirchneriella lunaris</u>	2102	43325	682	14052	3010	62040
<u>Oocystis sp. 1</u>	114	77328	284	192642	511	346620
<u>Oocystis sp. 2</u>	--	--	1136	121409	--	--
<u>Pandorina morum</u>	--	--	--	--	32	2904
<u>Phacotus lenticularis</u>	--	--	--	--	57	806
<u>Scenedesmus serratus</u>	454	38413	568	48059	682	57705
<u>Schroederia judayi</u>	57	1600	57	1600	--	--
<u>Sphaerocystis schroeteri</u>	114	7461	--	--	--	--
CYANOPHYTA (Blue-green algae)						
<u>Aphanocapsa</u>						
<u>delicatissima</u>	19937	10439	21073	11033	28968	15167
<u>Aphanothece sp.</u>	50382	39569	17892	14052	97128	76282
<u>Chroococcus dispersus</u>	511	7224	--	--	--	--
<u>Synechococcus sp.</u>	341	1023	--	--	57	171
EUGLENOPHYTA (Euglenoids)						
<u>Euglena sp.</u>	28	158734	--	--	--	--
<u>Phacus sp.</u>	--	--	--	--	57	92639
CRYPTOPHYTA (Cryptomonads)						
<u>Cryptomonas marsonii</u>	28	22304	--	--	57	44608
<u>Rhodomonas minuta</u>	--	--	227	21792	170	16320
TOTAL CELLS/ML		77,874		44,559		134,535
TOTAL ALGAL BIOMASS AS BIOVOLUME (UM ³ /ML)		2,420,775		1,865,083		3,134,371
NUMBER OF SPECIES		17		15		15

Phytoplankton analyzed by Chadwick and Associates.

GUADALUPE RIVER BASIN

11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA--Continued

AT DAM--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA
WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

PHYTOPLANKTON

DATE	7/16/87		7/16/87		7/16/87	
TIME	1024		1042		1052	
DEPTH (M)	1		2		3	
ORGANISM	CELLS/ML	CELL VOLUME UM ³ /ML	CELLS/ML	CELL VOLUME UM ³ /ML	CELLS/ML	CELL VOLUME UM ³ /ML
BACILLARIOPHYTA (Diatoms)						
Order Centrales						
<u>Cyclotella kutzingiana</u>	653	369252	284	160602	454	256737
Order Pennales						
<u>Nitzschia longissima</u>						
var. <u>reversa</u>	28	9775	--	--	--	--
CHLOROPHYTA (Green algae)						
<u>Carteria</u> sp.	--	--	57	81893	28	40228
<u>Chlamydomonas</u> sp.	28	205	--	--	--	--
<u>Chlorococcum</u> sp.	85	1749	57	4699	454	37427
<u>Closterium</u> sp.	57	11759	--	--	28	5776
<u>Coelastrum reticulatum</u>	227	14857	--	--	170	11118
<u>Mougeotia</u> sp.	2130	920736	2726	1178450	5737	2480105
<u>Oocystis pusilla</u>	--	--	--	--	852	41255
<u>Oocystis</u> sp.	880	55926	568	36125	284	18062
<u>Phacotus lenticularis</u>	57	8746	--	--	--	--
<u>Scenedesmus armatus</u>	--	--	--	--	341	6428
<u>Scenedesmus serratus</u>	2016	106158	909	47904	1534	80842
<u>Schroederia judayi</u>	--	--	--	--	57	1200
CYANOPHYTA (Blue-green algae)						
<u>Aphanocapsa delicatissima</u>	21442	37890	20618	36494	22834	40416
<u>Aphanothece</u> sp.	28	28	--	--	--	--
<u>Chroococcus dispersus</u>	28	289	--	--	--	--
<u>Synechococcus</u> sp.	85	256	114	342	57	171
CRYPTOPHYTA (Cryptomonads)						
<u>Rhodomonas minuta</u>	57	5472	57	5472	57	5472
TOTAL CELLS/ML		27,801		25,390		32,887
TOTAL ALGAL BIOMASS AS BIOVOLUME (UM ³ /ML)		1,543,098		1,551,981		3,025,237
NUMBER OF SPECIES		15		9		14

Phytoplankton analyzed by Chadwick and Associates.

GUADALUPE RIVER BASIN

11169000 GUADALUPE RIVER AT SAN JOSE, CA

LOCATION.--Lat 37°20'04", long 121°53'54", Santa Clara County, Hydrologic Unit 18050003, on right bank and 150 ft upstream from St. John Street bridge, one block below Santa Clara Avenue, and 100 ft downstream from Los Gatos Creek.

DRAINAGE AREA.--146 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to 1945, published as Guadalupe Creek at San Jose.

REVISED RECORDS.--WSP 1315-B: 1943(M), 1945(M), 1949(M). WSP 1929: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 72.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lexington Reservoir 12 mi upstream and by Calero, Almaden, and Guadalupe Reservoirs, and Lake Elsan (combined usable capacity, about 42,000 acre-ft), with water released during summer for percolation in spreading basins on tributaries. During current year, 4,340 acre-ft was diverted by San Jose Water Works for urban use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,150 ft³/s, Apr. 2, 1958, gage height, 16.55 ft; no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,660 ft³/s, Feb. 13, gage height, 4.31 ft; minimum daily, 8.8 ft³/s, July 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	15	22	22	24	21	25	22	16	20	18	17	16
2	24	22	21	24	45	24	20	17	20	17	17	17
3	14	20	22	206	27	31	24	17	20	16	18	16
4	26	20	22	39	21	35	17	18	18	16	17	16
5	31	22	81	22	21	138	16	19	21	15	16	16
6	29	19	26	46	21	46	17	18	20	16	17	15
7	29	24	25	26	21	18	17	16	19	17	17	14
8	24	21	24	24	21	18	16	17	20	16	18	15
9	19	21	20	23	27	19	16	19	21	17	17	16
10	19	21	20	23	32	20	15	17	19	17	18	15
11	20	22	20	23	33	19	16	18	20	15	17	15
12	22	23	21	23	266	56	17	19	19	15	17	15
13	18	37	21	23	679	41	16	19	18	15	18	15
14	20	28	21	23	93	99	15	17	19	15	18	16
15	23	24	34	22	88	28	15	17	20	15	17	15
16	20	23	25	22	39	22	15	19	19	13	11	14
17	18	24	22	22	29	20	16	19	19	8.8	10	11
18	23	27	48	22	22	23	15	19	19	15	11	17
19	23	25	53	23	19	20	15	19	20	16	15	17
20	19	21	28	22	19	23	20	20	19	16	14	17
21	20	21	24	20	20	185	19	19	18	15	10	15
22	24	21	28	20	22	30	18	19	19	12	14	15
23	23	26	26	86	29	45	16	19	19	16	14	15
24	22	24	22	39	28	28	16	18	19	16	14	15
25	22	23	22	21	27	34	15	17	19	16	15	15
26	21	22	22	21	24	36	16	17	19	14	14	14
27	20	22	21	26	20	27	16	17	18	15	13	13
28	21	22	22	88	24	25	16	16	17	15	16	14
29	21	23	22	32	---	25	16	17	17	16	16	15
30	21	22	22	67	---	25	31	19	17	17	15	15
31	20	---	23	22	---	24	---	19	---	17	15	---
TOTAL	671	692	830	1124	1738	1209	519	557	572	477.8	476	454
MEAN	21.6	23.1	26.8	36.3	62.1	39.0	17.3	18.0	19.1	15.4	15.4	15.1
MAX	31	37	81	206	679	185	31	20	21	18	18	17
MIN	14	19	20	20	19	18	15	16	17	8.8	10	11
AC-FT	1330	1370	1650	2230	3450	2400	1030	1100	1130	948	944	901
CAL YR 1986	TOTAL	55494.0	MEAN	152	MAX	6660	MIN	14	AC-FT	110100		
WTR YR 1987	TOTAL	9319.8	MEAN	25.5	MAX	679	MIN	8.8	AC-FT	18490		

GUADALUPE RIVER BASIN

11169000 GUADALUPE RIVER AT SAN JOSE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1979 to current year.

SEDIMENT DATA: Water years 1985 to current year.

REMARKS.--Bed-material samples were divided into two fractions prior to analysis. Chemical and particle-size analyses are representative of the sample fraction which was finer than 2.0 mm.

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)	TUR- BID- ITY (FTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3
DEC												
06...	0700	27	496	8.1	14.0	13	765	8.8	85	29	230	40
JAN												
28...	1845	36	393	8.1	13.0	17	765	9.7	92	24	180	36
FEB												
11...	1430	31	605	8.4	16.0	6.8	760	11.4	116	<10	270	37
MAR												
05...	1415	200	342	7.9	14.0	24	755	9.3	91	54	140	25
JUN												
02...	1430	20	712	8.4	22.0	4.5	765	10.4	119	<10	340	44
JUL												
07...	1415	17	722	8.4	23.0	32	760	8.7	102	<10	340	35
AUG												
11...	1545	16	724	8.4	22.0	8.0	760	10.4	120	<10	340	50

DATE	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)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3	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)	BROMIDE DIS- SOLVED (MG/L AS BR)
DEC												
06...	43	29	22	17	0.7	2.5	--	187	49	18	0.2	--
JAN												
28...	35	23	18	18	0.6	1.7	--	147	39	22	0.1	--
FEB												
11...	49	35	29	19	0.8	1.4	--	230	58	35	0.2	--
MAR												
05...	27	18	18	21	0.7	2.0	--	117	31	21	0.1	--
JUN												
02...	61	45	33	17	0.8	1.1	10	294	76	30	0.2	--
JUL												
07...	62	45	32	17	0.8	1.3	--	305	75	30	0.2	--
AUG												
11...	64	44	32	17	0.8	1.6	--	292	57	27	0.2	0.097

DATE	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
DEC										
06...	--	15	291	0.4	0.04	--	2.2	--	0.04	0.03
JAN										
28...	--	11	246	0.33	0.02	0.02	1.7	1.7	0.05	0.05
FEB										
11...	--	16	362	0.49	0.01	--	2.0	--	<0.01	0.01
MAR										
05...	--	9.8	198	0.27	0.05	--	1.3	--	0.20	0.03
JUN										
02...	--	18	461	0.63	0.03	--	2.6	--	0.03	0.04
JUL										
07...	--	21	450	0.61	0.02	--	2.5	--	0.05	0.04
AUG										
11...	0.003	22	434	0.59	0.01	<0.01	2.3	2.2	0.03	0.02

See footnote at end of table.

GUADALUPE RIVER BASIN

11169000 GUADALUPE RIVER AT SAN JOSE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)
DEC 06...	1.0	0.60	3.2	0.15	0.11	--	120	51	8.9	--	--
JAN 28...	1.2	0.30	2.9	0.10	0.06	0.05	90	19	5.1	4.3	1.0
FEB 11...	0.70	0.80	2.7	0.04	0.02	0.02	160	5	3.3	3.0	0.7
MAR 05...	1.8	0.60	3.1	0.20	0.13	0.09	100	41	12	10	2.1
JUN 02...	1.0	1.1	3.6	0.02	0.03	<0.01	160	<3	--	2.1	--
JUL 07...	0.80	0.60	3.3	0.58	0.05	0.02	150	3	2.8	1.7	--
AUG 11...	0.40	0.50	2.7	0.09	0.02	<0.01	160	<3	2.5	2.6	--

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, DIS- SOLVED (UG/L AS CO)
JAN 28...	1845	10	2	--	67	<1	--	<1	--	<1
AUG 11...	1545	<10	1	5	110	<1	1	2	50	1

DATE	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY DIS- SOLVED (UG/L AS HG)
JAN 28...	--	2	--	--	<5	--	10	10	--	<0.1
AUG 11...	<50	<1	30	13000	<5	40	15	9	370	<0.1

DATE	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G 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)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	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)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)
JAN 28...	--	9	<1	1	--	<1.0	330	--	8	--
AUG 11...	1.7	<1	<1	3	<1	<1.0	640	4	<3	100

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

GUADALUPE RIVER BASIN

11169000 GUADALUPE RIVER AT SAN JOSE, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	BED MAT. FALL DIAM.DW % FINER THAN .002 MM	BED MAT. FALL DIAM.DW % FINER THAN .004 MM	BED MAT. FALL DIAM.DW % FINER THAN .008 MM	BED MAT. FALL DIAM.DW % FINER THAN .016 MM
AUG 1987							
11...	1545	16	22.0	4	5	7	9
		BED MAT. FALL DIAM.DW % FINER THAN .031 MM	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
DATE							
AUG 1987							
11...	11	12	13	17	33	58	100

GUADALUPE RIVER BASIN

11169500 SARATOGA CREEK AT SARATOGA, CA

LOCATION.--Lat 37°15'16", long 122°02'18", in Quito Grant, Santa Clara County, Hydrologic Unit 18050003, on right bank on upstream side of private road bridge, 0.5 mi southwest of Saratoga, and 0.7 mi downstream from diversion dam.

DRAINAGE AREA.--9.22 mi².

PERIOD OF RECORD.--October 1933 to current year. Prior to October 1951, published as Campbell Creek at Saratoga. REVISED RECORDS.--WSP 1445: 1940, 1952(M). WSP 1929: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 500 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 6, 1968, at site 40 ft downstream at different datum.

REMARKS.--Estimated daily discharges: July 20-31 and Sept. 6-30. Records good except those for periods of estimated discharges, which are poor. Water is diverted for municipal use by San Jose Water Works at diversion dam upstream from station. Low flows partially regulated by Lake McKenzie 8 mi upstream, usable capacity, 184 acre-ft.

AVERAGE DISCHARGE (adjusted for diversion).--54 years, 10.6 ft³/s, 7,680 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,730 ft³/s, Dec. 22, 1955, gage height, 6.40 ft, site and datum then in use, from rating curve extended above 510 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 7.03 ft, Jan. 24, 1983; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 110 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0245	*174	*3.96				

Minimum daily, 0.06 ft³/s, Sept. 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	1.1	1.2	1.2	1.4	2.0	1.5	.49	.36	.10	.30	.12	.14
2	1.0	1.2	1.2	1.8	2.2	.65	.44	.41	.15	.30	.12	.12
3	1.0	1.2	1.1	7.2	2.4	1.1	.43	.29	.17	.30	.10	.06
4	.98	1.2	1.3	3.8	2.1	2.0	.47	.26	.24	.30	.12	.07
5	1.0	1.2	2.4	2.8	1.8	8.3	.48	.54	.18	.35	.10	.17
6	1.1	1.2	1.4	2.7	1.7	5.0	.60	.59	.22	.30	.11	.17
7	1.0	1.1	1.3	2.2	1.6	2.6	.54	.43	.17	.23	.10	.17
8	.95	1.1	1.2	1.9	1.6	.98	.69	.45	.32	.26	.12	.17
9	.91	1.1	1.0	1.6	1.6	.64	.42	.43	.24	.26	.16	.17
10	.88	1.1	1.0	1.5	1.8	1.3	.42	.43	.28	.20	.15	.17
11	.99	1.2	1.0	1.2	2.6	2.8	.39	.39	.32	.23	.12	.17
12	1.0	1.2	1.0	1.5	21	6.1	.31	.32	.21	.26	.14	.17
13	1.1	1.2	1.0	1.4	68	9.0	.37	.24	.36	.26	.17	.16
14	1.0	1.1	1.0	1.4	11	8.1	1.2	.24	.30	.26	.13	.16
15	1.0	1.2	1.6	1.4	9.1	6.5	1.1	.21	.30	.20	.19	.16
16	1.1	1.2	1.9	1.4	5.6	3.6	.49	.33	.27	.17	.17	.16
17	1.1	1.2	1.5	1.4	4.0	2.7	.33	.30	.21	.17	.17	.16
18	1.1	1.3	2.0	1.4	3.0	2.4	.30	.28	.15	.30	.16	.16
19	1.1	1.2	1.9	1.4	1.4	1.9	.26	.21	.28	.30	.20	.16
20	1.1	1.1	1.8	1.4	.92	1.4	.36	.28	.22	.25	.15	.16
21	1.1	1.1	1.6	1.4	.85	10	.28	.24	.17	.20	.13	.15
22	1.2	1.2	1.6	1.4	.69	3.9	.34	.23	.11	.18	.16	.15
23	1.1	1.2	1.7	2.3	.84	3.4	.31	.28	.19	.17	.19	.15
24	1.0	1.2	1.6	1.9	.66	2.7	.26	.43	.43	.16	.17	.15
25	1.1	1.2	1.6	1.9	.63	2.2	.61	.38	.41	.15	.17	.15
26	1.1	1.2	1.6	1.8	.59	1.8	.32	.37	.37	.14	.14	.15
27	1.1	1.2	1.6	2.2	1.0	1.6	.31	.37	.37	.14	.15	.15
28	1.1	1.2	1.6	3.5	2.0	1.3	.28	.32	.31	.13	.15	.15
29	1.2	1.2	1.4	2.2	---	1.0	.30	.19	.30	.13	.15	.14
30	1.2	1.2	1.3	3.1	---	.76	.68	.14	.30	.12	.11	.14
31	1.2	---	1.3	2.4	---	.45	---	.14	---	.12	.10	---
TOTAL	32.91	35.4	44.7	64.9	152.68	97.68	13.78	10.08	7.65	6.84	4.42	4.51
MEAN	1.06	1.18	1.44	2.09	5.45	3.15	.46	.33	.26	.22	.14	.15
MAX	1.2	1.3	2.4	7.2	68	10	1.2	.59	.43	.35	.20	.17
MIN	.88	1.1	1.0	1.2	.59	.45	.26	.14	.10	.12	.10	.06
AC-FT	65	70	89	129	303	194	27	20	15	14	8.8	8.9
a	0	0	0	0	42	115	95	80	61	0	0	0

CAL YR 1986 TOTAL 6527.47 MEAN 17.9 MAX 755 MIN .37 AC-FT 12950
WTR YR 1987 TOTAL 475.55 MEAN 1.30 MAX 68 MIN .06 AC-FT 943
a Diversion, in acre-feet, provided by San Jose Water Works.

COYOTE CREEK BASIN

11170000 COYOTE CREEK NEAR MADRONE, CA

LOCATION.--Lat 37°10'06", long 121°38'55", near southeast corner of La Laguna Seca Grant, Santa Clara County, Hydrologic Unit 18050003, on right bank 1.2 mi downstream from Anderson Dam and 1.8 mi northeast of Madrone.

DRAINAGE AREA.--196 mi².

PERIOD OF RECORD.--October 1902 to September 1912, December 1916 to September 1987 (discontinued). Records for water years 1917-19 incomplete, yearly estimates published in WSP 1315-B. Published as Coyote River near Madrone 1902-12, 1916-26.

REVISED RECORDS.--WSP 1345: 1932, 1935(M). WSP 1929: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 375 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Mar. 1, 1950, nonrecording gage and water-stage recorders at various sites within 1.4 mi upstream at different datums.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Coyote Lake, capacity, 23,700 acre-ft and by Anderson Lake, capacity, 91,280 acre-ft. Water is diverted to Main Avenue percolation ponds by Santa Clara Valley Water District.

AVERAGE DISCHARGE (unadjusted).--81 years, 65.7 ft³/s, 47,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft³/s, probably Mar. 7, 1911 (record furnished by Duryea, Haehl, and Gilman); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 201 ft³/s, Sept. 25, gage height, 2.91 ft; minimum daily, 1.2 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	42	42	47	46	38	35	39	47	65	93	86	89
2	42	42	47	46	38	35	40	46	68	91	85	87
3	42	42	47	38	38	35	40	47	73	87	84	88
4	42	42	47	19	38	29	39	54	78	86	83	91
5	42	44	47	28	37	9.1	39	53	82	87	86	90
6	42	47	47	39	37	17	39	56	77	88	87	90
7	42	47	47	39	37	41	39	61	74	83	87	89
8	42	48	47	39	37	41	39	58	74	80	87	90
9	42	48	47	39	38	37	38	35	75	80	87	91
10	42	47	47	39	38	33	38	35	73	81	89	91
11	42	46	47	38	35	33	41	30	72	82	89	73
12	42	46	47	38	29	34	42	28	72	82	89	96
13	42	46	47	38	9.5	33	20	35	72	83	89	96
14	42	46	47	38	8.5	25	5.5	36	72	85	89	65
15	42	46	47	38	8.3	24	6.1	36	72	84	88	91
16	42	47	47	38	8.3	37	6.4	35	71	86	88	59
17	43	46	47	38	12	36	6.7	33	70	86	88	27
18	44	44	47	38	20	36	5.7	29	70	85	89	33
19	45	46	47	37	39	36	6.3	34	70	85	88	83
20	44	48	47	37	41	36	30	43	70	85	88	104
21	45	47	46	36	42	36	46	46	71	84	86	105
22	43	48	46	36	42	36	47	46	76	86	86	107
23	42	47	46	36	42	36	49	46	90	85	87	104
24	43	47	46	36	40	36	49	46	102	85	90	128
25	44	47	46	37	36	36	48	46	94	85	94	185
26	44	47	45	37	35	38	48	52	95	84	95	175
27	43	47	44	37	35	35	50	56	94	84	96	70
28	42	47	44	38	35	34	53	60	94	83	92	1.2
29	42	47	45	38	---	33	53	67	94	83	90	16
30	41	47	46	38	---	34	50	67	94	84	90	4.5
31	42	---	46	38	---	37	---	67	---	85	90	---
TOTAL	1319	1381	1440	1157	893.6	1033.1	1052.7	1430	2354	2627	2742	2518.7
MEAN	42.5	46.0	46.5	37.3	31.9	33.3	35.1	46.1	78.5	84.7	88.5	84.0
MAX	45	48	47	46	42	41	53	67	102	93	96	185
MIN	41	42	44	19	8.3	9.1	5.5	28	65	80	83	1.2
AC-FT	2620	2740	2860	2290	1770	2050	2090	2840	4670	5210	5440	5000

CAL YR 1986 TOTAL 17252.27 MEAN 47.3 MAX 378 MIN .02 AC-FT 34220
WTR YR 1987 TOTAL 19948.10 MEAN 54.7 MAX 185 MIN 1.2 AC-FT 39570

COYOTE CREEK BASIN

11172100 UPPER PENITENCIA CREEK AT SAN JOSE, CA

LOCATION.--Lat 37°23'43", long 121°49'38", on north boundary of San Jose Pala Grant, Santa Clara County, Hydrologic Unit 18050003, on left bank at downstream side of Dorel Drive bridge and 0.1 mi upstream from Dutard Creek near northeast limits of San Jose.

DRAINAGE AREA.--21.5 mi².

PERIOD OF RECORD.--October 1961 to September 1987 (discontinued).

GAGE.--Water-stage recorder. Concrete control since Sept. 12, 1963. Datum of gage is 265.30 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 3, 1962, at site 0.4 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Low flow partially regulated by Cherry Flat Reservoir 5 mi upstream, capacity, 500 acre-ft.

AVERAGE DISCHARGE.--26 years, 6.23 ft³/s, 4,510 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,970 ft³/s, Mar. 31, 1982, gage height, 8.71 ft in gage well, 9.71 ft from outside gage, from rating curve extended above 360 ft³/s on basis of slope-area measurements at gage heights 5.84, 6.24, and 8.71 ft; no flow at times in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known since at least 1935, 2,100 ft³/s, Apr. 2, 1958, from information provided by Santa Clara Valley Water District.

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)
Feb. 13	0830	*111	*3.99				

Minimum daily, 0.03 ft³/s, July 10-12, 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	.38	.40	.42	.61	1.0	1.1	1.5	.57	.15	.09	1.7	.51
2	.73	.38	.42	.64	1.2	.89	1.4	.44	.11	.08	1.4	.48
3	.69	.37	.41	1.6	1.6	.85	1.4	.44	.11	.07	.50	.48
4	.84	.35	.39	1.5	1.3	.84	1.4	.38	.10	.06	.52	.48
5	.63	.36	.57	1.0	.98	1.4	1.2	.33	.11	.06	.54	.53
6	.63	.35	.51	1.2	.87	1.9	1.1	.30	.10	.04	.51	.53
7	1.1	.35	.49	1.1	.81	1.3	1.0	.26	.10	.04	.53	.55
8	1.3	.37	.47	.84	.80	1.1	1.0	.26	.09	.04	.65	.56
9	1.3	.38	.46	.77	.87	1.0	.92	.23	.08	.04	.70	.51
10	1.4	.36	.43	.69	.98	.96	.90	.21	.08	.03	.73	.53
11	1.1	.32	.42	.62	1.1	1.0	.83	.21	.07	.03	.71	.53
12	1.0	.32	.43	.62	2.1	1.5	.77	.22	.06	.03	.71	.53
13	1.0	.33	.45	.60	38	2.8	.78	.19	.05	.04	.56	.54
14	.94	.36	.47	.55	8.1	3.6	.71	.17	.05	.04	.51	.56
15	.62	.38	.52	.52	5.2	4.3	.68	.16	.05	.03	.52	.59
16	.39	.38	.52	.51	3.6	2.6	.65	.16	.06	.04	.49	.55
17	.35	.38	.52	.51	2.5	2.0	.62	.15	.05	.05	.46	.47
18	.33	.41	.64	.51	2.0	1.8	.58	.17	.06	.08	.51	.50
19	.31	.42	.62	.51	1.5	1.7	.55	.19	.06	.08	.50	.49
20	.32	.42	.68	.47	1.4	1.5	.55	.20	.35	.10	.50	.49
21	.79	.43	.62	.49	1.2	4.9	.54	.20	.55	.47	.50	.46
22	.78	.42	.63	.52	1.2	9.9	.54	.20	.59	.95	.49	.46
23	.57	.42	.62	.98	1.1	12	.54	.17	.61	.45	.50	.48
24	.43	.43	.59	.84	1.1	10	.50	.17	.38	.27	.52	.46
25	.39	.41	.56	.80	1.0	5.7	.46	.20	.30	.19	.55	.46
26	.39	.40	.52	.77	.93	3.9	.44	.22	.26	.15	.55	.45
27	.38	.38	.52	1.0	.88	3.0	.44	.23	.26	.13	.56	.47
28	.39	.40	.52	2.0	.96	2.4	.46	.21	.19	.12	.56	.57
29	.43	.43	.53	1.5	---	1.9	.45	.21	.13	.25	.53	.46
30	.44	.42	.56	1.4	---	1.7	.69	.18	.11	.54	.50	.44
31	.44	---	.57	1.2	---	1.6	---	.18	---	.91	.50	---
TOTAL	20.79	11.53	16.08	26.87	84.28	91.14	23.60	7.41	5.27	5.50	19.01	15.12
MEAN	.67	.38	.52	.87	3.01	2.94	.79	.24	.18	.18	.61	.50
MAX	1.4	.43	.68	2.0	38	12	1.5	.57	.61	.95	1.7	.59
MIN	.31	.32	.39	.47	.80	.84	.44	.15	.05	.03	.46	.44
AC-FT	41	23	32	53	167	181	47	15	10	11	38	30

CAL YR 1986	TOTAL	3519.15	MEAN	9.64	MAX	375	MIN	.17	AC-FT	6980
WTR YR 1987	TOTAL	326.60	MEAN	.89	MAX	.38	MIN	.03	AC-FT	648

ALAMEDA CREEK BASIN

11176000 ARROYO MOCHO NEAR LIVERMORE, CA

LOCATION.--Lat 37°37'35", long 121°42'13", in NW 1/4 SE 1/4 sec.36, T.3 S., R.2 E., Alameda County, Hydrologic Unit 18050004, on right bank 40 ft downstream from Mines Road bridge, 2.4 mi upstream from small right-bank tributary, and 5.2 mi southeast of Livermore.

DRAINAGE AREA.--38.2 mi².

PERIOD OF RECORD.--January 1912 to September 1930, October 1963 to current year. Records for water year 1914 incomplete; yearly estimate and monthly discharge only for some months, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 746.49 ft above National Geodetic Vertical Datum of 1929. January 12 to October 1914, at present site at different datum. November 1914 to Sept. 30, 1930, at site 1 mi upstream at different datum.

REMARKS.--Estimated daily discharges: June 19 to Sept. 30. Records good except those for estimated discharges, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--42 years, 5.32 ft³/s, 3,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 2,250 ft³/s, Jan. 24, 1983, gage height, 8.80 ft, from rating curve extended above 600 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 10.44 ft, Feb. 19, 1986, from floodmarks; no flow for parts of most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, discharge 1,880 ft³/s, by slope-area measurement of maximum flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 90 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	1030	*129	*6.41				

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	.25	.33	.52	1.0	1.1	.92	1.1	.37	.09	.03		
2	.23	.33	.52	1.0	1.3	.92	1.1	.41	.09	.03		
3	.23	.33	.52	1.8	3.8	.92	1.1	.37	.09	.03		
4	.23	.33	.58	2.7	2.3	.89	1.2	.29	.08	.03		
5	.23	.33	.66	2.0	1.5	2.3	1.2	.27	.07	.03		
6	.23	.33	.78	1.6	1.1	9.3	1.0	.20	.07	.03		
7	.23	.33	.83	2.1	.92	5.5	.83	.19	.07	.03		
8	.23	.33	.83	2.0	.92	3.7	.83	.18	.06	.03		
9	.23	.33	.83	1.3	.92	2.5	.83	.18	.06	.03		
10	.23	.33	.83	.92	.96	1.9	.83	.18	.05	.02		
11	.23	.33	.83	.92	1.1	1.7	.83	.18	.04	.02		
12	.23	.33	.83	.92	2.1	2.1	.83	.18	.03	.02		
13	.23	.33	.83	.83	43	3.2	.83	.18	.03	.02		
14	.23	.33	.83	.74	12	2.1	.83	.25	.03	.01		
15	.23	.32	.83	.70	7.4	2.4	.83	.22	.03	.01		
16	.23	.33	.83	.66	5.7	2.3	.75	.22	.03	.01		
17	.23	.33	.83	.66	3.9	1.9	.57	.20	.03	.01		
18	.26	.33	.83	.66	3.2	1.7	.52	.17	.03	0		
19	.26	.37	.85	.66	2.4	1.5	.52	.15	.03	0		
20	.26	.37	1.0	.66	1.9	1.3	.52	.15	.03	0		
21	.26	.37	1.1	.66	1.7	2.9	.52	.15	.03	0		
22	.26	.41	1.1	.66	1.7	3.9	.52	.15	.03	0		
23	.26	.46	1.1	1.1	1.5	3.4	.52	.14	.03	0		
24	.27	.52	1.1	1.8	1.3	3.8	.50	.12	.03	0		
25	.29	.52	1.1	2.3	1.2	3.1	.41	.12	.03	0		
26	.29	.52	1.0	1.9	.92	2.1	.41	.12	.03	0		
27	.29	.52	1.0	1.5	.92	1.5	.41	.12	.03	0		
28	.29	.52	1.0	1.7	.92	1.3	.37	.10	.03	0		
29	.29	.52	1.0	1.7	---	1.2	.29	.10	.03	0		
30	.29	.52	1.0	1.4	---	1.1	.29	.10	.03	0		
31	.31	---	1.0	1.3	---	1.1	---	.10	---	0		---
TOTAL	7.81	11.55	26.89	39.85	107.68	74.45	21.29	5.86	1.34	.39	0	0
MEAN	.25	.39	.87	1.29	3.85	2.40	.71	.19	.045	.013	0	0
MAX	.31	.52	1.1	2.7	43	9.3	1.2	.41	.09	.03	0	0
MIN	.23	.32	.52	.66	.92	.89	.29	.10	.03	0	0	0
AC-FT	15	23	53	79	214	148	42	12	2.7	.8	0	0
CAL YR 1986	TOTAL	4587.43	MEAN	12.6	MAX	832	MIN	.11	AC-FT	9100		
WTR YR 1987	TOTAL	297.11	MEAN	.81	MAX	43	MIN	0	AC-FT	589		

ALAMEDA CREEK BASIN

11176400 ARROYO VALLE BELOW LANG CANYON, NEAR LIVERMORE, CA

LOCATION.--Lat 37°33'41", long 121°40'58", in NE 1/4 NE 1/4 sec.30, T.4 S., R.3 E., Alameda County, Hydrologic Unit 18050004, on left bank 100 ft upstream from small left-bank tributary, 1.2 mi downstream from Lang Canyon, and 9.5 mi southeast of Livermore.

DRAINAGE AREA.--130 mi².

PERIOD OF RECORD.--October 1963 to current year. Prior to October 1974, published as "above Lang Canyon, near Livermore."

GAGE.--Water-stage recorder. Concrete control since June 19, 1975. Elevation of gage is 750 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 19, 1975, at site 1.4 mi upstream at different datum.

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

AVERAGE DISCHARGE.--24 years, 38.4 ft³/s, 27,820 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,790 ft³/s, Feb. 17, 1986, gage height, 7.36 ft, from rating curve extended above 1,000 ft³/s on basis of slope-area measurements at gage heights 4.13, 5.40, and 7.36 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s, and maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0800	*676	*2.24				

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	1.2	.68	2.1	2.4	4.2	4.2	7.2	3.4	.88			
2	1.5	.60	2.1	2.7	4.8	4.2	7.2	3.0	.75			
3	1.3	.68	2.1	6.8	7.7	4.2	7.7	2.7	.52			
4	1.3	.60	2.4	8.7	5.7	4.2	10	2.7	.40			
5	1.6	.60	5.6	5.9	4.5	12	8.5	2.3	.41			
6	1.6	.66	6.0	5.4	3.9	46	8.4	2.1	.49			
7	1.6	.85	5.4	6.2	2.7	37	7.9	1.9	.35			
8	1.5	.89	4.8	4.9	2.7	24	7.2	2.3	.31			
9	1.5	.89	4.2	4.2	3.3	17	6.7	2.4	.47			
10	1.4	.96	4.2	2.7	4.4	14	5.1	2.1	.28			
11	1.3	1.0	4.4	2.7	5.1	12	5.0	1.8	.05			
12	1.4	1.1	4.1	2.7	9.6	11	4.3	1.6	0			
13	1.5	1.2	4.2	2.7	272	23	4.0	1.4	0			
14	1.3	1.1	4.2	2.7	49	19	3.4	1.2	0			
15	1.2	1.2	4.7	3.3	27	22	3.4	1.2	0			
16	1.4	1.2	4.7	2.7	20	17	3.8	1.1	0			
17	1.6	1.2	4.3	2.3	13	13	3.4	1.2	0			
18	1.6	1.4	4.7	2.5	9.3	11	3.4	1.1	0			
19	2.1	1.5	6.1	2.7	7.4	10	3.4	.92	0			
20	1.9	1.5	7.3	2.7	6.1	9.5	3.1	.94	0			
21	1.8	1.3	5.8	2.4	5.6	14	2.7	1.1	0			
22	1.1	1.2	5.5	2.2	5.9	20	2.7	1.2	0			
23	.86	1.2	4.1	4.9	5.1	36	2.7	1.2	0			
24	.86	1.2	3.0	5.4	5.1	32	2.7	1.2	0			
25	.86	1.3	2.7	6.0	4.3	21	2.6	1.2	0			
26	.86	1.2	2.7	5.0	4.2	15	2.4	1.2	0			
27	.86	1.2	2.5	4.5	4.2	12	2.5	1.2	0			
28	.79	1.3	2.1	10	4.2	8.5	2.7	1.2	0			
29	.77	2.4	2.3	8.0	---	7.6	2.7	1.2	0			
30	.70	2.1	2.1	5.9	---	7.3	3.6	1.1	0			
31	.71	---	2.1	5.0	---	7.2	---	.92	---			---
TOTAL	39.97	34.21	122.5	136.2	501.0	494.9	140.4	50.08	4.91	0	0	0
MEAN	1.29	1.14	3.95	4.39	17.9	16.0	4.68	1.62	.16	0	0	0
MAX	2.1	2.4	7.3	10	272	46	10	3.4	.88	0	0	0
MIN	.70	.60	2.1	2.2	2.7	4.2	2.4	.92	0	0	0	0
AC-FT	79	68	243	270	994	982	278	99	9.7	0	0	0

CAL YR 1986 TOTAL 34194.44 MEAN 93.7 MAX 4860 MIN .60 AC-FT 67820
WTR YR 1987 TOTAL 1524.17 MEAN 4.18 MAX 272 MIN 0 AC-FT 3020

ALAMEDA CREEK BASIN

11176500 ARROYO VALLE NEAR LIVERMORE, CA

LOCATION.--Lat 37°37'24", long 121°45'28", in Valle de San Jose Grant, Alameda County, Hydrologic Unit 18050004, on right bank 900 ft downstream from highway bridge, 1.1 mi upstream from Dry Creek, 1.3 mi downstream from Del Valle Dam, 4.1 mi south of Livermore, and 6.9 mi southeast of Pleasanton.

DRAINAGE AREA.--147 mi².

PERIOD OF RECORD.--January 1912 to September 1930, October 1957 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Published as Arroyo del Valle near Livermore, 1912-29.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 510.44 ft above National Geodetic Vertical Datum of 1929. Prior to November 1914, at site 900 ft upstream at different datum. Nov. 1, 1914, to Sept. 30, 1930, at site 300 ft upstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Del Valle Reservoir 1.3 mi upstream beginning in September 1968, capacity, 77,100 acre-ft. Water from Sacramento-San Joaquin Delta imported through South Bay Aqueduct can be pumped into Del Valle Reservoir for storage and later released into the channel for downstream percolation or returned to the South Bay Aqueduct.

AVERAGE DISCHARGE.--29 years (1912-30, 1957-68), 29.6 ft³/s, 21,450 acre-ft/yr; 19 years (1969-87), 29.4 ft³/s, 21,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft³/s, Apr. 2, 1958, gage height, 10.91 ft; no flow at times. Maximum discharge since construction of Del Valle Dam in 1968, 2,850 ft³/s, Mar. 3, 1983, gage height, 8.89 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 13.9 ft from floodmarks, discharge, 18,200 ft³/s, on basis of contracted-opening and slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11 ft³/s, Apr. 13, gage height, 2.63 ft; minimum daily, 0.07 ft³/s, Nov. 9, 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	.45	.10	.51	.78	.28	.55	.51	.50	.19	.24	.13	.40
2	.39	.10	.51	.80	.18	.51	.51	.51	.15	.22	.12	.40
3	.33	.10	.51	1.1	.21	.51	.51	.48	.15	.22	.12	.39
4	.30	.09	.51	.65	.21	.51	.51	.47	.18	.22	.13	.43
5	.30	.08	.51	.52	.24	.51	.50	.46	.20	.21	.13	.46
6	.27	.08	.51	.58	.27	.51	.51	.39	.19	.29	.14	.43
7	.19	.08	.51	.60	.27	.51	.51	.38	.20	.18	.16	.42
8	.15	.09	.51	.48	.31	.51	.50	.39	.23	.17	.14	.41
9	.15	.07	.51	.44	.34	.51	.51	.39	.23	.16	.14	.43
10	.16	.07	.51	.42	.34	.51	.50	.38	.23	.15	.15	.55
11	.18	.08	.62	.42	.40	.51	.52	.38	.24	.17	.16	.55
12	.17	.11	.73	.42	.42	.51	.56	.36	.25	.16	.18	.55
13	.14	.25	.73	.41	.42	.51	5.2	.31	.25	.16	.19	.50
14	.14	.25	.75	.42	.50	.51	11	.27	.26	.15	.21	.49
15	.13	.31	.78	.42	.51	.51	7.7	.25	.27	.15	.21	.50
16	.14	.34	.84	.50	.51	.51	.57	.27	.29	.16	.20	.45
17	.13	.34	.73	.51	.60	.51	.50	.30	.29	.15	.19	.38
18	.13	.36	.82	.51	.61	.51	.47	.30	.29	.16	.18	.28
19	.13	.50	.94	.61	.61	.51	.46	.32	.29	.14	.22	.27
20	.13	.50	.98	.46	.61	.51	.47	.32	.29	.15	.23	.29
21	.13	.54	1.0	.34	.61	.51	.48	.31	.31	.16	.25	.27
22	.10	.60	.94	.37	.61	.51	.49	.30	.27	.16	.28	.28
23	.10	.53	.86	.34	.61	.51	.53	.24	.22	.16	.34	.30
24	.11	.51	.86	.34	.61	.51	.56	.24	.21	.16	.34	.31
25	.13	.51	.86	.34	.61	.51	.58	.26	.20	.17	.34	.31
26	.11	.51	.86	.34	.61	.51	.54	.27	.20	.16	.35	.31
27	.10	.51	.86	.36	.61	.51	.44	.25	.21	.17	.36	.28
28	.11	.51	.86	.42	.61	.51	.46	.24	.23	.13	.35	.34
29	.13	.51	.86	.29	---	.51	.50	.23	.23	.14	.34	.37
30	.13	.51	.81	.29	---	.51	.48	.22	.23	.14	.34	.37
31	.11	---	.76	.34	---	.51	---	.19	---	.13	.40	---
TOTAL	5.37	9.14	22.55	14.82	12.72	15.85	37.58	10.18	6.98	5.29	7.02	11.72
MEAN	.17	.30	.73	.48	.45	.51	1.25	.33	.23	.17	.23	.39
MAX	.45	.60	1.0	1.1	.61	.55	11	.51	.31	.29	.40	.55
MIN	.10	.07	.51	.29	.18	.51	.44	.19	.15	.13	.12	.27
AC-FT	11	18	45	29	25	31	75	20	14	10	14	23
CAL YR 1986	TOTAL	25483.16	MEAN	69.8	MAX	2130	MIN	.07	AC-FT	50550		
WTR YR 1987	TOTAL	159.22	MEAN	.44	MAX	11	MIN	.07	AC-FT	316		

ALAMEDA CREEK BASIN

11179000 ALAMEDA CREEK NEAR NILES, CA

LOCATION.--Lat 37°35'14", long 121°57'35", in NW 1/4 sec.15, T.4 S., R.1 W., Alameda County, Hydrologic Unit 18050004, on right bank 0.3 mi downstream from railroad bridge, 1.2 mi northeast of Niles, and 8.3 mi downstream from James H. Turner Dam on San Antonio Creek.

DRAINAGE AREA.--633 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1891 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Published as "at Niles Dam" 1891-1900 and as "at Sunol Glen" 1901-21.

REVISED RECORDS.--WSP 1315-B: 1921. WSP 1515: 1951-52, 1956. WSP 1565: 1945. WDR CA-86-2: 1984(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 85.65 ft above National Geodetic Vertical Datum of 1929. Prior to 1901, nonrecording gage at site 1 mi upstream at different datum. From 1901 to Sept. 30, 1914, nonrecording gage; Oct. 1, 1914, to Sept. 30, 1916, water-stage recorder at site 4.5 mi upstream at different datum; Oct. 1, 1916, to Dec. 17, 1923, water-stage recorder at site 800 ft upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1916 by Calaveras Reservoir, although dam not completed until 1925, usable capacity, 96,800 acre-ft, most of which is diverted for San Francisco water supply; since February 1965 by San Antonio Reservoir, capacity, 51,000 acre-ft; and since September 1968 by Del Valle Reservoir, 23 mi upstream, capacity, 77,100 acre-ft. Natural flow of stream affected by water imported from Delta-Mendota Canal beginning in 1962. Other diversions from ground-water basin for irrigation of 9,000 acres above station.

AVERAGE DISCHARGE.--71 years (water years 1892-1962), 123 ft³/s, 89,050 acre-ft/yr; 25 years (water years 1963-87), 126 ft³/s, 91,290 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,000 ft³/s, Dec. 23, 1955, gage height, 14.9 ft; minimum (water years 1892-1962), no flow at times; minimum daily (water years 1963-87), 0.63 ft³/s, Oct. 7-10, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,170 ft³/s, Feb. 13, gage height, 7.85 ft; minimum daily, 4.4 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	37	43	8.6	36	27	56	25	24	58	52	37	38
2	35	42	10	55	110	49	24	20	59	51	37	38
3	34	43	42	177	104	48	24	17	57	52	42	38
4	41	49	51	76	32	39	24	16	57	54	44	39
5	46	50	67	28	23	103	23	14	57	55	43	39
6	48	44	54	20	24	75	22	13	56	53	43	39
7	48	44	46	39	21	63	23	24	59	47	40	38
8	40	43	46	29	24	62	30	26	59	45	40	38
9	35	43	41	48	27	65	37	27	58	45	42	36
10	28	37	32	58	22	58	36	28	57	45	43	31
11	23	9.1	33	67	26	55	41	29	57	45	41	32
12	20	9.1	32	68	158	70	38	37	57	47	40	33
13	19	9.2	32	62	1590	200	38	43	58	48	40	33
14	19	9.3	32	55	161	107	43	43	59	46	40	34
15	17	8.6	34	55	150	82	38	43	58	46	41	25
16	15	8.3	40	46	77	50	35	39	55	46	40	7.1
17	16	8.2	33	47	49	54	20	39	45	46	40	6.0
18	16	8.3	30	49	42	54	19	38	45	47	41	6.2
19	15	7.8	26	49	36	39	17	36	50	49	40	7.3
20	17	7.6	77	43	32	31	17	34	52	47	40	9.1
21	17	8.2	39	42	54	140	17	15	54	46	40	8.4
22	20	27	37	42	71	74	17	22	51	43	40	6.7
23	18	40	44	65	70	80	16	38	45	46	42	5.3
24	17	44	35	41	70	58	15	37	45	46	40	5.2
25	31	39	34	43	69	42	16	39	45	47	37	6.3
26	31	10	34	35	59	37	16	37	45	48	36	6.2
27	30	8.4	34	34	56	32	17	28	45	48	32	8.0
28	31	9.0	33	134	56	29	15	37	48	46	32	7.7
29	31	11	32	38	---	28	14	42	47	41	39	7.0
30	35	11	32	40	---	27	30	48	50	38	39	4.4
31	44	---	32	27	---	26	---	50	---	38	39	---
TOTAL	874	731.1	1152.6	1648	3240	1933	747	983	1588	1453	1230	631.9
MEAN	28.2	24.4	37.2	53.2	116	62.4	24.9	31.7	52.9	46.9	39.7	21.1
MAX	48	50	77	177	1590	200	43	50	59	55	44	39
MIN	15	7.6	8.6	20	21	26	14	13	45	38	32	4.4
AC-FT	1730	1450	2290	3270	6430	3830	1480	1950	3150	2880	2440	1250
CAL YR 1986	TOTAL	97499.7	MEAN 267	MAX 9360	MIN 7.6	AC-FT 193400						
WTR YR 1987	TOTAL	16211.6	MEAN 44.4	MAX 1590	MIN 4.4	AC-FT 32160						

ALAMEDA CREEK BASIN

11179000 ALAMEDA CREEK NEAR NILES, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1906, 1952-73, 1975 to current year.

CHEMICAL DATA: Water years 1906, 1952-67, 1969, 1975-79.

SPECIFIC CONDUCTANCE: Water years 1956-57, 1959-62, 1976 to current year.

WATER TEMPERATURE: Water years 1956-73, 1976-78.

SEDIMENT DATA: Water years 1957-73.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1956 to July 1957, August 1959 to September 1962, October 1975 to current year.

WATER TEMPERATURE: July 1956 to September 1973, October 1975 to September 1978.

INSTRUMENTATION.--Water-quality monitor since October 1975. Digital recorder set for 1-hour-interval punches.

REMARKS.--Differences between specific conductance recorder values before adjustment and field measurement values exceeded +/- 10 percent at times during the year. Interruptions in record were due to malfunction of recording instruments.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,530 microsiemens, Nov. 19, 1977; minimum recorded, 122 microsiemens, Jan. 22, 1983.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,290 microsiemens, Apr. 30, May 1; minimum recorded, 183 microsiemens, Feb. 13.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25 °C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	625	595	598	577	1100	1060	708	588	827	749	675	649
2	608	590	576	563	1130	1080	960	565	905	271	683	650
3	612	584	569	565	1100	544	665	253	625	271	662	636
4	616	553	753	566	678	534	710	291	821	641	---	---
5	565	547	716	590	581	470	862	738	883	823	---	---
6	583	551	606	503	574	456	927	860	879	694	---	---
7	574	534	511	500	456	448	1220	760	890	694	---	---
8	556	526	519	508	490	448	926	732	1060	784	---	---
9	582	558	531	516	501	468	924	499	878	520	---	---
10	589	575	544	531	493	470	501	487	1080	904	---	---
11	695	597	583	543	484	480	518	480	1140	1100	---	---
12	742	688	789	583	---	---	522	503	1120	203	---	---
13	818	756	993	801	598	553	524	491	409	183	---	---
14	832	820	1040	995	602	598	532	514	579	415	---	---
15	823	751	1040	994	645	590	524	501	753	583	---	---
16	781	753	1060	1020	867	637	542	493	845	759	---	---
17	786	767	1060	1050	762	552	542	524	919	847	---	---
18	818	780	1060	1050	550	529	561	518	950	823	---	---
19	826	801	1060	1040	1130	535	567	551	950	874	---	---
20	849	799	1090	1050	902	506	576	538	1140	662	---	---
21	889	857	1110	1100	556	514	539	524	668	658	---	---
22	862	810	1200	692	601	551	541	533	664	650	---	---
23	999	862	688	544	804	587	866	526	648	636	---	---
24	999	831	534	487	640	545	582	527	648	627	---	---
25	829	649	576	479	565	549	721	547	657	629	---	---
26	649	632	549	484	580	562	627	572	657	641	---	---
27	647	616	647	544	598	582	622	583	645	631	---	---
28	616	610	937	679	597	587	825	325	651	635	---	---
29	650	613	999	937	589	584	740	430	---	---	---	---
30	654	642	1080	997	592	587	1050	706	---	---	---	---
31	628	598	---	---	591	577	1010	725	---	---	---	---
MONTH	999	526	1200	479	---	---	1220	253	1140	183	---	---

ALAMEDA CREEK BASIN

11179000 ALAMEDA CREEK NEAR NILES, CA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25 °C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	1290	982	595	557			---	---	678	662
2	---	---	976	864	593	555			---	---	679	665
3	---	---	911	778	554	549			---	---	679	658
4	---	---	870	764	560	546			---	---	677	657
5	---	---	870	769	560	547			---	---	678	663
6	---	---	909	873	577	552			---	---	692	678
7	---	---	1140	898	577	554			---	---	695	614
8	1040	915	1010	859	566	552			---	---	681	667
9	915	802	850	780	566	550			---	---	684	645
10	881	852	776	734	563	551			---	---	683	652
11	860	696	752	726	566	553			---	---	661	640
12	742	690	724	684	575	494			664	653	659	637
13	732	674	683	615	577	492			710	608	647	616
14	752	685	616	586	585	490			726	705	625	603
15	730	628	627	602	600	591			775	726	613	592
16	764	625	634	616	601	590			775	742	629	591
17	754	623	648	633	601	503			768	749	650	598
18	931	740	644	626	610	600			763	736	745	657
19	945	935	646	617	617	601			759	697	---	---
20	940	831	639	605	615	597			708	681	---	---
21	910	830	625	609	626	599			690	609	859	820
22	934	843	1110	627	630	599			681	664	867	848
23	944	854	827	598	624	612			678	671	877	865
24	964	947	605	574	648	610			679	656	866	853
25	986	953	638	589	648	629			729	609	903	861
26	976	964	631	609	638	619			732	610	899	849
27	1040	989	652	608	652	622			688	610	899	868
28	1030	990	874	602	699	585			857	617	906	895
29	990	964	625	512	657	627			688	610	943	893
30	1290	994	575	496	624	604			690	611	952	911
31	---	---	586	496	---	---			690	612	---	---
MONTH	---	---	1290	496	699	490			---	---	---	---

ALAMEDA CREEK BASIN

11180500 DRY CREEK AT UNION CITY, CA

LOCATION.--Lat 37°36'22", long 122°01'22", in Arroyo de la Alameda Grant, Alameda County, Hydrologic Unit 18050004, on right bank 900 ft downstream from bridge on State Highway 238 in Decoto District in Union City and 1.7 mi upstream from mouth.

DRAINAGE AREA.--9.39 mi².

PERIOD OF RECORD.--October 1916 to September 1919 (published as "near Decoto"), April 1959 to current year.

REVISED RECORDS.--WSP 2129: 1962(M), 1968(P). WDR CA-76-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 85.12 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 1, 1959, at site 1.4 mi downstream at different datum.

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

AVERAGE DISCHARGE.--31 years, 2.60 ft³/s, 1,880 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,330 ft³/s, Jan. 26, 1983, gage height 5.14 ft, from rating curve extended above 600 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 5.27 ft, Oct. 13, 1962, from high-water marks past gage; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 90 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0600	*313	*3.26				

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	0	.10	.53					
2			0	0	.46	.09	.37					
3			0	.25	.46	.06	.44					
4			0	0	.06	.07	.40					
5			0	0	0	.83	.49					
6			0	0	0	.81	.30					
7			0	0	0	.28	.21					
8			0	0	0	.18	.16					
9			0	0	0	.12	.16					
10			0	0	0	.09	.13					
11			0	0	0	.07	.12					
12			0	0	1.6	.85	.13					
13			0	0	60	3.1	.08					
14			0	0	7.8	5.6	.06					
15			0	0	6.8	3.9	.04					
16			0	0	3.3	2.2	.03					
17			0	0	2.1	1.6	.04					
18			.02	0	1.6	1.7	.04					
19			0	0	.97	1.5	.02					
20			0	0	.55	1.2	.01					
21			0	0	.58	9.1	0					
22			0	0	.48	4.9	0					
23			0	0	.42	6.9	0					
24			0	0	.26	4.4	0					
25			0	0	.26	3.1	0					
26			0	0	.18	2.3	0					
27			0	.06	.12	1.7	0					
28			0	.01	.09	1.3	0					
29			0	0	---	1.0	0					
30			0	.06	---	.83	0					
31		---	0	0	---	.67	---		---			---
TOTAL	0	0	.02	.39	88.09	60.55	3.76	0	0	0	0	0
MEAN	0	0	.0006	.013	3.15	1.95	.13	0	0	0	0	0
MAX	0	0	.02	.25	60	9.1	.53	0	0	0	0	0
MIN	0	0	0	0	0	.06	0	0	0	0	0	0
AC-FT	0	0	.04	.8	175	120	7.5	0	0	0	0	0

CAL YR 1986	TOTAL	1558.69	MEAN 4.27	MAX 220	MIN 0	AC-FT 3090
WTR YR 1987	TOTAL	152.81	MEAN .42	MAX 60	MIN 0	AC-FT 303

ALAMEDA CREEK BASIN

11180700 PATTERSON CREEK AT UNION CITY, CA

LOCATION.--Lat 37°55'09", long 122°02'50", in Potrero de Los Cerritos Grant, Alameda County, Hydrologic Unit 18050004, on right bank 0.1 mi downstream from effluence from Alameda Creek, 0.2 mi upstream from bridge on Interstate 880 (Nimitz Freeway), and 2.0 mi southwest of Decoto District in Union City.

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

GAGE.--Water-stage recorder. Datum of gage is 4.13 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 26, 1966, at site 0.2 mi downstream at same datum.

REMARKS.--No estimated daily discharges. Records poor. This stream is a distributary of Alameda Creek. Diversion by Alameda County Water District to percolation ponds between station 11179000 and this station; additional percolation to ground water by placing check dams in channel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,100 ft³/s, Feb. 19, 1986, gage height, 18.44 ft; no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,710 ft³/s, Feb. 13, gage height, 12.74 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	23	.08	2.3	1.7					
2			0	52	170	8.3	.23					
3			0	405	134	2.0	0					
4			0	129	32	104	0					
5			0	31	11	159	0					
6			0	18	3.5	81	0					
7			0	28	6.8	.23	0					
8			0	4.9	6.0	0	0					
9			0	.12	16	0	0					
10			0	0	23	0	0					
11			0	0	17	7.7	0					
12			0	0	78	120	0					
13			0	0	2640	344	0					
14			0	0	273	179	0					
15			0	0	192	89	0					
16			0	0	87	.51	0					
17			1.7	0	43	.46	0					
18			13	0	19	3.5	0					
19			2.1	0	21	8.7	0					
20			43	3.1	16	.26	0					
21			28	.81	.47	200	0					
22			10	.02	0	78	0					
23			6.3	14	0	70	0					
24			13	12	0	41	0					
25			12	10	0	.97	0					
26			1.7	1.8	0	7.2	0					
27			5.6	5.6	0	6.1	0					
28			9.3	122	0	2.7	0					
29			.71	38	---	5.9	0					
30			2.4	28	---	5.7	.09					
31		---	9.9	22	---	3.2	---			---		---
TOTAL	0	0	158.71	948.35	3788.85	1530.73	2.02	0	0	0	0	0
MEAN	0	0	5.12	30.6	135	49.4	.067	0	0	0	0	0
MAX	0	0	43	405	2640	344	1.7	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	315	1880	7520	3040	4.0	0	0	0	0	0
CAL YR 1986	TOTAL	103306.29	MEAN	283	MAX	11700	MIN	0	AC-FT	204900		
WTR YR 1987	TOTAL	6428.66	MEAN	17.6	MAX	2640	MIN	0	AC-FT	12750		

SAN LORENZO CREEK BASIN

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA

LOCATION.--Lat 37°41'42", long 122°02'38", in San Lorenzo Grant, Alameda County, Hydrologic Unit 18050004, on left bank, 250 ft south of Interstate Highway 580, 0.4 mi southeast of Independent School, and 2.2 mi east of Castro Valley.

DRAINAGE AREA.--18.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 260 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Some regulation of low flow by ponds above station.

AVERAGE DISCHARGE.--7 years, 9.5 ft³/s, 6,890 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,460 ft³/s, Feb. 18, 1986, gage height, 8.33 ft; maximum gage height, 9.50 ft, Jan. 24, 1983; no flow several days in 1981-83.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 275 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0530	*615	*5.12				

Minimum daily, 0.03 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	1.3	.60	.62	2.9	.61	1.3	2.7	2.2	.72	.42	.13	.08
2	.51	.59	.62	.88	8.0	1.4	2.6	1.2	.60	.48	.10	.09
3	.34	.46	.62	13	1.5	1.4	2.6	.98	.59	.45	.10	.06
4	1.2	.42	.61	1.3	.85	1.3	2.5	.92	.60	.39	.13	.06
5	.64	.41	3.3	.75	.78	7.7	2.3	.81	.60	.35	.15	.06
6	.39	.41	.60	.83	.70	2.1	2.2	.74	.59	.38	.10	.06
7	.37	.41	.56	.63	.64	1.4	2.1	.75	.64	.36	.09	.08
8	.56	.46	.56	.59	.61	1.3	2.0	.66	.64	.21	.08	.07
9	.38	.49	.56	.56	.59	1.2	1.8	.84	.62	.21	.08	.06
10	.37	.51	.58	.53	.84	1.3	1.8	.75	.66	.23	.06	.06
11	.43	.51	.63	.51	1.8	1.4	1.8	.68	.58	.18	.08	.10
12	.45	.49	.62	.51	24	7.7	1.7	.65	.64	.16	.07	.08
13	.47	.51	.64	.52	165	5.4	1.6	.53	.62	.15	.07	.08
14	.41	.56	.68	.51	8.5	11	1.5	.55	.66	.16	.10	.11
15	.46	.56	1.4	.51	8.5	5.2	1.4	.53	.60	.15	.11	.11
16	.50	.53	.71	.51	3.9	3.5	1.4	.54	.61	.14	.08	.09
17	.42	.56	.60	.56	3.0	3.1	1.4	.58	.60	.13	.07	.06
18	.44	.62	1.7	.56	2.5	3.5	1.4	.58	.64	.15	.06	.06
19	.50	.76	3.1	.66	2.1	3.1	.94	.62	.98	.15	.05	.06
20	.50	.70	1.0	.76	2.0	2.6	.89	.68	.60	.14	.06	.06
21	.49	1.1	.58	.74	2.1	20	1.0	.64	.52	.16	.06	.05
22	.45	.57	1.1	.80	1.9	7.4	1.1	.60	.97	.14	.07	.05
23	.48	.51	.67	1.5	1.9	8.8	1.0	.61	.46	.14	.05	.09
24	.50	.51	.62	1.1	1.7	5.7	1.1	.65	.60	.16	.07	.10
25	.43	.53	.62	.64	1.6	5.3	1.0	.79	.93	.14	.07	.09
26	.63	.59	.57	.56	1.5	3.9	1.0	.89	.44	.14	.07	.08
27	.91	.57	.56	5.1	1.5	3.5	1.0	.84	.39	.12	.06	.06
28	.51	.62	.59	3.3	1.3	2.9	1.0	.76	.42	.12	.06	.03
29	.73	.86	.64	.75	---	2.4	1.1	.73	.37	.13	.07	.04
30	.97	.68	.68	2.6	---	2.9	3.0	.73	.37	.15	.06	.05
31	.54	---	.75	.74	---	2.7	---	.89	---	.15	.06	---
TOTAL	17.28	17.10	27.09	45.41	249.92	132.4	48.93	23.92	18.26	6.54	2.47	2.13
MEAN	.56	.57	.87	1.46	8.93	4.27	1.63	.77	.61	.21	.080	.071
MAX	1.3	1.1	3.3	13	165	20	3.0	2.2	.98	.48	.15	.11
MIN	.34	.41	.56	.51	.59	1.2	.89	.53	.37	.12	.05	.03
AC-FT	34	34	54	90	496	263	97	47	36	13	4.9	4.2

CAL YR 1986	TOTAL	4201.58	MEAN	11.5	MAX	530	MIN	.15	AC-FT	8330
WTR YR 1987	TOTAL	591.45	MEAN	1.62	MAX	165	MIN	.03	AC-FT	1170

SAN LORENZO CREEK BASIN

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1980 to current year (storm season only).

WATER TEMPERATURE: December 1980 to current year.

SEDIMENT DATA: December 1980 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: December 1980 to current year.

SUSPENDED-SEDIMENT DISCHARGE: December 1980 to current year.

REMARKS.--Sediment samples were collected on most days where water temperature is published. Zero bedload discharge observed for flows less than 17 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--

SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 10,000 mg/L, Jan. 4, 1982; minimum daily mean, 2 mg/L, Jan. 2, 3, 5, Mar. 3, 4, 1981.

SEDIMENT LOAD (storm season only): Maximum daily, 19,800 tons, Jan. 4, 1982; minimum daily, 0 ton several days in most years.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 2,730 mg/L, Feb. 13; minimum daily mean, 4 mg/L, Oct. 24, 25.

SEDIMENT LOAD (storm season only): Maximum daily, 3,040 tons, Feb. 13; minimum daily, 0 ton, Oct. 25.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR
1	18.5	14.5	9.0	---	---	11.0	---
2	---	---	---	9.5	---	---	12.5
3	18.0	13.5	8.0	11.0	---	13.0	---
4	16.0	---	---	---	---	---	13.5
5	15.0	11.0	11.0	---	---	12.5	---
6	15.0	---	---	8.0	---	14.0	14.5
7	15.0	11.0	---	---	---	11.0	12.0
8	15.0	---	8.0	---	---	---	---
9	14.5	10.5	---	---	---	11.5	15.5
10	14.5	---	---	---	---	11.0	---
11	14.5	10.5	5.5	---	---	---	---
12	14.0	---	---	---	---	12.0	14.0
13	13.5	10.5	---	6.0	---	12.5	---
14	13.5	---	---	---	---	11.0	14.5
15	13.5	11.5	8.0	---	---	11.0	---
16	---	---	---	---	---	11.5	17.0
17	14.5	13.0	8.0	---	---	12.5	---
18	14.0	---	10.0	---	---	11.5	13.5
19	13.5	12.0	---	---	---	10.0	---
20	13.5	11.5	9.5	---	12.0	10.0	---
21	15.0	---	7.5	---	---	9.0	16.0
22	---	10.5	---	---	---	9.5	---
23	14.0	---	6.0	---	10.5	10.5	15.0
24	---	10.5	---	---	8.5	12.0	---
25	14.5	---	---	---	6.5	12.5	---
26	---	---	---	---	8.5	13.0	16.5
27	---	---	---	---	---	13.0	---
28	13.0	---	---	10.0	10.5	---	15.5
29	---	---	8.0	---	---	---	---
30	15.0	8.5	---	---	---	14.0	14.0
31	---	---	7.5	---	---	13.5	---

SAN LORENZO CREEK BASIN

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, 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	1.3	14	.09	.60	21	.04	.62	12	.02
2	.51	17	.03	.59	26	.04	.62	12	.02
3	.34	12	.01	.46	24	.03	.62	13	.02
4	1.2	36	.26	.42	41	.05	.61	13	.02
5	.64	23	.04	.41	68	.08	3.3	45	.91
6	.39	8	.01	.41	78	.09	.60	15	.02
7	.37	7	.01	.41	64	.07	.56	18	.03
8	.56	30	.07	.46	34	.04	.56	21	.03
9	.38	23	.02	.49	13	.02	.56	26	.04
10	.37	12	.01	.51	17	.02	.58	31	.05
11	.43	18	.02	.51	20	.03	.63	36	.06
12	.45	24	.03	.49	37	.05	.62	30	.05
13	.47	24	.03	.51	54	.07	.64	24	.04
14	.41	31	.03	.56	30	.05	.68	20	.04
15	.46	23	.03	.56	8	.01	1.4	129	1.0
16	.50	26	.04	.53	13	.02	.71	36	.08
17	.42	23	.03	.56	17	.03	.60	7	.01
18	.44	28	.03	.62	13	.02	1.7	92	.72
19	.50	32	.04	.76	15	.03	3.1	232	6.1
20	.50	31	.04	.70	12	.02	1.0	147	.40
21	.49	25	.03	1.1	35	.16	.58	53	.08
22	.45	12	.01	.57	10	.02	1.1	71	.31
23	.48	5	.01	.51	13	.02	.67	32	.06
24	.50	4	.01	.51	16	.02	.62	16	.03
25	.43	4	.00	.53	15	.02	.62	17	.03
26	.63	8	.03	.59	14	.02	.57	19	.03
27	.91	38	.12	.57	13	.02	.56	21	.03
28	.51	12	.02	.62	15	.03	.59	23	.04
29	.73	20	.10	.86	22	.06	.64	24	.04
30	.97	60	.18	.68	13	.02	.68	25	.05
31	.54	28	.04	---	---	---	.75	26	.05
TOTAL	17.28	---	1.42	17.10	---	1.20	27.09	---	10.41
JANUARY			FEBRUARY			MARCH			
1	2.9	265	6.2	.61	20	.03	1.3	18	.06
2	.88	20	.05	8.0	482	.23	1.4	17	.06
3	13	909	71	1.5	70	.40	1.4	16	.06
4	1.3	117	.41	.85	18	.04	1.3	15	.05
5	.75	25	.05	.78	25	.05	7.7	151	4.2
6	.83	111	.30	.70	32	.06	2.1	31	.20
7	.63	29	.05	.64	102	.18	1.4	28	.11
8	.59	17	.03	.61	173	.28	1.3	42	.15
9	.56	16	.02	.59	80	.13	1.2	57	.18
10	.53	15	.02	.84	45	.61	1.3	32	.13
11	.51	14	.02	1.8	193	1.7	1.4	30	.11
12	.51	13	.02	24	989	168	7.7	527	45
13	.52	13	.02	165	2730	3040	5.4	421	10
14	.51	12	.02	8.5	102	2.5	11	710	45
15	.51	12	.02	8.5	211	5.3	5.2	95	1.6
16	.51	11	.02	3.9	30	.32	3.5	24	.23
17	.56	10	.02	3.0	21	.17	3.1	17	.14
18	.56	9	.01	2.5	27	.18	3.5	55	.61
19	.66	8	.01	2.1	27	.15	3.1	67	.74
20	.76	11	.02	2.0	26	.14	2.6	24	.17
21	.74	9	.02	2.1	32	.18	20	927	72
22	.80	10	.02	1.9	38	.19	7.4	26	.52
23	1.5	104	.77	1.9	45	.23	8.8	133	3.7
24	1.1	73	.34	1.7	92	.42	5.7	26	.40
25	.64	19	.03	1.6	103	.44	5.3	9	.14
26	.56	15	.02	1.5	41	.17	3.9	9	.09
27	5.1	235	22	1.5	31	.13	3.5	21	.20
28	3.3	233	3.0	1.3	21	.07	2.9	17	.13
29	.75	33	.07	---	---	---	2.4	13	.08
30	2.6	298	3.1	---	---	---	2.9	9	.07
31	.74	59	.12	---	---	---	2.7	5	.04
TOTAL	45.41	---	107.80	249.92	---	3245.07	132.4	---	186.17

SAN LORENZO CREEK BASIN

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, 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)
APRIL			
1	2.7	8	.06
2	2.6	11	.08
3	2.6	11	.08
4	2.5	12	.08
5	2.3	13	.08
6	2.2	14	.08
7	2.1	34	.19
8	2.0	36	.19
9	1.8	28	.14
10	1.8	23	.11
11	1.8	18	.09
12	1.7	12	.06
13	1.6	11	.05
14	1.5	10	.04
15	1.4	12	.05
16	1.4	13	.05
17	1.4	25	.09
18	1.4	37	.14
19	.94	30	.08
20	.89	23	.06
21	1.0	17	.05
22	1.1	18	.05
23	1.0	20	.05
24	1.1	27	.08
25	1.0	35	.09
26	1.0	43	.12
27	1.0	38	.10
28	1.0	33	.09
29	1.1	29	.09
30	3.0	63	.86
31	---	---	---
TOTAL	48.93	---	3.38
PERIOD	538.13		3555.45

SUMMARY OF WATER AND SEDIMENT DISCHARGE, OCTOBER 1986 TO APRIL 1987

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE (TONS)	BEDLOAD DISCHARGE (TONS)	TOTAL SEDIMENT DISCHARGE (TONS)
OCTOBER 1986	17.28	1.42	0	1
NOVEMBER	17.1	1.2	0	1
DECEMBER	27.09	10.41	0	10
JANUARY 1987	45.41	107.8	1	108
FEBRUARY	249.92	3245.07	30	3280
MARCH	132.4	186.17	2	188
APRIL	48.93	3.38	0	3
PERIOD	538.13	3555.45	33	3591

SAN LORENZO CREEK BASIN

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, 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. 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. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM
JAN												
03...	1430	29	11.0	1780	139	50	55	73	87	94	99	100
28...	1340	1.7	10.0	218	1.0	--	--	--	--	--	99	--
MAR												
05...	1200	10	12.5	136	3.7	--	--	--	--	--	99	--

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
FEB								
25...	1150	6.5	1	1.6	21	49	92	99
25...	1155	6.5	1	1.6	--	1	3	6
25...	1200	6.5	1	1.6	--	1	2	3
25...	1205	6.5	1	1.6	2	4	9	13
25...	1210	6.5	1	1.6	27	61	93	98

DATE	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
FEB							
25...	100	--	--	--	--	--	--
25...	9	12	17	25	41	100	--
25...	4	7	11	17	28	68	100
25...	15	18	23	31	41	57	100
25...	99	100	--	--	--	--	--

SAN LORENZO CREEK BASIN

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA

LOCATION.--Lat 37°42'55", long 122°03'12", in San Lorenzo (Castro) Grant, Alameda County, Hydrologic Unit 18050004, on left bank 0.9 mi upstream from Cull Creek Dam and 1.1 mi northeast of Castro Valley Post Office.

DRAINAGE AREA.--5.79 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1978 to current year.

REVISIONS.--WDR-80-2: 1979(P).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 450 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good above 0.50 ft³/s and fair below.

AVERAGE DISCHARGE.--9 years, 4.18 ft³/s, 3,030 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,690 ft³/s, Jan. 5, 1982, gage height, 8.71 ft; no flow many days each year.

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)
Feb. 13	0500	*322	*4.11				

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	.01		0	.15	.24	.51	.86	.39	.07			
2	.01		0	.34	2.5	.51	.83	.29	.06			
3	0		0	2.7	1.2	.51	.83	.27	.04			
4	0		0	.93	.47	.50	.77	.23	.04			
5	0		.02	.32	.33	2.1	.66	.20	.03			
6	0		.06	.23	.28	1.3	.66	.18	.03			
7	0		.05	.22	.24	.82	.59	.15	.03			
8	0		.03	.19	.23	.75	.59	.12	.02			
9	0		.03	.15	.23	.73	.58	.14	.02			
10	0		.02	.15	.20	.68	.51	.14	.02			
11	0		.02	.15	.44	.82	.51	.14	.02			
12	0		.03	.15	5.9	1.5	.49	.13	.02			
13	0		.04	.12	58	2.3	.45	.12	.02			
14	0		.04	.12	7.0	4.0	.45	.10	.02			
15	0		.06	.12	5.4	2.4	.38	.09	.01			
16	0		.07	.12	2.3	1.6	.37	.10	.01			
17	0		.07	.12	1.4	1.3	.33	.11	.01			
18	0		.20	.12	1.1	1.2	.33	.13	.01			
19	0		.24	.12	1.0	1.3	.32	.15	.01			
20	0		.22	.12	.88	1.0	.27	.10	.01			
21	0		.12	.13	.75	3.5	.27	.09	.01			
22	0		.09	.15	.75	1.5	.27	.07	.01			
23	0		.10	.43	.75	2.3	.23	.07	.01			
24	0		.09	.60	.68	1.5	.23	.08	.01			
25	0		.07	.59	.60	1.2	.23	.13	.01			
26	0		.06	.28	.54	1.1	.18	.14	.01			
27	0		.06	.45	.51	1.0	.17	.12	.01			
28	0		.06	1.6	.51	1.0	.16	.09	0			
29	0		.05	.30	---	.92	.15	.08	0			
30	0		.04	.37	---	.90	.70	.07	0			
31	0	---	.04	.33	---	.92	---	.07	---			---
TOTAL	.02	0	1.98	11.87	94.43	41.67	13.37	4.29	.57	0	0	0
MEAN	.0006	0	.064	.38	3.37	1.34	.45	.14	.019	0	0	0
MAX	.01	0	.24	2.7	58	4.0	.86	.39	.07	0	0	0
MIN	0	0	0	.12	.20	.50	.15	.07	0	0	0	0
AC-FT	.04	0	3.9	24	187	83	27	8.5	1.1	0	0	0
CAL YR 1986	TOTAL	1707.73	MEAN	4.68	MAX	385	MIN	0	AC-FT	3390		
WTR YR 1987	TOTAL	168.20	MEAN	.46	MAX	58	MIN	0	AC-FT	334		

SAN LORENZO CREEK BASIN

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979 to current year (storm season only).

WATER TEMPERATURE: Water years 1979 to current year.

SEDIMENT DATA: Water years 1979 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1978 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1978 to current year.

REMARKS.--Zero bedload discharge observed at flows less than 7.2 ft³/s. Sediment samples were collected on most days where a water temperature is published.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 22,400 mg/L, Feb. 17, 1986; minimum daily mean, no flow many days during most years.

SEDIMENT LOAD: Maximum daily, 26,400 tons, Feb. 17, 1986; minimum daily, 0 ton many days during most years.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 5,960 mg/L, Feb. 13; minimum daily mean, no flow on many days.

SEDIMENT LOAD: (storm season only): Maximum daily, 2,510 tons, Feb. 13; 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	12.5		---	---	---	---	---					
2	---		---	9.0	9.5	---	12.0					
3	---		---	10.0	---	---	---					
4	---		---	---	---	---	13.0					
5	---		10.0	---	---	---	---					
6	---		---	---	10.0	---	14.0					
7	---		---	---	11.5	---	15.0					
8	---		---	---	---	---	15.0					
9	---		---	---	11.0	11.5	15.0					
10	---		---	---	12.5	10.0	---					
11	---		---	---	12.5	---	---					
12	---		---	---	11.0	13.0	13.5					
13	---		---	4.0	13.0	11.0	---					
14	---		---	---	10.0	11.5	15.0					
15	---		12.0	---	10.0	11.0	---					
16	---		---	---	8.5	9.5	17.0					
17	---		7.5	---	8.5	11.5	---					
18	---		13.0	---	7.0	10.5	13.0					
19	---		---	---	7.5	9.0	---					
20	---		8.0	---	9.5	8.5	---					
21	---		---	---	---	7.5	16.5					
22	---		---	---	---	9.0	---					
23	---		7.5	---	8.0	9.5	15.0					
24	---		---	---	5.0	10.5	---					
25	---		---	---	---	12.0	---					
26	---		---	---	6.0	12.0	17.0					
27	---		---	---	---	12.5	---					
28	---		---	8.5	9.0	---	16.0					
29	---		8.0	---	---	---	---					
30	---		8.0	---	---	13.5	11.5					
31	---		---	---	---	13.0	---					

SAN LORENZO CREEK BASIN

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, 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	.01	30	.00	.00	0	.00	.00	0	.00
2	.01	0	.00	.00	0	.00	.00	0	.00
3	.00	0	.00	.00	0	.00	.00	0	.00
4	.00	0	.00	.00	0	.00	.00	0	.00
5	.00	0	.00	.00	0	.00	.02	38	.00
6	.00	0	.00	.00	0	.00	.06	35	.01
7	.00	0	.00	.00	0	.00	.05	34	.00
8	.00	0	.00	.00	0	.00	.03	33	.00
9	.00	0	.00	.00	0	.00	.03	32	.00
10	.00	0	.00	.00	0	.00	.02	31	.00
11	.00	0	.00	.00	0	.00	.02	30	.00
12	.00	0	.00	.00	0	.00	.03	29	.00
13	.00	0	.00	.00	0	.00	.04	28	.00
14	.00	0	.00	.00	0	.00	.04	27	.00
15	.00	0	.00	.00	0	.00	.06	26	.00
16	.00	0	.00	.00	0	.00	.07	20	.00
17	.00	0	.00	.00	0	.00	.07	13	.00
18	.00	0	.00	.00	0	.00	.20	17	.01
19	.00	0	.00	.00	0	.00	.24	25	.02
20	.00	0	.00	.00	0	.00	.22	32	.02
21	.00	0	.00	.00	0	.00	.12	26	.01
22	.00	0	.00	.00	0	.00	.09	22	.01
23	.00	0	.00	.00	0	.00	.10	20	.01
24	.00	0	.00	.00	0	.00	.09	19	.00
25	.00	0	.00	.00	0	.00	.07	17	.00
26	.00	0	.00	.00	0	.00	.06	21	.00
27	.00	0	.00	.00	0	.00	.06	18	.00
28	.00	0	.00	.00	0	.00	.06	22	.00
29	.00	0	.00	.00	0	.00	.05	24	.00
30	.00	0	.00	.00	0	.00	.04	41	.00
31	.00	0	.00	---	---	---	.04	25	.00
TOTAL	0.02	---	0.00	0.00	---	0.00	1.98	---	0.09
JANUARY			FEBRUARY			MARCH			
1	.15	27	.01	.24	15	.01	.51	16	.02
2	.34	23	.02	2.5	132	1.8	.51	23	.03
3	2.7	703	8.9	1.2	51	.23	.51	38	.05
4	.93	115	.29	.47	20	.03	.50	28	.04
5	.32	39	.03	.33	24	.02	2.1	44	.29
6	.23	20	.01	.28	28	.02	1.3	11	.04
7	.22	20	.01	.24	36	.02	.82	7	.02
8	.19	19	.01	.23	33	.02	.75	9	.02
9	.15	18	.01	.23	31	.02	.73	13	.03
10	.15	17	.01	.20	37	.02	.68	18	.03
11	.15	16	.01	.44	29	.03	.82	16	.04
12	.15	15	.01	5.9	677	42	1.5	73	.95
13	.12	15	.00	58	5960	2510	2.3	202	1.6
14	.12	14	.00	7.0	69	1.6	4.0	953	21
15	.12	12	.00	5.4	92	1.7	2.4	289	2.2
16	.12	11	.00	2.3	18	.11	1.6	12	.05
17	.12	10	.00	1.4	22	.08	1.3	14	.05
18	.12	8	.00	1.1	27	.08	1.2	7	.02
19	.12	7	.00	1.0	13	.04	1.3	50	.22
20	.12	6	.00	.88	18	.04	1.0	16	.04
21	.13	10	.00	.75	16	.03	3.5	240	3.0
22	.15	14	.01	.75	19	.04	1.5	25	.10
23	.43	45	.05	.75	22	.04	2.3	112	.89
24	.60	63	.10	.68	17	.03	1.5	20	.08
25	.59	47	.07	.60	20	.03	1.2	21	.07
26	.28	32	.02	.54	20	.03	1.1	9	.03
27	.45	42	.14	.51	15	.02	1.0	12	.03
28	1.6	126	.78	.51	21	.03	1.0	12	.03
29	.30	20	.02	---	---	---	.92	14	.03
30	.37	22	.02	---	---	---	.90	16	.04
31	.33	17	.02	---	---	---	.92	13	.03
TOTAL	11.87	---	10.55	94.43	---	2558.12	41.67	---	31.07

SAN LORENZO CREEK BASIN

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, 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)
APRIL			
1	.86	16	.04
2	.83	19	.04
3	.83	13	.03
4	.77	7	.01
5	.66	15	.03
6	.66	20	.04
7	.59	9	.01
8	.59	13	.02
9	.58	10	.02
10	.51	15	.02
11	.51	22	.03
12	.49	28	.04
13	.45	23	.03
14	.45	33	.04
15	.38	30	.03
16	.37	20	.02
17	.33	18	.02
18	.33	16	.01
19	.32	18	.02
20	.27	20	.01
21	.27	22	.02
22	.27	18	.01
23	.23	14	.01
24	.23	27	.02
25	.23	41	.03
26	.18	53	.03
27	.17	39	.02
28	.16	18	.01
29	.15	10	.00
30	.70	25	.05
31	---	---	---
TOTAL	13.37	---	0.71
PERIOD	163.34		2600.54

SUMMARY OF WATER AND SEDIMENT DISCHARGE, OCTOBER 1986 TO APRIL 1987

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE (TONS)	BEDLOAD DISCHARGE (TONS)	TOTAL SEDIMENT DISCHARGE (TONS)
OCTOBER 1986	.02	0	0	0
NOVEMBER	0	0	0	0
DECEMBER	1.98	.09	0	0
JANUARY 1987	11.87	10.55	0	11
FEBRUARY	94.43	2558.12	43	2600
MARCH	41.67	31.07	0	31
APRIL	13.37	.71	0	1
PERIOD	163.34	2600.54	43	2640

SAN LORENZO CREEK BASIN

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

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

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	
DATE	TIME								
JAN									
03...	0950	2.2	10.0	574	3.4	--	--	--	
03...	1245	7.2	10.0	3000	58	50	60	75	
28...	1055	1.6	8.5	116	0.50	--	--	--	
FEB									
02...	1520	4.2	9.5	362	4.1	--	--	--	
13...*	0230	53	--	15800	2260	25	29	38	
13...*	0245	80	--	14700	3180	29	33	43	
13...*	0300	100	--	15800	4270	28	34	44	
13...*	0315	120	--	13600	4410	31	38	48	
13...	1010	42	13.0	3230	366	40	45	57	
13...*	1250	30	--	1280	104	--	--	--	
MAR									
05...	1420	2.7	11.0	80	0.59	--	--	--	
		SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
JAN									
03...	--	--	99	--	--	--	--	--	--
03...	88	95	98	100	--	--	--	--	--
28...	--	--	98	--	--	--	--	--	--
FEB									
02...	--	--	98	--	--	--	--	--	--
13...	47	57	65	79	93	98	98	98	99
13...	54	64	70	84	95	99	99	99	100
13...	55	65	72	85	95	99	100	--	--
13...	58	70	76	86	95	98	99	99	99
13...	69	81	88	93	97	99	100	--	--
13...	--	--	94	98	99	100	--	--	--
MAR									
05...	--	--	98	--	--	--	--	--	--

* Samples collected with a PS-69 automatic pumping sampler.

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
FEB								
24...	1250	5.0	1	0.66	12	28	66	94
24...	1255	5.0	1	0.66	1	2	5	9
24...	1300	5.0	1	0.66	1	2	7	18
24...	1305	5.0	1	0.66	--	1	3	9
24...	1310	5.0	1	0.66	1	2	9	16
DATE		BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
FEB								
24...	99	100	--	--	--	--	--	--
24...	13	23	44	77	98	100	--	--
24...	30	62	88	97	100	--	--	--
24...	14	18	20	25	32	55	100	100
24...	21	33	48	62	77	87	100	100

SAN LORENZO CREEK BASIN

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

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

DATE	TIME	TEMPER- ATURE WATER (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	STREAM WIDTH (FT)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
FEB 13...	1040	13.0	14	39	18.5	11	1	11

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
FEB 13...	36	52	67	82	92	99	100

SAN LORENZO CREEK BASIN

11181008 CASTRO VALLEY CREEK AT HAYWARD, CA

LOCATION.--Lat 37°40'48", long 122°04'46", in San Lorenzo (Castro) Grant, Alameda County, Hydrologic Unit 18050004, on left bank 500 ft east of Hayward City Hall, 700 ft upstream from mouth, and 700 ft downstream from small left-bank tributary.

DRAINAGE AREA.--5.51 mi².

PERIOD OF RECORD.--October 1971 to current year (seasonal records only, water years 1975-77).

GAGE.--Water-stage recorder. Elevation of gage is 100 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.--13 years (water years 1972-74, 1978-87), 4.44 ft³/s, 3,220 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,350 ft³/s, Jan. 23, 1983, gage height, 8.51 ft, from rating curve extended above 61 ft³/s on basis of slope-area measurements at gage height 3.92 ft and step-backwater computation to gage height 10.40 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 3	1245	600	5.71	Feb. 13	0330	*953	*7.15

Minimum daily, 0.18 ft³/s, Sept. 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	.38	.38	.33	10	.81	.65	1.1	2.2	.53	.41	.35	.26
2	.32	.24	.44	.71	37	.68	.84	.58	.55	.38	.37	.28
3	.33	.32	.62	60	2.5	.64	.70	.54	.47	.38	.38	.28
4	.31	.39	2.1	1.7	1.2	.59	.71	.60	.45	.38	.45	.30
5	.31	.33	14	.88	.92	20	.72	.55	.52	.38	.47	.28
6	.32	.24	.47	2.8	.78	1.1	.69	.60	.49	.38	.37	.28
7	.33	.24	.37	.72	.75	.83	.66	.60	.45	.37	.35	.26
8	.31	.23	.30	.53	.76	1.0	.65	.51	.61	.38	.33	.30
9	.30	.26	.30	.54	.90	.73	.69	.54	.50	.47	.33	.27
10	.33	.27	.27	.51	4.0	1.7	.61	.49	.48	.52	.33	.24
11	.32	.25	.42	.41	3.2	1.4	.59	.50	.50	.34	.33	.22
12	.29	.27	9.1	.45	88	13	.63	.49	.43	.37	.70	.22
13	.33	.30	.37	.38	134	1.6	.63	.48	.46	.36	.58	.22
14	.30	.39	.31	.43	4.8	15	.59	.52	.44	.40	.33	.23
15	.30	.26	5.9	.44	9.7	1.5	.58	.53	.43	.39	.33	.24
16	.27	.27	.55	.43	2.2	1.0	.64	.43	.45	.36	.33	.23
17	.28	.29	.40	.44	1.6	.86	.59	.42	.42	.34	.34	.22
18	.28	.33	13	.48	1.3	3.0	.58	.45	.40	.32	.33	.24
19	.28	1.9	5.5	.46	1.1	5.0	.55	.55	.43	.34	.32	.26
20	.39	.34	.87	.41	.99	.99	.55	.46	.44	.35	.33	.24
21	.31	10	.50	.46	1.1	26	.61	.49	.45	.33	.33	.22
22	.29	.39	3.6	.45	.87	2.0	.59	.49	.43	.36	.30	.22
23	.33	.28	.58	11	1.1	10	.52	.43	.46	.38	.32	.22
24	.34	.27	.47	7.9	.80	1.6	.55	.46	.47	.43	.34	.21
25	.32	.25	.40	.87	.73	1.2	.57	.45	.58	.57	.37	.21
26	.28	.25	.40	.64	.76	1.0	.56	.58	.51	.34	.34	.21
27	.30	.27	.40	22	.62	.98	.59	.45	.43	.33	.29	.22
28	.26	.50	.46	5.7	.66	.89	.56	.47	.43	.32	.32	.21
29	1.3	.54	.41	.95	---	.86	.59	.45	.44	.36	.31	.18
30	.63	.31	.43	11	---	.82	10	.43	.45	.40	.29	.18
31	.46	---	.70	1.1	---	.81	---	1.5	---	.37	.28	---
TOTAL	11.10	20.56	63.97	144.79	303.15	117.43	28.44	18.24	14.10	11.81	11.14	7.15
MEAN	.36	.69	2.06	4.67	10.8	3.79	.95	.59	.47	.38	.36	.24
MAX	1.3	10	14	60	134	26	10	2.2	.61	.57	.70	.30
MIN	.26	.23	.27	.38	.62	.59	.52	.42	.40	.32	.28	.18
AC-FT	22	41	127	287	601	233	56	36	28	23	22	14
CAL YR 1986	TOTAL	1551.16	MEAN	4.25	MAX	209	MIN	.23	AC-FT	3080		
WTR YR 1987	TOTAL	751.88	MEAN	2.06	MAX	134	MIN	.18	AC-FT	1490		

WILDCAT CREEK BASIN

11181390 WILDCAT CREEK AT VALE ROAD, AT RICHMOND, CA

LOCATION.--Lat 37°57'12", long 122°20'14", in San Pablo Grant, Contra Costa County, Hydrologic Unit 18050002, on left bank at upstream side of Vale Road bridge at Richmond, 3.6 mi upstream from mouth.

DRAINAGE AREA.--7.79 mi².

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

REVISED RECORDS.--WDR CA-81-2: 1979-80(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 65.56 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: July 4, 5. Records fair. Minor storage in Lake Anza and Jewel Lake 5 mi upstream. No diversion above station.

AVERAGE DISCHARGE.--12 years, 5.82 ft³/s, 4,220 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,050 ft³/s, Jan. 4, 1982, gage height, 14.68 ft recorded by gage, 15.80 ft from floodmarks; no flow Aug. 31, Sept. 6, 7, 1979, and many days in 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharge 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)
Feb. 13	0400	*556	*5.93				

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	2.6	4.0	.38	5.1	1.7	.87	.31	.10	.01	0	.01	.01
2	3.2	2.1	.31	.98	36	.64	.35	.10	.01	0	.01	.01
3	1.6	1.4	.21	32	20	.62	.33	.06	.01	0	.01	.01
4	2.3	1.1	1.9	11	7.0	.89	.33	.05	.01	.01	0	0
5	2.2	.81	4.8	3.5	5.2	17	.22	.05	.01	.01	.01	0
6	2.3	.71	1.8	4.3	4.4	9.1	.20	.04	.03	0	.01	0
7	2.0	.75	.79	2.2	3.3	4.4	.21	.03	0	0	0	0
8	2.0	.62	.37	1.4	2.7	2.5	.21	.03	0	.01	0	0
9	2.2	.12	.25	.83	2.7	2.0	.19	.02	.01	0	0	0
10	1.5	.31	.31	.86	4.5	2.1	.18	.02	.01	0	0	0
11	5.5	.67	.80	1.1	13	2.0	.18	.03	0	0	0	0
12	1.6	.31	.34	.38	83	5.2	.18	.03	0	0	0	0
13	1.0	.37	.40	.30	165	14	.17	.02	0	0	.01	0
14	.61	.45	.61	.20	18	18	.19	.01	0	0	0	0
15	1.0	.42	3.1	.20	17	11	.16	.01	0	.01	0	.01
16	.79	.17	2.9	.17	8.9	5.8	.13	.01	0	0	0	.01
17	1.2	.19	1.7	.18	5.4	4.1	.11	.01	0	0	.01	0
18	.58	.23	3.2	.20	3.8	3.3	.09	.01	0	0	.01	0
19	1.8	.12	1.2	.18	3.0	3.1	.09	.01	0	0	0	0
20	.23	.12	.74	.14	2.0	2.7	.07	.01	0	0	0	0
21	.14	.23	.35	.13	1.6	4.5	.10	.01	.01	0	0	0
22	.11	.25	3.7	.85	1.3	3.4	.09	.01	0	.01	0	0
23	.07	.41	1.4	7.4	1.7	5.1	.07	.01	0	0	0	.01
24	.09	.09	1.7	8.8	1.2	3.0	.17	.01	0	0	.01	.01
25	.04	.10	.85	4.5	.98	2.1	.23	.01	0	0	.01	.01
26	.04	.11	.52	1.2	.85	1.3	.10	.01	0	0	0	.01
27	.06	.17	.47	7.1	.95	1.5	.06	.01	0	0	0	.01
28	.03	.86	.57	16	.94	1.3	.05	.01	0	0	.01	.01
29	8.3	.38	.32	4.9	---	1.0	.05	.01	0	.01	0	.01
30	14	.27	.60	9.0	---	.45	.47	.01	0	0	0	.01
31	9.0	---	2.6	4.2	---	.36	---	.01	---	.01	0	---
TOTAL	68.09	17.84	39.19	129.30	416.12	133.33	5.29	.76	.11	.07	.11	.13
MEAN	2.20	.59	1.26	4.17	14.9	4.30	.18	.025	.004	.002	.004	.004
MAX	14	4.0	4.8	32	165	18	.47	.10	.03	.01	.01	.01
MIN	.03	.09	.21	.13	.85	.36	.05	.01	0	0	0	0
AC-FT	135	35	78	256	825	264	10	1.5	.2	.1	.2	.3

CAL YR 1986	TOTAL	4011.40	MEAN	11.0	MAX	554	MIN	.03	AC-FT	7960
WTR YR 1987	TOTAL	810.34	MEAN	2.22	MAX	165	MIN	0	AC-FT	1610

RHEEM CREEK BASIN

11182030 RHEEM CREEK AT SAN PABLO, CA

LOCATION.--Lat 37°58'38", long 122°21'10", in San Pablo Grant, Contra Costa County, Hydrologic Unit 18050002, on left bank 50 ft downstream from Santa Fe Railway bridge at San Pablo and 0.7 mi upstream from mouth.

DRAINAGE AREA.--1.49 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 13.63 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Aug. 13, 1965, at site 0.2 mi upstream at datum 7.74 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Low flow affected by return flow from industrial waste, leakage, and infrequent releases from off-stream North Reservoir.

AVERAGE DISCHARGE.--26 years (water years 1962-87), 1.54 ft³/s, 1,120 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 477 ft³/s, Dec. 20, 1969, gage height, 6.95 ft, from rating curve extended above 150 ft³/s; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 180 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0100	*258	*5.62	Mar. 14	1100	185	4.91

No flow 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	.03	.02	.02	3.2	.18	.06	.30	.09	.05	.05	.04	.02
2	.01	.03	.02	.18	14	.06	.34	.04	.05	.13	.02	.07
3	.01	.01	.01	26	.95	.04	.19	.04	.07	.04	.05	.05
4	.01	.01	1.9	7.5	.41	.57	.21	.05	.04	.04	.03	.01
5	.04	.01	3.7	.49	.30	14	.21	.08	.04	.04	.02	.04
6	.07	.01	.04	2.9	.20	.69	.21	.16	.04	.04	.04	.05
7	.04	.01	.02	.52	.40	.25	.08	.19	.05	.04	.03	.02
8	.15	.01	.02	.16	.09	.15	.07	.25	.06	.05	.03	.02
9	.05	.03	.02	.07	.18	.10	.08	.18	.03	.04	.09	.01
10	.07	.01	.01	.06	1.6	1.5	.06	.05	.08	.04	.03	0
11	.07	.01	.01	.06	5.0	.49	.04	.09	.03	.05	.02	.01
12	.08	0	.02	.04	49	7.1	.04	.12	.04	.04	.01	.01
13	.05	0	.08	.03	35	.92	.04	.11	.04	.06	.07	.02
14	.02	.01	.02	.06	3.1	11	.07	.06	.03	.08	.12	.02
15	.04	.01	4.2	.02	5.7	1.5	.11	.07	.03	.04	.05	.02
16	.08	.01	.16	.02	1.1	1.1	.11	.05	.03	.06	.04	.01
17	1.1	.01	.03	.02	.65	.96	.06	.05	.05	.04	.03	.01
18	.03	.01	1.4	.02	.38	1.2	.04	.04	.02	.05	.02	.01
19	.02	.01	7.4	.02	.29	1.1	.02	.06	.04	.08	.03	.01
20	.02	.01	.37	.02	.20	.71	.04	.06	.02	.08	.07	.03
21	.01	.21	.05	.02	.63	3.7	.06	.03	.02	.05	.03	.02
22	.03	.01	4.9	.49	.25	.84	.08	.04	.01	.05	.04	.01
23	.02	0	.20	5.3	.76	3.7	.06	.06	.02	.04	.03	.01
24	.02	.01	.05	4.5	.19	.83	.04	.06	.02	.05	.04	0
25	.04	.01	.04	.97	.11	.87	.04	.04	.03	.04	.03	0
26	.04	.01	.30	.20	.07	.65	.03	.03	.03	.03	.03	0
27	.05	.01	.03	7.1	.06	.43	.02	.08	.05	.04	.02	.01
28	.01	1.2	.02	2.2	.07	.39	.02	.04	.07	.07	.01	.01
29	.45	.24	.01	.38	---	.40	.04	.04	.07	.05	.03	.02
30	.11	.02	.02	4.4	---	.55	1.6	.05	.11	.10	.08	.01
31	.01	---	.82	.38	---	.39	---	.05	---	.04	.02	---
TOTAL	2.78	1.95	25.89	67.33	120.87	56.25	4.31	2.36	1.27	1.65	1.20	.53
MEAN	.090	.065	.84	2.17	4.32	1.81	.14	.076	.042	.053	.039	.018
MAX	1.1	1.2	7.4	26	49	14	1.6	.25	.11	.13	.12	.07
MIN	.01	0	.01	.02	.06	.04	.02	.03	.01	.03	.01	0
AC-FT	5.5	3.9	51	134	240	112	8.5	4.7	2.5	3.3	2.4	1.1

CAL YR 1986 TOTAL 780.04 MEAN 2.14 MAX 90 MIN 0 AC-FT 1550
WTR YR 1987 TOTAL 286.39 MEAN .78 MAX 49 MIN 0 AC-FT 568

PACHECO CREEK BASIN

11182500 SAN RAMON CREEK AT SAN RAMON, CA

LOCATION.--Lat 37°46'23", long 121°59'37", in sec.8, T.2 S., R.1 W., Contra Costa County, Hydrologic Unit 18050001, on right bank 0.2 mi downstream from Bollinger Creek and 1.0 mi southwest of San Ramon.

DRAINAGE AREA.--5.89 mi².

PERIOD OF RECORD.--October 1952 to current year.

REVISED RECORDS.--WSP 1445: 1953-54(P).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 530 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Mar. 6 to Apr. 6 and July 9 to Aug. 19. Records good except those for estimated daily discharges, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--35 years, 3.33 ft³/s, 2,410 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,600 ft³/s, Oct. 13, 1962, gage height, 16.98 ft, from rating curve extended above 200 ft³/s on basis of culvert computations at gage heights 11.80, 12.09, 14.20, and 16.98 ft; no flow for parts of 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)
Feb. 13	0445	*278	*4.22				

No flow several days in 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	.27	.18	.13	.72	.46	.48	.95	.42	.13	.05	.01	.01
2	.23	.12	.13	.63	3.0	.48	.90	.31	.07	.04	.01	.01
3	.19	.14	.12	3.4	1.0	.48	.84	.29	.03	.03	.01	.01
4	.20	.20	.13	.80	.60	.48	.80	.26	.04	.02	.01	.01
5	.20	.19	.61	.47	.53	.74	.76	.23	.07	.02	.01	.01
6	.19	.17	.25	.53	.48	3.1	.73	.22	.06	.02	.01	.01
7	.23	.17	.14	.57	.48	.87	.70	.19	.06	.02	.01	0
8	.23	.20	.13	.23	.47	.79	.61	.19	.07	.03	.01	0
9	.23	.19	.13	.19	.47	.78	.64	.20	.09	.02	.01	.01
10	.27	.21	.13	.19	.49	.72	.62	.20	.10	.02	.01	.01
11	.35	.16	.13	.19	.74	.70	.63	.16	.07	.02	.01	.01
12	.32	.12	.15	.19	12	3.7	.61	.15	.06	.02	.01	.01
13	.28	.12	.19	.18	56	1.7	.58	.14	.05	.02	.01	.01
14	.27	.12	.19	.19	3.4	3.8	.55	.12	.05	.02	.01	.01
15	.25	.18	.25	.15	5.0	2.7	.52	.11	.07	.02	.01	.01
16	.29	.18	.30	.13	1.9	1.8	.49	.14	.08	.02	.01	.01
17	.31	.16	.18	.15	1.3	1.5	.50	.16	.08	.02	.01	.01
18	.32	.16	.41	.15	.91	1.5	.49	.19	.11	.02	.01	.01
19	.31	.18	.39	.15	.69	1.4	.45	.17	.10	.02	.01	0
20	.27	.21	.32	.15	.50	1.3	.61	.15	.12	.02	.01	0
21	.30	.22	.19	.16	.48	3.3	.44	.15	.10	.01	.02	0
22	.29	.19	.28	.16	.44	2.0	.40	.17	.07	.01	.01	0
23	.27	.19	.27	.64	.39	2.3	.39	.15	.04	.01	.02	0
24	.29	.19	.19	.80	.40	1.8	.41	.18	.03	.01	.01	0
25	.29	.15	.19	.66	.35	1.3	.36	.20	.03	.01	.01	0
26	.27	.09	.19	.43	.36	1.2	.32	.20	.02	.01	.01	0
27	.27	.09	.19	.71	.36	1.1	.28	.20	.02	.01	.01	0
28	.26	.11	.19	2.3	.43	1.1	.28	.16	.03	.01	.01	0
29	.29	.19	.19	.58	---	1.0	.28	.15	.04	.01	.01	0
30	.37	.13	.19	.77	---	.95	.86	.16	.05	.01	.01	0
31	.38	---	.21	.53	---	1.0	---	.15	---	.01	.01	---
TOTAL	8.49	4.91	6.69	17.10	93.63	46.07	17.00	5.87	1.94	.58	.33	.16
MEAN	.27	.16	.22	.55	3.34	1.49	.57	.19	.065	.019	.011	.005
MAX	.38	.22	.61	3.4	.56	3.8	.95	.42	.13	.05	.02	.01
MIN	.19	.09	.12	.13	.35	.48	.28	.11	.02	.01	.01	0
AC-FT	17	9.7	13	34	186	91	34	12	3.8	1.2	.7	.3

CAL YR 1986	TOTAL	2498.31	MEAN	6.84	MAX	380	MIN	.06	AC-FT	4960
WTR YR 1987	TOTAL	202.77	MEAN	.56	MAX	56	MIN	0	AC-FT	402

PACHECO CREEK BASIN

11183000 SAN RAMON CREEK AT WALNUT CREEK, CA

LOCATION.--Lat 37°52'38", long 122°02'52", in San Ramon Grant, Contra Costa County, Hydrologic Unit 18050001, on left bank 600 ft upstream from Rudgear Road, near south city limits of town of Walnut Creek.

DRAINAGE AREA.--47.9 mi².

PERIOD OF RECORD.--October 1952 to current year.

REVISED RECORDS.--WSP 1395: 1953(M). WDR CA-79-2: 1978. WDR CA-84-2: 1974-75 (P), 1978-80 (P).

GAGE.--Water-stage recorder. Concrete control since Dec. 4, 1962. Datum of gage is 169.98 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 8, 1971, at site 0.6 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Feb. 16-26 and May 21 to July 8. Records good. No regulation; pumping for irrigation above station during periods of low flow.

AVERAGE DISCHARGE.--35 years, 20.5 ft³/s, 14,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,980 ft³/s, Jan. 31, 1963, gage height, 14.40 ft, site and datum then in use, from rating curve extended above 2,200 ft³/s on basis of computed discharge at gage height 13.16 ft; no flow at times in some years.

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)
Feb. 13	0530	*1,750	*6.03				

Minimum daily, 2.3 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	7.0	4.8	4.3	16	10	8.1	7.0	7.5	4.0	4.1	3.7	3.1
2	6.3	4.6	4.1	11	89	8.1	7.0	5.8	4.4	4.0	3.6	3.0
3	5.7	4.4	4.1	94	25	8.1	7.3	5.4	4.4	4.0	3.5	3.0
4	12	4.5	4.1	16	13	8.6	7.3	5.4	4.5	4.0	3.5	3.0
5	6.3	4.4	16	6.3	11	76	7.0	5.2	4.9	4.0	3.4	3.0
6	5.9	4.3	5.6	11	11	17	6.8	5.0	4.5	3.9	3.4	3.0
7	5.8	4.3	5.0	11	11	11	7.3	5.2	4.5	3.8	3.1	3.0
8	5.4	4.3	4.1	5.7	11	11	7.3	5.0	4.5	3.8	3.1	3.0
9	5.6	4.3	4.1	4.9	11	9.9	7.2	5.2	4.4	3.8	3.1	3.0
10	6.2	4.3	4.1	4.3	13	11	7.5	5.4	4.4	3.8	3.1	3.1
11	6.0	4.5	4.0	4.0	20	19	7.4	5.2	4.3	3.7	3.1	3.3
12	6.0	4.9	4.0	4.0	261	48	7.3	5.4	4.3	3.7	3.3	3.3
13	6.0	4.7	4.0	4.2	577	38	7.3	5.0	4.2	3.7	3.5	3.3
14	5.9	4.7	4.0	4.0	39	60	6.8	4.9	4.4	3.8	3.5	3.1
15	5.8	4.5	8.6	4.5	62	23	6.8	4.7	4.4	3.7	3.5	3.1
16	5.6	4.6	8.1	5.7	25	14	6.8	4.7	4.9	3.6	3.5	3.0
17	5.9	4.8	4.4	4.9	19	11	7.0	4.7	5.3	3.4	3.5	3.0
18	5.6	4.7	10	4.9	15	9.3	7.0	5.4	9.2	3.4	3.5	3.1
19	5.3	4.9	6.0	4.9	13	8.1	6.6	5.2	7.3	3.4	3.7	3.1
20	5.6	4.6	8.6	4.9	11	7.8	6.6	5.4	4.9	3.4	3.5	3.1
21	5.9	4.6	4.2	4.9	10	57	6.8	4.7	4.8	3.3	3.6	3.2
22	6.7	4.7	8.8	5.0	9.1	15	7.5	4.8	4.7	4.1	4.0	3.0
23	5.9	4.7	6.2	29	8.2	26	7.3	4.5	4.7	4.0	3.8	2.8
24	5.8	4.4	4.3	21	7.8	11	6.8	4.6	4.7	4.0	3.8	2.7
25	5.9	4.4	4.1	14	7.7	9.0	6.8	4.4	4.3	3.8	3.7	2.7
26	5.9	4.3	4.0	8.6	8.1	8.7	6.8	4.3	3.4	3.7	3.5	2.5
27	5.9	4.1	4.0	18	8.1	7.8	7.0	4.0	3.6	3.7	3.9	2.5
28	5.5	4.1	4.0	67	8.1	7.3	7.0	4.0	3.6	3.7	3.4	2.5
29	5.0	5.6	4.0	13	---	7.0	7.8	4.1	3.9	3.7	3.4	2.5
30	5.4	4.6	4.0	21	---	7.0	22	4.3	4.2	3.7	3.3	2.3
31	5.1	---	3.9	12	---	7.3	---	4.2	---	3.7	3.6	---
TOTAL	186.9	136.6	168.7	439.7	1314.1	570.1	227.1	153.6	139.6	116.4	108.1	88.3
MEAN	6.03	4.55	5.44	14.2	46.9	18.4	7.57	4.95	4.65	3.75	3.49	2.94
MAX	12	5.6	16	94	577	76	22	7.5	9.2	4.1	4.0	3.3
MIN	5.0	4.1	3.9	4.0	7.7	7.0	6.6	4.0	3.4	3.3	3.1	2.3
AC-FT	371	271	335	872	2610	1130	450	305	277	231	214	175
CAL YR 1986	TOTAL	16060.0	MEAN	44.0	MAX	2240	MIN	3.9	AC-FT	31860		
WTR YR 1987	TOTAL	3649.2	MEAN	10.0	MAX	577	MIN	2.3	AC-FT	7240		

PACHECO CREEK BASIN

11183600 WALNUT CREEK AT CONCORD, CA

LOCATION.--Lat 37°56'43", long 122°02'55", in Arroyo de las Nueces y Bolbones Grant, Contra Costa County, Hydrologic Unit 18050001, on right bank at southwest city limits of Concord, 0.2 mi upstream from Southern Pacific railroad bridge, 3.8 mi downstream from confluence of San Ramon and Las Trampas Creeks, and 10 mi downstream from Lafayette Reservoir.

DRAINAGE AREA.--85.2 mi².

PERIOD OF RECORD.--October 1968 to current year.

REVISED RECORDS.--WDR CA-79-2: Drainage area. WDR CA-82-2: 1969(M), 1970(M), 1973(P), 1975(M), 1978(M), 1980(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 35.44 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Feb. 20-27. Records good. Flow slightly regulated by Lafayette Reservoir, capacity, 4,240 acre-ft. Some small diversions for irrigation above station.

AVERAGE DISCHARGE.--19 years, 53.9 ft³/s, 39,050 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,300 ft³/s, Jan. 5, 1982, gage height, 19.1 ft, from rating curve extended above 3,000 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 0.70 ft³/s, Oct. 7, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0500	*4,310	*8.89				

Minimum daily, 6.2 ft³/s, Aug. 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	16	9.8	14	27	14	16	17	18	9.0	9.5	7.3	6.3
2	13	9.3	15	26	111	16	17	14	8.6	9.3	7.3	6.4
3	11	8.9	9.5	121	41	16	18	13	9.8	9.3	7.0	6.3
4	16	8.9	9.5	33	18	16	17	13	9.7	9.3	6.9	6.3
5	11	8.9	39	24	15	124	16	13	9.9	9.5	6.3	14
6	10	9.2	14	27	23	32	17	13	11	9.3	6.7	8.3
7	10	8.9	11	28	21	20	17	13	10	9.0	6.3	6.4
8	10	9.2	9.6	13	22	18	17	12	10	8.7	6.3	6.5
9	12	9.1	9.5	12	14	17	17	12	9.9	8.0	6.6	6.3
10	16	9.5	9.5	11	22	20	17	12	9.7	7.4	6.4	6.7
11	12	9.5	9.5	11	43	35	16	12	9.6	7.3	6.4	7.0
12	12	10	9.5	11	370	77	16	12	9.5	7.4	6.6	7.1
13	20	10	10	10	1090	72	16	12	9.6	7.4	6.7	7.1
14	12	10	10	10	71	99	16	11	9.2	7.5	7.0	13
15	11	9.5	22	9.8	104	43	16	10	9.8	7.0	7.9	11
16	10	9.9	22	11	38	25	16	13	9.8	7.2	7.2	7.6
17	15	10	11	9.9	31	22	23	18	11	7.1	7.0	7.6
18	10	11	36	10	27	24	15	23	12	7.3	7.1	7.6
19	9.8	15	17	9.6	23	24	15	23	22	7.8	7.1	7.7
20	10	18	17	9.7	21	20	21	25	17	7.0	6.8	7.6
21	11	11	11	9.5	20	86	16	23	11	10	6.9	7.5
22	11	11	22	9.8	18	32	15	23	11	15	7.5	7.3
23	11	10	17	54	16	43	15	22	11	8.3	6.7	6.5
24	11	9.8	11	28	15	25	14	22	11	8.4	6.7	6.5
25	15	9.2	10	21	16	20	16	18	11	8.3	6.7	6.7
26	20	8.9	10	13	16	19	13	9.1	10	7.8	6.2	6.4
27	11	8.9	10	30	16	18	13	8.9	7.7	7.7	6.6	7.0
28	11	10	10	94	16	18	14	8.3	7.9	7.5	7.0	6.4
29	22	13	9.5	19	---	17	13	8.2	7.9	7.8	7.7	6.3
30	23	10	9.5	36	---	17	36	8.4	8.8	7.7	7.6	6.6
31	15	---	10	17	---	20	---	9.0	---	7.7	7.7	---
TOTAL	407.8	306.4	434.6	755.3	2252	1051	505	451.9	314.4	258.5	214.2	224.0
MEAN	13.2	10.2	14.0	24.4	80.4	33.9	16.8	14.6	10.5	8.34	6.91	7.47
MAX	23	18	39	121	1090	124	36	25	22	15	7.9	14
MIN	9.8	8.9	9.5	9.5	14	16	13	8.2	7.7	7.0	6.2	6.3
AC-FT	809	608	862	1500	4470	2080	1000	896	624	513	425	444
CAL YR 1986	TOTAL	30889.8	MEAN	84.6	MAX	6260	MIN	8.9	AC-FT	61270		
WTR YR 1987	TOTAL	7175.1	MEAN	19.7	MAX	1090	MIN	6.2	AC-FT	14230		

PACHECO CREEK BASIN

11183700 LITTLE PINE CREEK NEAR ALAMO, CA

LOCATION.--Lat 37°53'06", long 121°58'36", in Arroyo de las Nueces y Bolbones Grant, Contra Costa County, Hydrologic Unit 18050001, on right bank 200 ft downstream from road ford, 1.2 mi upstream from mouth, and 3.8 mi northeast of Alamo.

DRAINAGE AREA.--1.22 mi².

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 520 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 18 and Jan. 2-15. Records good except those for estimated daily discharges, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--13 years, 0.35 ft³/s, 254 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 138 ft³/s, Jan. 4, 1982, gage height, 2.41 ft, from rating curve extended above 12 ft³/s on basis of critical depth computation; no flow for long periods in 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)
Feb. 13	0430	*11	*1.50				

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	.02	.05	.03					
2			0	.01	.24	.05	.03					
3			0	.05	.11	.05	.04					
4			0	.27	.06	.05	.03					
5			0	.08	.04	.28	.03					
6			0	.02	.04	.11	.03					
7			0	.02	.03	.07	.02					
8			0	.01	.03	.06	.02					
9			0	.01	.04	.06	.01					
10			0	.01	.05	.06	.01					
11			0	.01	.08	.07	.01					
12			0	.01	.36	.13	.01					
13			0	.01	3.4	.12	.01					
14			0	.01	.47	.18	0					
15			0	.01	.33	.12	0					
16			0	0	.20	.09	0					
17			0	0	.15	.07	0					
18			.01	0	.12	.09	0					
19			0	.01	.11	.07	0					
20			0	0	.09	.07	0					
21			0	0	.09	.21	0					
22			0	.01	.09	.10	0					
23			0	.06	.09	.11	0					
24			0	.04	.08	.08	0					
25			0	.04	.07	.07	0					
26			0	.04	.06	.06	0					
27			0	.06	.05	.05	0					
28			0	.09	.05	.04	0					
29			0	.03	---	.04	0					
30			0	.04	---	.04	0					
31		---	0	.02	---	.03	---		---			---
TOTAL	0	0	.01	.97	6.55	2.68	.28	0	0	0	0	0
MEAN	0	0	.0003	.031	.23	.087	.009	0	0	0	0	0
MAX	0	0	.01	.27	3.4	.28	.04	0	0	0	0	0
MIN	0	0	0	0	.02	.03	0	0	0	0	0	0
AC-FT	0	0	.02	1.9	13	5.3	.6	0	0	0	0	0

CAL YR 1986	TOTAL	206.62	MEAN	.57	MAX	18	MIN	0	AC-FT	410
WTR YR 1987	TOTAL	10.49	MEAN	.029	MAX	3.4	MIN	0	AC-FT	21

NAPA RIVER BASIN

11456000 NAPA RIVER NEAR ST. HELENA, CA

LOCATION.--Lat 38°29'52", long 122°25'37", in Carne Humana Grant, Napa County, Hydrologic Unit 18050002, on right bank 0.2 mi upstream from highway bridge, 1.3 mi northeast of Zinfandel, and 2.5 mi east of St. Helena.

DRAINAGE AREA.--81.4 mi².

PERIOD OF RECORD.--October 1929 to September 1932, October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1929: Drainage area. WDR CA-78-2: 1977(M).

GAGE.--Water-stage recorder. Elevation of gage is 170.12 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 22, 1958, at datum 3.00 ft higher. Nov. 22, 1958, to July 22, 1976, at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records good above 10 ft³/s and fair below. Some regulation by Bell Canyon Reservoir, capacity, 2,530 acre-ft, since 1959. Small diversions above station for irrigation of about 1,500 acres.

AVERAGE DISCHARGE.--51 years, 98.9 ft³/s, 71,650 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft³/s, Feb. 17, 1986, gage height, 18.52 ft, from rating curve extended above 11,000 ft³/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,200 ft³/s, and maximum (*).

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0345	*2,730	*9.43				

Minimum daily, 0.03 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	2.6	2.5	2.5	9.9	12	25	46	12	4.3	1.1	.41	.28
2	3.8	2.0	2.5	15	125	25	42	12	4.4	1.1	.40	.29
3	1.8	2.0	2.5	65	78	27	40	11	3.8	1.7	.47	.29
4	1.7	2.0	2.5	36	26	26	37	11	2.4	1.8	.46	.29
5	1.7	2.1	3.9	24	19	249	35	11	3.6	1.8	.45	.27
6	1.8	2.3	4.2	14	14	176	33	11	4.0	1.5	.44	.27
7	1.8	2.0	3.0	11	11	96	32	10	4.1	1.3	.44	.29
8	1.9	2.1	2.6	9.1	9.3	71	30	9.8	3.9	1.0	.44	.29
9	1.6	2.2	2.6	8.5	9.5	57	28	9.8	3.5	.87	.43	.29
10	1.7	2.4	2.7	7.5	8.9	48	27	9.8	3.3	.89	.42	.28
11	1.9	2.2	2.7	6.7	16	52	27	9.1	3.2	.90	.45	.25
12	2.3	2.2	2.8	6.5	324	497	26	8.6	2.8	.81	.45	.22
13	1.9	2.1	2.9	6.3	1300	758	25	8.2	2.7	.78	.37	.22
14	1.8	1.9	3.5	5.8	255	351	25	7.8	2.3	.75	.32	.21
15	1.8	1.7	3.5	5.8	295	255	23	7.5	2.0	.65	.36	.20
16	1.8	2.0	3.3	5.6	167	180	21	7.1	2.7	.67	.39	.19
17	1.8	2.1	3.0	5.6	113	137	20	6.3	2.8	.63	.41	.19
18	1.9	2.0	4.1	5.8	85	114	21	6.4	2.3	.66	.40	.18
19	1.9	2.2	6.1	5.8	68	96	20	6.9	2.6	.65	.40	.17
20	2.0	2.2	6.9	5.4	56	82	20	6.9	2.8	.66	.40	.16
21	2.1	2.5	4.9	5.4	49	114	19	7.0	2.3	.62	.40	.15
22	2.4	2.4	6.1	5.3	45	98	18	6.6	2.5	.59	.38	.13
23	2.5	2.4	7.1	7.3	41	136	16	6.5	2.0	.41	.38	.12
24	2.8	2.3	4.5	17	37	111	15	6.5	1.8	.33	.38	.11
25	2.5	2.4	3.6	16	33	85	16	6.3	1.9	.30	.38	.10
26	2.6	2.4	3.4	12	31	73	16	5.9	1.8	.31	.37	.09
27	2.3	2.4	3.3	12	29	68	15	6.0	1.8	.41	.36	.09
28	2.4	2.5	3.4	40	27	61	14	5.9	1.9	.38	.36	.03
29	2.4	2.5	3.3	24	---	56	11	4.6	1.8	.36	.35	.11
30	2.9	2.6	3.3	19	---	52	12	3.9	1.5	.36	.30	.22
31	3.3	---	4.1	16	---	49	---	4.2	---	.39	.29	---
TOTAL	67.7	66.6	114.8	433.3	3283.7	4225	730	245.6	82.8	24.68	12.26	5.98
MEAN	2.18	2.22	3.70	14.0	117	136	24.3	7.92	2.76	.80	.40	.20
MAX	3.8	2.6	7.1	65	1300	758	46	12	4.4	1.8	.47	.29
MIN	1.6	1.7	2.5	5.3	8.9	25	11	3.9	1.5	.30	.29	.03
AC-FT	134	132	228	859	6510	8380	1450	487	164	49	24	12

CAL YR 1986	TOTAL	70954.50	MEAN	194	MAX	13700	MIN	.72	AC-FT	140700
WTR YR 1987	TOTAL	9292.42	MEAN	25.5	MAX	1300	MIN	.03	AC-FT	18430

NAPA RIVER BASIN

11458000 NAPA RIVER NEAR NAPA, CA
(National stream-quality accounting network station)

LOCATION.--Lat 38°22'06", long 122°18'08", in Yajome Grant, Napa County, Hydrologic Unit 18050002, on left bank at downstream side of Oak Knoll Avenue bridge, 0.4 mi downstream from Dry Creek, 5 mi north of Napa, and 12.8 mi downstream from Conn Dam.

DRAINAGE AREA.--218 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1929 to September 1932, October 1959 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1315-B: 1930(M).

GAGE.--Water-stage recorder. Datum of gage is 24.74 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: June 17 and June 26 to Sept. 30. Records good, except those for periods of estimated daily record, which are poor. Flow regulated by Lake Hennessey beginning in December 1945, located 12.8 mi upstream (capacity 31,000 acre-ft); Rector Reservoir beginning in 1948, located 12.4 mi upstream (capacity 4,400 acre-ft); Bell Canyon Reservoir beginning in 1959, located 19.6 mi upstream (capacity 2,530 acre-ft). Diversions for irrigation above the station of about 10,000 acres.

AVERAGE DISCHARGE.--31 years, 212 ft³/s, 153,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,100 ft³/s, Feb. 18, 1986, gage height, 30.20 ft, from floodmarks; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,870 ft³/s, Feb. 13, gage height, 14.99 ft; minimum daily, 0.52 ft³/s, Sept. 28.

REVISIONS.--The maximum discharges for water years 1963, 1965, 1967, and 1985 have been revised as shown in the following table. They supersede figures published in WSP 1929 and in the WDR series for 1963, 1965, 1967, and 1985.

Water year	Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Water year	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
1963	Jan. 31	2230	25,000	27.59	1967	Jan. 21	2015	21,400	26.47
1965	Jan. 5	2400	18,100	25.10	1985	Feb. 8	0945	9,360	19.68

The peak discharges and annual maximums (*) for water years 1982-84 have been revised as shown in the following table. They supersede figures published in the WDR series for 1982-84.

Water year	Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Water year	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
1982	Dec. 29	1830	5,610	15.92	1983	Feb. 25	1945	7,200	17.69
	Feb. 16	0830	*12,000	*21.69		Mar. 1	1015	*17,300	*24.73
	Mar. 31	1115	10,800	20.82		Mar. 13	1445	14,900	23.43
	Apr. 11	0800	7,470	17.97		Mar. 17	1900	4,120	14.00
1983	Dec. 22	2015	5,770	16.11	1984	Nov. 17	1400	4,670	14.73
	Jan. 24	0745	9,150	19.50		Nov. 24	1815	4,430	14.41
	Jan. 27	0600	16,600	24.36		Dec. 11	1500	3,980	13.80
	Feb. 8	0315	6,730	17.19		Dec. 25	2130	*12,200	*21.79

Revised daily discharges, in cubic feet per second, for water years 1982-85 are shown in the following tables. These figures supersede those published in the WDR series for 1982-85.

NAPA RIVER BASIN

11458000 NAPA RIVER NEAR NAPA, CA--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							3490	180				
2							4070	172				
3							4340	158				
4							2180	146				
5							1510	135				
6							1200	125				
7							945	117				
8							786	114				
9							675	108				
10							1390	104				
11							6090	99				
12							2820	93				
13							1700	90				
14							1500	89				
15							1160	85				
16							939	80				
17							789	---				
18							673	---				
19							588	---				
20							512	---				
21							437	---				
22							383	---				
23							344	---				
24							313	---				
25							286	---				
26							263	---				
27							238	---				
28							223	---				
29							208	---				
30							192	---				
31							---	---				
TOTAL							40244	2855				
MEAN							1341	92.1				
MAX							6090	180				
MIN							192	54				
AC-FT							79820	5660				
WTR YR 1982	TOTAL	201,637.53	MEAN	552	MAX	13,200	MIN	.51	AC-FT	399,900		

NAPA RIVER BASIN

11458000 NAPA RIVER NEAR NAPA, CA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	876	191	1220	12400						
2		---	524	175	934	6590						
3		---	382	166	794	4610						
4		---	281	156	665	2730						
5		---	225	147	735	2130						
6		---	186	138	1400	1740						
7		---	161	132	2840	2260						
8		---	144	124	4830	1730						
9		---	128	115	2260	1370						
10		---	116	105	1480	1130						
11		---	105	101	1120	955						
12		---	102	97	2720	1540						
13		---	98	96	2240	11100						
14		---	89	96	1440	3480						
15		---	86	93	1130	1970						
16		---	94	93	983	1640						
17		---	493	90	809	2610						
18		1050	280	401	1370	2370						
19		335	205	672	1060	1540						
20		120	219	314	855	1260						
21		74	1940	235	736	1180						
22		80	3390	893	651	1560						
23		325	2160	965	620	1570						
24		151	964	5770	706	2410						
25		93	682	1790	3250	1660						
26		72	538	4690	3000	1240						
27		70	432	10400	4220	1730						
28		496	345	2790	6770	1230						
29		1930	287	2670	---	1020						
30		2380	247	2120	---	891						
31		---	214	1490	---	904						
TOTAL		7401	15993	37315	50838	80550						
MEAN		247	516	1204	1816	2598						
MAX		2380	3390	10400	6770	12400						
MIN		14710	86	90	620	891						
AC-FT		---	31720	74010	100800	159800						
CAL YR 1982	TOTAL	168181.3	MEAN	461	MAX	13200	MIN	5.6	AC-FT	334000		
WTR YR 1983	TOTAL	213657.7	MEAN	585	MAX	12400	MIN	5.9	AC-FT	423800		

NAPA RIVER BASIN

11458000 NAPA RIVER NEAR NAPA, CA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	212	997	107							
2		---	192	819	99							
3		---	962	695	93							
4		---	721	604	88							
5		---	470	536	85							
6		---	433	482	82							
7		---	420	435	83							
8		---	477	398	79							
9		100	2570	364	78							
10		1300	2000	326	80							
11		763	3430	302	78							
12		213	1960	281	83							
13		651	1210	257	248							
14		1200	919	234	294							
15		668	736	224	296							
16		305	614	283	476							
17		2090	557	238	292							
18		684	486	214	226							
19		446	438	199	195							
20		632	404	189	180							
21		432	370	183	178							
22		290	346	177	168							
23		272	437	170	159							
24		2040	2760	163	154							
25		1150	8860	157	147							
26		587	5100	151	139							
27		420	2840	147	132							
28		324	1750	137	126							
29		266	1240	133	120							
30		236	1490	128	---							
31		---	1300	121	---							
TOTAL		15221.7	45704	9744	4565							
MEAN		507	1474	314	157							
MAX		2090	8860	997	476							
MIN		9.3	192	121	78							
AC-FT		30190	90650	19330	9050							
CAL YR 1983	TOTAL	251201.0	MEAN	688	MAX	12400	MIN	6.2	AC-FT	498400		
WTR YR 1984	TOTAL	192045.4	MEAN	525	MAX	8860	MIN	2.7	AC-FT	380400		

NAPA RIVER BASIN

11458000 NAPA RIVER NEAR NAPA, CA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---			38	76						
2		---			41	74						
3		---			42	70						
4		---			43	70						
5		---			41	71						
6		---			40	94						
7		---			188	209						
8		---			5610	142						
9		---			1120	116						
10		---			589	144						
11		74			421	170						
12		86			326	135						
13		502			274	126						
14		167			239	114						
15		86			210	100						
16		444			192	86						
17		214			177	85						
18		174			163	85						
19		117			151	80						
20		84			149	75						
21		73			144	70						
22		61			134	65						
23		51			120	64						
24		311			111	66						
25		199			107	59						
26		118			102	483						
27		506			94	895						
28		1250			83	556						
29		416			---	340						
30		250			---	263						
31		---			---	222						
TOTAL		5319.0			10949	5205						
MEAN		177			391	168						
MAX		1250			5610	895						
MIN		8.6			38	59						
AC-FT		10550			21720	10320						
CAL YR 1984	TOTAL	31619.6	MEAN	86.4	MAX	1250	MIN	2.7	AC-FT	62600		
WTR YR 1985	TOTAL	31591.5	MEAN	86.6	MAX	5610	MIN	2.0	AC-FT	62740		

NAPA RIVER BASIN

11458000 NAPA RIVER NEAR NAPA, 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	6.1	5.3	5.5	9.6	17	40	80	25	9.0	4.0	2.7	1.3
2	5.1	4.9	5.9	19	50	37	75	26	7.2	4.0	2.7	1.3
3	4.6	4.5	5.9	47	150	38	74	26	9.6	5.3	2.8	1.3
4	4.3	4.8	6.0	76	46	41	69	26	7.7	5.5	2.8	1.2
5	4.2	5.3	6.9	45	24	263	65	21	6.9	5.5	2.7	1.2
6	4.3	5.3	8.0	27	18	285	61	22	7.7	4.9	2.6	1.2
7	4.5	5.2	7.9	20	14	143	58	20	8.2	4.5	2.6	1.2
8	4.9	5.3	7.0	17	11	108	57	19	8.3	3.9	2.6	1.2
9	4.7	5.4	6.3	16	10	88	53	19	8.0	3.6	2.5	1.2
10	4.5	5.8	6.3	15	9.0	77	52	19	5.8	3.6	2.4	1.1
11	4.7	5.8	6.3	14	16	74	51	20	5.0	3.7	2.5	1.1
12	4.7	5.8	6.3	12	248	292	50	18	5.4	3.5	2.4	1.1
13	4.6	5.7	6.5	12	2740	1130	48	16	5.2	3.4	2.2	1.0
14	4.6	5.4	6.4	12	503	511	45	15	6.5	3.1	2.0	1.0
15	4.6	4.6	7.2	10	493	395	42	14	7.2	3.1	2.1	1.0
16	4.6	4.5	7.9	10	294	261	40	15	4.8	3.2	2.1	.98
17	4.6	4.4	7.3	10	191	198	40	14	3.6	3.1	2.2	.97
18	4.5	4.6	7.5	10	146	164	40	15	4.0	3.2	2.1	.96
19	4.4	4.5	8.4	9.5	120	138	38	15	4.1	3.2	2.0	.95
20	4.6	4.3	10	9.0	99	117	37	16	6.3	3.2	2.0	.94
21	4.8	4.7	10	9.5	89	203	37	15	6.4	3.1	2.0	.93
22	5.2	4.8	10	9.5	81	162	35	13	5.5	3.0	1.9	.93
23	5.2	4.9	10	11	74	243	34	12	4.3	2.6	1.8	.93
24	5.2	4.8	11	16	64	209	34	14	4.5	2.4	1.8	.92
25	5.4	5.0	9.6	25	57	157	34	14	4.1	2.4	1.8	.90
26	5.2	4.9	8.7	18	52	134	33	14	3.6	2.4	1.7	.82
27	5.0	5.3	8.4	16	45	122	28	12	3.6	2.6	1.6	.74
28	4.9	5.2	8.2	37	40	111	25	12	3.5	2.6	1.6	.52
29	4.9	5.1	7.9	42	---	101	24	12	3.6	2.5	1.6	.62
30	4.7	5.5	7.6	23	---	91	22	10	3.9	2.5	1.4	.66
31	4.6	---	8.3	21	---	85	---	8.0	---	2.6	1.3	---
TOTAL	148.2	151.6	239.2	628.1	5701.0	6018	1381	517.0	173.5	106.2	66.5	30.17
MEAN	4.78	5.05	7.72	20.3	204	194	46.0	16.7	5.78	3.43	2.15	1.01
MAX	6.1	5.8	11	76	2740	1130	80	26	9.6	5.5	2.8	1.3
MIN	4.2	4.3	5.5	9.0	9.0	37	22	8.0	3.5	2.4	1.3	.52
AC-FT	294	301	474	1250	11310	11940	2740	1030	344	211	132	60
CAL YR 1986	TOTAL	165503.60	MEAN	453	MAX	26200	MIN	4.1	AC-FT	328300		
WTR YR 1987	TOTAL	15160.47	MEAN	41.5	MAX	2740	MIN	.52	AC-FT	30070		

NAPA RIVER BASIN

11458000 NAPA RIVER NEAR NAPA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971, 1973 to current year.

CHEMICAL DATA: Water years 1973 to current year.

BIOLOGICAL DATA: Water years 1978-81.

SPECIFIC CONDUCTANCE: Water years 1978 to current year.

WATER TEMPERATURE: Water years 1977-81.

SEDIMENT DATA: Water years 1971, 1977 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1978 to September 1981.

WATER TEMPERATURE: October 1976 to September 1981.

SUSPENDED-SEDIMENT DISCHARGE: October 1976 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)	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- TOCOCOCCI KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
NOV												
05...	0950	5.2	450	8.2	12.0	765	0.60	10.7	99	K3	K11	210
JAN												
21...	1015	9.5	455	8.2	6.5	775	0.50	12.2	98	32	36	170
MAR												
17...	0945	200	220	7.9	12.5	765	12	10.0	93	200	190	77
MAY												
06...	1015	23	348	7.9	20.0	765	1.5	8.9	98	60	62	140
JUL												
14...	1025	3.1	404	8.1	21.5	765	0.80	8.0	90	12	140	170
SEP												
23...	1030	0.93	446	8.1	17.0	765	0.80	8.2	85	--	50	190

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)
NOV												
05...	13	31	31	21	18	0.7	1.9	235	192	192	30	19
JAN												
21...	24	27	24	29	27	1	2.4	173	142	143	40	33
MAR												
17...	0	15	9.7	13	26	0.7	2.1	98	80	80	19	10
MAY												
06...	4	23	20	20	23	0.8	2.4	166	136	136	26	15
JUL												
14...	0	27	25	22	22	0.7	2.5	207	169	170	33	14
SEP												
23...	9	30	29	24	21	0.8	2.4	226	185	186	29	16

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											
05...	0.20	31	266	280	0.36	<0.010	<0.100	<0.010	<0.010	0.30	0.030
JAN											
21...	0.30	33	268	280	0.36	0.030	1.00	0.060	0.030	0.30	0.060
MAR											
17...	0.20	34	141	150	0.19	0.020	1.10	0.050	0.040	0.80	0.120
MAY											
06...	0.20	34	215	220	0.29	<0.010	0.570	0.020	0.010	0.40	0.070
JUL											
14...	0.20	33	255	260	0.35	<0.010	<0.100	0.020	0.040	0.90	0.070
SEP											
23...	0.20	33	255	280	0.35	<0.010	<0.100	<0.010	<0.010	0.50	0.030

See footnotes at end of table.

NAPA RIVER BASIN

11458000 NAPA RIVER NEAR NAPA, 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 05...	0.010	0.030	<10	2	78	<0.5	<1	<1	<3	1	6
JAN 21...	0.020	0.040	<10	1	71	<0.5	<1	<1	<3	2	8
MAR 17...	0.090	0.080	--	--	--	--	--	--	--	--	--
MAY 06...	0.060	0.060	<10	2	65	<0.5	<1	<1	<3	3	11
JUL 14...	0.050	0.040	--	--	--	--	--	--	--	--	--
SEP 23...	0.020	<0.010	<10	3	75	<0.5	<1	<1	<3	<1	15

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 05...	<5	31	12	<0.1	<10	5	<1	<1	220	<6	9
JAN 21...	<5	63	15	<0.1	<10	4	<1	<1	190	<6	14
MAR 17...	--	--	--	--	--	--	--	--	--	--	--
MAY 06...	<5	30	13	<0.1	<10	1	<1	<1	160	<6	6
JUL 14...	--	--	--	--	--	--	--	--	--	--	--
SEP 23...	<5	25	12	<0.1	<10	2	<1	1	210	<6	<3

K Results based on colony count outside the acceptable range (non-ideal colony count).
 < Actual value is known to be less than 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										
17...*	1040	11.6	221	7.90	13.0	765	10.2	96	14	98
17...*	1045	18.3	220	7.90	13.0	765	10.2	96	14	98
17...*	1050	23.0	220	7.90	13.0	765	10.2	96	13	100
17...*	1055	32.8	222	7.90	13.0	765	10.2	96	13	96
17...*	1100	39.1	220	7.90	13.0	765	10.2	96	13	94
JUL										
01...*	1600	2.60	396	8.50	24.5	765	12.4	148	4	--
01...*	1605	4.60	401	8.40	24.5	765	12.6	151	4	--
01...*	1610	5.80	394	8.50	24.5	765	12.6	151	4	--
01...*	1615	7.10	401	8.40	24.5	765	12.6	151	6	--
01...*	1620	9.00	392	8.50	24.5	765	12.5	150	1	--

* Instantaneous streamflow at the time of cross-sectional measurements: March 17, 197 ft³/s; July 1, 4.0 ft³/s.

NAPA RIVER BASIN

11458000 NAPA RIVER NEAR NAPA, 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 05...	0945	5.2	12.0	0	0.0	--
JAN 21...	1020	9.5	6.5	1	0.03	--
MAR 17...	1051	197	13.0	13	6.9	97
MAY 06...	1035	23	20.0	4	0.25	--
JUL 01...	1505	4.0	24.5	4	0.04	--
14...	1030	3.1	21.5	3	0.02	--
SEP 23...	1035	0.93	17.0	5	0.01	98

NOVATO CREEK BASIN

11459500 NOVATO CREEK AT NOVATO, CA

LOCATION.--Lat 38°06'28", long 122°34'44", in Novato Grant, Marin County, Hydrologic Unit 18050002, on left bank in Novato, 100 ft upstream from 7th Street Bridge, and 3.9 downstream from Novato Creek Dam.

DRAINAGE AREA.--17.6 mi².

PERIOD OF RECORD.--October 1946 to current year. Records of diversions for water years 1952-53, estimated. Prior to October 1966, published as "near Novato."

GAGE.--Water-stage recorder. Datum of gage is 14.76 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 23, 1967, at site 0.6 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Flow regulated by Stafford Lake beginning Dec. 1, 1951. Capacity, 4,500 acre-ft since Oct. 18, 1954; contents 2,010 acre-ft, Sept. 30, 1986, and 1,020 acre-ft, Sept. 30, 1987. Diversion from Stafford Lake for municipal water supply began Apr. 25, 1952, and amounted to 1,835 acre-ft for the current year. No diversion from Russian River into Stafford Lake during current year.

COOPERATION.--Record of diversions were provided by North Marin Water District.

AVERAGE DISCHARGE (adjusted for diversions).--41 years, 14.8 ft³/s, 10,720 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft³/s, Jan. 4, 1982, gage height, 14.52 ft; no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 463 ft³/s, Feb. 13, gage height, 6.61 ft; no flow Sept. 17, 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	.92	.21	.14	7.6	1.5	2.7	1.5	.71	1.2	.85	.56	.04
2	.63	.18	.13	2.3	21	2.8	1.4	.63	1.2	.77	.48	.06
3	.33	.23	.19	32	5.2	2.6	1.8	.65	1.1	.69	1.1	.08
4	.24	.23	4.0	7.5	2.0	3.9	1.2	.64	.97	.64	.22	.10
5	.17	.26	3.5	2.6	1.5	21	.99	.62	.82	.66	.13	.25
6	.15	.30	.60	4.3	1.3	4.4	.81	.64	.81	.70	.10	.65
7	.16	.31	.38	1.9	1.1	2.8	.75	1.6	.79	.50	.13	.30
8	.18	.24	.36	1.4	1.0	2.4	.77	2.2	.90	.34	.10	.80
9	.21	.37	.28	1.4	1.2	2.1	.75	1.8	.80	.36	.17	.12
10	.33	.41	.34	1.1	3.1	2.3	.87	.53	.89	.34	.19	.02
11	.23	.38	.28	1.1	14	1.8	.67	.53	.75	.32	.06	.04
12	.19	.37	.31	.95	89	26	.61	.43	.71	.36	.03	.05
13	.19	.28	4.6	.85	149	11	.59	.43	.74	.43	.05	.03
14	.23	.49	.77	.87	36	12	.58	.38	.77	.41	.09	.03
15	.18	.52	2.2	.69	36	5.4	.59	.41	.81	.33	.11	.02
16	.17	.65	.81	.68	16	3.9	.58	.39	.78	.34	.29	.01
17	.25	.36	.43	.73	12	3.3	.65	.41	.96	.26	.53	0
18	.18	.35	4.4	.75	10	3.3	.73	.48	.79	.30	.09	.06
19	.15	.61	16	.78	8.5	3.1	.75	.45	.85	.89	.05	.04
20	.19	.44	3.9	.76	6.9	2.8	.78	.43	.91	.89	.39	0
21	.21	.52	1.7	.77	6.3	8.7	.83	.38	.90	.80	.15	0
22	.25	1.0	9.6	.99	5.5	3.1	.84	.46	.86	.39	.41	0
23	.47	.85	2.1	6.1	5.0	13	.73	.15	.78	.39	.07	.02
24	.45	.47	1.4	16	4.2	4.4	.71	.15	.83	.57	.09	.07
25	.34	.35	1.3	2.6	3.6	3.3	.66	.14	.90	.57	.08	.09
26	.21	.58	1.1	1.4	3.3	2.4	.67	.23	.71	.51	.10	.08
27	.31	.64	1.1	11	3.2	2.0	.71	.37	.76	.47	.11	.03
28	.31	.84	.91	7.1	2.8	1.9	.67	.36	.81	.45	.09	.96
29	.38	.65	.84	2.4	---	1.7	.75	.40	.83	.43	.09	2.4
30	.47	.14	.84	11	---	1.6	.73	1.2	.81	2.2	.05	1.9
31	.30	---	3.6	2.3	---	1.5	---	1.5	---	.89	.04	---
TOTAL	8.98	13.23	68.11	131.92	450.2	163.2	24.67	19.70	25.74	18.05	6.15	8.25
MEAN	.29	.44	2.20	4.26	16.1	5.26	.82	.64	.86	.58	.20	.28
MAX	.92	1.0	.16	.32	149	.26	1.8	2.2	1.2	2.2	1.1	2.4
MIN	.15	.14	.13	.68	1.0	1.5	.58	.14	.71	.26	.03	0
AC-FT	18	26	135	262	893	324	49	39	51	36	12	16

CAL YR 1986 TOTAL 10551.46 MEAN 28.9 MAX 1630 MIN .13 AC-FT 20930
WTR YR 1987 TOTAL 938.20 MEAN 2.57 MAX 149 MIN 0 AC-FT 1860

CORTE MADERA CREEK BASIN

11460000 CORTE MADERA CREEK AT ROSS, CA

LOCATION.--Lat 37°57'45", long 122°33'20", in Punta de Quentin Grant, Marin County, Hydrologic Unit 18050002, on left bank behind fire station at Ross, 1.7 mi southwest of San Rafael, 1.7 mi below Phoenix Lake, and 4 mi upstream from mouth.

DRAINAGE AREA.--18.1 mi².

PERIOD OF RECORD.--February 1951 to current year.

REVISED RECORD.--WDR 85-2: 1982(M).

GAGE.--Water-stage recorder. Datum of gage is 7.97 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records good except those for low-flow periods during summer months, which are fair. Flow slightly regulated by Phoenix Lake, capacity 612 acre-ft. Diversion on tributary above station by Marin Municipal Water District.

AVERAGE DISCHARGE.--36 years, 29.2 ft³/s, 21,160 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,200 ft³/s, Jan. 4, 1982, gage height, 19.81 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base 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)
Feb. 13	0200	2,330	14.98				

Minimum daily, 0.04 ft³/s, Oct. 1 and Aug. 13.

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	.04	1.0	2.2	5.0	8.6	8.7	7.7	2.9	.97	.88	.08	.26
2	.05	.84	2.2	1.2	67	8.7	7.4	2.6	.90	.81	.07	.29
3	.08	.82	2.3	55	38	8.1	11	2.4	.84	.72	.08	.27
4	.08	.91	4.2	16	16	11	6.7	2.4	.81	.67	.06	.18
5	.15	.82	5.0	5.0	11	118	5.9	2.3	.80	.64	.05	.21
6	.14	.95	1.4	8.1	8.1	45	5.7	2.3	.76	.58	.07	.24
7	.14	.94	1.5	4.0	6.6	27	5.2	2.1	.81	.51	.08	.24
8	.16	.94	1.9	3.3	5.8	20	5.0	2.1	1.0	.44	.07	.23
9	.19	1.0	2.2	3.0	5.9	15	5.0	2.1	1.1	.44	.09	.27
10	.20	1.1	2.5	2.9	8.9	17	4.6	2.1	1.0	.46	.09	.26
11	.23	1.1	2.8	2.8	14	15	4.4	1.8	1.0	.43	.13	.29
12	.27	1.2	3.3	2.8	494	73	4.0	1.9	1.0	.37	.10	.30
13	.34	1.3	4.0	2.8	776	58	4.0	1.8	.95	.36	.04	.34
14	.30	1.5	4.3	2.8	108	79	3.8	1.7	1.0	.45	.08	.28
15	.08	1.2	7.6	2.6	143	51	3.3	1.6	1.0	.21	.09	.26
16	.17	1.2	1.4	2.7	63	37	3.1	1.5	.99	.23	.07	.28
17	.23	.88	.44	2.8	41	27	3.1	1.6	.86	.21	.05	.23
18	.31	1.1	3.4	2.8	31	22	3.1	1.5	.93	.19	.05	.23
19	.35	1.3	8.9	2.8	24	18	2.8	1.5	1.0	.20	.08	.21
20	.34	1.5	1.1	2.8	19	16	2.8	1.4	1.0	.23	.12	.21
21	.26	1.5	.57	2.8	17	37	3.1	1.4	.99	.21	.14	.17
22	.32	1.4	4.8	3.9	15	19	2.7	1.3	.96	.20	.13	.14
23	.43	1.5	.93	9.4	14	27	2.4	1.3	.85	.21	.13	.17
24	.49	1.5	.64	63	12	19	2.4	1.3	.79	.21	.15	.17
25	.42	1.6	.64	15	11	17	2.3	1.3	.80	.19	.15	.15
26	.42	1.7	.88	5.7	9.8	15	2.2	1.2	.80	.17	.17	.15
27	.59	1.8	.95	20	9.2	13	2.2	1.2	.79	.20	.15	.13
28	.75	1.8	.77	29	8.6	12	2.2	1.1	.84	.16	.17	.13
29	.84	1.7	.90	13	---	10	2.1	1.1	.89	.17	1.2	.12
30	.94	2.0	.93	39	---	8.8	2.6	1.1	.92	.13	3.0	.12
31	1.1	---	2.1	13	---	8.5	---	.99	---	.13	.47	---
TOTAL	10.41	38.10	76.75	345.0	1985.5	860.8	122.8	52.89	27.35	11.01	7.41	6.53
MEAN	.34	1.27	2.48	11.1	70.9	27.8	4.09	1.71	.91	.36	.24	.22
MAX	1.1	2.0	8.9	63	776	118	11	2.9	1.1	.88	3.0	.34
MIN	.04	.82	.44	1.2	5.8	8.1	2.1	.99	.76	.13	.04	.12
AC-FT	21	76	152	684	3940	1710	244	105	54	22	15	13

CAL YR 1986	TOTAL	19425.01	MEAN	53.2	MAX	2950	MIN	.02	AC-FT	38530
WTR YR 1987	TOTAL	3544.55	MEAN	9.71	MAX	776	MIN	.04	AC-FT	7030

LAGUNITAS CREEK BASIN

11460400 LAGUNITAS CREEK AT SAMUEL P. TAYLOR STATE PARK, CA

LOCATION.--Lat 38°01'37", long 122°44'07", Marin County, Hydrologic Unit 18050005, in Samuel P. Taylor State Park, on left bank 300 ft upstream from Deadmans Gulch, 0.9 mi downstream from park entrance, 2.1 mi northwest of Lagunitas, and 3.4 mi downstream from Kent Lake.

DRAINAGE AREA.--34.3 mi².

PERIOD OF RECORD.--Dec. 21, 1982, to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 102.89 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Kent Lake, capacity, 16,680 acre-ft, and Alpine Lake, capacity, 8,890 acre-ft, both of which divert for domestic and industrial use in Marin County.

AVERAGE DISCHARGE.--5 years, 46.7 ft³/s, 33,830 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,470 ft³/s, Feb. 18, 1986, gage height, 8.44 ft; minimum daily, 3.8 ft³/s, Oct. 16-18, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,940 ft³/s, Feb. 13, gage height, 7.00 ft; minimum daily, 3.8 ft³/s, Oct. 16-18.

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	4.9	5.0	4.6	9.1	22	10	12	7.9	6.1	8.2	5.7	5.6
2	4.7	4.9	4.6	9.4	81	10	11	8.9	6.1	7.8	5.5	5.6
3	4.6	4.9	4.6	54	55	10	11	8.6	6.5	6.9	5.3	5.6
4	4.6	4.9	5.1	24	28	11	11	8.6	6.1	6.7	5.3	5.6
5	4.6	4.9	7.0	15	19	139	9.9	8.6	5.8	6.7	5.3	5.6
6	4.6	4.9	5.5	15	15	67	9.5	8.6	5.6	6.7	5.3	5.9
7	4.6	4.9	5.2	17	13	41	9.0	8.6	5.7	6.6	5.3	6.3
8	4.6	4.9	5.0	16	12	31	8.3	8.6	5.8	6.3	5.3	6.1
9	4.6	4.9	4.9	15	10	24	8.3	8.6	5.8	6.1	5.5	5.9
10	4.6	4.9	4.9	15	11	20	8.9	8.1	5.8	6.1	5.8	5.8
11	4.4	4.9	7.3	15	33	20	8.9	7.9	5.8	6.1	5.8	5.8
12	4.4	4.9	9.7	15	359	92	8.5	7.9	5.8	6.1	5.8	5.8
13	4.4	4.9	9.7	15	617	102	8.2	7.9	6.0	6.4	5.8	5.8
14	4.3	4.9	9.7	15	107	94	7.9	7.9	6.1	6.4	5.8	5.8
15	4.1	4.9	8.3	15	133	71	7.7	7.9	6.1	6.4	5.8	5.8
16	3.8	4.9	6.4	16	68	50	7.8	7.7	6.1	6.4	5.8	5.8
17	3.8	4.6	6.4	15	46	39	8.2	7.3	6.1	6.2	5.8	5.6
18	3.8	4.4	8.3	14	35	32	8.2	7.2	6.1	5.5	6.0	5.6
19	4.0	4.4	8.7	14	27	27	7.9	6.9	6.1	5.3	5.8	5.6
20	4.2	4.4	8.7	14	22	23	7.9	6.9	6.4	5.3	5.8	5.5
21	4.1	4.6	6.9	14	19	35	7.9	7.0	6.4	5.3	5.8	5.3
22	4.0	4.6	8.9	14	17	26	7.6	6.9	6.4	5.3	5.8	5.2
23	4.0	4.6	8.3	17	15	30	7.5	6.5	6.4	5.0	5.8	5.1
24	4.0	4.6	7.1	76	14	26	7.3	6.1	6.4	4.9	5.8	5.1
25	4.0	4.6	6.8	42	13	23	7.3	6.1	6.5	4.9	5.8	5.1
26	4.0	4.6	6.7	28	11	21	6.8	6.1	6.7	4.8	5.8	5.0
27	4.0	4.6	6.7	34	10	18	6.7	6.1	6.7	4.9	5.8	4.8
28	4.1	4.6	6.5	59	10	17	6.7	6.1	6.9	5.2	5.8	4.9
29	4.6	4.6	6.4	26	---	15	6.7	6.4	8.4	6.3	5.7	4.9
30	5.1	4.6	6.4	43	---	14	7.2	6.4	8.4	5.8	5.6	4.7
31	5.1	---	6.8	29	---	13	---	6.1	---	5.8	5.6	---
TOTAL	134.6	142.3	212.1	719.5	1822	1151	251.8	230.4	189.1	186.4	175.8	165.2
MEAN	4.34	4.74	6.84	23.2	65.1	37.1	8.39	7.43	6.30	6.01	5.67	5.51
MAX	5.1	5.0	9.7	76	617	139	12	8.9	8.4	8.2	6.0	6.3
MIN	3.8	4.4	4.6	9.1	10	10	6.7	6.1	5.6	4.8	5.3	4.7
AC-FT	267	282	421	1430	3610	2280	499	457	375	370	349	328

CAL YR 1986 TOTAL 23118.8 MEAN 63.3 MAX 2350 MIN 3.8 AC-FT 45860
WTR YR 1987 TOTAL 5380.2 MEAN 14.7 MAX 617 MIN 3.8 AC-FT 10670

LAGUNITAS CREEK BASIN

11460600 LAGUNITAS CREEK NEAR POINT REYES STATION, CA

LOCATION.--Lat 38°04'49", long 122°47'00", in Nicasio (Black) Grant, Marin County, Hydrologic Unit 18050005, on right bank at upstream side of road bridge, 300 ft downstream from small right-bank tributary, 1.4 mi north-east of town of Point Reyes Station, and 2.5 mi downstream from Nicasio Dam.

DRAINAGE AREA.--81.7 mi².

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

REVISED RECORDS.--WDR CA-79-2: 1975, 1978. WDR CA-82-2: 1975(m), 1978(m), 1980(m).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Nicasio Reservoir, capacity, 22,450 acre-ft; Kent Lake, capacity, 16,680 acre-ft; and Alpine Lake, capacity, 8,890 acre-ft, all of which divert water for domestic and industrial use in Marin County.

AVERAGE DISCHARGE.--13 years, 92.8 ft³/s, 67,230 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,100 ft³/s, Jan. 4, 1982, gage height, 26.96 ft, from rating curve extended above 6,200 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 0.01 ft³/s, Sept. 26, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,580 ft³/s, Feb. 13, gage height, 13.84 ft; minimum daily, 4.1 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	5.5	5.8	6.0	8.8	31	12	24	9.5	7.8	6.3	5.9	4.7
2	5.3	5.7	6.0	12	140	12	22	10	7.4	6.2	5.9	4.7
3	5.1	5.6	6.0	72	113	12	24	11	7.0	6.0	5.9	4.6
4	5.1	5.6	6.2	37	57	11	25	11	6.5	5.8	5.7	4.7
5	5.1	5.6	8.8	19	36	222	20	10	6.4	5.8	5.8	4.7
6	5.2	5.6	7.1	16	26	134	18	9.9	6.4	5.8	5.8	4.6
7	5.3	5.6	6.4	16	21	78	17	9.7	6.3	5.7	5.7	4.8
8	5.3	5.6	6.2	15	18	55	16	9.8	6.3	5.7	5.6	4.8
9	5.2	5.7	6.1	14	16	41	14	9.9	6.5	5.5	5.5	4.6
10	5.1	5.9	6.1	14	15	32	14	9.9	6.3	5.6	5.5	4.7
11	5.1	6.0	6.2	14	64	31	13	9.7	6.4	5.6	5.3	4.5
12	5.1	5.8	9.3	14	446	212	12	9.7	6.3	5.7	5.4	4.5
13	5.1	5.8	9.6	13	2000	480	12	9.6	6.4	5.7	5.4	4.5
14	5.1	5.8	9.9	13	508	374	11	9.4	6.4	5.7	5.6	4.8
15	5.1	5.8	9.9	13	483	289	11	9.4	6.6	5.6	5.5	4.8
16	5.0	5.8	7.7	14	261	199	10	9.4	6.3	5.5	5.1	4.7
17	4.8	5.8	7.0	13	161	145	11	9.3	6.2	5.6	5.1	4.6
18	4.8	5.8	8.6	13	105	117	11	9.4	6.2	5.0	5.0	4.6
19	4.8	5.9	9.9	13	73	95	11	8.9	6.2	4.5	5.1	4.7
20	5.0	6.0	11	13	48	79	10	8.7	6.4	4.5	5.1	4.7
21	4.9	6.0	8.2	13	32	105	10	8.7	6.1	4.5	5.0	4.5
22	4.8	6.0	9.7	13	24	90	9.9	8.5	6.1	4.6	4.9	4.5
23	4.8	6.0	10	15	20	108	9.7	8.3	6.2	4.7	5.0	4.5
24	4.8	6.0	8.4	97	18	96	9.6	8.2	6.2	4.7	5.0	4.5
25	4.8	5.8	7.7	69	16	78	9.4	8.3	6.1	4.5	4.8	4.4
26	5.2	5.8	7.4	36	14	64	9.2	8.1	5.9	4.6	4.8	4.4
27	5.0	5.8	7.4	34	13	54	9.2	8.1	6.0	4.5	4.9	4.4
28	5.0	5.8	7.1	110	13	46	9.0	8.0	6.1	4.5	4.8	4.3
29	5.3	5.9	7.1	42	---	38	8.9	7.7	6.4	5.2	4.6	4.2
30	5.9	6.0	6.9	66	---	31	9.1	7.5	6.6	5.4	4.7	4.1
31	5.8	---	7.6	46	---	27	---	7.8	---	5.9	4.6	---
TOTAL	158.4	174.3	241.5	897.8	4772	3367	400.0	283.4	192.0	164.9	163.0	137.1
MEAN	5.11	5.81	7.79	29.0	170	109	13.3	9.14	6.40	5.32	5.26	4.57
MAX	5.9	6.0	11	110	2000	480	25	11	7.8	6.3	5.9	4.8
MIN	4.8	5.6	6.0	8.8	13	11	8.9	7.5	5.9	4.5	4.6	4.1
AC-FT	314	346	479	1780	9470	6680	793	562	381	327	323	272
CAL YR 1986	TOTAL	55051.8	MEAN	151	MAX	7370	MIN	4.4	AC-FT	109200		
WTR YR 1987	TOTAL	10951.4	MEAN	30.0	MAX	2000	MIN	4.1	AC-FT	21720		

WALKER CREEK BASIN

11460750 WALKER CREEK NEAR MARSHALL, CA

LOCATION.--Lat 38°10'33", long 122°49'02", in Soulajule (Vasquez) Grant, Marin County, Hydrologic Unit 18050005, on right bank 0.8 mi downstream from Verde Canyon, 2.8 mi below confluence of Arroyo Sausal and Salmon Creek, and 4.0 mi east of Marshall.

DRAINAGE AREA.--31.1 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 140 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow affected by regulation and diversions and by Soulajule Reservoir on Arroyo Sausal, a tributary to Walker Creek; reservoir capacity, 10,570 acre-ft.

EXTREMES FOR PERIOD.--Maximum discharge, 7,050 ft³/s, Feb. 17, 1986, gage height, 10.79 ft, from rating curve extended above 1,100 ft³/s on basis of comparison with discontinued downstream station; minimum daily, 4.4 ft³/s, Oct. 5, 6, 1983.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of Jan. 4, 1982, reached a stage of 15.9 ft, present datum, from floodmarks, discharge, 14,600 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,110 ft³/s, Feb. 13, gage height, 4.37 ft; minimum daily, 4.7 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	5.3	4.8	4.8	6.9	18	14	11	7.8	5.1	4.9	4.7	5.1
2	5.3	4.8	4.8	6.1	66	14	11	7.6	5.1	4.8	4.7	5.1
3	5.3	4.8	4.8	19	36	14	11	7.6	5.0	4.9	4.7	5.1
4	5.3	4.8	5.6	8.7	17	15	9.8	7.6	4.9	4.9	4.7	5.1
5	5.3	4.8	7.3	6.4	13	49	9.4	6.8	4.9	5.0	4.7	5.1
6	5.3	4.8	6.6	5.8	15	30	9.2	5.7	4.9	5.1	4.7	5.1
7	5.3	4.8	6.4	5.7	13	19	9.0	5.5	4.9	5.1	4.7	5.1
8	5.2	4.8	6.0	8.2	12	17	8.8	5.5	4.9	5.1	4.7	5.1
9	5.0	4.8	4.8	12	12	15	8.5	5.5	4.9	5.1	4.7	5.1
10	5.0	4.7	4.8	12	12	14	8.5	5.3	4.9	4.9	4.8	5.1
11	5.0	4.7	4.8	13	18	14	8.3	5.3	4.9	4.7	5.0	5.1
12	5.0	4.7	4.8	13	169	70	8.2	5.3	4.9	4.7	5.1	5.1
13	4.8	4.7	5.7	13	374	63	8.0	5.3	4.9	4.7	5.1	5.1
14	4.8	4.7	5.5	13	69	55	7.9	5.3	4.9	4.7	5.1	5.1
15	4.8	4.7	5.6	13	86	41	7.7	5.3	4.9	4.7	5.1	5.1
16	4.8	4.7	5.8	13	43	41	7.8	5.3	4.9	4.7	5.2	5.1
17	4.8	4.7	5.5	13	32	42	7.9	5.3	4.8	4.7	5.3	5.1
18	4.8	4.7	6.1	13	24	39	7.9	5.3	4.7	4.7	5.3	5.1
19	4.8	4.9	6.4	13	19	33	7.9	5.3	4.8	4.7	5.3	5.1
20	4.8	4.7	6.0	13	16	26	7.9	5.3	4.9	4.7	5.3	5.1
21	4.8	4.7	5.7	13	16	32	7.9	5.3	4.9	4.7	5.3	5.1
22	4.7	4.7	6.9	13	15	26	7.9	5.3	4.9	4.7	5.3	5.0
23	4.8	4.7	6.0	13	14	42	7.9	5.3	4.9	4.7	5.3	4.9
24	5.0	4.7	5.7	27	14	35	7.9	5.2	4.9	4.7	5.3	4.9
25	5.0	4.7	5.6	20	14	27	7.9	5.1	4.9	4.7	5.2	4.9
26	5.0	4.7	5.5	17	14	22	7.9	5.1	4.9	4.7	5.1	4.9
27	5.0	4.7	5.4	21	14	19	7.9	5.1	4.9	4.7	5.1	4.9
28	5.0	4.7	5.3	28	14	15	7.9	5.1	4.9	4.7	5.1	4.9
29	5.0	4.9	5.3	10	---	13	7.9	5.1	4.9	4.7	5.1	4.9
30	5.0	4.8	5.3	17	---	12	7.9	5.1	4.9	4.7	5.1	4.9
31	4.9	---	5.8	20	---	11	---	5.1	---	4.7	5.1	---
TOTAL	154.9	142.4	174.6	419.8	1179	879	254.7	174.7	147.1	148.5	155.9	151.3
MEAN	5.00	4.75	5.63	13.5	42.1	28.4	8.49	5.64	4.90	4.79	5.03	5.04
MAX	5.3	4.9	7.3	28	374	70	11	7.8	5.1	5.1	5.3	5.1
MIN	4.7	4.7	4.8	5.7	12	11	7.7	5.1	4.7	4.7	4.7	4.9
AC-FT	307	282	346	833	2340	1740	505	347	292	295	309	300
CAL YR 1986	TOTAL	24261.4	MEAN	66.5	MAX	4940	MIN	4.7	AC-FT	48120		
WTR YR 1987	TOTAL	3981.9	MEAN	10.9	MAX	374	MIN	4.7	AC-FT	7900		

RUSSIAN RIVER BASIN

11461000 RUSSIAN RIVER NEAR UKIAH, CA

LOCATION.--Lat 39°11'44", long 123°11'38", in Yokaya Grant, Mendocino County, Hydrologic Unit 18010110, on right bank 20 ft downstream from bridge on Lake Mendocino Drive, 0.4 mi upstream from East Fork, 0.6 mi downstream from York Creek, and 3.2 mi north of Ukiah.

DRAINAGE AREA.--100 mi².

PERIOD OF RECORD.--August 1911 to September 1913, October 1952 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 599.22 ft above National Geodetic Vertical Datum of 1929. Prior to October 1952, nonrecording gage at bridge 20 ft upstream at different datum. Oct. 1, 1952, to Nov. 8, 1971, water-stage recorder at site 0.6 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 1 to Jan. 1 and Apr. 23 to Sept. 30. Records good except those for periods of estimated daily discharges, which are poor. No regulation. Diversions above station for irrigation of about 1,000 acres.

AVERAGE DISCHARGE.--37 years, 181 ft³/s, 131,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,900 ft³/s, Dec. 21, 1955, gage height, 19.0 ft, site and datum then in use; flood of Feb. 17, 1986, reached a stage of 19.00 ft, present site and datum; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0115	*4,540	*12.23				

No flow on 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	1.0	4.3	6.0	596	127	42	79	15	5.7	.80		0
2	.92	4.0	4.9	240	891	45	75	18	5.2	.75		0
3	.85	3.8	4.7	512	444	85	72	17	4.8	.75		0
4	.89	3.4	5.5	237	232	67	62	16	4.5	.70		0
5	1.1	3.6	9.0	117	156	1140	58	14	4.2	.67		0
6	1.6	3.5	11	72	115	399	54	13	4.0	.62		0
7	1.1	3.4	9.1	53	90	218	51	12	3.8	.52		0
8	.98	3.9	7.7	40	74	188	47	11	3.7	.46		.11
9	.90	3.8	6.7	38	70	154	45	10	3.5	.33		.15
10	.90	3.7	6.0	32	70	335	42	10	3.3	.27		.21
11	.98	3.5	5.8	28	108	375	41	9.3	3.0	.24		.27
12	1.1	3.4	5.6	25	451	2130	36	8.4	2.8	.26		.33
13	1.0	3.5	7.2	24	1870	1320	35	7.9	2.6	.19		.40
14	1.0	3.3	9.5	22	604	1140	35	7.4	2.5	.16		.46
15	1.1	3.4	9.1	20	897	702	33	7.1	2.3	.14		.52
16	1.1	3.4	8.1	18	432	407	31	6.4	2.2	.12		.58
17	1.4	3.4	7.2	17	267	287	28	6.0	2.2	.08		.62
18	1.3	3.4	13	16	190	249	27	6.4	2.1	.04		.63
19	1.3	4.0	27	15	146	204	21	6.5	2.0	.11		.62
20	1.3	4.2	44	14	117	165	24	7.2	1.8	.14		.53
21	1.2	5.2	14	14	98	243	24	9.2	1.7	.21		.41
22	1.2	5.4	25	15	85	230	22	12	1.6	.25		.31
23	1.5	5.2	25	50	76	623	20	10	1.5	.14		.31
24	4.2	4.7	14	857	68	317	19	9.1	1.4	.11		.31
25	3.9	4.6	9.3	299	61	231	18	8.0	1.3	.10		.31
26	3.5	4.5	7.1	176	54	188	17	7.5	1.3	.10		.31
27	3.3	4.4	5.9	196	49	154	16	7.2	1.2	.07		.31
28	3.1	4.5	4.9	606	45	133	15	6.9	1.1	.01		.36
29	3.4	6.1	5.4	250	---	115	14	6.6	.96	0		.43
30	7.0	7.1	6.2	286	---	99	13	6.3	.85	0		.50
31	5.1	---	21	180	---	88	---	6.0	---	0		---
TOTAL	59.22	124.6	344.9	5065	7887	12073	1074	297.4	79.11	8.34	0	8.99
MEAN	1.91	4.15	11.1	163	282	389	35.8	9.59	2.64	.27	0	.30
MAX	7.0	7.1	44	857	1870	2130	79	18	5.7	.80	0	.63
MIN	.85	3.3	4.7	14	45	42	13	6.0	.65	0	0	0
AC-FT	117	247	684	10050	15640	23950	2130	590	157	17	0	18
CAL YR 1986	TOTAL	80130.52	MEAN	220	MAX	9410	MIN	.85	AC-FT	158900		
WTR YR 1987	TOTAL	27021.56	MEAN	74.0	MAX	2130	MIN	0	AC-FT	53600		

RUSSIAN RIVER BASIN

11461500 EAST FORK RUSSIAN RIVER NEAR CALPELLA, CA

LOCATION.--Lat 39°14'48", long 123°07'45", in NW 1/4 NW 1/4 sec.18, T.16 N., R.11 W., Mendocino County, Hydrologic Unit 18010110, on left bank 0.1 mi downstream from Cold Creek and 3.9 mi east of Calpella.

DRAINAGE AREA.--92.2 mi².

PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Elevation of gage is 787.87 ft above National Geodetic Vertical Datum of 1929. Prior to May 28, 1957, at site 1.3 mi downstream at different datum. May 28, 1957, to Apr. 5, 1966, at site 0.4 mi downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow greatly affected by diversion from Eel River through Potter Valley powerplant (station 11471000). Diversion for irrigation of about 8,000 acres above station.

AVERAGE DISCHARGE.--46 years, 339 ft³/s, 245,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,700 ft³/s, Dec. 22, 1964, gage height, 20.21 ft, site then in use; maximum gage height, 20.82 ft, Feb. 17, 1986; minimum daily, 2.0 ft³/s, July 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0045	*3,710	*13.52				

Minimum daily, 32 ft³/s, Aug. 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	272	302	118	440	146	348	350	97	114	59	66	61
2	299	301	115	232	914	347	345	102	99	52	55	55
3	297	296	78	533	420	363	340	92	54	50	59	60
4	303	300	68	310	227	358	325	101	63	57	79	65
5	297	288	72	154	180	1120	335	95	73	62	63	68
6	301	155	70	128	149	533	333	81	71	67	66	70
7	299	154	69	114	132	434	308	89	67	60	64	82
8	301	157	74	103	120	415	98	96	63	76	73	77
9	299	160	124	96	114	393	121	90	66	71	78	89
10	292	161	127	95	116	504	124	98	75	59	65	98
11	297	156	123	90	159	526	120	91	75	60	67	98
12	304	158	122	83	416	2010	109	92	66	63	64	87
13	306	163	124	82	1490	951	114	95	49	62	65	83
14	296	162	126	81	658	971	111	88	61	61	65	84
15	294	160	126	78	1050	596	103	75	70	57	66	80
16	292	159	97	74	563	508	105	104	58	51	68	78
17	303	110	64	71	461	448	107	113	66	54	64	84
18	304	112	81	71	416	423	107	109	63	57	67	81
19	298	85	147	66	392	402	82	112	60	59	65	75
20	302	77	157	65	379	379	87	118	54	67	64	71
21	299	78	137	70	371	433	80	115	58	71	62	80
22	301	82	160	78	365	400	80	118	76	78	62	79
23	303	79	150	101	362	675	83	117	71	71	57	76
24	314	79	137	837	357	464	81	119	68	63	63	80
25	318	79	131	284	353	421	77	114	71	56	61	74
26	306	79	131	201	350	402	75	113	67	66	32	81
27	305	78	129	254	349	381	76	107	63	56	49	81
28	304	78	129	673	348	372	75	113	69	55	56	76
29	304	81	130	251	---	365	75	121	68	60	50	82
30	303	81	129	195	---	357	84	115	59	64	60	93
31	301	---	160	183	---	355	---	116	---	72	62	---
TOTAL	9314	4410	3605	6093	11357	16654	4510	3206	2037	1916	1937	2348
MEAN	300	147	116	197	406	537	150	103	67.9	61.8	62.5	78.3
MAX	318	302	160	837	1490	2010	350	121	114	78	79	98
MIN	272	77	64	65	114	347	75	75	49	50	32	55
AC-FT	18470	8750	7150	12090	22530	33030	8950	6360	4040	3800	3840	4660

CAL YR 1986	TOTAL	128032	MEAN	351	MAX	8890	MIN	22	AC-FT	254000
WTR YR 1987	TOTAL	67387	MEAN	185	MAX	2010	MIN	32	AC-FT	133700

RUSSIAN RIVER BASIN

11461800 LAKE MENDOCINO NEAR UKIAH, CA

LOCATION.--Lat 39°11'53", long 123°10'50", in Yokaya Grant, Mendocino County, Hydrologic Unit 18010110, in intake tower 30 ft upstream from Coyote Dam on East Fork Russian River and 3.6 mi northeast of Ukiah.

DRAINAGE AREA.--105 mi².

PERIOD OF RECORD.--October 1965 to current year. Records prior to October 1965 in files of U.S. Army Corps of Engineers.

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

REMARKS.--Reservoir is formed by earthfill dam; storage began in November 1958. Capacity based on 1953 survey, capacity table returned to use Oct. 1, 1983, 122,400 acre-ft between elevations 637.0 ft, invert of outlet tunnel, and 764.8 ft, spillway crest, NGVD. Storage affected by diversions from Eel River through Potter Valley powerplant (station 11471000). Water is released down East Fork Russian River for irrigation and recreation use. Records, including current year extremes, represent contents at 2400 hours.

COOPERATION.--Records were provided by U.S. Army Corps of Engineers; not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 114,800 acre-ft, Jan. 24, 1970, elevation, 760.86 ft; minimum, 12,070 acre-ft, Nov. 4, 1977, elevation, 687.15 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 90,209 acre-ft, Apr. 7, elevation, 747.55 ft; minimum, 42,254 acre-ft, Sept. 30, elevation, 718.58 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)
(Provided by U.S. Army Corps of Engineers, from 1953 survey)

637	0	665	2,870	690	13,800	730	59,600
645	118	670	4,340	695	17,200	740	76,700
650	390	675	6,130	700	21,300	750	94,700
655	909	680	8,270	710	31,400	760	113,300
660	1,730	685	10,800	720	44,200	764.8	122,400

RESERVOIR STORAGE (AC-FT), 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	42949	51295	50441	48872	53415	76024	86889	87287	81923	72763	60868	50441
2	43173	51602	50349	49156	55303	76588	87704	87161	81797	72292	60522	50137
3	43384	51925	50182	50031	56114	77136	88338	87034	81547	71892	60145	49819
4	43623	52265	50046	50425	56578	77578	88809	86926	81314	71458	59817	49487
5	43849	52544	49895	50441	56882	79406	89354	86763	81100	71042	59408	49141
6	44047	52575	49698	50425	57188	79282	89863	86564	80868	70661	59098	48827
7	44316	52621	49487	50364	57542	79193	90209	86383	80618	70298	58740	48588
8	44587	52637	49292	50288	57768	79122	90154	86202	80350	70057	58383	48319
9	44830	52668	49216	50182	57881	78908	90136	86022	80083	69677	58043	48052
10	45059	52637	49126	50061	58075	79050	90154	85841	79815	69298	57687	47800
11	45318	52621	49036	49925	58334	79211	90154	85661	79620	68937	57349	47578
12	45549	52637	48961	49774	59376	82585	89990	85462	79335	68560	56963	47268
13	45809	52652	48946	49668	62475	83339	89918	85264	78997	68217	56594	47019
14	46055	52668	48872	49502	63878	83626	89845	85084	78571	67858	56258	46740
15	46317	52683	48812	49337	66053	83016	89754	84759	78269	67448	55923	46477
16	46565	52683	48677	49141	67175	82639	89645	84580	77950	66971	55573	46186
17	46843	52575	48483	49021	67994	82693	89518	84435	77631	66528	55256	45925
18	47122	52513	48379	48827	68783	82747	89409	84273	77277	66121	54923	45693
19	47372	52373	48438	48677	69643	82693	89336	84112	76941	65697	54560	45375
20	47652	52219	48423	48483	70350	82621	89209	83986	76588	65291	54261	45088
21	47918	52033	48379	48319	71059	82693	89046	83824	76235	64903	53931	44830
22	48186	51879	48453	48230	71736	82639	88882	83680	75918	64567	53618	44530
23	48528	51710	48438	48186	72380	83303	88737	83518	75619	64196	53274	44260
24	48842	51525	48379	49683	73042	83374	88483	83339	75302	63794	52963	43976
25	49141	51402	48334	50016	73671	83482	88247	83177	74986	63409	52683	43665
26	49457	51234	48274	50152	74301	83860	88120	82980	74617	63041	52342	43370
27	49743	51050	48186	50592	74915	84471	87939	82783	74231	62658	52018	43075
28	50031	50882	48126	51910	75531	85012	87831	82603	73881	62275	51710	42782
29	50364	50714	48067	52404	---	85426	87613	82442	73531	61893	51418	42490
30	50669	50532	48007	52792	---	85896	87486	82263	73130	61512	51096	42254
31	51004	---	48052	53119	---	86491	---	82101	---	61182	50775	---
MAX	51004	52683	50441	53119	75531	86491	90209	87287	81923	72763	60868	50441
MIN	42949	50532	48007	48186	53415	76024	86889	82101	73130	61182	50775	42254
a	724.58	724.27	722.62	725.95	739.36	745.50	746.05	743.06	737.99	730.97	724.43	718.58
b	+8264	-472	-2480	+5067	+22412	+10960	+995	-5385	-8971	-11948	-10407	-8521

CAL YR 1986 MAX 114202 MIN 41032 b -24850
WTR YR 1987 MAX 90209 MIN 42254 b -486

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

RUSSIAN RIVER BASIN

11462000 EAST FORK RUSSIAN RIVER NEAR UKIAH, CA

LOCATION.--Lat 39°11'51", long 123°11'11", in Yokaya Grant, Mendocino County, Hydrologic Unit 18010110, on right bank of outlet channel, 500 ft downstream from Coyote Dam, 1,300 ft upstream from mouth, and 3.2 mi northeast of Ukiah.

DRAINAGE AREA.--105 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1911 to September 1913, October 1951 to June 1956, October 1957 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 614.41 ft above National Geodetic Vertical Datum of 1929. Prior to October 1951, nonrecording gage at site 0.5 mi upstream at different datum. October 1951 to June 1956, water-stage recorder at site 1.0 mi upstream at different datum.

REMARKS.--Estimated daily discharges: June 20 to July 9. Records good. Flow affected by diversion from Eel River through Potter Valley powerplant (station 11471000) and since November 1958 by storage in Lake Mendocino (station 11461800) 500 ft upstream. Diversions above station for irrigation of about 8,000 acres.

AVERAGE DISCHARGE (unadjusted).--7 years (water years 1912-13, 1952-55, 1958), 356 ft³/s, 257,900 acre-ft/yr; 28 years (water years 1960-87), 355 ft³/s, 257,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Prior to regulation by Lake Mendocino, maximum discharge, 13,300 ft³/s, Dec. 21, 1955, gage height, 16.86 ft, site and datum then in use, from rating curve extended above 6,300 ft³/s on basis of maximum flow at station upstream which was defined to 8,600 ft³/s; no flow Aug 13-15, 1913. 1957 to current year: Maximum discharge, 7,350 ft³/s, Jan. 24, 1970, gage height, 10.84 ft; minimum daily, 0.02 ft³/s, Apr. 17, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,290 ft³/s, Mar. 6, gage height, 4.82 ft; minimum daily, 22 ft³/s, Feb. 7, 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	196	150	148	102	26	97	50	170	169	238	237	218
2	189	150	146	103	26	125	50	170	156	234	234	204
3	194	150	150	150	25	126	58	170	156	234	236	225
4	191	150	151	150	27	126	51	171	156	234	238	229
5	191	158	150	153	27	351	59	174	164	234	238	226
6	202	141	150	154	26	668	105	180	173	238	238	226
7	191	133	150	152	22	508	143	182	173	238	238	226
8	169	149	150	153	22	508	146	180	178	238	238	226
9	169	150	150	153	24	508	150	175	182	234	238	224
10	172	175	151	153	24	508	149	177	188	234	238	222
11	173	162	146	153	24	508	150	178	186	234	237	228
12	172	155	147	151	25	515	150	177	190	234	234	234
13	172	152	149	151	25	720	150	177	199	236	236	234
14	175	160	147	153	28	1020	154	177	199	241	238	233
15	167	149	140	153	27	1020	160	180	199	253	238	232
16	179	149	150	153	27	777	160	180	199	263	238	226
17	164	149	150	153	27	500	160	180	199	263	232	222
18	166	138	150	153	27	497	160	179	205	263	225	222
19	166	151	150	153	27	497	160	177	210	260	228	222
20	162	151	150	153	26	499	160	177	206	259	229	222
21	171	151	150	153	29	499	160	177	206	259	229	229
22	172	151	150	153	28	500	162	183	206	246	226	234
23	168	150	150	153	27	503	163	191	211	238	226	234
24	172	150	150	154	25	503	163	191	214	238	222	232
25	162	150	150	153	31	422	163	191	214	238	218	232
26	160	150	150	153	35	227	163	193	230	238	218	234
27	162	150	150	104	38	149	160	193	230	238	218	233
28	163	150	151	39	46	146	165	193	231	238	218	234
29	170	150	153	26	---	148	170	192	229	238	218	238
30	167	150	150	26	---	150	170	192	231	238	222	239
31	160	---	151	26	---	91	---	191	---	238	219	---
TOTAL	5387	4524	4630	4089	771	13416	4164	5618	5889	7509	7142	6840
MEAN	174	151	149	132	27.5	433	139	181	196	242	230	228
MAX	202	175	153	154	46	1020	170	193	231	263	238	239
MIN	160	133	140	26	22	91	50	170	156	234	218	204
AC-FT	10690	8970	9180	8110	1530	26610	8260	11140	11680	14890	14170	13570
CAL YR 1986	TOTAL	147732	MEAN 405	MAX 5100	MIN 36	AC-FT 293000						
WTR YR 1987	TOTAL	69979	MEAN 192	MAX 1020	MIN 22	AC-FT 138800						

RUSSIAN RIVER BASIN

11462000 EAST FORK RUSSIAN RIVER NEAR UKIAH, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953-55, 1964-68, 1973 to current year.

CHEMICAL DATA: Water years 1953-55, 1973-82.

BIOLOGICAL DATA: Water year 1977-78.

WATER TEMPERATURE: Water years 1953-55, 1965-68, 1973 to current year.

SEDIMENT DATA: Water years 1953-55, 1964-68.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: December 1952 to March 1955, October 1964 to September 1968, October 1972 to current year.

SUSPENDED-SEDIMENT DISCHARGE: December 1952 to March 1955, January 1964 to September 1968.

INSTRUMENTATION.--Water temperature recorder since October 1972. Digital recorder set for 1-hour interval punches.

REMARKS.--Records represent water temperature at sensor within 0.5 °C.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 23.5 °C on several days in 1977; minimum recorded, 7.0 °C, Jan. 14, 1973, and on many days in 1984.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 21.0 °C, Sept. 2; minimum recorded, 8.0 °C on several days.

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	18.0	17.5	16.5	16.5	13.0	12.5	---	---	8.5	8.0	9.0	9.0
2	18.0	18.0	16.5	16.5	12.5	12.5	---	---	8.5	8.5	9.0	9.0
3	18.0	18.0	16.0	16.0	12.5	12.5	---	---	9.0	8.5	9.0	9.0
4	18.0	17.5	16.0	16.0	12.5	12.0	---	---	9.5	8.5	9.0	9.0
5	18.0	17.5	17.5	16.0	12.0	12.0	---	---	9.5	8.5	9.5	9.0
6	18.0	17.5	16.0	15.5	12.0	12.0	---	---	9.0	8.5	9.5	9.0
7	18.0	17.5	16.0	15.5	12.0	12.0	---	---	9.5	8.5	9.0	9.0
8	18.0	17.5	15.5	15.5	12.0	12.0	---	---	9.0	8.5	9.0	9.0
9	18.0	17.5	15.5	15.5	12.0	12.0	---	---	8.5	8.5	9.5	9.0
10	18.0	18.0	15.5	15.0	12.0	12.0	---	---	9.0	8.5	9.5	9.5
11	18.0	17.5	15.5	15.0	12.0	11.5	---	---	9.0	8.5	9.5	9.5
12	18.0	17.5	15.0	15.0	11.5	11.5	---	---	10.0	8.5	9.5	9.5
13	18.0	17.5	15.0	15.0	11.5	11.0	9.5	9.0	9.5	8.5	9.5	9.5
14	18.0	17.5	15.0	15.0	11.0	11.0	9.0	9.0	9.0	8.5	9.0	9.0
15	18.0	17.5	15.0	14.5	11.0	11.0	9.0	9.0	9.5	8.5	10.0	9.0
16	17.5	17.5	14.5	14.5	11.0	11.0	9.0	9.0	9.5	8.5	9.5	9.0
17	17.5	17.5	14.5	14.5	11.0	11.0	9.0	8.5	10.0	8.5	9.5	9.0
18	17.5	17.5	15.0	14.5	11.0	11.0	8.5	8.5	9.5	8.5	9.5	9.0
19	17.5	17.0	14.5	14.5	11.0	11.0	8.5	8.5	9.5	8.5	9.5	9.5
20	17.5	17.0	14.5	14.5	11.0	11.0	8.5	8.5	9.5	8.5	9.5	9.5
21	17.0	17.0	14.5	14.5	---	---	8.5	8.0	9.5	8.5	9.5	9.5
22	17.0	17.0	14.5	14.5	---	---	8.0	8.0	9.5	8.5	9.5	9.5
23	17.0	17.0	14.5	14.5	---	---	8.5	8.0	10.0	8.5	10.0	9.5
24	17.0	17.0	14.5	14.5	---	---	8.5	8.5	10.0	8.5	9.5	9.5
25	17.0	16.5	14.5	14.0	---	---	8.5	8.0	9.5	8.5	10.0	9.5
26	17.0	16.5	14.0	13.5	---	---	8.0	8.0	9.5	9.0	9.5	9.5
27	17.0	16.5	13.5	13.5	---	---	8.5	8.0	9.5	9.0	10.0	9.5
28	17.0	16.5	13.5	13.5	---	---	9.0	8.0	9.5	9.0	10.0	9.5
29	17.0	16.5	13.5	13.0	---	---	9.0	8.0	---	---	10.0	9.5
30	17.0	17.0	13.0	13.0	---	---	8.5	8.0	---	---	10.0	9.5
31	17.0	16.5	---	---	---	---	9.0	8.0	---	---	10.5	9.5
MONTH	18.0	16.5	17.5	13.0	---	---	---	---	10.0	8.0	10.5	9.0

RUSSIAN RIVER BASIN

11462000 EAST FORK RUSSIAN RIVER NEAR UKIAH, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.5	9.5	10.5	10.0	11.0	10.5	11.5	11.0	13.0	12.5	17.5	16.5
2	10.5	9.5	10.5	10.0	11.0	10.5	11.5	11.0	13.0	12.5	21.0	17.0
3	10.0	9.5	10.5	10.0	11.0	11.0	11.5	11.0	13.0	12.5	17.5	17.0
4	10.5	9.5	10.5	10.0	11.0	10.5	11.5	11.0	13.0	12.5	18.0	17.0
5	10.5	9.5	11.0	10.0	11.0	11.0	11.5	11.0	13.5	12.5	18.0	17.5
6	10.0	9.5	10.5	10.0	11.0	11.0	11.5	11.5	13.5	12.5	18.0	17.5
7	10.0	9.5	11.0	10.5	11.0	11.0	11.5	11.5	13.5	12.5	18.5	18.0
8	10.0	9.5	11.0	10.5	11.0	11.0	11.5	11.0	13.5	13.0	18.5	18.0
9	10.0	9.5	11.0	10.5	11.5	11.0	11.5	11.0	13.5	13.0	19.0	18.5
10	10.0	9.5	11.0	10.5	11.0	11.0	11.5	11.0	13.5	13.0	19.0	18.5
11	10.0	9.5	10.5	10.5	11.0	11.0	11.5	11.0	14.0	13.0	19.0	18.5
12	10.0	9.5	11.0	10.5	11.0	11.0	11.5	11.5	14.0	13.5	19.0	19.0
13	10.0	9.5	11.0	10.5	11.0	11.0	12.0	11.5	14.0	13.5	19.5	19.0
14	10.0	9.5	11.0	10.5	11.0	11.0	12.0	11.5	14.0	13.5	19.5	19.0
15	10.0	10.0	11.0	10.5	11.0	11.0	12.0	11.5	14.5	13.5	20.0	19.5
16	10.0	10.0	11.0	10.5	11.0	11.0	12.0	11.5	14.5	14.0	20.0	19.5
17	10.0	10.0	10.5	10.5	11.0	11.0	12.0	11.5	14.5	14.0	20.0	19.5
18	10.0	10.0	10.5	10.5	11.0	11.0	12.0	11.5	15.0	14.0	20.0	19.5
19	10.0	10.0	11.0	10.5	11.5	11.0	12.0	11.5	15.0	14.5	20.5	20.0
20	10.0	10.0	10.5	10.5	11.0	11.0	12.0	11.5	15.5	14.5	20.5	20.0
21	10.0	10.0	10.5	10.5	11.5	11.0	12.0	11.5	15.5	14.5	20.5	20.0
22	10.5	10.0	11.0	10.5	11.5	11.0	12.0	12.0	15.5	15.0	20.5	20.0
23	10.0	10.0	11.0	10.5	11.5	11.0	12.0	12.0	15.5	15.0	20.5	20.0
24	10.5	10.0	11.0	10.5	11.5	11.0	12.0	12.0	15.5	15.0	20.5	20.0
25	10.5	10.0	11.0	10.5	11.5	11.0	12.0	12.0	15.5	15.0	20.5	20.0
26	10.5	10.0	11.0	10.5	11.5	11.0	12.0	12.0	16.0	15.5	20.5	20.0
27	10.5	10.0	11.0	10.5	11.5	11.0	12.5	12.0	16.0	15.5	20.5	20.0
28	10.5	10.0	11.0	10.5	11.5	11.0	12.5	12.0	16.5	16.0	20.5	20.0
29	10.0	10.0	11.0	10.5	11.5	11.0	12.5	12.0	17.0	16.0	20.5	20.0
30	10.5	10.0	11.0	10.5	11.5	11.0	12.5	12.0	17.5	16.0	20.5	20.0
31	---	---	11.0	10.5	---	---	12.5	12.0	17.0	16.0	---	---
MONTH	10.5	9.5	11.0	10.0	11.5	10.5	12.5	11.0	17.5	12.5	21.0	16.5

RUSSIAN RIVER BASIN

11462500 RUSSIAN RIVER NEAR HOPLAND, CA

LOCATION.--Lat 39°01'36", long 123°07'46", in Rancho de Sanel Grant, Mendocino County, Hydrologic Unit 18010110, on right bank at abandoned highway bridge, 0.2 mi downstream from McNab Creek, 4 mi north of Hopland, and 15.2 mi downstream from Coyote Dam.

DRAINAGE AREA.--362 mi².

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1041: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 497.61 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 9, 1943, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Mar. 6-10 and June 3-4. Records good. Diversions for irrigation of about 11,800 acres above station. Flow also affected by diversion into basin (see REMARKS for East Fork Russian River stations) and since November 1958 by storage in Lake Mendocino (station 11461800) 15.2 mi upstream.

AVERAGE DISCHARGE.--48 years, 731 ft³/s, 529,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,000 ft³/s, Dec. 22, 1955, gage height, 27.00 ft; minimum daily, 9.1 ft³/s, Apr. 20, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached a stage of 30.0 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,770 ft³/s, Feb. 13, gage height, 10.12 ft; minimum daily, 133 ft³/s, Nov. 7.

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	197	153	151	631	274	147	266	204	179	190	195	174
2	182	151	150	518	1140	201	243	198	157	196	196	165
3	185	151	150	864	788	314	235	192	149	192	196	167
4	183	151	154	578	447	270	215	192	149	202	200	175
5	183	148	159	380	328	2100	202	190	154	204	205	176
6	183	158	158	305	256	1250	212	185	159	206	200	180
7	192	133	158	266	207	905	258	184	154	207	196	186
8	176	144	158	242	175	398	254	183	158	207	194	183
9	156	148	155	232	159	392	252	185	167	207	192	182
10	164	162	154	223	162	883	248	186	171	206	193	184
11	164	166	154	215	222	1100	246	185	163	197	192	185
12	162	158	153	209	407	3200	241	182	165	191	194	187
13	162	152	153	202	3110	2980	237	182	167	191	195	188
14	164	154	156	199	1220	2740	230	183	173	187	194	195
15	160	157	154	195	1690	2190	231	180	175	190	190	195
16	166	151	152	192	1010	1520	229	178	176	204	192	193
17	157	151	156	189	656	1040	220	186	182	211	192	174
18	160	148	163	188	474	965	213	193	188	213	187	176
19	160	142	179	188	377	883	188	192	187	216	183	173
20	160	150	218	183	309	799	202	186	188	222	187	175
21	156	152	194	182	263	872	201	179	190	222	185	179
22	160	154	202	184	228	878	204	175	193	220	187	186
23	160	151	209	236	198	1360	196	183	190	205	187	185
24	170	151	192	1080	176	1050	190	189	186	205	186	183
25	163	151	181	617	157	884	190	192	176	202	177	185
26	160	151	176	431	148	675	184	196	173	204	174	183
27	160	151	172	351	136	512	181	192	173	205	166	190
28	162	151	169	962	134	459	181	187	182	205	164	193
29	163	151	168	476	---	415	184	185	189	204	168	198
30	177	151	171	458	---	386	184	183	180	207	168	195
31	172	---	190	358	---	345	---	182	---	205	174	---
TOTAL	5219	4542	5209	11534	14851	32113	6517	5789	5193	6323	5809	5490
MEAN	168	151	168	372	530	1036	217	187	173	204	187	183
MAX	197	166	218	1080	3110	3200	266	204	193	222	205	198
MIN	156	133	150	182	134	147	181	175	149	187	164	165
AC-FT	10350	9010	10330	22880	29460	63700	12930	11480	10300	12540	11520	10890
CAL YR 1986	TOTAL	321663	MEAN 881	MAX 28500	MIN 133	AC-FT 638000						
WTR YR 1987	TOTAL	108589	MEAN 298	MAX 3200	MIN 133	AC-FT 215400						

RUSSIAN RIVER BASIN

11463000 RUSSIAN RIVER NEAR CLOVERDALE, CA

LOCATION.--Lat 38°52'46", long 123°03'09", in NW 1/4 NW 1/4 sec.23, T.12 N., R.11 W., Mendocino County, Hydrologic Unit 18010110, on left bank 0.3 mi downstream from Cumisky Creek, 5.5 mi northwest of Cloverdale, and 28 mi downstream from Coyote Dam.

DRAINAGE AREA.--503 mi².

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 350 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 30, 1970, at site 0.2 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of about 15,300 acres above station. Flow also affected by diversion into basin (see REMARKS for East Fork Russian River stations) and since November 1958 by storage in Lake Mendocino (station 11461800).

AVERAGE DISCHARGE.--36 years, 1,003 ft³/s, 726,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,200 ft³/s, Dec. 22, 1964, gage height, 31.60 ft, site and datum then in use; minimum daily, 12 ft³/s, Apr. 22, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,450 ft³/s, Mar. 12, gage height, 11.64 ft; minimum daily, 117 ft³/s, June 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	205	163	155	424	396	209	427	231	186	154	182	151
2	190	154	156	907	1920	265	391	228	146	162	175	152
3	186	153	156	1310	1410	569	372	220	132	158	178	129
4	186	152	160	1000	728	452	348	220	119	173	180	147
5	183	152	173	542	505	4220	324	216	117	186	186	144
6	184	160	170	395	388	2540	307	213	126	192	183	146
7	192	142	169	334	314	1580	342	201	123	194	175	176
8	184	141	166	290	263	1320	339	190	127	192	177	176
9	162	149	165	273	235	1190	336	191	142	187	176	171
10	162	151	163	260	252	1260	327	198	142	186	175	162
11	163	173	163	246	352	1740	321	200	136	177	177	158
12	160	165	161	239	2040	6060	309	196	136	165	176	162
13	166	159	164	226	5390	5720	302	195	145	161	181	165
14	168	160	166	222	2140	4270	294	194	144	153	179	180
15	168	159	166	218	3170	3500	292	187	152	151	173	181
16	160	154	160	213	1770	2550	291	182	155	172	179	179
17	170	152	163	207	1080	1740	282	191	165	187	181	162
18	166	152	174	203	771	1500	267	201	175	194	170	150
19	166	145	194	200	600	1360	218	199	174	196	173	146
20	166	151	234	194	575	1200	251	190	175	204	173	149
21	159	154	228	192	437	1310	247	182	182	202	174	155
22	161	154	228	191	379	1340	249	161	190	205	172	167
23	162	154	241	245	336	2020	244	164	185	190	170	171
24	169	154	223	1330	301	1630	238	176	178	182	176	167
25	171	154	207	987	268	1320	236	187	168	186	169	165
26	162	152	199	597	246	1050	230	198	155	191	158	159
27	161	152	193	508	227	800	223	198	148	195	155	163
28	161	152	189	1380	216	725	216	191	159	191	143	170
29	165	154	187	770	---	644	214	190	169	190	144	176
30	178	154	189	661	---	579	215	180	157	191	144	177
31	180	---	199	543	---	535	---	183	---	191	153	---
TOTAL	5316	4621	5661	15307	26709	55198	8652	6053	4608	5658	5307	4856
MEAN	171	154	183	494	954	1781	288	195	154	183	171	162
MAX	205	173	241	1380	5390	6060	427	231	190	205	186	181
MIN	159	141	155	191	216	209	214	161	117	151	143	129
AC-FT	10540	9170	11230	30360	52980	109500	17160	12010	9140	11220	10530	9630
CAL YR 1986	TOTAL	458090	MEAN	1255	MAX	35900	MIN	141	AC-FT	908600		
WTR YR 1987	TOTAL	147946	MEAN	405	MAX	6060	MIN	117	AC-FT	293500		

RUSSIAN RIVER BASIN

11463170 BIG SULPHUR CREEK AT GEYSERS RESORT, NEAR CLOVERDALE, CA

LOCATION.--Lat 38°47'52", long 122°48'05", in NW 1/4 NW 1/4 sec.19, T.11 N., R.8 W., Sonoma County, Hydrologic Unit 18010110, on left bank 400 ft downstream from unnamed tributary and 12 mi east of Cloverdale.

DRAINAGE AREA.--13.1 mi².

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,420 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-20, Oct. 25 to Dec. 3, Dec. 20 to Jan. 5, March 6-19. Records fair except those for estimated daily discharges, which are poor. Diversion for industrial use 150 ft above station when flows are above 10 ft³/s.

AVERAGE DISCHARGE.--7 years, 46.1 ft³/s, 33,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,700 ft³/s, Feb. 17, 1986, gage height, 8.98 ft, from rating curve extended above 1,200 ft³/s on basis of culvert computation of peak flow; minimum daily, 0.08 ft³/s, Aug. 31, 1983.

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)
Feb. 13	0030	*1,970	6.98	Mar. 12	Unknown	1,520	6.59

Minimum daily, 0.46 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	2.9	2.2	1.7	17	17	15	15	8.6	3.8	2.1	1.1	.65
2	2.3	2.1	1.7	20	103	28	15	8.0	3.6	2.1	1.1	.65
3	2.0	2.0	3.3	160	37	58	14	7.5	3.5	2.1	1.1	.71
4	1.9	1.9	4.8	65	19	34	13	6.8	3.3	2.0	.96	.55
5	1.9	1.8	9.4	21	18	418	12	6.3	3.3	1.9	.77	.55
6	1.8	1.8	5.1	13	18	168	12	6.2	3.4	1.7	.77	.55
7	1.8	1.7	3.7	11	19	76	12	6.1	3.0	1.4	.77	.55
8	1.8	1.7	3.6	7.9	18	57	11	5.6	3.1	1.3	.77	.54
9	1.8	1.7	3.3	7.1	17	47	10	5.4	2.8	1.3	.68	.46
10	1.8	1.7	3.1	6.0	22	90	9.5	5.4	2.8	1.3	.77	.50
11	1.8	1.7	3.1	5.3	40	107	8.5	5.4	2.7	1.3	.71	.55
12	1.8	1.6	3.1	4.7	408	580	8.6	5.4	2.5	1.3	.56	.55
13	1.7	1.6	3.8	4.5	605	440	9.0	5.4	2.5	1.3	.55	.55
14	1.7	1.6	4.6	4.2	126	240	9.0	5.1	2.4	1.3	.55	.55
15	1.7	1.6	3.8	4.0	160	120	9.0	5.1	2.7	1.2	.55	.70
16	1.7	1.8	4.6	3.8	85	68	9.0	5.1	2.6	1.2	.55	.77
17	1.7	1.7	4.8	3.7	53	53	8.6	5.1	2.2	1.1	.62	.77
18	1.7	1.6	7.2	3.5	31	42	8.1	4.7	2.3	1.1	.77	.77
19	1.7	1.6	18	3.5	21	33	7.6	4.4	2.3	1.1	.75	.77
20	1.7	1.6	22	3.5	20	29	7.8	4.4	2.3	1.2	.77	.77
21	1.8	1.6	16	3.2	18	36	8.1	4.1	2.3	1.2	.56	.77
22	1.9	1.6	13	3.4	19	27	8.5	4.1	2.3	1.3	.55	.77
23	2.1	1.6	24	8.5	18	54	8.6	4.1	2.1	1.5	.64	.77
24	6.1	1.6	11	42	18	34	8.1	4.1	2.0	1.3	.65	.75
25	4.0	1.6	8.6	26	17	26	8.0	4.1	2.1	1.3	.65	.72
26	3.0	1.6	7.0	21	17	22	8.0	4.1	2.1	1.4	.65	.77
27	2.2	1.7	5.8	49	17	17	8.0	3.9	2.3	1.3	.65	.77
28	1.9	2.2	5.2	53	15	14	7.9	3.8	2.1	1.3	.65	.79
29	3.7	1.8	4.6	22	---	12	7.5	3.8	2.1	1.2	.65	.90
30	3.1	1.7	4.2	21	---	12	9.1	3.6	2.1	1.0	.65	.89
31	2.5	---	3.9	19	---	12	---	3.6	---	1.2	.65	---
TOTAL	69.5	52.0	218.0	636.8	1976	2969	290.5	159.3	78.6	43.3	22.12	20.36
MEAN	2.24	1.73	7.03	20.5	70.6	95.8	9.68	5.14	2.62	1.40	.71	.68
MAX	6.1	2.2	24	160	605	580	15	8.6	3.8	2.1	1.1	.90
MIN	1.7	1.6	1.7	3.2	15	12	7.5	3.6	2.0	1.0	.55	.46
AC-FT	138	103	432	1260	3920	5890	576	316	156	86	44	40
CAL YR 1986	TOTAL	24107.80	MEAN	66.0	MAX	3920	MIN	1.2	AC-FT	47820		
WTR YR 1987	TOTAL	6535.48	MEAN	17.9	MAX	605	MIN	.46	AC-FT	12960		

RUSSIAN RIVER BASIN

11464000 RUSSIAN RIVER NEAR HEALDSBURG, CA

LOCATION.--Lat 38°36'48", long 122°50'07", in Sotoyome Grant, Sonoma County, Hydrologic Unit 18010110, on left bank 2 mi east of Healdsburg and 3.5 mi upstream from Dry Creek.

DRAINAGE AREA.--793 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 981: 1942. WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 77.01 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: May 19-27 and Sept. 8. Records good. Several diversions for irrigation of about 17,800 acres above station. Flow also affected by diversion into basin (see REMARKS for East Fork Russian River stations) and since November 1958 by storage in Lake Mendocino (station 11461800) 63 mi upstream.

AVERAGE DISCHARGE.--48 years, 1,464 ft³/s, 1,061,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,300 ft³/s, Dec. 23, 1964, gage height, 27.00 ft; maximum gage height, 30.0 ft, Feb. 28, 1940; minimum daily discharge, 17 ft³/s, Apr. 25, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached a stage of 30.8 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,800 ft³/s, Mar. 12, gage height, 11.76 ft; minimum daily, 105 ft³/s, June 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	217	193	167	237	684	384	769	302	188	144	171	141
2	213	183	167	681	1630	366	691	306	188	142	167	139
3	202	170	167	1060	2310	604	653	295	170	145	162	139
4	196	166	170	1510	1260	650	617	286	158	149	162	132
5	194	164	192	838	896	5450	574	279	143	156	161	135
6	192	163	195	577	705	4290	541	269	136	163	164	137
7	190	167	192	462	583	2320	524	258	133	166	164	136
8	192	161	185	393	498	1690	529	246	111	165	164	146
9	189	158	181	350	442	1450	513	241	105	165	164	157
10	177	160	178	324	416	1370	503	241	134	163	164	154
11	174	160	178	302	660	2120	488	236	142	163	165	146
12	174	172	177	285	1790	7900	470	232	141	162	164	144
13	172	172	182	272	10800	11100	453	225	134	155	165	150
14	170	169	189	260	3630	6110	436	219	126	151	167	156
15	170	168	191	248	3970	5180	427	216	133	146	168	162
16	170	169	194	243	2850	3740	417	208	136	142	167	162
17	171	164	187	236	1820	2790	408	204	137	150	167	162
18	174	163	196	231	1360	2250	399	207	139	160	167	152
19	171	163	214	227	1070	1990	376	210	143	166	165	187
20	172	160	241	219	885	1730	343	210	146	168	165	130
21	173	167	252	215	753	1960	348	204	148	174	165	139
22	169	167	258	213	659	1910	341	198	152	177	167	142
23	170	166	262	237	587	2270	331	192	156	177	166	148
24	182	167	262	458	534	2430	325	190	152	173	164	151
25	183	164	247	1470	488	1900	319	196	148	167	165	146
26	186	163	233	903	445	1610	314	202	141	168	164	144
27	181	163	223	700	416	1320	305	207	134	169	163	138
28	178	164	215	1380	395	1130	292	203	134	171	152	140
29	180	167	212	1300	---	1020	287	195	139	169	142	142
30	187	167	209	958	---	923	292	194	145	167	140	142
31	194	---	217	880	---	847	---	191	---	168	139	---
TOTAL	5663	5000	6333	17669	42536	80804	13285	7062	4292	5001	5030	4399
MEAN	183	167	204	570	1519	2607	443	228	143	161	162	147
MAX	217	193	262	1510	10800	11100	769	306	188	177	171	187
MIN	169	158	167	213	395	366	287	190	105	142	139	130
AC-FT	11230	9920	12560	35050	84370	160300	26350	14010	8510	9920	9980	8730
CAL YR 1986	TOTAL	719930	MEAN	1972	MAX	59700	MIN 158	AC-FT	1428000			
WTR YR 1987	TOTAL	197074	MEAN	540	MAX	11100	MIN 105	AC-FT	390900			

RUSSIAN RIVER BASIN

11464000 RUSSIAN RIVER NEAR HEALDSBURG, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

CHEMICAL DATA: Water years 1951-66, 1980.

WATER TEMPERATURE: Water years 1966 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1965 to current year.

INSTRUMENTATION.--Water temperature recorder since October 1965 provides hourly recordings.

REMARKS.--Records represent water temperature at sensor within 0.5 °C.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 28.0 °C, July 13, 14, 1972, June 21, 1981, July 13, 1983, and May 14, 15, 1987; minimum recorded, 5.0 °C, Dec. 10, 11, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 28.0 °C, May 14, 15; minimum recorded, 6.0 °C, Jan. 16, 17.

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	21.0	16.0	19.5	13.0	10.5	8.5	11.5	10.5	11.5	10.5	13.5	11.5
2	19.0	12.0	19.0	12.5	10.5	8.5	11.0	10.0	11.0	10.5	13.0	12.5
3	19.5	13.0	18.0	12.0	11.0	9.0	10.5	10.0	12.0	10.0	14.0	12.5
4	20.5	14.0	18.0	11.0	11.5	10.5	10.5	9.5	12.0	9.5	13.0	12.0
5	20.5	13.5	16.5	11.5	12.5	11.5	10.0	8.5	12.0	10.5	12.0	11.0
6	20.5	13.0	17.5	11.0	13.0	11.5	10.0	9.5	12.0	10.5	12.5	10.5
7	21.0	13.0	17.0	14.5	12.5	11.0	9.5	8.0	12.5	11.0	12.0	10.0
8	20.5	13.0	16.5	12.5	11.5	9.5	9.0	8.0	13.0	11.5	13.0	10.5
9	19.5	12.5	17.0	11.0	10.5	9.0	10.0	9.0	13.0	12.5	14.0	10.5
10	15.5	13.0	16.5	11.5	10.0	8.5	10.0	9.0	13.5	12.5	13.5	11.5
11	18.0	12.5	17.5	11.0	10.0	8.5	10.0	9.0	14.0	13.0	12.0	11.0
12	19.5	12.5	17.5	11.0	9.5	9.0	9.5	8.5	14.0	12.5	12.0	11.5
13	19.5	11.5	15.5	11.0	10.0	9.0	9.5	8.0	13.0	12.0	12.5	10.5
14	20.5	12.0	14.0	12.5	10.5	10.0	9.5	8.0	12.0	11.0	12.5	11.5
15	19.5	12.0	15.5	13.5	10.5	9.5	9.0	7.5	12.0	10.5	12.0	9.5
16	18.5	13.0	14.5	13.0	11.0	9.5	7.5	6.0	12.0	9.5	13.0	10.0
17	18.5	13.0	14.0	12.5	11.0	9.5	8.5	6.0	12.5	9.5	14.5	10.5
18	19.5	11.5	14.5	12.5	12.0	10.5	9.0	7.0	12.0	10.0	13.5	11.5
19	19.5	12.0	15.5	14.0	11.5	11.0	9.0	7.5	12.5	10.0	13.0	10.0
20	17.5	13.0	15.0	13.0	11.0	9.5	9.5	7.5	12.5	10.5	12.0	10.0
21	19.5	12.5	14.5	13.0	10.0	9.0	9.0	7.5	12.5	10.5	11.5	9.5
22	19.5	12.5	14.5	12.5	10.5	9.0	9.0	8.0	12.0	9.5	13.0	9.5
23	15.0	13.0	14.0	12.0	11.0	9.5	10.5	8.5	11.0	10.0	14.0	11.0
24	19.5	13.5	13.0	12.0	10.5	9.0	10.5	10.0	11.5	9.5	14.0	10.0
25	20.5	13.5	13.0	11.0	10.0	9.5	10.5	9.5	12.0	9.5	15.0	10.5
26	21.0	14.0	12.0	10.5	10.5	9.0	12.0	10.0	12.0	9.5	15.5	11.5
27	21.5	14.5	11.0	9.5	10.0	9.5	12.0	11.5	12.5	10.0	15.5	12.5
28	16.0	14.0	11.0	9.5	10.0	9.5	11.5	10.0	13.5	10.5	16.0	12.5
29	17.0	13.5	11.0	9.5	10.5	9.5	10.5	9.5	---	---	16.0	13.0
30	21.5	14.0	10.5	9.0	11.0	10.0	11.5	10.0	---	---	16.5	13.5
31	20.5	16.0	---	---	11.0	10.5	11.5	9.5	---	---	16.5	14.0
MONTH	21.5	11.5	19.5	9.0	13.0	8.5	12.0	6.0	14.0	9.5	16.5	9.5

RUSSIAN RIVER BASIN

11464000 RUSSIAN RIVER NEAR HEALDSBURG, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	17.0	14.0	20.5	16.0	25.5	19.5	23.0	21.5	25.5	23.0	23.5	22.5
2	17.0	15.0	21.5	15.5	27.0	21.0	23.0	21.5	25.5	24.0	23.5	22.5
3	16.5	14.0	23.5	16.5	26.5	22.0	24.0	22.5	25.5	24.0	23.5	23.0
4	17.0	14.0	25.0	18.0	25.5	21.5	24.5	22.5	25.0	23.5	23.0	21.5
5	17.5	14.0	26.5	19.5	26.0	21.5	24.5	23.0	24.5	23.0	22.0	21.0
6	18.0	14.5	27.5	20.5	26.5	22.0	25.5	23.0	24.5	23.0	22.0	21.0
7	19.0	15.0	27.5	21.0	26.0	21.5	25.5	24.0	24.0	22.0	21.5	21.0
8	19.0	16.0	23.5	20.5	25.5	21.5	25.5	22.5	23.5	22.0	22.5	20.5
9	20.0	16.0	25.0	19.5	25.5	22.5	25.5	23.5	24.0	22.0	22.0	20.0
10	19.0	16.5	26.5	19.5	25.0	23.0	25.5	24.0	23.5	21.5	22.0	19.0
11	18.5	15.5	26.0	19.5	25.0	23.5	25.0	23.5	22.5	21.0	22.0	19.0
12	19.0	14.0	27.0	19.5	25.5	23.0	25.0	23.0	23.0	21.0	22.5	19.0
13	19.5	15.0	27.5	21.0	26.0	24.5	24.5	23.0	22.5	21.0	21.0	19.0
14	20.0	15.5	28.0	21.5	24.5	21.0	25.0	24.0	22.5	21.0	21.5	18.5
15	21.0	16.0	28.0	21.5	21.5	20.5	25.0	24.0	23.0	21.5	22.0	19.5
16	21.5	16.5	26.5	20.5	23.0	20.5	24.5	23.5	23.5	21.5	22.0	19.5
17	20.0	16.5	24.5	20.0	23.0	21.5	23.5	21.0	23.5	22.5	21.5	19.0
18	18.5	15.0	23.0	19.0	23.5	22.0	22.0	20.0	24.0	21.5	21.5	19.0
19	19.0	13.0	21.5	18.0	23.5	22.0	23.0	21.0	22.5	21.5	23.0	19.0
20	21.0	14.5	23.0	17.0	24.0	22.0	23.0	21.5	22.5	21.0	23.0	17.5
21	22.0	16.0	23.0	19.0	24.0	23.0	23.5	20.5	22.5	21.0	23.0	17.5
22	22.0	17.0	23.5	19.0	25.0	21.5	22.0	19.0	22.5	21.0	23.5	18.0
23	21.5	17.0	24.0	19.0	25.0	23.0	22.5	21.0	22.5	21.0	22.0	18.5
24	22.5	16.5	23.0	19.0	25.5	23.0	24.0	21.5	23.0	21.5	22.5	18.5
25	23.0	16.5	22.0	18.5	25.5	24.0	24.0	22.5	23.0	22.0	23.0	18.0
26	23.0	17.0	22.5	17.5	25.5	24.0	24.0	22.5	23.0	21.5	23.5	18.0
27	23.5	17.0	23.5	18.5	25.0	23.5	24.5	22.5	22.5	21.5	22.5	18.0
28	22.5	18.0	24.0	19.0	23.5	22.5	24.5	22.0	23.5	22.0	22.5	17.5
29	20.5	17.0	24.0	19.0	23.0	22.0	23.5	21.5	23.5	22.5	23.0	17.5
30	19.5	17.0	24.0	19.0	23.0	22.0	24.0	21.5	24.0	23.0	23.5	18.5
31	---	---	24.5	20.5	---	---	24.5	22.0	23.5	22.5	---	---
MONTH	23.5	13.0	28.0	15.5	27.0	19.5	25.5	19.0	25.5	21.0	23.5	17.5

RUSSIAN RIVER BASIN

11464900 LAKE SONOMA NEAR GEYSERVILLE, CA

LOCATION.--Lat 38°43'21", long 123°00'36", in SW 1/4 SE 1/4 sec.7, T.10 N., R.10 W., Sonoma County, Hydrologic Unit 18010110, in reservoir control tower 400 ft upstream from Warm Springs Dam and 6.0 mi west of Geyserville.

DRAINAGE AREA.--130 mi².

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

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

REMARKS.--Reservoir is formed by earthfill dam; storage began in October 1983. Usable capacity 381,000 acre-ft between elevations 221.00 ft, invert of lowest outlet tunnel, and 495.00 ft, spillway crest. Water is released down Dry Creek for domestic use and fisheries. Records, including current year extremes, represent contents at 2400 hours.

COOPERATION.--Records were provided by U.S. Army Corps of Engineers; not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 264,347 acre-ft, Mar. 11, 1986, elevation, 458.19 ft; minimum after initial reservoir filling, 3,626 acre-ft, Nov. 2, 1984, elevation, 245.28 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 212,931 acre-ft, Oct. 1, elevation, 438.31 ft; minimum, 132,830 acre-ft, Sept. 30, elevation, 399.53 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)
(Provided by U. S. Army Corps of Engineers, from 1964 survey)

221	111	280	14,286	360	75,150	440	217,014
230	1,151	300	24,025	380	101,566	460	269,406
240	2,621	320	37,003	400	133,654	480	329,768
260	7,265	340	53,833	420	171,956	495	380,681

RESERVOIR STORAGE (AC-FT), 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	212931	206823	177526	171416	175304	193831	192213	187921	180732	168589	150089	138828
2	212740	206611	176741	171374	176953	194102	192303	187766	180324	168302	149463	138665
3	212476	206164	176169	172685	177632	194508	192370	187590	179766	167974	148839	138396
4	212189	205366	175958	172956	177930	195050	192370	187436	179316	167667	148217	138180
5	211901	204478	175768	172998	178100	200625	192348	187237	178889	167381	147598	137983
6	211614	203172	175579	172998	178185	201503	192303	186995	178398	166912	146979	137768
7	211375	201849	175389	172914	178207	201503	192303	186731	177908	166261	146381	137571
8	211160	200809	175157	172831	178228	201340	192235	186490	177462	165590	145766	137446
9	211017	199750	174926	172726	178291	201202	192168	186248	177038	164963	145153	137178
10	210874	198671	174715	172601	178419	201526	192078	185985	176550	164175	144504	136981
11	210707	197596	174484	172456	178611	201572	191966	185722	176085	163531	143858	136767
12	210564	196434	174274	172393	182804	206964	191900	185460	175663	162868	143268	136517
13	210421	195118	174190	172310	187744	209708	191810	185197	175136	162268	142809	136322
14	210278	194102	173981	172143	189159	211112	191720	184979	174652	161589	142497	136162
15	209969	193088	173687	171997	191296	211638	191631	184760	174232	160912	142296	135966
16	209732	192123	173458	171873	192213	210993	191497	184521	173834	160276	142113	135753
17	210541	191005	173227	171748	192864	209613	191363	184302	173374	159563	141893	135523
18	209351	190025	173144	171623	193245	208049	191184	184107	172873	158931	141674	135310
19	209138	189004	173060	171499	193493	208446	191072	183911	172435	158301	141473	135133
20	208948	188009	172914	171374	193696	204735	190716	183671	172101	157613	141237	134939
21	208711	187017	172705	171208	193808	203266	190292	183454	171748	156987	141054	134709
22	208569	186029	172622	171084	193898	201618	189803	183237	171519	156400	140872	134480
23	208451	185044	172518	170980	193898	200256	189337	182999	171146	155719	140654	134269
24	208333	184107	172330	170898	193944	198625	189049	182782	170918	155136	140436	134075
25	208191	182695	172080	170815	193944	196935	188916	182544	170525	154516	140237	133864
26	208026	181658	171894	170732	193921	195209	188738	182241	170174	153878	140019	133688
27	207836	180624	171665	173562	193898	193989	188584	182003	169864	153223	139839	133461
28	207600	179766	171437	174148	193876	193381	188407	181766	169514	152531	139676	133232
29	207317	179081	171312	174484	---	192706	188230	181528	169205	151899	139477	133058
30	207105	178271	171105	174778	---	192213	188075	181270	168876	151268	139224	132830
31	206987	---	171022	174947	---	192168	---	181054	---	150716	139025	---
MAX	212931	206823	177526	174947	193944	211638	192370	187921	180732	168589	150089	138828
MIN	206987	178271	171022	170732	175304	192168	188075	181054	168876	150716	139025	132830
a	435.81	423.00	419.55	421.43	430.12	429.36	427.52	424.30	418.51	409.33	403.02	399.53
b	-6137	-28716	-7249	+3925	+18929	-1708	-4093	-7021	-12178	-18160	-11691	-6195

CAL YR 1986 MAX 264347 MIN 70828 b +100069

WTR YR 1987 MAX 212931 MIN 132830 b -80294

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

RUSSIAN RIVER BASIN

11465000 DRY CREEK BELOW WARM SPRINGS DAM, NEAR GEYSERVILLE, CA

LOCATION.--Lat 38°43'11", long 122°59'58", in Tzabaco Grant, Sonoma County, Hydrologic Unit 18010110, on right bank of outlet channel, 500 ft downstream from Warm Springs Dam, 500 ft upstream from county road bridge, and 5.0 mi west of Geyserville.

DRAINAGE AREA.--131 mi².

WATER-DISCHARGE RECORD

PERIOD OF RECORD.--October 1939 to September 1942 (published as "Dry Creek near Healdsburg"), October 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 188.21 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Sept. 30, 1942, nonrecording gage at site 500 ft downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow affected by storage in Lake Sonoma since October 1983.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,500 ft³/s, Feb. 28, 1940, gage height, 16.9 ft, datum then in use; no flow Oct. 1 to Dec. 8, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached a stage of 21.8 ft from floodmarks, discharge about 25,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,060 ft³/s, Mar. 18, gage height, 7.19 ft; minimum daily, 77 ft³/s, 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	94	120	383	78	81	77	77	111	188	148	300	86
2	95	120	362	79	83	77	77	113	225	148	300	87
3	96	196	280	84	81	77	77	112	227	148	300	87
4	98	350	196	82	81	79	93	118	227	148	300	87
5	99	494	129	81	81	251	100	126	226	148	300	88
6	99	600	115	81	80	502	100	126	226	235	300	88
7	100	633	115	80	80	488	100	126	226	300	302	88
8	100	537	115	80	80	484	100	126	226	300	303	88
9	100	536	115	81	80	362	100	126	226	304	303	89
10	100	539	114	80	80	290	99	126	226	304	303	89
11	100	536	114	80	80	349	99	126	224	300	302	89
12	100	530	114	83	87	467	99	122	226	300	235	89
13	97	535	114	81	82	498	99	116	226	300	115	89
14	96	521	113	81	81	500	98	115	226	300	90	89
15	98	514	112	81	82	502	98	115	224	300	90	89
16	100	514	111	81	81	811	99	115	179	300	90	89
17	101	515	111	81	81	1050	103	115	226	304	90	89
18	101	510	111	81	82	1050	103	115	226	300	90	89
19	101	507	111	78	82	1050	103	116	224	300	90	89
20	101	512	111	81	82	1050	200	115	181	300	90	90
21	101	512	111	80	82	1030	252	115	149	300	84	90
22	101	511	111	81	82	1030	253	115	146	300	83	90
23	101	510	111	80	82	1030	253	115	149	304	88	93
24	101	508	111	83	82	1030	193	116	151	300	87	95
25	101	512	111	81	82	1030	97	115	151	300	87	95
26	100	512	111	80	87	1020	97	116	151	300	87	95
27	100	512	111	79	87	778	104	116	151	300	89	95
28	100	444	111	81	77	489	112	116	151	300	85	96
29	101	380	111	81	---	482	112	115	150	300	88	96
30	100	381	111	81	---	398	115	115	149	304	88	95
31	107	---	96	81	---	145	---	115	---	300	90	---
TOTAL	3089	14101	4252	2502	2288	18476	3612	3649	5883	8495	5249	2708
MEAN	99.6	470	137	80.7	81.7	596	120	118	196	274	169	90.3
MAX	107	633	383	84	87	1050	253	126	227	304	303	96
MIN	94	120	96	78	77	77	77	111	146	148	83	86
AC-FT	6130	27970	8430	4960	4540	36650	7160	7240	11670	16850	10410	5370
CAL YR 1986	TOTAL	79917	MEAN 219	MAX 2540	MIN 44	AC-FT 158500						
WTR YR 1987	TOTAL	74304	MEAN 204	MAX 1050	MIN 77	AC-FT 147400						

RUSSIAN RIVER BASIN

11465000 DRY CREEK BELOW WARM SPRINGS DAM, NEAR GEYSERVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

WATER TEMPERATURE: November 1981 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: November 1981 to current year.

INSTRUMENTATION.--Temperature recorder.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 27.0 °C, July 11, August 5, 6, 8, 12, 15, 16, 1983; minimum recorded, 6.5 °C, Jan. 20, 1982.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 18.5 °C, June 16; minimum recorded, 10.5 °C, on several days.

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	13.0	12.5	13.0	13.0	13.5	13.5	12.0	12.0	11.0	11.0	11.0	10.5
2	13.0	12.5	13.0	12.5	13.5	13.5	12.0	12.0	11.0	10.5	10.5	10.5
3	13.0	12.5	14.5	13.0	13.5	13.5	12.0	11.5	11.0	10.5	10.5	10.5
4	13.0	12.5	14.5	14.5	13.5	13.5	12.0	11.5	11.0	11.0	10.5	10.5
5	13.0	12.5	14.5	14.5	13.5	13.5	12.0	11.5	11.0	11.0	10.5	10.5
6	13.0	12.5	14.5	13.5	13.5	13.5	12.0	11.5	11.0	11.0	10.5	10.5
7	13.0	12.5	14.5	13.5	13.5	13.5	11.5	11.5	11.5	11.0	11.0	10.5
8	13.0	12.5	14.5	14.5	13.5	13.0	11.5	11.5	11.5	11.0	10.5	10.5
9	13.0	12.5	14.5	14.5	13.0	13.0	11.5	11.5	11.0	11.0	10.5	10.5
10	13.0	12.5	14.5	14.5	13.0	13.0	11.5	11.5	11.0	11.0	10.5	10.5
11	13.0	12.5	14.5	14.0	13.0	13.0	11.5	11.5	11.0	11.0	10.5	10.5
12	13.0	12.5	14.5	14.0	13.0	12.5	11.5	11.0	11.0	11.0	10.5	10.5
13	12.5	11.5	14.5	14.0	12.5	12.5	11.5	11.0	11.0	11.0	10.5	10.5
14	12.0	11.5	14.0	14.0	12.5	12.5	11.5	11.0	11.5	11.0	11.0	10.5
15	13.0	11.5	14.5	14.0	12.5	12.5	11.5	11.0	11.0	11.0	11.0	11.0
16	13.0	12.5	14.5	14.0	12.5	12.5	11.0	11.0	11.0	11.0	11.0	10.5
17	13.0	12.5	14.5	14.0	12.5	12.5	11.5	11.0	11.5	11.0	10.5	10.5
18	13.0	12.5	14.5	14.0	12.5	12.5	11.5	11.0	11.0	11.0	10.5	10.5
19	13.0	12.5	14.5	14.0	12.5	12.5	11.0	11.0	11.5	11.0	10.5	10.5
20	13.0	12.5	14.0	14.0	12.5	12.5	11.0	10.5	11.0	11.0	10.5	10.5
21	13.0	12.5	14.5	14.0	12.5	12.0	11.0	10.5	11.0	11.0	10.5	10.5
22	13.0	12.5	14.5	14.0	12.0	12.0	11.0	10.5	11.0	10.5	10.5	10.5
23	13.0	12.5	14.5	14.0	12.0	12.0	11.0	11.0	11.0	10.5	10.5	10.5
24	13.0	12.5	14.5	14.0	12.0	12.0	11.0	10.5	11.0	10.5	10.5	10.5
25	13.0	12.5	14.5	14.0	12.0	12.0	11.0	11.0	11.0	10.5	10.5	10.5
26	13.0	13.0	14.0	14.0	12.0	12.0	11.0	11.0	11.0	10.5	11.0	10.5
27	13.0	13.0	14.0	14.0	12.0	12.0	11.0	11.0	11.0	10.5	11.0	10.5
28	13.0	12.5	14.0	14.0	12.0	12.0	11.0	11.0	11.0	10.5	11.0	10.5
29	13.0	13.0	14.0	14.0	12.0	12.0	11.0	11.0	---	---	11.0	11.0
30	13.0	13.0	14.0	13.5	12.0	12.0	11.0	11.0	---	---	11.5	11.0
31	13.0	13.0	---	---	12.0	12.0	11.0	11.0	---	---	11.5	11.0
MONTH	13.0	11.5	14.5	12.5	13.5	12.0	12.0	10.5	11.5	10.5	11.5	10.5

RUSSIAN RIVER BASIN

11465000 DRY CREEK BELOW WARM SPRINGS DAM, NEAR GEYSERVILLE, CA--Continued

WATER-QUALITY RECORDS

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.5	11.0	11.5	11.5	15.0	14.0	16.0	15.0	13.0	12.5	14.5	14.0
2	11.5	11.0	11.5	11.5	14.0	14.0	16.0	15.0	13.0	12.5	14.5	14.0
3	11.5	11.0	11.5	11.5	14.0	13.5	16.5	15.5	13.0	12.5	14.5	14.0
4	12.0	11.5	11.5	11.5	14.0	13.5	16.5	16.0	13.0	12.0	14.5	14.0
5	12.0	11.5	11.5	11.5	15.0	14.0	16.5	16.5	13.0	12.0	14.5	14.0
6	12.0	11.5	11.5	11.5	15.0	14.0	17.0	16.0	13.0	12.5	15.0	14.0
7	12.0	11.5	11.5	11.5	14.0	14.0	17.0	16.5	13.5	13.0	14.5	14.0
8	12.5	12.0	11.5	11.5	14.5	14.0	16.5	12.0	13.5	13.0	15.0	14.5
9	12.5	12.0	11.5	11.5	14.5	14.5	12.0	12.0	13.5	13.0	15.0	14.0
10	12.5	12.0	11.5	11.5	15.0	14.5	12.0	12.0	13.5	13.0	15.0	14.5
11	12.5	12.0	11.5	11.5	14.5	14.0	12.0	12.0	14.0	13.0	15.5	14.5
12	12.5	12.0	11.5	11.5	14.5	14.5	12.0	12.0	14.0	13.0	15.0	14.0
13	12.5	12.0	11.5	11.5	14.5	14.0	12.0	12.0	14.0	13.5	15.0	14.0
14	12.5	11.5	11.5	11.5	14.5	14.0	12.0	12.0	14.0	13.5	15.5	14.5
15	11.5	11.0	11.5	11.5	15.0	14.5	12.0	12.0	14.0	13.5	15.5	14.5
16	11.5	11.0	11.5	11.5	18.5	14.5	12.5	12.0	14.0	13.0	15.5	15.0
17	11.5	11.0	11.5	11.5	16.0	15.5	12.5	12.0	14.0	13.0	15.0	14.5
18	11.5	11.0	11.5	11.5	15.5	14.5	12.5	12.0	14.0	13.5	15.0	14.5
19	11.5	11.0	11.5	11.5	15.5	14.5	12.0	12.0	14.0	13.5	15.0	14.5
20	11.5	11.0	11.5	11.5	16.0	15.0	12.5	12.0	14.0	13.5	15.5	15.0
21	11.0	11.0	11.5	11.5	16.0	15.0	12.5	12.0	14.5	13.5	15.5	15.0
22	11.0	11.0	11.5	11.5	16.0	15.5	12.5	12.0	14.5	13.5	15.5	14.5
23	11.0	11.0	11.5	11.5	16.0	15.0	12.5	12.0	14.5	13.5	15.5	14.5
24	11.5	11.0	11.5	11.5	15.5	15.0	12.5	12.0	14.5	13.5	16.5	15.5
25	11.5	11.5	11.5	11.5	15.5	15.0	12.5	12.0	14.0	13.5	17.0	15.5
26	11.5	11.5	11.5	11.5	15.5	15.0	12.5	12.5	14.5	14.0	17.0	15.5
27	11.5	11.5	14.0	11.5	15.5	15.0	12.5	12.5	14.5	14.0	16.0	15.5
28	11.5	11.5	15.0	14.0	15.5	15.0	12.5	12.5	14.5	14.0	16.0	15.5
29	11.5	11.5	15.0	14.5	15.5	15.0	12.5	12.5	14.5	14.0	16.0	15.5
30	11.5	11.5	14.0	14.0	15.5	15.0	13.0	12.5	14.5	14.0	16.0	16.0
31	---	---	15.0	14.0	---	---	13.0	12.5	14.5	14.0	---	---
MONTH	12.5	11.0	15.0	11.5	18.5	13.5	17.0	12.0	14.5	12.0	17.0	14.0

RUSSIAN RIVER BASIN

11465150 PENA CREEK NEAR GEYSERVILLE, CA

LOCATION.--Lat 38°42'02", long 122°58'16", in sec. 21, T.10 N., R.10 W., Sonoma County, Hydrologic Unit 18010110, on right bank on upstream side of bridge on West Dry Creek Road, 1.1 mi upstream from mouth, and 3.7 mi west of Geyserville.

DRAINAGE AREA.--22.3 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 195 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: May 19-22. Records good. No regulation; some small diversion for irrigation of less than 200 acres in summer months.

AVERAGE DISCHARGE.--9 years, 50.3 ft³/s, 36,440 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,710 ft³/s, Jan. 26, 1983, gage height, 9.01 ft; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 950 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0115	*1,350	*5.65				

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			0	7.5	17	14	17	3.9				
2			0	7.6	83	16	16	3.2				
3			0	51	46	42	15	3.0				
4			0	26	24	35	14	3.0				
5			0	16	16	508	13	2.9				
6			0	10	11	168	12	2.5				
7			0	8.7	8.7	100	12	1.9				
8			0	6.6	7.5	78	11	1.1				
9			0	5.9	8.1	66	11	1.2				
10			0	4.9	8.6	72	9.7	1.2				
11			0	4.3	30	73	8.5	.63				
12			0	3.9	328	397	8.4	.35				
13			0	3.6	548	393	8.0	.08				
14			.19	3.1	156	206	7.3	0				
15			0	2.6	147	100	7.1	0				
16			.01	1.7	95	68	6.9	0				
17			0	1.4	65	51	6.4	0				
18			.73	.79	46	42	5.9	0				
19			4.8	.32	36	35	5.5	.23				
20			4.1	.04	30	30	5.3	.32				
21			.65	0	26	35	5.4	.55				
22			2.7	.11	24	28	5.9	.22				
23			2.3	8.8	22	33	5.2	0				
24			.82	65	20	28	5.1	0				
25			.35	36	18	26	5.1	.03				
26			.01	20	17	24	4.6	.04				
27			0	18	15	22	4.5	0				
28			0	54	14	21	4.0	0				
29			0	30	---	20	3.8	0				
30			0	33	---	19	4.0	0				
31		---	.56	23	---	18	---	0	---			---
TOTAL	0	0	17.22	453.86	1866.9	2768	247.6	26.35	0	0	0	0
MEAN	0	0	.56	14.6	66.7	89.3	8.25	.85	0	0	0	0
MAX	0	0	4.8	65	548	508	17	3.9	0	0	0	0
MIN	0	0	0	0	7.5	14	3.8	0	0	0	0	0
AC-FT	0	0	34	900	3700	5490	491	52	0	0	0	0

CAL YR 1986	TOTAL	22901.49	MEAN 62.7	MAX 3080	MIN 0	AC-FT 45430
WTR YR 1987	TOTAL	5379.93	MEAN 14.7	MAX 548	MIN 0	AC-FT 10670

RUSSIAN RIVER BASIN

11465150 PENA CREEK NEAR GEYSERVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979 to current year.

WATER TEMPERATURE: Water years 1979-86.

SEDIMENT DATA: Water years 1979 to September 1987 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Water years 1979-86.

SUSPENDED-SEDIMENT DATA: Water years 1979-86.

REMARKS.--Zero bedload discharge observed at flows less than 40 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	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
DEC									
24...	1330	0.76	8.5	1	0.00	--	--	--	--
FEB									
11...	1020	32	9.5	30	2.6	--	--	--	--
13...	0930	469	11.5	435	551	80	92	99	100
MAR									
03...	1020	40	10.5	14	1.5	--	--	--	--
13...	0955	416	11.5	222	249	76	--	--	--
14...	1140	255	11.0	98	67	82	--	--	--
APR									
09...	0930	11	12.5	1	0.03	--	--	--	--
21...	1110	5.7	15.5	0	0.0	--	--	--	--

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 .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM
MAR							
13...	1002	11.5	1	405	1	6	12
13...	1004	--	1	405	--	2	5
13...	1006	--	1	405	--	1	3
13...	1008	--	1	405	1	5	9
13...	1010	--	1	405	--	3	6
13...	1012	--	1	405	--	1	3
13...	1014	--	1	405	--	2	6
13...	1016	--	1	405	--	2	8
13...	1018	--	1	405	--	2	5
13...	1020	--	1	405	1	7	18
13...	1022	--	1	405	3	7	14

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	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
MAR							
13...	19	27	40	56	78	100	--
13...	9	14	20	26	28	28	100
13...	10	22	40	66	95	100	--
13...	16	27	41	60	87	100	--
13...	9	14	24	42	70	100	--
13...	5	10	22	45	76	100	--
13...	12	21	34	51	82	100	--
13...	14	22	36	55	75	100	--
13...	10	15	22	29	43	100	--
13...	30	39	50	63	79	100	--
13...	25	37	56	76	95	100	--

RUSSIAN RIVER BASIN

11465200 DRY CREEK NEAR GEYSERVILLE, CA

LOCATION.--Lat 38°41'55", long 122°57'25", in Tzabaco Grant, Sonoma County, Hydrologic Unit 18010110, on left bank pier of bridge 0.3 mi downstream from Pena Creek and 3 mi west of Geyserville.

DRAINAGE AREA.--162 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR CA-65-1: 1962(M), 1963(M).

GAGE.--Water-stage recorder. Datum of gage is 156.40 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1964, at datum 4.00 ft higher. Oct. 1, 1964, to Apr. 8, 1976, at datum 3.00 ft higher; Apr. 9, 1976, to Sept. 30, 1982, at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1-3. Records good. Small diversions above station for irrigation of about 1,200 acres in summer. Flow regulated by Lake Sonoma (station 11464900) 3.0 mi upstream beginning October 1983.

AVERAGE DISCHARGE.--24 years (water years 1959-83), 342 ft³/s, 248,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,400 ft³/s, Jan. 31, 1963, gage height, 20.50 ft, present datum; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,900 ft³/s, Feb. 13, gage height, 7.54 ft; minimum daily, 84 ft³/s, Jan. 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	93	112	331	87	105	93	121	119	176	150	324	92
2	93	113	325	84	185	94	116	119	225	151	322	90
3	99	177	258	147	145	132	111	120	226	150	325	92
4	106	326	206	122	121	125	118	124	229	151	325	91
5	104	453	144	109	110	1050	126	133	230	151	325	91
6	105	660	125	104	104	854	124	133	231	232	325	91
7	104	708	124	99	101	694	127	131	231	314	317	91
8	103	531	125	97	99	645	132	131	230	311	310	91
9	102	538	124	97	98	487	126	130	231	318	308	91
10	101	534	123	96	98	400	124	132	229	330	310	91
11	100	522	122	96	120	453	123	132	236	318	307	91
12	99	524	121	97	493	1200	123	128	240	329	239	89
13	97	520	123	96	868	1130	123	122	241	340	129	89
14	96	509	124	96	282	857	123	121	238	337	98	89
15	96	504	123	94	331	740	123	119	236	338	96	89
16	97	502	122	93	229	1040	125	119	191	341	96	89
17	98	499	121	94	184	1300	128	119	221	338	98	89
18	97	499	122	92	153	1260	122	118	224	338	98	89
19	97	497	123	91	136	1230	121	118	224	338	98	89
20	96	496	124	94	127	1210	211	117	185	331	99	89
21	95	496	118	90	120	1200	283	117	147	332	95	89
22	97	493	120	92	117	1180	277	117	145	327	91	89
23	99	492	119	94	113	1190	267	117	147	323	96	90
24	99	490	117	163	107	1180	214	118	148	322	96	94
25	97	490	118	125	102	1170	111	118	147	322	96	92
26	96	487	117	111	104	1160	108	116	151	323	94	92
27	95	485	117	106	104	902	113	115	153	322	96	92
28	96	425	115	142	94	515	120	117	155	322	92	92
29	95	345	113	120	---	503	121	117	151	322	92	91
30	94	344	113	120	---	438	122	117	152	324	92	91
31	98	---	106	110	---	212	---	117	---	322	94	---
TOTAL	3044	13771	4383	3258	4950	24644	4283	3771	5970	9167	5583	2715
MEAN	98.2	459	141	105	177	795	143	122	199	296	180	90.5
MAX	106	708	331	163	868	1300	283	133	241	341	325	94
MIN	93	112	106	84	94	93	108	115	145	150	91	89
AC-FT	6040	27310	8690	6460	9820	48880	8500	7480	11840	18180	11070	5390
CAL YR 1986	TOTAL	116621	MEAN 320	MAX 4230	MIN 60	AC-FT 231300						
WTR YR 1987	TOTAL	85539	MEAN 234	MAX 1300	MIN 84	AC-FT 169700						

RUSSIAN RIVER BASIN

11465200 DRY CREEK NEAR GEYSERVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-87.

CHEMICAL DATA: Water years 1971-81.

WATER TEMPERATURE: Water years 1964-86.

SEDIMENT DATA: Water years 1964 to May 1987 (discontinued).

TURBIDITY: Water years 1964-86.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: March 1964 to September 1984.

SUSPENDED-SEDIMENT DISCHARGE: March 1964 to May 1986.

REMARKS.--Zero-bedload discharge observed at flows less than 128 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	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
NOV									
07...	1500	696	15.0	30	56	82	--	--	--
DEC									
29...	1115	113	11.5	4	1.2	--	--	--	--
FEB									
11...	1330	121	12.5	9	2.9	--	--	--	--
13...	1435	556	13.5	226	339	69	--	--	--
MAR									
03...	1300	128	12.5	7	2.4	--	--	--	--
12...	1340	1270	11.5	176	604	79	89	97	100
14...	1255	890	11.5	32	77	80	--	--	--
APR									
07...	1145	124	13.0	7	2.3	--	--	--	--
21...	1420	284	13.5	17	13	--	--	--	--

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

DATE	TIME	TEMPER- ATURE WATER (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	STREAM WIDTH (FT)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM
FEB								
13...	1515	13.5	10	526	43.0	100	5	39
APR								
21...	1435	13.5	21	284	44.0	12	1	9

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
FEB							
13...	59	65	70	77	87	100	--
APR							
21...	22	39	59	75	96	100	--

RUSSIAN RIVER BASIN

11465350 DRY CREEK NEAR MOUTH, NEAR HEALDSBURG, CA

LOCATION.--Lat 38°35'15", long 122°51'40", in Sotoyome Grant, Sonoma County, Hydrologic Unit 18010110, on right bank 0.25 mi upstream from mouth, 0.4 mi downstream from Mill Creek, 1.7 mi south of Healdsburg, and 13.5 mi downstream from Warm Springs Dam.

DRAINAGE AREA.--217 mi².

PERIOD OF RECORD.--November 1980 to current year (low flow only).

GAGE.--Water-stage recorder. Elevation of gage is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 17 to Mar. 3 and Apr. 26-29. Records good. No records computed above 200 ft³/s.

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	78	96	---	107	112	108	191	122	129	129	---	82
2	79	99	---	98	---	112	167	118	200	129	---	80
3	80	117	---	---	---	154	152	118	---	128	---	81
4	82	---	---	145	157	140	148	118	---	128	---	80
5	84	---	165	111	134	---	156	128	---	127	---	81
6	85	---	135	100	122	---	152	128	---	162	---	81
7	85	---	127	95	116	---	149	126	---	---	---	81
8	85	---	125	92	110	---	148	125	---	---	---	80
9	88	---	123	90	110	---	145	127	---	---	---	79
10	91	---	120	88	112	---	138	126	---	---	---	79
11	91	---	120	87	169	---	135	126	---	---	---	80
12	90	---	120	86	---	---	131	123	---	---	---	80
13	89	---	122	85	---	---	127	116	---	---	157	81
14	87	---	120	85	---	---	127	111	---	---	106	81
15	87	---	120	85	---	---	125	109	---	---	97	80
16	89	---	120	83	---	---	120	109	186	---	93	78
17	90	---	117	83	199	---	124	109	188	---	91	78
18	90	---	119	83	164	---	122	109	---	---	91	79
19	90	---	125	83	147	---	121	108	---	---	90	79
20	89	---	119	82	133	---	166	108	184	---	90	79
21	90	---	114	82	129	---	---	106	137	---	88	79
22	91	---	123	83	128	---	---	105	132	---	82	79
23	89	---	119	92	125	---	---	106	127	---	85	80
24	91	---	117	---	117	---	---	107	128	---	84	84
25	91	---	117	150	114	---	141	106	129	---	83	85
26	91	---	117	115	121	---	118	105	129	---	83	83
27	90	---	117	119	124	---	119	103	129	---	83	83
28	90	---	117	181	115	---	122	103	129	---	83	83
29	91	---	115	135	---	---	124	104	130	---	81	83
30	92	---	114	146	---	---	123	105	129	---	81	82
31	91	---	115	122	---	---	---	102	---	---	81	---
TOTAL	2726	---	---	---	---	---	---	3516	---	---	---	2420
MEAN	87.9	---	---	---	---	---	---	113	---	---	---	80.7
MAX	92	---	---	---	---	---	---	128	---	---	---	85
MIN	78	---	---	---	---	---	---	102	---	---	---	78
AC-FT	5410	---	---	---	---	---	---	6970	---	---	---	4800

RUSSIAN RIVER BASIN

11466500 LAGUNA DE SANTA ROSA NEAR GRATON, CA

LOCATION.--Lat 38°27'10", long 122°50'03", in Molinos Grant, Sonoma County, Hydrologic Unit 18010110, on downstream side of left bank pier of highway bridge, 0.2 mi downstream from Santa Rosa Creek, and 2 mi northeast of Graton.

PERIOD OF RECORD.--February 1940 to September 1949 (contents only), October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Dec. 31, 1958, at site 75 ft downstream at same datum.

REMARKS.--The laguna is a natural water channel and overflow basin connecting Santa Rosa Creek, Mark West Creek, and other smaller creeks with the Russian River. During floods directions of flow may be either to or from the Russian River, and the laguna acts as a natural regulator of floods on the lower Russian River. Figures given herein represent only those days when the elevation was above 55.0 ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 74.6 ft, Feb. 18, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 60.5 ft, Feb. 13.

ELEVATION, IN 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					---	---						
2					---	---						
3					---	---						
4					---	---						
5					---	---						
6					---	---						
7					---	---						
8					---	---						
9					---	---						
10					---	---						
11					---	---						
12					57.00	56.00						
13					59.20	56.10						
14					56.50	55.40						
15					55.90	---						
16					---	---						
17					---	---						
18					---	---						
19					---	---						
20					---	---						
21					---	---						
22					---	---						
23					---	---						
24					---	---						
25					---	---						
26					---	---						
27					---	---						
28					---	---						
29					---	---						
30					---	---						
31					---	---						
MEAN					---	---						
MAX					---	---						
MIN					---	---						

RUSSIAN RIVER BASIN

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA
(National stream-quality accounting network station)

LOCATION.--Lat 38°30'31", long 122°55'36", in NE 1/4 SE 1/4 sec.26, T.8 N., R.10 W., Sonoma County, Hydrologic Unit 18010110, on right bank at downstream side of Hacienda bridge, 0.1 mi upstream from Hobson Creek, and 3.8 mi east of Guerneville.

DRAINAGE AREA.--1,338 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1954, published as "at Guerneville."

REVISED RECORDS.--WSP 1395: Drainage area at former site. WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 20.14 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1954, nonrecording gage at bridge 5.3 mi downstream at datum 8.58 ft lower. Oct. 1, 1954, to Oct. 23, 1974, at site 0.7 mi downstream at datum 2.75 ft lower. Supplementary water-stage recorder 2.1 mi downstream used during periods of low flow, 1948-54.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lake Mendocino (station 11461800) 77 mi upstream and by Lake Sonoma (station 11464900, capacity 381,000 acre-ft) 26 mi upstream, since October 1983. Many diversions above station for irrigation of about 29,000 acres. Flow also affected by diversion into basin (see REMARKS for East Fork Russian River stations), and by diversion at Wohler pumping plant beginning in May 1959.

AVERAGE DISCHARGE.--48 years, 2,362 ft³/s, 1,711,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 102,000 ft³/s, Feb. 18, 1986, gage height, 48.56 ft; maximum gage height, 49.7 ft, Dec. 23, 1955, site and datum then in use, from floodmarks; minimum daily discharge, 0.75 ft³/s, May 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26,000 ft³/s, Mar. 13, gage height, 24.34 ft; minimum daily, 141 ft³/s, Sept. 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	264	277	500	373	1150	579	1080	404	255	207	390	151
2	254	278	496	644	2570	556	941	410	321	204	380	161
3	244	266	466	1410	4950	778	872	407	315	203	367	154
4	232	346	409	2630	2860	983	812	394	308	206	371	141
5	228	464	383	1610	1870	7980	767	387	304	208	371	159
6	220	564	353	1100	1330	9560	717	371	289	225	382	151
7	220	779	318	854	1020	5110	685	364	287	340	360	151
8	219	648	293	698	829	3710	683	373	279	368	362	283
9	218	623	280	595	712	3050	674	340	267	374	376	248
10	208	626	272	529	660	2560	652	344	281	375	376	185
11	203	629	267	492	1050	3550	634	344	275	374	376	167
12	201	640	266	460	2790	9050	615	347	283	374	369	168
13	197	643	282	434	21800	20800	597	313	277	371	271	179
14	194	641	315	408	11000	10600	581	308	273	368	214	174
15	193	630	319	387	8270	8710	569	296	296	363	210	173
16	193	630	323	374	6310	6260	559	282	297	353	198	190
17	195	625	317	363	4070	5170	548	275	263	357	187	168
18	201	621	322	349	2910	4120	536	270	263	383	183	182
19	203	620	358	338	2190	3620	519	252	272	392	182	175
20	201	625	398	329	1720	3220	498	214	269	392	184	197
21	339	627	393	323	1410	3660	589	209	230	381	179	152
22	265	625	417	316	1200	3610	604	251	215	389	183	154
23	255	624	429	365	1040	3990	606	276	216	406	174	162
24	263	623	417	1020	933	4450	602	269	223	418	176	166
25	269	618	400	2250	840	3580	474	271	216	397	176	169
26	269	616	381	1570	754	3110	349	274	205	395	172	165
27	262	616	364	1150	688	2680	377	285	196	389	168	163
28	255	615	348	2070	627	1990	389	274	192	388	182	160
29	257	527	340	2390	---	1770	388	253	195	401	159	163
30	269	512	332	1720	---	1610	397	263	202	391	156	160
31	276	---	342	1490	---	1320	---	260	---	385	167	---
TOTAL	7267	17178	11100	29041	87553	141736	18314	9580	7764	10777	8001	5171
MEAN	234	573	358	937	3127	4572	610	309	259	348	258	172
MAX	339	779	500	2630	21800	20800	1080	410	321	418	390	283
MIN	193	266	266	316	627	556	349	209	192	203	156	141
AC-FT	14410	34070	22020	57600	173700	281100	36330	19000	15400	21380	15870	10260

CAL YR 1986 TOTAL 1226067 MEAN 3359 MAX 97700 MIN 193 AC-FT 2432000
WTR YR 1987 TOTAL 353482 MEAN 968 MAX 21800 MIN 141 AC-FT 701100

RUSSIAN RIVER BASIN

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

CHEMICAL DATA: Water years 1951 to current year. Published as "at Guerneville" in 1961-65.

BIOLOGICAL DATA: Water years 1975-81.

SPECIFIC CONDUCTANCE: Water years 1974-81.

WATER TEMPERATURE: Water years 1964-86.

SEDIMENT DATA: Water years 1966 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1973 to September 1981.

WATER TEMPERATURE: January 1964 to September 1986.

SUSPENDED-SEDIMENT DISCHARGE: April to September 1967, October 1969 to September 1986.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION (water years 1970-86): Maximum daily mean, 2,350 mg/L, Jan. 16, 1974; minimum daily 1 mg/L, Oct. 21, 1982.

SEDIMENT LOAD (water years 1970-86): Maximum daily, 470,000 tons, Feb. 18, 1986; minimum daily, 0.03 ton, May 6, 1977.

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, (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												
04...	0950	339	233	8.20	14.5	765	2.3	9.9	97	K18	25	110
JAN												
20...	1145	328	291	8.10	9.0	770	2.9	10.2	87	29	16	120
MAR												
18...	1300	4100	202	7.90	12.5	765	32	10.7	100	K50	K45	84
MAY												
07...	1045	353	269	8.00	22.0	760	1.5	8.4	96	K9	K5	120
JUL												
15...	1050	362	194	8.10	20.0	760	2.0	9.0	99	K8	K17	86
SEP												
22...	1100	139	242	8.20	19.5	765	0.60	8.6	93	10	K6	110
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 (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)
NOV												
04...	0	22	13	9.0	15	0.4	1.0	133	109	109	11	5.5
JAN												
20...	0	25	14	13	19	0.5	1.8	147	120	121	17	9.9
MAR												
18...	0	17	10	7.9	17	0.4	1.5	107	88	88	11	5.5
MAY												
07...	3	24	14	11	17	0.5	1.4	141	115	115	15	7.9
JUL												
15...	0	18	10	7.7	16	0.4	1.1	110	90	91	11	7.3
SEP												
22...	0	22	13	9.2	15	0.4	1.3	135	111	111	10	5.0

See footnote at end of table.

RUSSIAN RIVER BASIN

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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 04...	<0.10	14	144	140	0.20	<0.010	<0.100	<0.010	<0.010	0.20	0.030
JAN 20...	0.10	15	161	170	0.22	<0.010	0.440	0.400	0.170	0.80	0.190
MAR 18...	0.10	16	117	120	0.16	0.010	0.350	0.060	0.050	0.80	0.160
MAY 07...	0.10	13	155	160	0.21	0.010	0.150	<0.010	0.020	0.50	0.070
JUL 15...	<0.10	13	113	120	0.15	<0.010	<0.100	<0.010	0.020	0.40	0.020
SEP 22...	0.10	14	138	140	0.19	<0.010	<0.100	<0.010	<0.010	0.50	<0.010

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 04...	0.020	0.030	<10	1	70	<0.5	<1	<1	<3	3	8
JAN 20...	0.170	0.160	10	<1	74	<0.5	1	<1	<3	2	9
MAR 18...	0.090	0.080	--	--	--	--	--	--	--	--	--
MAY 07...	0.050	0.050	<10	<1	75	<0.5	<1	<1	<3	2	4
JUL 15...	0.010	<0.010	--	--	--	--	--	--	--	--	--
SEP 22...	0.040	0.020	<10	1	73	<0.5	<1	<1	<3	<1	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)
NOV 04...	<5	4	9	0.1	<10	7	<1	<1	200	<6	8
JAN 20...	<5	7	26	<0.1	<10	3	<1	<1	230	<6	9
MAR 18...	--	--	--	--	--	--	--	--	--	--	--
MAY 07...	<5	4	12	<0.1	<10	1	<1	<1	220	<6	10
JUL 15...	--	--	--	--	--	--	--	--	--	--	--
SEP 22...	<5	<4	8	<0.1	<10	<1	<1	1	210	<6	<3

K Results based on colony count outside the acceptable range (non-ideal colony count).
 < Actual value is known to be less than value shown.

RUSSIAN RIVER BASIN

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

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 (PER- CENT SATUR- ATION)	OXYGEN, DIS- SOLVED (MG/L)	SEDI- MENT, SUS- PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR										
18...*	1340	92.0	202	7.90	12.5	765	--	--	99	69
18...*	1355	110	202	7.90	12.5	765	--	--	97	71
18...*	1410	122	202	7.90	12.0	765	--	--	78	82
18...*	1430	130	201	7.90	12.5	765	10.7	100	78	86
18...*	1450	141	202	7.90	12.5	765	10.7	100	92	86
JUN										
25...*	1415	40.0	236	7.80	24.0	760	8.4	100	13	71
25...*	1420	30.0	233	7.80	24.0	760	8.4	100	14	70
25...*	1425	21.5	233	7.80	24.0	760	8.4	100	14	70
25...*	1430	14.5	235	7.80	24.0	760	8.4	100	12	70
25...*	1435	7.50	235	7.60	24.0	760	8.4	100	15	69

* Instantaneous streamflow at the time of cross-sectional measurements: Mar. 18, 4,060 ft³/s; June 25, 209 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- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV						
04...	0940	339	14.5	5	4.6	--
JAN						
20...	1135	328	9.0	7	6.2	94
MAR						
18...	1415	4060	12.5	89	976	79
MAY						
07...	1105	348	22.0	8	7.5	--
JUN						
25...	1426	209	23.5	14	7.7	70
JUL						
15...	1035	362	20.0	6	5.9	--
SEP						
22...	1115	138	19.5	4	1.5	92

NAVARRO RIVER BASIN

11468000 NAVARRO RIVER NEAR NAVARRO, CA

LOCATION.--Lat 39°10'20", long 123°40'06", in SE 1/4 sec.7, T.15 N., R.16 W., Mendocino County, Hydrologic Unit 18010108, on right bank 2.9 mi downstream from North Fork, 5.2 mi upstream from mouth, and 6.8 mi west of Navarro.

DRAINAGE AREA.--303 mi².

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1445: 1954(M). WSP 1929: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 4.79 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1969, at site 0.2 mi upstream at datum 1.86 ft higher.

REMARKS.--Estimated daily discharge: Apr. 5-27. Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--37 years, 535 ft³/s, 387,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,500 ft³/s, Dec. 22, 1955, gage height, 40.60 ft, site and datum then in use, from rating curve extended above 19,000 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 0.23 ft³/s, July 13, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached a stage of 38.2 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0515	*9,420	*16.40	Mar. 12	2245	7,330	14.23
Mar. 5	1445	7,040	13.93				

Minimum daily, 2.4 ft³/s, Sept. 7-11.

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	18	30	23	213	366	155	286	74	28	9.1	4.6	2.5
2	17	25	23	491	1560	157	267	76	26	8.7	4.4	2.5
3	16	21	21	748	1210	545	252	65	23	8.3	4.0	2.5
4	15	21	23	721	686	389	260	58	20	8.0	3.8	2.5
5	14	19	38	362	458	4060	250	55	17	7.3	3.7	2.5
6	14	19	57	207	330	2330	235	53	15	7.2	3.5	2.5
7	13	18	48	153	254	1350	218	49	17	7.2	3.2	2.4
8	13	17	40	114	209	1060	200	47	17	7.0	3.1	2.4
9	13	17	34	100	196	832	185	43	17	6.3	3.1	2.4
10	13	17	30	88	186	780	172	42	17	5.8	2.9	2.4
11	13	17	26	76	259	1230	157	40	17	5.8	2.9	2.4
12	13	17	25	68	276	3260	146	39	16	5.8	2.7	2.5
13	13	17	25	65	5000	4540	136	38	15	5.8	2.7	2.6
14	13	17	31	58	1630	2990	127	36	14	5.6	2.7	2.7
15	13	17	35	52	1690	2420	119	35	14	5.2	2.7	2.7
16	13	17	34	47	1290	1550	111	33	14	4.6	2.5	2.7
17	13	17	33	44	953	1110	103	32	14	4.6	2.5	2.5
18	14	17	62	40	662	907	97	31	14	4.3	2.6	2.5
19	14	17	114	38	513	773	93	31	13	4.3	2.6	2.5
20	14	19	174	35	422	619	89	31	12	4.1	2.5	2.5
21	14	23	161	33	362	707	84	31	12	4.2	2.6	2.5
22	14	25	139	31	317	715	80	31	12	5.1	2.7	2.5
23	15	26	172	51	278	875	77	31	11	5.4	2.7	2.5
24	16	24	145	695	254	879	73	30	11	5.7	2.7	2.5
25	26	24	117	735	229	734	69	30	10	5.9	2.7	2.5
26	25	23	99	402	207	624	65	30	9.0	5.8	2.7	2.5
27	22	21	86	284	188	548	62	30	8.7	4.9	2.7	2.5
28	20	20	77	879	170	463	59	30	8.7	4.6	2.7	2.5
29	22	22	73	642	---	399	57	29	8.2	4.8	2.5	2.5
30	29	23	73	633	---	356	60	28	8.7	4.8	2.5	2.5
31	35	---	86	515	---	318	---	28	---	4.8	2.5	---
TOTAL	517	607	2124	8620	20155	37675	4189	1236	439.3	181.0	91.7	75.2
MEAN	16.7	20.2	68.5	278	720	1215	140	39.9	14.6	5.84	2.96	2.51
MAX	35	30	174	879	5000	4540	286	76	28	9.1	4.6	2.7
MIN	13	17	21	31	170	155	57	28	8.2	4.1	2.5	2.4
AC-FT	1030	1200	4210	17100	39980	74730	8310	2450	871	359	182	149

CAL YR 1986	TOTAL	237183.6	MEAN 650	MAX 33000	MIN 4.3	AC-FT 470500
WTR YR 1987	TOTAL	75910.2	MEAN 208	MAX 5000	MIN 2.4	AC-FT 150600

NOYO RIVER BASIN

11468500 NOYO RIVER NEAR FORT BRAGG, CA

LOCATION.--Lat 39°25'42", long 123°44'12", in NE 1/4 sec.15, T.18 N., R.17 W., Mendocino County, Hydrologic Unit 18010108, on right bank 0.7 mi downstream from South Fork and 3.5 mi east of Fort Bragg.

DRAINAGE AREA.--106 mi².

PERIOD OF RECORD.--August 1951 to current year.

REVISED RECORDS.--WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 11.73 ft above National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--36 years, 218 ft³/s, 157,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,600 ft³/s, Mar. 29, 1974, gage height, 27.14 ft, from rating curve extended above 4,500 ft³/s on basis of slope-conveyance study; minimum daily, 0.79 ft³/s, Sept. 8, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 2,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 12	2045	*2,440	*9.88				

Minimum daily, 3.1 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	12	22	17	367	338	62	147	76	21	11	6.5	3.8
2	11	18	16	469	1090	66	133	56	19	11	6.4	3.9
3	10	16	16	672	963	196	128	45	18	11	6.1	3.5
4	9.6	14	18	867	578	151	119	41	17	11	5.8	3.5
5	9.5	13	67	514	400	755	107	39	17	11	5.7	3.5
6	9.0	12	90	320	304	686	98	37	17	11	5.6	3.5
7	9.0	12	57	211	240	454	91	34	17	10	5.4	3.5
8	8.7	13	39	140	194	353	86	33	17	9.6	5.3	3.5
9	8.7	13	30	107	163	281	81	30	16	9.4	5.3	3.5
10	8.9	12	24	81	143	239	78	29	15	9.1	5.4	3.7
11	9.0	12	21	66	161	234	79	29	15	9.0	5.7	3.8
12	8.7	12	20	60	197	1120	72	28	15	8.7	5.7	3.8
13	9.4	11	24	53	1710	1730	68	28	14	8.6	5.7	3.8
14	9.6	11	31	45	1060	1350	64	27	14	8.0	5.2	3.5
15	9.6	11	28	40	927	1200	61	26	14	7.6	5.0	3.4
16	9.7	11	26	36	777	832	58	19	14	7.3	4.9	3.5
17	11	11	23	33	584	587	56	24	14	7.1	4.9	3.5
18	12	12	48	29	439	470	55	24	14	7.1	4.9	3.4
19	12	14	114	27	339	397	52	24	13	7.1	4.9	3.4
20	11	16	184	25	264	338	50	24	13	7.1	4.9	3.4
21	11	24	106	22	216	391	48	23	13	8.7	5.0	3.3
22	11	24	115	21	183	395	46	23	13	10	5.0	3.2
23	12	20	117	35	156	437	44	22	13	10	4.9	3.2
24	16	18	90	381	136	420	43	22	12	9.5	4.8	3.4
25	16	18	69	439	117	382	42	22	12	9.3	4.6	3.5
26	14	17	58	361	94	334	41	22	11	8.2	4.8	3.5
27	18	16	48	324	79	285	39	21	11	7.8	4.6	3.4
28	17	17	40	530	69	246	37	20	10	7.3	4.5	3.2
29	23	20	40	468	---	214	37	20	10	7.1	4.3	3.2
30	43	19	42	470	---	185	47	20	11	6.8	3.8	3.1
31	30	---	57	411	---	163	---	23	---	6.6	3.9	---
TOTAL	409.4	459	1675	7624	11921	14953	2107	911	430	273.0	159.5	104.4
MEAN	13.2	15.3	54.0	246	426	482	70.2	29.4	14.3	8.81	5.15	3.48
MAX	43	24	184	867	1710	1730	147	76	21	11	6.5	3.9
MIN	8.7	11	16	21	69	62	37	19	10	6.6	3.8	3.1
AC-FT	812	910	3320	15120	23650	29660	4180	1810	853	541	316	207
CAL YR 1986	TOTAL	96904.6	MEAN	265	MAX	12400	MIN	4.7	AC-FT	192200		
WTR YR 1987	TOTAL	41026.3	MEAN	112	MAX	1730	MIN	3.1	AC-FT	81380		

MATTOLE RIVER BASIN

11469000 MATTOLE RIVER NEAR PETROLIA, CA

LOCATION.--Lat 40°18'42", long 124°15'48", in NW 1/4 sec.11, T.2 S., R.2 W., Humboldt County, Hydrologic Unit 18010107, on right bank 0.2 mi upstream from Clear Creek, 1.5 mi southeast of Petrolia, and 1.7 mi upstream from North Fork.

DRAINAGE AREA.--240 mi².

PERIOD OF RECORD.--October 1911 to December 1913, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1285: 1912-13. WSP 1929: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map. November 1911 to December 1913, nonrecording gages at several sites upstream within 0.3 mi of present site at various datums. Dec. 11, 1950, to July 14, 1955, at site 0.3 mi upstream at datum 7.48 ft higher. July 15, 1955, to Oct. 26, 1967, at site 0.4 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of about 350 acres above station.

AVERAGE DISCHARGE.--39 years, 1,364 ft³/s, 988,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90,400 ft³/s, Dec. 22, 1955, gage height, 29.60 ft, site and datum then in use, from rating curve extended above 26,000 ft³/s on basis of slope-area measurement of maximum flow; minimum daily, 17 ft³/s, Sept. 5, 15, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 5	1015	*15,000	*12.89				

Minimum daily, 23 ft³/s, Sept. 24-25, 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	148	565	321	5180	2600	696	670	595	183	60	32	28
2	129	405	286	4750	9660	894	638	395	136	60	33	28
3	112	320	258	6830	6800	7210	617	318	122	58	34	27
4	102	266	287	5580	4210	3670	583	284	110	58	36	27
5	93	229	1620	3680	3000	12600	540	263	107	58	37	27
6	88	202	1750	2580	2360	7050	513	249	107	57	35	27
7	82	185	1000	2000	2020	4010	490	234	104	54	35	27
8	79	176	764	1660	1750	2830	467	223	101	52	35	28
9	75	161	616	1570	1550	2640	442	212	95	51	35	29
10	72	154	516	1360	1460	2370	433	202	92	50	36	29
11	70	145	448	1240	1810	3290	453	190	91	48	36	28
12	69	136	399	1300	2290	9050	408	183	90	46	36	28
13	66	131	487	1290	7910	8750	386	181	87	46	37	28
14	64	128	668	1160	4360	6850	370	172	84	45	36	28
15	63	120	523	1080	4830	5320	355	165	84	45	36	28
16	61	114	466	1000	3380	3550	339	157	87	43	35	27
17	71	111	415	944	2580	2540	333	156	87	43	35	26
18	86	110	617	884	2100	2200	335	153	85	43	34	26
19	80	118	1280	831	1800	1880	314	149	82	45	34	26
20	71	150	1630	783	1560	1600	302	144	80	46	34	25
21	66	477	1120	737	1410	1800	292	140	81	46	34	24
22	63	414	1540	714	1270	1550	283	139	81	46	33	24
23	65	319	1940	1110	1190	1630	275	135	76	44	33	24
24	168	284	1400	3040	1090	1510	265	133	74	43	33	23
25	268	376	1150	4490	968	1320	256	133	69	41	32	23
26	195	324	1030	5140	884	1170	249	133	67	40	31	24
27	293	278	907	4490	806	1030	240	131	64	39	30	23
28	265	290	801	5820	752	929	236	126	63	37	30	23
29	831	407	1190	4160	---	843	229	123	61	37	30	23
30	1560	365	1110	3840	---	772	338	123	60	37	29	23
31	864	---	1440	2920	---	719	---	188	---	36	28	---
TOTAL	6319	7458	27979	82163	76400	102273	11651	6129	2710	1454	1044	781
MEAN	204	249	903	2650	2729	3299	388	198	90.3	46.9	33.7	26.0
MAX	1560	565	1940	6830	9660	12600	670	595	183	60	37	29
MIN	61	110	258	714	752	696	229	123	60	36	28	23
AC-FT	12530	14790	55500	163000	151500	202900	23110	12160	5380	2880	2070	1550
CAL YR 1986	TOTAL	515212	MEAN	1412	MAX	35000	MIN	24	AC-FT	1022000		
WTR YR 1987	TOTAL	326361	MEAN	894	MAX	12600	MIN	23	AC-FT	647300		

EEL RIVER BASIN

11470000 LAKE PILLSBURY NEAR POTTER VALLEY, CA

LOCATION.--Lat 39°24'30", long 122°57'30", on line between secs.14 and 23, T.18 N., R.10 W., Lake County, Hydrologic Unit 18010103, Mendocino National Forest, at Scott Dam near right bank of Eel River, 0.3 mi downstream from Rice Fork, and 10.2 mi northeast of town of Potter Valley.

DRAINAGE AREA.--289 mi².

PERIOD OF RECORD.--October 1922 to September 1928 (daily gage heights only), October 1928 to current year. Monthend contents only for some periods, published in WSP 1315-B. Prior to October 1953, published as "at Hullville".

GAGE.--Water-stage recorder and nonrecording gage. Datum of gage is 81.7 ft below National Geodetic Vertical Datum of 1929 (river-profile survey). Prior to Jan. 26, 1950, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by concrete overflow type dam; storage began in December 1921. Beginning Oct. 1, 1985, capacity based on 1984 resurvey. Usable capacity, 80,556 acre-ft between gage heights 1,822.4 ft, sill of outlet gate, and 1,910.0 ft, top of spillway gates; dead storage, 87 acre-ft. Water is released down Eel River to Van Arsdale Reservoir, most of which is diverted through tunnel to Potter Valley powerplant; part is then used for irrigation and remainder flows into East Fork Russian River. Records given herein represent total contents.

COOPERATION.--Records were provided by Pacific Gas & Electric Co., in connection with a Federal Energy Regulatory Commission Project; not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 95,600 acre-ft, May 13, 16, 1925, gage height, 1,910.8 ft; maximum gage height, 1,911.84 ft, Dec. 22, 1964, from floodmarks; minimum contents, 10 acre-ft, Dec. 9, 10, 1931, gage height, 1,822.5 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 66,944 acre-ft, Mar. 12, gage height, 1,903.70 ft; minimum, 12,861 acre-ft, Dec. 30, 31, gage height, 1,863.80 ft.

Capacity table (elevation, in feet, and contents in acre-feet)
(Provided by Pacific Gas & Electric Co., from 1984 survey)

1,822.4	87	1,835	1,371	1,855	7,831	1,875	22,451	1,895	50,179
1,824	153	1,840	2,463	1,860	10,456	1,880	28,071	1,900	59,469
1,827	333	1,845	3,391	1,865	13,701	1,885	34,474	1,905	69,675
1,830	626	1,850	5,710	1,870	17,664	1,890	41,811	1,910	80,643

RESERVOIR STORAGE (AC-FT), 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	40721	23833	17556	13395	24991	58885	59410	62224	59002	53774	46406	38810
2	40184	23295	17318	13701	25954	58885	59352	62244	58885	53462	46085	38587
3	39652	22765	16725	15350	29045	59567	59375	62244	58769	53243	45867	38364
4	39049	22139	16476	16674	30102	59800	59234	62244	58788	53024	45599	38173
5	38453	21882	16229	16890	30704	62888	59117	62204	58595	52804	45366	37879
6	37718	21526	16148	16885	31239	62043	58904	62244	58440	52531	45084	37630
7	37281	21224	15586	16851	31560	61046	58982	62184	58267	52295	44869	37383
8	36705	21024	15271	16851	32012	60530	59400	62204	58113	52024	44605	37093
9	36392	20727	15194	16893	32207	60273	59547	62364	57959	51807	44343	36820
10	35857	20433	15000	19100	32600	60117	59761	62204	57825	51554	44098	36563
11	35160	20142	14733	19008	33662	60550	60057	62144	57671	51357	43854	36364
12	34610	19949	14582	18825	34406	66944	60353	62124	57480	51070	43627	36110
13	33931	19663	14432	18753	45616	64369	60550	62003	57328	50855	43353	35829
14	33394	19474	14358	18642	50126	63697	60800	61943	57080	50587	43128	35605
15	32929	19600	14136	18543	55272	62646	60900	61823	57004	50375	42904	35438
16	32338	18825	14063	18372	57801	61344	61000	61643	56833	50109	42585	35230
17	31947	18733	13917	18193	59079	61046	61145	61503	56606	50020	42363	34953
18	31176	18588	13701	18015	60057	60808	61344	61424	56454	49685	42079	34693
19	30794	18552	13701	17927	60254	60600	61543	61264	56209	49492	41842	34488
20	30039	18552	13701	17751	60254	60275	61344	61165	56002	49176	41623	34243
21	29477	18372	13629	17404	60117	60370	61400	61026	55814	48983	41325	33972
22	29168	18282	13558	17490	60057	60254	61743	60926	55627	48774	41108	33769
23	28555	18237	13558	17404	59959	60451	61783	60728	55384	48600	40829	33488
24	27950	18193	13487	18642	59861	60300	61803	60570	55179	48322	40598	33248
25	27472	18104	13346	19771	59861	60117	61783	60411	54956	48132	40383	32982
26	27117	18015	13276	19949	59665	59959	61843	60176	54770	47838	40322	32837
27	26415	17939	13136	20220	59469	59861	61743	60017	54492	47632	40093	32574
28	25839	17839	13033	21224	59274	59841	61863	59841	54326	47358	39879	32364
29	25498	17795	12929	23456	---	59665	61943	59587	54123	47136	39576	32103
30	24935	17708	12861	24325	---	59567	62043	59449	53902	46881	39320	31870
31	24601	---	12861	24712	---	59567	---	59197	---	46660	39094	---
MAX	40721	23833	17556	24712	60254	66944	62043	62364	59002	53774	46406	38810
MIN	24601	17708	12861	13395	24991	58885	58904	59197	53902	46660	39094	31870
a	1795.30	1788.35	1782.10	1795.40	1818.20	1818.35	1819.60	1818.16	1815.36	1811.27	1806.53	1801.34
b	-16538	-6893	-4847	+11851	+34562	+293	+2476	-2846	-5295	-7242	-7566	-7224

CAL YR 1986 Max 83570 Min 12861 b -6313

WTR YR 1987 Max 66944 Min 12861 b -9269

a Elevation in feet, NGVD, at end of month.

b Change in contents, in acre-feet.

EEL RIVER BASIN

11470500 EEL RIVER BELOW SCOTT DAM, NEAR POTTER VALLEY, CA

LOCATION.--Lat 39°24'29", long 122°58'29", in SE 1/4 sec.15, T.18 N., R.10 W., Lake County, Hydrologic Unit 18010103, Mendocino National Forest, on left bank 0.4 mi upstream from Soda Creek, 0.7 mi downstream from Scott Dam, and 9.7 mi northeast of town of Potter Valley.

DRAINAGE AREA.--290 mi².

PERIOD OF RECORD.--October 1922 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1929, published as South Eel River at Hullville, and October 1929 to September 1953, "at Hullville."

REVISED RECORDS.--WSP 1315-B: 1923(M), 1938(M). WSP 1395: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,740 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 15, 1930, at datum 3.00 ft higher.

REMARKS.--Flow regulated by Lake Pillsbury (station 11470000) 0.7 mi upstream. No diversion above station.

COOPERATION.--Records collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--65 years, 565 ft³/s, 409,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,300 ft³/s, Dec. 22, 1964, gage height, 24.24 ft, from floodmarks, from rating curve extended above 9,400 ft³/s on basis of computed flow over Scott Dam at gage heights 18.50 and 21.85 ft; minimum daily, 0.1 ft³/s, Sept. 8, 1924.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,340 ft³/s, Mar. 13, gage height, 11.50 ft; minimum daily, 48 ft³/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	252	341	119	146	115	404	436	124	138	111	116	118
2	252	339	195	146	99	404	419	118	108	111	116	118
3	291	336	245	152	73	425	404	117	100	112	118	119
4	321	335	210	151	72	563	396	117	109	112	118	120
5	321	257	162	151	73	2070	396	116	115	112	118	120
6	323	166	224	151	76	2620	395	115	116	112	118	120
7	321	170	270	151	77	1530	245	116	115	112	118	120
8	323	170	187	151	77	1080	129	116	115	112	118	120
9	322	169	119	151	85	875	131	117	115	111	118	120
10	324	169	119	151	91	764	135	115	115	111	117	120
11	324	168	118	151	92	929	135	114	115	111	117	119
12	326	168	118	150	98	3610	136	114	111	111	117	119
13	326	167	118	150	106	5500	142	113	107	111	117	119
14	325	167	118	149	177	3300	142	112	109	111	118	119
15	326	166	118	149	161	2480	142	125	110	111	119	118
16	327	137	117	149	75	1720	142	153	110	111	118	118
17	327	108	117	148	181	1310	142	150	110	111	118	118
18	325	91	117	148	267	1100	142	148	109	111	118	118
19	326	76	118	148	449	949	141	149	110	110	118	118
20	326	76	117	148	534	828	148	146	112	110	118	118
21	325	76	117	148	496	779	155	148	112	110	118	118
22	326	76	117	148	448	732	151	151	111	110	117	118
23	331	76	117	148	404	790	143	155	110	111	117	118
24	330	76	117	143	367	819	136	152	110	113	97	118
25	328	76	116	113	330	731	136	152	110	113	48	118
26	328	76	116	112	344	660	136	150	110	112	74	118
27	326	76	116	114	344	605	136	148	112	112	118	117
28	324	76	116	117	365	559	132	146	113	114	118	117
29	324	76	116	88	---	519	133	147	113	116	118	117
30	325	97	115	87	---	486	124	149	112	116	118	117
31	333	---	131	115	---	457	---	150	---	116	118	---
TOTAL	9908	4557	4320	4324	6076	39598	5880	4143	3362	3467	3514	3555
MEAN	320	152	139	139	217	1277	196	134	112	112	113	119
MAX	333	341	270	152	534	5500	436	155	138	116	119	120
MIN	252	76	115	87	72	404	124	112	100	110	48	117
AC-FT	19650	9040	8570	8580	12050	78540	11660	8220	6670	6880	6970	7050
CAL YR 1986	TOTAL	307887	MEAN 844	MAX	33900	MIN 38	AC-FT	610700				
WTR YR 1987	TOTAL	92704	MEAN 254	MAX	5500	MIN 48	AC-FT	183900				

11471000 POTTER VALLEY POWERPLANT INTAKE NEAR POTTER VALLEY, CA

LOCATION.--Lat 39°22'00", long 123°07'35", in SW 1/4 SW 1/4 sec.31, T.18 N., R.11 W., Mendocino County, Hydrologic Unit 18010103, in penstock of powerplant of Pacific Gas & Electric Co., 1.5 mi southwest of Van Arsdale Dam, and 3.2 mi northwest of town of Potter Valley.

PERIOD OF RECORD.--December 1909 to current year. Prior to October 1922, monthly discharge only, published in WSP 1315-B. Prior to October 1931, published as Snow Mountain Water and Power Co.'s Trailrace near Potter Valley. October 1931 to September 1984, published as Potter Valley Powerhouse Trailrace near Potter Valley.

REVISED RECORDS.--WSP 1395: 1950.

GAGE.--Acoustic flowmeter in penstock of powerplant. Elevation of gage is 1,440 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 11, 1985, water-stage recorder and Parshall flume. See WSP 1929 Part 11, Volume 2 for history of changes prior to April 12, 1950.

REMARKS.--Water is diverted from Eel River above Van Arsdale Dam. After passing through powerplant, part is used for irrigation in Potter Valley and remainder flows into East Fork Russian River.

COOPERATION.--Records collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--77 years (water years 1911-87), 204 ft³/s, 147,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (1922 TO CURRENT YEAR).--Maximum daily discharge, 351 ft³/s, Oct. 31, 1982; no flow at times in several 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	274	305	101	145	83	308	298	106	129	99	102	91
2	297	304	84	137	214	308	300	103	114	99	99	93
3	296	302	51	207	190	307	300	102	82	101	92	92
4	296	302	45	177	120	306	300	104	94	99	92	95
5	295	268	43	100	104	273	300	101	99	101	93	95
6	298	154	44	89	90	301	300	94	102	99	91	92
7	297	153	45	81	81	302	230	93	100	100	92	97
8	297	156	61	74	67	303	66	104	99	101	91	94
9	295	156	103	71	63	305	91	132	99	99	92	94
10	299	156	101	67	62	307	93	127	99	101	89	93
11	231	156	101	58	88	306	93	127	99	99	90	99
12	297	155	101	56	121	255	93	97	73	100	92	92
13	299	155	103	56	269	221	93	84	93	100	91	93
14	298	155	104	54	308	232	90	82	96	98	88	92
15	299	154	104	49	307	254	84	84	99	100	92	92
16	300	138	59	49	306	302	85	84	100	98	92	98
17	300	96	39	49	304	302	83	122	96	100	89	93
18	298	89	65	47	304	302	87	128	100	98	89	94
19	296	59	107	43	303	302	83	125	97	99	91	94
20	299	56	123	43	302	302	88	122	101	99	91	93
21	299	58	111	50	304	302	93	122	58	98	91	93
22	297	58	121	55	305	302	93	129	100	100	89	92
23	304	55	119	62	306	302	94	132	99	98	90	94
24	308	55	110	206	306	301	93	128	101	100	88	93
25	308	56	107	130	307	301	93	131	100	98	26	95
26	294	55	104	116	307	301	93	128	97	99	17	94
27	304	55	101	92	308	301	94	128	100	101	91	90
28	302	55	101	219	308	301	92	122	102	100	91	92
29	304	55	101	110	---	300	116	127	74	99	91	93
30	307	62	101	70	---	300	108	129	102	103	91	91
31	305	---	121	99	---	299	---	131	---	101	92	---
TOTAL	9193	4033	2781	2861	6137	9108	4126	3528	2904	3087	2695	2803
MEAN	297	134	89.7	92.3	219	294	138	114	96.8	99.6	86.9	93.4
MAX	308	305	123	219	308	308	300	132	129	103	102	99
MIN	231	55	39	43	62	221	66	82	58	98	17	90
AC-FT	18230	8000	5520	5670	12170	18070	8180	7000	5760	6120	5350	5560

CAL YR 1986 TOTAL 65596.00 MEAN 180 MAX 322 MIN 0 AC-FT 130100
WTR YR 1987 TOTAL 53256.00 MEAN 146 MAX 308 MIN 17 AC-FT 105600

EEL RIVER BASIN

11472150 EEL RIVER NEAR DOS RIOS, CA

LOCATION.--Lat 39°37'30", long 123°20'25", in SW 1/4 SW 1/4 sec.32, T.21 N., R.13 W., Mendocino County, Hydrologic Unit 18010103, on left bank 1,100 ft upstream from Outlet Creek and 6.3 mi south of Dos Rios.

DRAINAGE AREA.--528 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,001.28 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good except discharges below 9.0 ft³/s, which are fair. Flow partly regulated by Lake Pillsbury (station 11470000) 40 mi upstream and by diversion through Potter Valley powerplant (station 11471000).

AVERAGE DISCHARGE.--21 years, 984 ft³/s, 712,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,100 ft³/s, Feb. 17, 1986, gage height, 35.54 ft, from rating curve extended above 26,000 ft³/s on basis of slope-area measurement at gage height 33.64 ft; no flow many days in 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 45.52 ft, from information by local resident, discharge, 100,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,700 ft³/s, Mar. 13, gage height, 12.43 ft; minimum daily, 7.5 ft³/s, Oct. 13-16.

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	18	63	21	1850	497	234	444	189	45	16	13	10
2	14	48	20	1350	2450	256	397	151	44	16	13	11
3	13	40	77	2490	1590	633	372	112	35	16	11	10
4	12	33	213	2020	913	470	342	102	28	16	11	10
5	11	30	326	940	598	3150	310	88	26	16	11	11
6	11	25	280	555	441	3500	290	86	27	15	11	12
7	11	26	253	392	351	2150	276	80	28	13	11	11
8	10	27	266	308	287	1520	254	76	28	13	11	11
9	9.7	30	172	285	254	1200	235	76	28	12	11	11
10	9.4	27	52	247	256	1090	219	73	28	12	11	11
11	8.9	24	36	218	445	1540	214	67	28	12	10	11
12	8.3	24	32	205	1100	6330	209	63	27	12	10	11
13	7.5	24	36	205	5630	8660	198	63	26	11	11	11
14	7.5	24	61	190	2680	5600	196	62	23	11	11	11
15	7.5	21	44	181	3550	4050	194	61	22	11	11	11
16	7.5	20	39	175	1930	2780	189	59	22	11	11	11
17	8.3	20	63	169	1190	2070	184	58	22	9.9	11	11
18	9.7	23	176	166	869	1750	178	58	22	10	11	11
19	11	24	372	161	725	1510	166	61	21	11	11	11
20	12	21	397	161	705	1240	165	59	20	12	11	11
21	11	29	178	159	641	1240	161	57	20	12	12	11
22	10	36	261	147	540	1280	160	55	19	12	12	10
23	11	32	276	232	458	1500	159	53	19	12	12	10
24	16	26	157	2060	394	1440	148	51	18	12	12	9.9
25	17	25	101	1280	332	1200	136	51	17	11	12	9.9
26	21	25	79	833	276	1020	130	52	17	11	12	10
27	21	23	64	725	258	873	126	53	15	13	11	10
28	21	22	56	1680	239	753	123	50	15	13	11	10
29	80	22	106	952	---	657	117	50	16	13	11	9.7
30	186	22	98	890	---	566	126	47	16	13	10	9.4
31	104	---	175	647	---	498	---	46	---	13	10	---
TOTAL	705.3	836	4487	21873	29599	60760	6418	2209	722	390.9	347	317.9
MEAN	22.8	27.9	145	706	1057	1960	214	71.3	24.1	12.6	11.2	10.6
MAX	186	63	397	2490	5630	8660	444	189	45	16	13	12
MIN	7.5	20	20	147	239	234	117	46	15	9.9	10	9.4
AC-FT	1400	1660	8900	43390	58710	120500	12730	4380	1430	775	688	631

CAL YR 1986 TOTAL 479557.7 MEAN 1314 MAX 62900 MIN 2.8 AC-FT 951200
WTR YR 1987 TOTAL 128665.1 MEAN 353 MAX 8660 MIN 7.5 AC-FT 255200

EEL RIVER BASIN

11472200 OUTLET CREEK NEAR LONGVALE, CA

LOCATION.--Lat 39°37'05", long 123°21'20", in NE 1/4 sec.1, T.20 N., R.14 W., Mendocino County, Hydrologic Unit 18010103, on right bank 0.2 mi downstream from Bloody Run Creek, 0.9 mi upstream from mouth, and 6.9 mi northeast of Longvale.

DRAINAGE AREA.--161 mi².

PERIOD OF RECORD.--October 1956 to current year.

REVISED RECORDS.--WSP 1929: 1958(M), 1960(M), 1963(M).

GAGE.--Water-stage recorder. Datum of gage is 1,018.14 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good except for discharges below 2.0 ft³/s, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--31 years, 425 ft³/s, 307,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 77,900 ft³/s, Dec. 22, 1964, gage height, 30.6 ft, from floodmarks, from rating curve extended above 17,000 ft³/s on basis of slope-area measurement of maximum flow; no flow at times in 1959, 1967, 1977, 1981, and 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0045	*8,400	*11.15	Mar. 12	1530	7,730	10.72

No flow on 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	11	37	20	1900	402	121	167	106	10	2.3	.22	0
2	8.1	25	18	1020	2290	118	150	85	9.8	1.7	.19	0
3	5.9	20	16	2470	1440	594	141	57	8.9	1.2	.16	0
4	5.3	17	15	1900	860	312	131	46	7.7	1.3	.10	0
5	4.6	15	205	850	514	2110	120	39	6.4	1.3	.08	0
6	5.1	13	212	445	365	1270	110	33	5.9	1.1	.04	0
7	4.7	11	85	282	290	712	102	28	6.0	.98	.03	0
8	4.1	11	49	207	240	508	96	25	5.3	.68	.03	0
9	3.5	11	35	207	215	413	90	24	4.8	.54	.02	0
10	3.2	11	27	167	220	402	85	21	4.5	.45	.02	0
11	2.9	10	23	141	394	664	85	19	4.2	.32	.01	0
12	2.8	9.9	20	130	1340	4320	82	18	3.6	.35	.01	0
13	2.8	9.9	39	137	4230	3030	75	17	3.3	.34	0	0
14	2.8	8.6	102	112	2150	2390	70	16	3.2	.31	0	0
15	2.5	8.1	55	98	2860	1670	65	15	3.2	.27	0	0
16	2.4	7.3	40	83	1570	1060	61	14	3.2	.20	0	0
17	2.5	6.6	31	73	938	672	56	13	3.1	.16	0	0
18	3.0	6.6	150	67	593	612	54	13	3.0	.14	0	0
19	3.3	6.6	420	62	444	543	51	12	3.0	.15	0	0
20	3.6	7.1	339	55	359	433	49	12	2.7	.24	0	.10
21	3.6	17	155	51	302	542	46	12	2.6	.29	0	.18
22	3.3	26	319	48	261	631	43	12	2.5	.39	0	.15
23	3.8	20	301	204	232	866	41	11	2.4	.43	0	.14
24	12	18	167	2010	203	729	39	11	2.3	.42	0	.08
25	12	17	116	1290	177	516	37	11	1.9	.38	0	.03
26	11	18	94	752	159	414	35	12	1.5	.32	0	.02
27	13	16	84	739	144	335	32	11	1.2	.31	0	.02
28	15	15	65	1330	133	277	29	11	1.0	.29	0	.02
29	86	18	169	813	---	240	28	10	1.0	.25	0	.03
30	190	23	159	791	---	210	36	9.5	2.4	.25	0	.05
31	76	---	242	542	---	187	---	9.7	---	.20	0	---
TOTAL	509.8	439.7	3772	18976	23325	26901	2206	733.2	120.6	17.56	.91	.82
MEAN	16.4	14.7	122	612	833	868	73.5	23.7	4.02	.57	.029	.027
MAX	190	37	420	2470	4230	4320	167	106	10	2.3	.22	.18
MIN	2.4	6.6	15	48	133	118	28	9.5	1.0	.14	0	0
AC-FT	1010	872	7480	37640	46270	53360	4380	1450	239	35	1.8	1.6

CAL YR 1986	TOTAL	187322.64	MEAN	513	MAX	26200	MIN	.03	AC-FT	371600
WTR YR 1987	TOTAL	77002.59	MEAN	211	MAX	4320	MIN	0	AC-FT	152700

EEL RIVER BASIN

11473900 MIDDLE FORK EEL RIVER NEAR DOS RIOS, CA

LOCATION.--Lat 39°42'23", long 123°19'27", in NE 1/4 SE 1/4 sec.5, T.21 N., R.13 W., Mendocino County, Hydrologic Unit 18010104, on right bank 0.6 mi upstream from Eastman Creek, 1.7 mi southeast of Dos Rios, and 1.9 mi upstream from mouth.

DRAINAGE AREA.--745 mi².

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 901.58 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good except those for discharges below 15 ft³/s, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--22 years, 1,691 ft³/s, 1,225,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 93,100 ft³/s, Feb. 17, 1986, gage height, 27.41 ft, from rating curve extended above 52,000 ft³/s; minimum daily, 2.4 ft³/s, Sept. 1, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 35,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 12	2100	*25,000	*17.85				
Minimum daily, 5.5 ft ³ /s Sept. 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	373	309	126	3520	1430	1040	1960	906	160	40	19	6.3
2	322	224	123	3500	5420	1020	1940	741	150	38	18	6.5
3	247	183	120	5260	4740	3430	1930	668	139	36	17	6.4
4	209	165	119	4640	2830	3070	1830	626	128	35	15	6.5
5	191	152	207	2280	2130	9960	1680	591	121	35	14	6.4
6	183	144	306	1550	1770	5670	1560	583	117	35	13	6.0
7	176	137	235	1220	1570	3110	1440	566	114	33	12	6.1
8	170	135	190	974	1430	2520	1380	537	136	32	11	6.5
9	163	132	170	818	1330	2230	1400	514	128	31	11	6.4
10	158	130	160	774	1460	2110	1420	489	117	29	10	6.3
11	153	129	151	739	2290	2330	1560	456	109	28	9.5	6.2
12	149	123	145	725	2460	13800	1430	426	101	26	9.0	6.0
13	136	120	144	784	14400	12200	1300	406	93	24	8.9	6.3
14	127	117	246	700	5730	6350	1240	385	87	23	8.8	6.5
15	122	114	238	645	5240	4600	1190	359	82	22	8.7	6.4
16	120	112	192	498	3500	3460	1150	335	80	20	8.9	6.5
17	122	110	175	467	2660	2950	1130	310	80	19	9.0	6.5
18	136	107	215	443	2270	3120	1060	312	79	19	8.7	6.5
19	152	107	436	408	1990	3010	935	298	75	20	8.7	6.2
20	146	114	538	372	1780	2660	824	270	71	21	8.4	6.1
21	141	139	285	347	1650	2610	798	249	69	22	8.1	5.7
22	138	204	419	326	1540	2560	822	230	68	23	7.8	5.8
23	137	163	652	511	1460	2750	825	210	66	34	7.8	5.5
24	141	149	440	2870	1380	2550	787	193	62	32	7.6	5.6
25	152	140	321	2350	1290	2350	759	186	59	29	7.4	5.7
26	157	138	266	2440	1190	2240	738	188	54	28	7.3	5.6
27	154	130	245	1920	1130	2160	730	182	50	25	7.2	5.8
28	189	124	224	3470	1080	2100	745	174	47	24	7.2	5.9
29	198	126	272	2320	---	2030	712	167	44	23	7.0	6.0
30	917	132	549	2010	---	1980	689	160	42	21	6.7	5.7
31	506	---	693	1660	---	1950	---	157	---	20	6.5	---
TOTAL	6385	4309	8602	50541	77150	113920	35984	11874	2728	847	309.2	183.9
MEAN	206	144	277	1630	2755	3675	1199	383	90.9	27.3	9.97	6.13
MAX	917	309	693	5260	14400	13800	1960	906	160	40	19	6.5
MIN	120	107	119	326	1080	1020	689	157	42	19	6.5	5.5
AC-FT	12660	8550	17060	100200	153000	226000	71330	23550	5410	1680	613	365

CAL YR 1986	TOTAL	676049.1	MEAN	1852	MAX	74000	MIN	8.2	AC-FT	1341000
WTR YR 1987	TOTAL	312813.1	MEAN	857	MAX	14400	MIN	5.5	AC-FT	620500

EEL RIVER BASIN

11475000 EEL RIVER AT FORT SEWARD, CA

LOCATION.--Lat 40°13'05", long 123°37'54", in SE 1/4 NE 1/4 sec.8, T.3 S., R.5 E., Humboldt County, Hydrologic Unit 18010105, on right bank at downstream side of bridge, 1.0 mi southeast of Fort Seward, 1.9 mi upstream from Dobbryn Creek, and 11.8 mi northeast of Garberville.

DRAINAGE AREA.--2,107 mi².

PERIOD OF RECORD.--September 1955 to current year. Prior to October 1965, published as "at Alderpoint."

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 217.26 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 22, 1964, at site 7.5 mi upstream at datum 46.55 ft higher. Feb. 2 to Sept. 30, 1965, at site 7.7 mi upstream at datum 49.42 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow slightly regulated by Lake Pillsbury (station 11470000) 99 mi upstream, and by diversion through Potter Valley powerplant (station 11471000).

AVERAGE DISCHARGE.--32 years, 4,808 ft³/s, 3,483,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 561,000 ft³/s, Dec. 22, 1964, gage height, 87.2 ft, from floodmarks, site and datum then in use, from rating curve extended above 110,000 ft³/s on basis of slope-area measurement at gage height 72.5 ft; minimum daily, 1.2 ft³/s, Sept. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 41,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	1230	41,100	24.05	Mar. 13	0345	*60,300	*27.69

Minimum daily, 19 ft³/s, Sept. 3-9, 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	404	944	309	8360	4380	1670	2970	1340	308	74	44	20
2	348	594	287	13100	13000	1640	2820	1560	307	71	42	20
3	293	432	261	12800	15400	5450	2730	1270	303	69	41	19
4	251	353	255	16300	9220	6690	2640	1130	270	69	40	19
5	221	304	1130	8850	6420	18600	2380	1070	238	66	38	19
6	201	272	2370	5300	4600	19400	2210	1010	216	64	35	19
7	185	250	1470	3390	3640	11800	2100	977	204	63	32	19
8	175	234	1000	2470	3050	8570	1960	939	198	61	31	19
9	164	223	773	2100	2660	6960	1920	905	203	59	29	19
10	154	217	565	1890	2590	5710	1920	866	229	58	26	20
11	144	210	375	1670	3590	6750	2010	822	209	57	25	20
12	137	204	305	1600	4520	27900	2050	775	191	54	24	20
13	130	200	283	1660	30700	47600	1810	737	180	52	24	20
14	124	189	319	1570	22300	28300	1700	695	165	52	23	20
15	119	181	577	1400	19700	22000	1670	658	151	50	22	20
16	115	175	508	1250	15200	15600	1620	623	143	46	22	20
17	115	168	400	1100	10400	11800	1600	589	133	42	22	20
18	129	161	465	1060	7730	10200	1580	557	130	40	21	20
19	139	160	1450	1000	5950	9560	1490	547	130	39	21	20
20	164	166	3070	933	4850	7690	1390	539	127	39	21	20
21	173	269	1760	876	4160	6750	1320	505	124	39	21	20
22	165	386	1490	837	3620	6940	1300	463	119	39	21	20
23	157	443	2480	1040	3110	7070	1320	431	113	39	21	21
24	157	375	1900	8050	2780	7260	1300	407	108	42	21	21
25	171	339	1320	9760	2450	6030	1240	386	106	44	21	21
26	186	311	1100	7710	2160	5200	1200	377	103	52	21	20
27	215	301	937	5840	1920	4610	1170	375	96	57	21	20
28	245	286	801	10800	1800	4130	1160	372	88	52	21	20
29	373	310	815	8380	---	3740	1160	358	83	49	20	20
30	1080	310	1210	6920	---	3400	1150	339	78	47	20	19
31	1710	---	1910	5750	---	3150	---	323	---	44	20	---
TOTAL	8344	8967	31895	153766	211900	332170	52890	21945	5053	1629	811	595
MEAN	269	299	1029	4960	7568	10720	1763	708	168	52.5	26.2	19.8
MAX	1710	944	3070	16300	30700	47600	2970	1560	308	74	44	21
MIN	115	160	255	837	1800	1640	1150	323	78	39	20	19
AC-FT	16550	17790	63260	305000	420300	658900	104900	43530	10020	3230	1610	1180

CAL YR 1986	TOTAL	2279757	MEAN	6246	MAX	239000	MIN	18	AC-FT	4522000
WTR YR 1987	TOTAL	829965	MEAN	2274	MAX	47600	MIN	19	AC-FT	1646000

EEL RIVER BASIN

11475560 ELDER CREEK NEAR BRANSCOMB, CA
(Hydrologic benchmark station)

LOCATION.--Lat 39°43'47", long 123°38'34", in NW 1/4 NE 1/4 sec.29, T.22 N., R.16 W., Mendocino County, Hydrologic Unit 18010106, on right bank 0.2 mi upstream from mouth, and 5.3 mi north of Branscomb. Raingage No. 1: Lat 39°43'50", long 123°38'07", in NW 1/4 NW 1/4 sec.28, T.22 N., R.16 W., elevation, 1,440 ft at site 0.5 mi east of gaging station.
DRAINAGE AREA.--6.50 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder, crest-stage gage, and one recording and storage-type precipitation gage. Datum of gage is 1,391.08 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharge. Records good except those for flows below 1.0 ft³/s, which are fair. No regulation; small diversion above station for domestic use.

AVERAGE DISCHARGE.--20 years, 26.6 ft³/s, 19,270 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,280 ft³/s, Mar. 29, 1974, gage height, 9.77 ft, from rating curve extended above 660 ft³/s on basis of slope-area measurements at gage heights 9.40 and 11.41 ft; minimum daily, 0.27 ft³/s, Sept. 10-15, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 11.41 ft, from floodmarks, discharge, 3,660 ft³/s by slope-area measurement of maximum flow.

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. 12	1445	*192	*5.50				
Minimum daily, 0.45 ft ³ /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	2.5	6.9	4.1	61	42	18	21	10	3.7	1.7	1.1	.49
2	2.2	5.7	3.9	61	97	19	20	8.3	3.4	1.7	1.0	.49
3	2.0	5.0	3.7	89	91	26	19	7.5	3.2	1.7	1.0	.49
4	1.9	4.6	4.2	87	72	22	18	7.0	3.0	1.7	.97	.49
5	1.8	4.2	17	65	57	59	17	6.5	3.0	1.7	.94	.49
6	1.8	4.0	18	48	47	59	16	6.1	3.0	1.7	.91	.49
7	1.7	3.7	11	36	39	51	15	5.7	2.8	1.6	.85	.49
8	1.6	3.5	8.4	29	33	45	14	5.7	2.7	1.6	.85	.49
9	1.6	3.5	6.9	25	29	39	14	5.5	2.7	1.6	.85	.49
10	1.6	3.3	5.8	22	27	35	13	5.3	2.7	1.5	.81	.49
11	1.5	3.2	5.1	19	26	34	13	5.1	2.6	1.4	.80	.50
12	1.5	3.0	4.7	18	42	118	12	5.0	2.6	1.4	.80	.55
13	1.5	2.8	5.7	17	137	149	11	4.9	2.5	1.3	.80	.61
14	1.5	2.7	6.1	16	101	124	11	4.7	2.4	1.3	.80	.61
15	1.5	2.6	5.4	14	102	98	11	4.6	2.4	1.2	.78	.61
16	1.4	2.6	5.0	13	90	81	10	4.6	2.5	1.2	.75	.61
17	1.9	2.6	4.8	12	75	67	9.6	4.6	2.5	1.2	.75	.61
18	1.8	2.6	7.3	11	62	59	9.3	4.5	2.5	1.3	.75	.60
19	1.8	2.7	12	10	52	52	9.1	4.4	2.3	1.3	.75	.53
20	1.6	3.1	15	9.8	45	46	9.0	4.2	2.2	1.3	.75	.53
21	1.5	4.6	12	9.3	39	42	8.7	4.1	2.2	1.3	.70	.49
22	1.5	3.9	14	8.8	34	38	8.2	4.0	2.2	1.3	.70	.46
23	1.8	3.5	15	12	30	41	7.9	3.9	2.2	1.3	.70	.46
24	2.3	3.5	14	44	27	40	7.6	3.9	2.1	1.3	.70	.46
25	2.4	3.6	12	53	25	38	7.6	3.9	2.0	1.3	.70	.46
26	2.5	3.5	11	57	23	34	7.3	3.9	1.8	1.2	.62	.46
27	3.0	3.3	9.2	55	21	31	7.0	3.8	1.8	1.2	.61	.46
28	2.8	3.8	8.3	64	20	29	6.8	3.7	1.8	1.2	.61	.46
29	9.9	4.5	12	61	---	27	6.6	3.6	1.8	1.2	.57	.46
30	15	4.3	11	55	---	25	9.7	3.6	1.7	1.2	.57	.45
31	9.5	---	14	47	---	23	---	3.9	---	1.2	.52	---
TOTAL	86.9	110.8	286.6	1128.9	1485	1569	349.4	156.5	74.3	43.1	24.01	15.28
MEAN	2.80	3.69	9.25	36.4	53.0	50.6	11.6	5.05	2.48	1.39	.77	.51
MAX	15	6.9	18	89	137	149	21	10	3.7	1.7	1.1	.61
MIN	1.4	2.6	3.7	8.8	20	18	6.6	3.6	1.7	1.2	.52	.45
AC-FT	172	220	568	2240	2950	3110	693	310	147	85	48	30
a	3.92	2.15	6.83	11.82	8.87	10.58	1.99	0.48	0.08	.00	.00	.00

CAL YR 1986 TOTAL 9879.86 MEAN 27.1 MAX 970 MIN .70 AC-FT 19600
WTR YR 1987 TOTAL 5329.79 MEAN 14.6 MAX 149 MIN .45 AC-FT 10570
a Precipitation, in inches, at raingage no. 1.

EEL RIVER BASIN

11475560 ELDER CREEK NEAR BRANSCOMB, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

CHEMICAL DATA: Water years 1968 to current year.

WATER TEMPERATURE: Water years 1968-79.

SEDIMENT DATA: Water years 1969 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1967 to September 1979.

SUSPENDED-SEDIMENT DISCHARGE: October 1973 to September 1975.

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)
DEC 11...	1100	5.1	117	8.0	5.0	730	0.20	12.0	98	K4	48
MAR 11...	1335	32	100	8.0	9.0	725	0.80	11.0	100	K6	26
JUN 23...	1230	2.3	132	8.3	14.5	725	0.50	9.8	101	<1	40
SEP 03...	1130	0.49	147	8.1	15.0	725	0.40	9.3	97	K3	46
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)	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
DEC 11...	46	0	12	3.8	6.5	23	0.4	0.60	63	52	53
MAR 11...	39	0	10	3.3	5.7	24	0.4	0.50	56	46	45
JUN 23...	52	0	14	4.2	7.3	23	0.5	0.70	76	62	62
SEP 03...	57	0	15	4.7	8.7	25	0.5	0.80	83	68	68
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, 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)
DEC 11...	3.1	2.8	<0.10	14	70	75	0.09	<0.010	<0.100	<0.010	<0.010
MAR 11...	2.8	2.3	0.10	15	55	67	0.08	<0.010	<0.100	<0.010	<0.010
JUN 23...	3.2	2.6	0.20	15	77	85	0.10	<0.010	<0.100	0.010	0.010
SEP 03...	4.0	2.7	0.20	15	87	92	0.12	<0.010	<0.100	0.020	<0.010

See footnotes at end of table.

EEL RIVER BASIN

11475560 ELDER CREEK NEAR BRANSCOMB, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	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)
DEC 11...	0.70	0.020	0.010	0.020	20	2	23	<0.5	<1	<1	<3
MAR 11...	0.40	0.020	0.020	0.010	<10	<1	13	<0.5	<1	<1	<3
JUN 23...	0.80	0.020	0.030	0.010	<10	<1	16	<0.5	<1	<1	<3
SEP 03...	<0.20	0.010	0.020	0.020	<10	<1	20	<0.5	<1	<1	<3

DATE	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	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)
DEC 11...	<1	3	<5	4	1	<0.1	<10	<1	<1	<1	110
MAR 11...	2	9	5	<4	<1	0.2	<10	<1	<1	<1	98
JUN 23...	2	3	<5	<4	<1	<0.1	<10	2	<1	<1	130
SEP 03...	2	<3	<5	<4	<1	<0.1	<10	<1	1	<1	150

DATE	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)
DEC 11...	<6	10	--	--	--	--	--	--	--	--
MAR 11...	<6	4	<0.4	<0.4	0.5	<0.4	0.4	<0.4	0.05	0.01
JUN 23...	<6	11	--	--	--	--	--	--	--	--
SEP 03...	<6	<3	<0.4	<0.4	1.0	<0.4	0.9	<0.4	<0.01	0.01

K Results based on colony count outside 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)
MAR 11...*	1223	10.0	100	8.0	9.0	725	11.0	100	1
11...*	1239	17.5	100	8.0	9.0	725	11.0	100	1
11...*	1255	22.5	100	7.9	9.0	725	11.0	100	0
SEP 03...*	1300	1.00	147	8.1	16.0	725	9.3	99	1
03...*	1315	2.80	147	8.1	16.0	725	9.2	98	1
03...*	1330	4.40	147	8.1	16.0	725	9.3	99	1

*Instantaneous streamflow at the time of cross-sectional measurements: Mar. 11, 32 ft³/s;
 Sept. 3, 0.49 ft³/s.

EEL RIVER BASIN

11475560 ELDER CREEK NEAR BRANSCOMB, 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- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
DEC					
11...	1100	5.1	5.0	3	0.04
MAR					
11...	1225	32	9.0	1	0.09
JUN					
23...	1230	2.3	14.5	0	0.0
SEP					
03...	1130	0.49	15.0	1	0.00

EEL RIVER BASIN

11475800 SOUTH FORK EEL RIVER AT LEGGETT, CA

LOCATION.--Lat 39°52'29", long 123°43'10", in NE 1/4 SE 1/4 sec.3, T.23 N., R.17 W., Mendocino County, Hydrologic Unit 18010106, on right bank near Standish Hickey State Park, 0.2 mi upstream from Rock Creek, and 0.7 mi northwest of Leggett.

DRAINAGE AREA.--248 mi².

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 693.32 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good except those for period June 23 to Sept. 30, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--22 years, 925 ft³/s, 670,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 72,700 ft³/s, Jan. 4, 1966, gage height, 25.4 ft, from floodmarks, from rating curve extended above 21,000 ft³/s on basis of slope-area measurement at gage height 26.13 ft; minimum daily, 7.3 ft³/s, Aug. 4-6, 12, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 26.13 ft, from floodmarks, discharge, 78,700 ft³/s, by slope-area measurement of maximum flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,500 ft³/s and maximum(*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0200	*10,800	*9.50	Mar. 12	1745	9,930	9.12

Minimum daily, 11 ft³/s, Sept. 4, 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	79	212	104	2760	994	531	530	356	97	29	25	13
2	68	156	98	2000	4580	530	499	267	84	30	26	13
3	61	125	94	3290	2980	1340	478	222	78	31	24	12
4	55	106	95	2860	1820	848	454	198	73	31	23	11
5	52	91	489	1620	1350	3020	419	183	70	31	23	11
6	49	82	722	1140	1070	2010	398	173	70	32	21	12
7	46	73	385	876	894	1410	381	164	68	30	20	13
8	44	72	260	724	778	1250	363	151	67	29	20	14
9	41	70	210	673	701	1100	343	151	62	29	19	14
10	41	65	173	578	659	995	336	137	57	27	19	14
11	41	62	156	509	778	1040	342	129	57	26	19	14
12	39	61	131	487	1070	5570	317	124	53	26	19	15
13	39	59	149	473	6710	5260	300	118	52	25	19	15
14	37	57	256	409	2980	3630	283	114	49	25	19	15
15	37	55	208	385	3360	2630	270	111	50	25	19	15
16	37	52	180	346	2350	1910	259	108	51	23	19	15
17	45	51	160	325	1800	1500	255	106	53	20	19	15
18	51	52	256	303	1460	1400	250	105	52	21	19	15
19	50	59	536	286	1250	1270	237	101	50	23	18	15
20	48	66	688	268	1080	1100	231	97	51	25	18	15
21	44	134	438	255	963	1070	221	97	51	27	18	14
22	41	147	562	243	871	1020	215	97	51	28	19	14
23	42	109	744	370	801	1190	209	94	48	28	20	14
24	62	99	537	2360	745	1030	205	92	42	29	20	13
25	88	96	410	1910	688	925	197	92	35	29	20	13
26	75	97	359	1530	640	850	191	92	33	29	20	13
27	85	92	311	1360	597	778	184	91	32	29	19	13
28	89	92	266	2360	563	718	178	88	30	29	18	13
29	188	125	334	1600	---	663	173	84	30	28	16	13
30	550	127	397	1460	---	609	231	85	29	27	15	13
31	343	---	564	1130	---	568	---	97	---	26	13	---
TOTAL	2567	2744	10272	34890	44532	47765	8949	4124	1625	847	606	409
MEAN	82.8	91.5	331	1125	1590	1541	298	133	54.2	27.3	19.5	13.6
MAX	550	212	744	3290	6710	5570	530	356	97	32	26	15
MIN	37	51	94	243	563	530	173	84	29	20	13	11
AC-FT	5090	5440	20370	69200	88330	94740	17750	8180	3220	1680	1200	811
CAL YR 1986	TOTAL	377136	MEAN	1033	MAX	36000	MIN	17	AC-FT	748000		
WTR YR 1987	TOTAL	159330	MEAN	437	MAX	6710	MIN	11	AC-FT	316000		

EEL RIVER BASIN

11476500 SOUTH FORK EEL RIVER NEAR MIRANDA, CA

LOCATION.--Lat 40°10'55", long 123°46'30", in NW 1/4 sec.30, T.3 S., R.4 E., Humboldt County, Hydrologic Unit 18010106, on right bank 0.5 mi upstream from Rocky Glen Creek, 4.3 mi southeast of Miranda, and 20 mi upstream from mouth.

DRAINAGE AREA.--537 mi².

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.-- WSP 1395: Drainage area. WSP 2129: 1955.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 217.57 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 2, 1940, nonrecording gage at site 200 ft upstream at datum 0.8 ft higher. Nov. 2, 1940, to Oct. 31, 1944, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharge. Records good. Occasional storage and release for recreation use during summer months at Benbow Dam, 16 mi upstream. No diversion above station.

AVERAGE DISCHARGE.--48 years, 1,955 ft³/s, 1,416,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 199,000 ft³/s, Dec. 22, 1964, gage height, 46.0 ft, from floodmarks, from rating curve extended above 53,000 ft³/s on basis of slope-area measurement at gage height 42.7 ft; minimum observed, 9 ft³/s, Oct. 17, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	1600	15,000	14.26	Mar. 13	0030	*19,700	*15.91
Feb. 13	0930	17,600	15.20				

Minimum daily, 22 ft³/s, Sept. 6, 7.

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	294	541	270	5640	2730	1010	1090	716	186	82	46	25
2	175	377	239	6160	10300	1070	1020	586	176	82	45	24
3	141	292	218	7470	8940	3440	984	445	167	83	36	25
4	128	243	217	8000	5270	2290	936	382	152	83	32	25
5	117	210	1090	4520	3670	9190	865	347	138	83	36	24
6	109	185	1980	3050	2830	6470	805	321	144	83	36	22
7	103	169	1140	2280	2310	3880	761	302	139	81	34	22
8	99	160	753	1730	1960	3140	721	284	133	80	34	23
9	95	150	568	1560	1710	2850	681	269	129	77	33	25
10	93	143	465	1350	1570	2800	658	263	124	75	33	26
11	90	136	395	1190	1810	3130	685	247	121	73	32	26
12	87	130	347	1150	2290	10100	623	238	118	71	32	27
13	85	126	378	1130	12700	14800	579	230	116	57	32	27
14	83	122	481	1010	7750	10500	541	222	112	37	31	27
15	81	118	513	922	7090	7950	518	215	110	56	30	27
16	80	114	433	844	5320	5420	496	209	110	56	32	26
17	97	111	382	781	3970	4130	479	206	110	52	31	131
18	141	110	535	728	3190	3770	476	201	108	52	31	119
19	123	112	1180	679	2650	3500	455	200	106	53	30	84
20	108	125	1890	638	2260	2910	431	195	105	56	32	50
21	99	276	1280	600	1980	2700	412	168	105	59	31	30
22	92	298	1530	580	1750	2480	399	174	103	57	31	27
23	91	254	1800	890	1600	2600	388	143	101	55	31	26
24	121	209	1430	4690	1460	2460	371	107	90	49	32	26
25	165	211	1130	4900	1350	2110	359	124	90	51	31	26
26	172	207	1010	4400	1240	1880	350	144	90	52	30	25
27	192	193	860	3850	1150	1690	329	167	88	51	29	25
28	198	228	728	6880	1070	1530	317	173	81	48	27	25
29	419	331	840	4890	---	1400	312	169	81	48	27	24
30	1170	305	952	4280	---	1280	377	167	83	48	27	24
31	894	---	1480	3280	---	1180	---	180	---	46	26	---
TOTAL	5942	6186	26514	90072	101920	123660	17418	7794	3516	1936	1000	1043
MEAN	192	206	855	2906	3640	3989	581	251	117	62.5	32.3	34.8
MAX	1170	541	1980	8000	12700	14800	1090	716	186	83	46	131
MIN	80	110	217	580	1070	1010	312	107	81	37	26	22
AC-FT	11790	12270	52590	178700	202200	245300	34550	15460	6970	3840	1980	2070
CAL YR 1986	TOTAL	845784	MEAN	2317	MAX	94400	MIN	44	AC-FT	1678000		
WTR YR 1987	TOTAL	387001	MEAN	1060	MAX	14800	MIN	22	AC-FT	767600		

EEL RIVER BASIN

11476600 BULL CREEK NEAR WEOTT, CA

LOCATION.--Lat 40°21'05", long 124°00'10", in SW 1/4 NW 1/4 sec.30, T.1 S., R.2 E., Humboldt County, Hydrologic Unit 18010106, on left bank 0.2 mi downstream from Albee Creek, 4.5 mi northwest of Weott, and 4.6 mi upstream from mouth.

DRAINAGE AREA.--28.1 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 269.36 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 22, 1964, water-stage recorder, and Jan. 14 to Aug. 10, 1965, nonrecording gage at site 150 ft downstream at datum 8.90 ft lower.

REMARKS.--Estimated daily discharges: Oct. 4 to Jan. 27. Records fair except those for estimated period, which are poor. Minor diversions above station for domestic and recreational use.

AVERAGE DISCHARGE.--27 years, 129 ft³/s, 93,460 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,520 ft³/s, Dec. 22, 1964, gage height, 20.6 ft, from floodmarks, site and datum then in use, from rating curve extended above 2,100 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 0.30 ft³/s, Sept. 28, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 5	0730	*1,460	*7.09				

Minimum daily, 0.59 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	9.5	42	23	300	217	73	89	45	12	3.4	2.2	.87
2	8.5	32	21	260	507	130	84	30	11	3.4	2.3	.84
3	8.5	27	19	450	377	451	80	26	9.8	3.4	2.2	.84
4	8.0	23	24	300	302	360	74	24	9.4	3.4	2.0	.90
5	7.6	20	100	200	245	1070	70	22	9.4	3.2	1.9	.95
6	7.1	18	110	160	203	637	66	20	9.3	2.6	1.9	1.0
7	6.8	16	82	132	173	461	62	19	9.0	2.4	1.9	1.0
8	6.6	15	63	113	150	391	57	18	9.0	2.4	1.9	1.0
9	6.4	13	52	101	133	346	53	16	9.0	2.4	1.9	1.0
10	6.2	13	47	91	125	332	54	15	8.5	2.3	1.9	.98
11	5.9	12	41	82	123	401	51	15	8.5	2.2	1.9	.96
12	5.7	11	37	75	213	781	46	15	8.3	2.1	1.8	1.0
13	5.6	11	44	83	417	755	44	14	7.5	2.1	1.9	1.0
14	5.5	10	55	74	352	664	41	14	7.2	1.9	1.9	.99
15	5.3	9.5	49	67	468	541	39	14	7.4	1.8	2.0	.94
16	5.2	9.1	44	62	365	423	38	13	7.7	2.0	1.9	.98
17	6.2	8.8	41	58	298	343	37	13	6.8	2.8	1.8	.99
18	7.4	8.6	56	54	243	299	37	13	6.6	4.2	1.6	.92
19	6.7	9.5	86	52	206	259	34	13	6.2	4.3	1.6	.91
20	6.3	13	110	49	179	226	32	13	6.1	3.6	1.6	.83
21	5.9	36	78	47	165	207	31	12	6.5	3.4	1.6	.78
22	5.6	26	105	45	141	182	29	12	6.1	3.3	1.6	.76
23	5.4	23	143	60	134	183	27	12	5.6	3.0	1.5	.76
24	6.8	20	120	100	119	164	25	12	5.0	2.5	1.5	.72
25	17	23	100	160	106	150	24	13	4.5	2.4	1.4	.77
26	13	22	87	250	96	139	23	13	4.1	2.3	1.3	.78
27	18	19	79	180	87	128	22	13	4.0	2.3	1.3	.83
28	17	23	68	319	80	119	21	13	3.7	2.2	1.2	.75
29	42	31	94	275	---	111	20	12	3.5	2.1	1.2	.67
30	92	27	86	281	---	104	36	12	3.4	2.1	1.0	.59
31	60	---	155	237	---	97	---	16	---	2.0	.95	---
TOTAL	417.7	571.5	2219	4717	6224	10527	1346	512	215.1	83.5	52.65	26.31
MEAN	13.5	19.1	71.6	152	222	340	44.9	16.5	7.17	2.69	1.70	.88
MAX	92	42	155	450	507	1070	89	45	12	4.3	2.3	1.0
MIN	5.2	8.6	19	45	80	73	20	12	3.4	1.8	.95	.59
AC-FT	829	1130	4400	9360	12350	20880	2670	1020	427	166	104	52

CAL YR 1986	TOTAL	56677.02	MEAN	155	MAX	3390	MIN	.94	AC-FT	112400
WTR YR 1987	TOTAL	26911.76	MEAN	73.7	MAX	1070	MIN	.59	AC-FT	53380

EEL RIVER BASIN

11477000 EEL RIVER AT SCOTIA, CA
(National stream-quality accounting network station)

LOCATION.--Lat 40°29'30", long 124°05'55", in SW 1/4 sec.5, T.1 N., R.1 E., Humboldt County, Hydrologic Unit 18010105, near center of span in left pier of A.S. Murphy Memorial Bridge on State Highway 283, 0.5 mi north of Scotia, and 6 mi upstream from Van Duzen River.
DRAINAGE AREA.--3,113 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to current year. Monthly discharge only for some periods and yearly estimates for 1915-16, published in WSP 1315-B.

REVISED RECORDS.--WSP 931: 1938. WSP 1315-B: 1914-15(M), 1917(M), 1927-28(M), 1936(M), 1939(M). WSP 1345: Drainage area. WSP 1715: 1959.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 35.50 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 12, 1940, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 2-17, 19-20, Feb. 8-11. Records good. Flow slightly regulated by Lake Pillsbury (station 11470000) 138 mi upstream and by diversion through Potter Valley powerplant (station 11471000).

AVERAGE DISCHARGE.--77 years, 7,488 ft³/s, 5,425,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 752,000 ft³/s, Dec. 23, 1964, gage height, 72.0 ft, from floodmarks, from rating curve extended above 220,000 ft³/s on basis of maximum flow at upstream stations; minimum observed, 10 ft³/s, Aug. 12-14, 1924.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 72,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 13	0745	*94,500	28.35				

Minimum daily, 68 ft³/s, Sept. 3, 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	1080	1580	958	12500	10700	3640	5380	2310	608	220	125	74
2	916	1250	896	28200	23700	3650	5100	2780	592	215	125	70
3	730	1050	808	22700	36100	12200	4890	2400	581	210	125	68
4	611	920	759	35300	20700	13900	4740	1990	550	205	120	70
5	532	820	1900	20000	14500	33100	4440	1800	494	198	115	73
6	473	730	5520	12300	10800	41100	4130	1670	454	191	108	73
7	428	670	4450	8610	8650	22300	3920	1560	439	189	106	73
8	395	610	2970	6680	7000	16000	3720	1490	417	185	103	73
9	373	565	2300	5740	6100	13800	3550	1420	402	181	100	71
10	354	525	1880	5110	5500	11400	3500	1360	396	175	95	68
11	333	490	1530	4540	6200	13000	3580	1280	407	175	94	70
12	319	460	1280	4290	7380	33100	3600	1210	388	174	92	70
13	303	440	1180	4490	40400	83500	3400	1130	369	169	89	70
14	293	425	1450	4240	43100	51100	3170	1070	362	165	85	73
15	280	410	1500	3860	31700	40000	3030	1020	348	154	85	74
16	272	400	1670	3570	28900	26800	2910	972	334	136	85	75
17	279	390	1440	3270	18700	19900	2840	937	326	138	83	75
18	304	385	1430	3070	14200	17300	2770	900	320	139	85	82
19	339	380	2560	2910	11000	17200	2660	864	311	139	85	129
20	348	390	6170	2750	9040	14400	2480	861	307	139	85	131
21	342	401	5330	2580	7880	12500	2330	848	307	139	83	114
22	347	1030	4670	2480	6880	12000	2220	774	299	137	83	98
23	341	1120	6330	2920	6160	11500	2160	743	293	136	83	84
24	343	1020	5710	8630	5580	12700	2150	693	286	136	83	79
25	380	996	4450	21700	5070	10700	2070	636	277	136	80	76
26	441	902	3780	16800	4590	9260	1960	623	270	133	80	73
27	533	819	3410	12900	4180	8240	1880	625	263	129	80	73
28	622	780	2900	20900	3870	7420	1800	640	253	129	80	73
29	743	1010	2990	19500	---	6770	1780	644	239	129	78	73
30	2420	1040	3450	15500	---	6200	1860	633	225	127	78	73
31	2810	---	4880	13600	---	5720	---	616	---	121	76	---
TOTAL	18284	22008	90551	331640	398580	590400	94020	36499	11117	4949	2874	2378
MEAN	590	734	2921	10700	14240	19050	3134	1177	371	160	92.7	79.3
MAX	2810	1580	6330	35300	43100	83500	5380	2780	608	220	125	131
MIN	272	380	759	2480	3870	3640	1780	616	225	121	76	68
AC-FT	36270	43650	179600	657800	790600	1171000	186500	72400	22050	9820	5700	4720
CAL YR 1986	TOTAL	3554257	MEAN	9738	MAX	304000	MIN	71	AC-FT	7050000		
WTR YR 1987	TOTAL	1603300	MEAN	4393	MAX	83500	MIN	68	AC-FT	3180000		

EEL RIVER BASIN

11477000 EEL RIVER AT SCOTIA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952 to current year.

CHEMICAL DATA: Water years 1952-75, 1977, 1979 to current year.

BIOLOGICAL DATA: Water year 1979-81.

SPECIFIC CONDUCTANCE: Water years 1979-81.

WATER TEMPERATURE: Water years 1958-82.

SEDIMENT DATA: Water years 1955 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1979 to September 1981.

WATER TEMPERATURE: October 1957 to June 1982.

SUSPENDED-SEDIMENT DISCHARGE: October 1957 to September 1980.

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 (PER- CENT SATUR- ATION)	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												
17...	1400	390	296	8.3	13.0	760	0.30	10.5	100	K2	<1	130
JAN												
13...	1145	4540	178	8.1	8.5	770	18	11.4	96	K15	45	79
MAR												
25...	1400	10500	149	8.0	11.0	765	50	11.0	99	K9	K28	69
MAY												
20...	1300	864	231	8.4	17.5	760	0.70	9.9	104	K2	K3	110
JUL												
20...	1100	139	302	8.5	19.0	760	0.90	9.0	97	K1	K7	140
SEP												
01...	1130	75	303	8.6	22.0	765	0.40	11.3	129	K2	120	140

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)
NOV												
17...	16	37	10	8.5	12	0.3	1.3	144	--	118	118	23
JAN												
13...	5	21	6.4	6.0	14	0.3	0.90	88	--	72	74	14
MAR												
25...	4	18	5.8	5.2	14	0.3	0.80	80	--	65	65	9.5
MAY												
20...	9	30	8.2	6.8	12	0.3	0.80	84	--	101	100	12
JUL												
20...	8	38	11	8.6	12	0.3	1.3	156	3	133	132	18
SEP												
01...	4	38	11	9.7	13	0.4	1.4	163	2	136	136	18

See footnotes at end of table.

EEL RIVER BASIN

11477000 EEL RIVER AT SCOTIA, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)
NOV 17...	6.2	0.10	8.1	172	170	0.23	<0.010	<0.100	<0.010	<0.010	0.60	0.010
JAN 13...	3.1	<0.10	11	111	110	0.15	<0.010	<0.100	<0.010	<0.010	0.30	0.060
MAR 25...	2.4	0.10	12	88	93	0.12	<0.010	<0.100	<0.010	<0.010	<0.20	0.070
MAY 20...	4.0	0.10	7.7	130	130	0.18	<0.010	<0.100	<0.010	0.020	0.60	0.010
JUL 20...	6.3	0.20	9.3	164	170	0.22	<0.010	<0.100	<0.010	<0.010	0.50	0.020
SEP 01...	6.8	0.20	7.1	169	170	0.23	<0.010	<0.100	0.020	<0.010	<0.20	<0.010

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 17...	0.010	<0.010	<10	3	87	<0.5	1	<1	<3	1	3
JAN 13...	0.020	0.010	30	1	41	<0.5	1	<1	<3	2	20
MAR 25...	0.020	<0.010	--	--	--	--	--	--	--	--	--
MAY 20...	0.010	<0.010	<10	<1	62	<0.5	<1	3	<3	2	5
JUL 20...	0.010	<0.010	--	--	--	--	--	--	--	--	--
SEP 01...	<0.010	0.020	--	--	--	--	--	--	--	--	--

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 17...	<5	8	7	<0.1	<10	<1	<1	<1	420	<6	7
JAN 13...	<5	6	5	<0.1	<10	1	<1	<1	250	<6	8
MAR 25...	--	--	--	--	--	--	--	--	--	--	--
MAY 20...	<5	6	4	<0.1	<10	<1	<1	<1	350	<6	16
JUL 20...	--	--	--	--	--	--	--	--	--	--	--
SEP 01...	--	--	--	--	--	--	--	--	--	--	--

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.

EEL RIVER BASIN

11477000 EEL RIVER AT SCOTIA, CA--Continued

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- PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR										
25...*	1245	54.0	149	7.8	11.0	765	11.0	99	99	95
25...*	1325	114	147	8.0	10.5	765	11.0	98	111	87
25...*	1355	204	149	8.0	10.5	765	11.0	98	195	50
25...*	1430	324	149	8.0	11.0	765	11.0	99	134	71
25...*	1505	424	149	8.0	11.0	765	10.9	98	119	79
SEP										
01...*	1305	29.0	303	8.6	22.0	765	11.3	129	2	--
01...*	1320	44.0	306	8.6	22.0	765	11.1	127	0	--
01...*	1335	55.0	306	8.6	22.0	765	11.2	128	1	--
01...*	1350	66.0	305	8.6	22.0	765	11.0	125	1	--
01...*	1405	84.0	297	8.7	22.5	765	12.4	143	1	--

* Instantaneous streamflow at the time of cross-sectional measurement: Mar. 25, 10,500 ft³/s; Sept. 1, 75 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- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV						
17...	1400	390	13.0	1	1.1	--
JAN						
13...	1145	4540	8.5	47	576	--
MAR						
25...	1400	10500	11.0	129	3690	74
MAY						
20...	1300	864	17.5	4	9.3	--
JUL						
20...	1100	139	19.0	1	0.38	--
SEP						
01...	1130	75	22.0	1	0.20	--

EEL RIVER BASIN

11478500 VAN DUZEN RIVER NEAR BRIDGEVILLE, CA

LOCATION.--Lat 40°28'50", long 123°53'23", in NE 1/4 SE 1/4 sec.12, T.1 N., R.2 E., Humboldt County, Hydrologic Unit 18010105, on left bank at downstream side of bridge on State Highway 36, 0.9 mi upstream from Grizzly Creek, and 5 mi west of Bridgeville.

DRAINAGE AREA.--222 mi².

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 358.18 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1965, at site 2.4 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Jan. 24, 25, Feb. 14-17, Mar. 13, Aug. 14. Records good. No storage or large diversion above station.

AVERAGE DISCHARGE.--37 years, 892 ft³/s, 646,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,700 ft³/s, Dec. 22, 1964, gage height, 24.0 ft, from floodmarks, present site and datum, from rating curve extended above 20,000 ft³/s on basis of slope-area measurement at gage height 21.3 ft, former site and datum; minimum daily, 4.6 ft³/s, Aug. 8, 13-14, Sept. 9-15, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 12	1915	*13,800	*11.36				

Minimum daily, 5.7 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	133	290	256	4540	1400	392	559	368	73	20	12	5.8
2	110	200	207	2950	5970	419	522	423	68	19	12	5.9
3	95	158	177	5690	3490	3780	497	283	60	19	11	6.1
4	81	132	171	3770	2000	2030	465	232	55	18	11	6.1
5	73	114	1310	2150	1500	8170	416	202	50	18	10	6.1
6	64	100	1150	1500	1190	3700	386	172	49	18	9.7	6.1
7	58	94	616	1190	1010	2070	360	156	49	18	9.4	6.2
8	54	95	441	994	873	1660	335	144	47	17	9.0	6.4
9	51	83	345	1000	769	1450	319	133	46	16	8.7	6.4
10	47	80	277	885	708	1370	319	123	45	16	8.6	6.4
11	45	75	237	785	1020	1560	394	113	44	16	8.3	6.4
12	42	70	208	862	1010	8150	334	107	42	15	8.0	6.4
13	40	65	213	1030	6150	6400	297	103	40	15	7.7	6.4
14	39	62	359	859	4500	4440	276	98	38	14	7.3	6.4
15	37	59	275	763	3400	3020	258	94	37	13	7.3	6.4
16	36	56	229	666	2600	1980	241	92	37	13	7.3	6.4
17	36	53	200	592	2000	1590	231	91	38	12	7.2	6.4
18	39	51	252	539	1540	1880	228	87	38	12	7.0	6.4
19	39	53	551	489	1290	1710	216	83	36	14	7.0	6.4
20	39	67	677	453	1090	1500	200	80	35	15	7.3	6.3
21	39	551	471	425	958	1380	190	78	34	15	7.3	6.1
22	37	722	1040	414	820	1260	180	76	34	15	7.0	6.1
23	35	528	1240	468	726	1350	170	73	34	15	7.0	6.1
24	35	364	778	560	659	1220	163	70	32	15	7.0	6.1
25	36	426	594	1000	605	1100	158	70	30	15	7.0	6.0
26	44	307	604	1910	542	1020	149	70	28	15	7.0	5.8
27	115	244	506	1910	445	910	141	70	25	14	6.9	5.8
28	117	242	424	2590	417	804	134	69	24	14	6.7	5.8
29	350	444	713	1770	---	717	131	67	22	13	6.6	5.8
30	994	327	712	1750	---	651	137	65	21	12	6.3	5.7
31	491	---	1260	1530	---	602	---	65	---	12	6.0	---
TOTAL	3451	6112	16493	46034	48682	68285	8406	3957	1211	473	250.6	184.7
MEAN	111	204	532	1485	1739	2203	280	128	40.4	15.3	8.08	6.16
MAX	994	722	1310	5690	6150	8170	559	423	73	20	12	6.4
MIN	35	51	171	414	417	392	131	65	21	12	6.0	5.7
AC-FT	6850	12120	32710	91310	96560	135400	16670	7850	2400	938	497	366

CAL YR 1986	TOTAL	355347.2	MEAN	974	MAX	25700	MIN	8.1	AC-FT	704800
WTR YR 1987	TOTAL	203539.3	MEAN	558	MAX	8170	MIN	5.7	AC-FT	403700

MAD RIVER BASIN

11480390 MAD RIVER ABOVE RUTH RESERVOIR, NEAR FOREST GLEN, CA

LOCATION.--Lat 40°17'04", long 123°20'03", in NW 1/4 NE 1/4 sec.24, T.2 S., R.7 E., Trinity County, Hydrologic Unit 18010102, Six Rivers National Forest, near right bank on downstream end of pier of Zenia Road Bridge, 1,600 ft downstream from Marshall Creek, 1.2 mi northwest of Ruth, and 6.1 mi southwest of Forest Glen.

DRAINAGE AREA.--93.8 mi².

PERIOD OF RECORD.--September to December 1971, July 1972, June to September 1977, April to May 1980 (discharge measurements only), June 1980 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,660 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair except those for discharges below 10 ft³/s, which are poor. No regulation or diversion above station.

AVERAGE DISCHARGE.--7 years (water years 1981-87), 249 ft³/s, 180,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft³/s, Feb. 17, 1986, gage height, 11.39 ft in gage, 12.94 ft from crest-stage gage, from rating curve extended above 5,000 ft³/s; no flow at times every year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 12	1815	*5,020	*7.80				

No flow, 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	4.1	70	29	963	335	103	146	53	10	3.1	1.5	.67
2	4.1	44	26	627	1510	100	133	53	9.5	3.0	1.4	.67
3	4.6	27	21	1020	1240	207	126	43	8.8	2.9	1.4	.67
4	7.5	19	21	719	639	193	117	37	8.0	2.9	1.3	.67
5	9.1	15	146	438	415	1040	108	33	7.4	2.9	1.3	.67
6	9.8	14	176	293	305	771	101	30	6.9	2.8	1.2	.64
7	9.5	12	124	209	241	488	93	28	6.6	2.7	1.2	.59
8	8.6	10	87	162	200	388	87	27	6.4	2.6	1.1	.59
9	7.3	9.0	65	131	174	316	81	25	6.0	2.5	1.1	.58
10	6.0	8.2	47	102	158	279	78	23	5.7	2.4	1.1	.52
11	5.0	7.4	31	81	206	334	82	21	5.4	2.4	1.1	.52
12	4.1	6.5	22	72	276	2770	75	19	5.1	2.3	1.1	.52
13	3.2	6.0	29	77	1740	2320	70	18	4.8	2.2	1.0	.52
14	2.3	5.3	40	67	1280	1520	62	17	4.8	2.1	.97	.52
15	1.5	4.7	36	55	1060	1090	60	16	4.7	2.1	.97	.51
16	.96	4.2	27	37	798	758	56	15	4.7	2.0	.92	.45
17	.93	4.1	21	32	563	576	55	14	4.6	1.9	.90	.45
18	.89	4.3	55	23	426	542	54	14	4.5	2.0	.89	.43
19	.56	4.3	154	17	335	475	50	14	4.3	2.0	.83	.38
20	1.1	6.2	206	15	276	403	48	13	4.2	2.0	.83	.37
21	1.3	20	152	12	235	370	45	12	4.2	2.0	.83	.32
22	1.0	35	237	10	207	324	43	12	4.1	2.0	.81	.32
23	.62	30	266	19	186	327	41	11	3.9	2.0	.80	.26
24	1.1	22	190	641	168	316	39	11	3.9	2.0	.81	.23
25	1.1	22	140	684	151	282	37	11	3.7	1.9	.76	.27
26	.96	21	111	485	134	256	35	11	3.6	1.8	.76	.21
27	4.5	20	89	387	122	231	34	11	3.5	1.8	.64	.16
28	10	19	68	523	110	209	32	10	3.4	1.7	.67	.08
29	41	23	85	485	---	190	30	9.9	3.3	1.7	.64	.01
30	128	28	102	424	---	172	35	9.5	3.2	1.6	.64	0
31	102	---	247	372	---	158	---	11	---	1.6	.67	---
TOTAL	382.72	521.2	3050	9182	13490	17508	2053	632.4	159.2	68.9	30.14	12.80
MEAN	12.3	17.4	98.4	296	482	565	68.4	20.4	5.31	2.22	.97	.43
MAX	128	70	266	1020	1740	2770	146	53	10	3.1	1.5	.67
MIN	.56	4.1	21	10	110	100	30	9.5	3.2	1.6	.64	0
AC-FT	759	1030	6050	18210	26760	34730	4070	1250	316	137	60	25

CAL YR 1986	TOTAL	104545.93	MEAN 286	MAX 9660	MIN 0	AC-FT 207400
WTR YR 1987	TOTAL	47090.36	MEAN 129	MAX 2770	MIN 0	AC-FT 93400

MAD RIVER BASIN

11480400 RUTH RESERVOIR NEAR FOREST GLEN, CA

LOCATION.--Lat 40°22'08", long 123°25'56", in NW 1/4 NW 1/4 sec.19, T.1 S., R.7 E., Trinity County, Hydrologic Unit 18010102, Six Rivers National Forest, near center of Robert W. Matthews Dam on Mad River, 5.6 mi west of Forest Glen.

DRAINAGE AREA.--121 mi².

PERIOD OF RECORD.--October 1966 to current year. Records prior to October 1966 in files of Humboldt Bay Municipal Water District.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Humboldt Bay Municipal Water District).

REMARKS.--Reservoir is formed by earthfill dam; storage began July 1961. Total capacity, 48,000 acre-ft (revised) at elevation 2,654.0 ft, crest of spillway. Minimum pool capacity, 7,800 acre-ft at elevation 2,600 ft. Water is released down Mad River for municipal use. Records given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 68,000 acre-ft, Feb. 17, 1986, elevation, 2,667.06 ft; minimum, 11,700 acre-ft, Oct. 24-28, 1977; minimum elevation, 2,607.13 ft, Oct. 28, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 53,600 acre-ft, Mar. 13, elevation, 2,658.74 ft; minimum contents, 19,300 acre-ft, Nov. 24, elevation, 2,621.89 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)
(Based on survey by Humboldt Bay Municipal Water District in 1977)

2,595	5,920	2,635	29,400
2,600	7,810	2,640	33,800
2,605	10,000	2,645	38,600
2,610	12,500	2,650	43,700
2,615	15,100	2,655	49,200
2,620	18,100	2,660	55,100
2,625	21,500	2,664	60,200
2,630	25,300		

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	28000	22600	19500	28700	47600	47300	48000	47500	46400	43100	37100	30800
2	27800	22400	19600	30300	50400	47300	47900	47700	46300	42900	37000	30600
3	27600	22300	19600	32900	50600	47700	47800	47700	46300	42600	36700	30300
4	27500	22200	19700	34700	49900	48000	47700	47600	46200	42400	36600	30100
5	27300	22000	20100	35700	49300	50200	47700	47600	46100	42000	36400	29900
6	27100	21800	20400	36400	48900	50100	47800	47500	46000	42000	36200	29700
7	26900	21600	20500	36900	48700	49700	47900	47500	45900	41800	36000	29600
8	26700	21400	20700	37300	48400	49400	48000	47400	45800	41700	35700	29300
9	26500	21300	20800	37600	48300	49100	48000	47400	45800	41500	35500	29200
10	26300	21100	20900	37900	48200	49000	47900	47400	45700	41300	35300	29000
11	26100	20900	21000	38100	48200	49400	47800	47400	45500	41100	35000	28900
12	25900	20800	21000	38300	48900	53400	47800	47400	45400	41000	34800	28600
13	25700	20700	21100	38500	51200	52700	47700	47400	45400	40800	34600	28400
14	25500	20500	21200	38700	51000	51700	47800	47300	45200	40600	34400	28200
15	25300	20400	21300	38800	50700	50900	47800	47200	45100	40400	34200	28000
16	25100	20200	21400	39000	50200	50300	47800	47200	44900	40100	34000	27800
17	24900	20100	21500	39100	49700	49900	47800	47200	44800	39900	33800	27600
18	24700	20000	21600	39200	49300	49700	47700	47100	44800	39700	33600	27400
19	24500	19800	22100	39400	49000	49500	47800	47100	44700	39500	33400	27200
20	24300	19700	22400	39500	48800	49300	47800	47000	44500	39300	33200	27000
21	24100	19600	22800	39600	48600	49100	47800	47000	44300	39100	32900	26800
22	23900	19500	23300	39700	48400	49000	47700	46900	44300	39000	32800	26700
23	23700	19400	23100	39900	48300	49000	47700	46900	44300	38800	32600	26500
24	23500	19300	24200	41400	48200	48900	47700	46800	44100	38600	32400	26300
25	23300	19400	24500	43000	48000	48800	47600	46700	44000	38400	32200	26100
26	23100	19400	24700	43800	47900	48800	47600	46700	43900	38200	32000	25900
27	22900	19400	24900	44400	47700	48600	47500	46600	43700	38100	31800	25700
28	22800	19400	25000	45300	47500	48400	47500	46500	43600	38100	31600	25500
29	22800	19500	25300	46100	---	48400	47400	46500	43400	37800	31400	25300
30	22800	19500	25500	46700	---	48300	47400	46500	43300	37600	31200	25100
31	22700	---	26200	47200	---	48200	---	46400	---	37300	31000	---
MAX	28000	22600	26200	47200	51200	53400	48000	47700	46400	43100	37100	30800
MIN	22700	19300	19500	28700	47500	47300	47400	46400	43300	37300	31000	25100
a	2626.62	2622.15	2631.06	2653.23	2653.54	2654.14	2653.48	2652.51	2649.63	2643.68	2636.80	2629.75
b	-8300	-3200	+6700	+21000	+300	+700	-800	-1000	-3100	-6000	-6300	-5900

CAL YR 1986 MAX 67700 MIN 19300 b -13200

WTR YR 1987 MAX 53400 MIN 19300 b -5900

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

MAD RIVER BASIN

11480410 MAD RIVER BELOW RUTH RESERVOIR, NEAR FOREST GLEN, CA

LOCATION.--Lat 40°22'16", long 123°26'06", in SW 1/4 SW 1/4 sec.18, T.1 S., R.7 E., Trinity County, Hydrologic Unit 18010102, Six Rivers National Forest, 1,200 ft downstream from Robert W. Matthews Dam, 5.3 mi northwest of Ruth, and 5.8 mi west of Forest Glen.

DRAINAGE AREA.--121 mi².

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,560 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 9 to Nov. 2. Records good. Flow regulated by Ruth Reservoir (station 11480400) 0.3 mi upstream.

AVERAGE DISCHARGE.--7 years, 351 ft³/s, 254,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,800 ft³/s, Feb. 17, 1986, gage height, 17.61 ft, from floodmarks, from rating curve extended above 8,800 ft³/s; minimum daily, 6.4 ft³/s, Dec. 25-28, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,860 ft³/s, Mar. 13, gage height, 9.61 ft; minimum daily, 6.4 ft³/s, Dec. 25-28.

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	99	107	13	8.7	252	254	273	73	40	77	98	99
2	101	107	13	8.2	619	255	245	73	40	79	99	101
3	105	107	13	9.6	1430	266	244	73	41	90	97	99
4	109	106	12	8.7	1140	267	199	73	40	90	98	99
5	109	106	10	7.9	803	625	146	73	49	89	98	99
6	107	105	8.3	7.5	597	1100	106	64	54	88	97	99
7	94	106	8.0	7.4	467	911	65	55	54	89	97	99
8	102	104	8.0	7.3	379	731	65	52	54	87	98	98
9	106	104	8.0	7.3	320	606	154	48	52	87	98	96
10	106	105	8.6	7.1	286	519	152	48	49	87	98	95
11	106	90	9.0	7.0	279	526	147	44	54	88	98	94
12	106	78	8.0	7.0	300	1860	148	38	54	88	98	95
13	107	79	8.0	7.0	1200	3530	100	41	55	87	97	95
14	107	79	8.0	7.0	1750	2520	79	41	56	89	96	94
15	107	79	8.0	7.5	1520	1870	79	40	57	92	99	94
16	107	78	8.0	7.1	1270	1360	79	40	58	96	99	93
17	108	73	8.0	7.0	967	1020	80	40	57	97	100	93
18	107	81	8.0	7.0	751	850	79	41	58	99	99	94
19	107	81	8.3	7.2	602	789	79	41	58	99	99	95
20	107	81	8.4	7.1	495	688	79	41	58	92	96	95
21	106	80	8.0	7.0	418	622	79	42	58	87	92	94
22	106	80	8.2	7.9	361	564	79	40	58	89	93	94
23	106	80	6.9	47	318	533	70	39	66	88	92	94
24	108	46	6.5	93	288	508	87	40	82	86	92	94
25	106	13	6.4	94	266	460	79	40	77	86	96	93
26	107	13	6.4	188	254	397	79	41	77	86	99	93
27	108	13	6.4	247	253	427	75	40	77	86	98	92
28	106	13	6.4	248	254	381	72	40	77	86	98	93
29	107	13	6.6	216	---	342	73	40	76	90	99	94
30	107	13	6.5	246	---	314	73	40	77	97	99	92
31	107	---	7.0	227	---	289	---	40	---	97	99	---
TOTAL	3281	2220	258.9	1771.5	17839	25384	3364	1481	1763	2768	3016	2859
MEAN	106	74.0	8.35	57.1	637	819	112	47.8	58.8	89.3	97.3	95.3
MAX	109	107	13	248	1750	3530	273	73	82	99	100	101
MIN	94	13	6.4	7.0	252	254	65	38	40	77	92	92
AC-FT	6510	4400	514	3510	35380	50350	6670	2940	3500	5490	5980	5670
CAL YR 1986	TOTAL	148675.9	MEAN 407	MAX 13400	MIN 6.4	AC-FT 294900						
WTR YR 1987	TOTAL	66005.4	MEAN 181	MAX 3530	MIN 6.4	AC-FT 130900						

MAD RIVER BASIN

11480500 MAD RIVER NEAR FOREST GLEN, CA

LOCATION.--Lat 40°27'30", long 123°30'35", in SW 1/4 sec.16, T.1 N., R.6 E., Trinity County, Hydrologic Unit 18010102, Six Rivers National Forest, on right bank 0.7 mi downstream from Lamb Creek and 11.1 mi northwest of Forest Glen.

DRAINAGE AREA.--143 mi².

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

REVISED RECORDS.--WSP 1395: 1954. WSP 1715: 1957(M), 1958(P). WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,408.18 ft above National Geodetic Vertical Datum of 1929.

Prior to Dec. 22, 1955, water-stage recorder at site 0.7 mi upstream at different datum. Jan. 13 to June 18, 1956, nonrecording gage at former site at datum 4.17 ft lower than former datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Ruth Reservoir (station 11480400), 9 mi upstream, beginning in July 1961. No diversion above station.

AVERAGE DISCHARGE.--34 years, 387 ft³/s, 280,400 acre-ft/yr (unadjusted).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,200 ft³/s, Dec. 22, 1955, gage height, 24.5 ft, present datum, from floodmarks, from rating curve extended above 8,100 ft³/s on basis of slope-area measurement of maximum flow; minimum daily, 0.60 ft³/s, Sept. 15, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,350 ft³/s, Mar. 13, gage height, 8.82 ft; minimum daily, 10 ft³/s, Dec. 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	108	115	16	270	349	246	283	90	48	79	93	95
2	108	113	16	133	988	259	255	85	47	79	94	97
3	107	113	15	357	1620	508	252	82	47	84	93	94
4	109	113	17	199	1320	402	228	82	46	93	93	95
5	109	113	61	111	940	1190	170	81	49	89	93	95
6	109	111	45	74	688	1340	144	76	56	88	92	95
7	100	111	28	56	519	1090	106	61	57	89	93	95
8	105	111	19	46	410	877	71	61	57	87	93	94
9	109	111	15	42	339	717	170	56	56	88	93	92
10	109	111	13	37	296	628	166	55	51	88	93	91
11	109	105	13	35	295	665	162	53	56	88	93	91
12	109	91	11	35	380	2260	161	48	55	88	93	90
13	110	91	12	37	1490	4020	135	47	56	87	93	90
14	111	91	15	34	1960	2820	98	49	56	87	92	90
15	111	91	12	31	1740	2020	98	49	57	88	93	90
16	111	91	11	29	1430	1500	96	48	59	95	95	89
17	112	83	10	28	1110	1150	96	48	58	94	95	91
18	111	85	14	27	864	967	96	48	57	96	95	91
19	111	86	34	26	686	910	94	49	57	97	95	91
20	111	88	41	25	552	794	93	49	57	93	93	91
21	111	91	28	21	456	721	93	49	57	91	90	91
22	111	94	53	19	387	646	92	49	57	89	90	91
23	111	91	61	39	339	617	83	47	58	88	90	91
24	113	79	38	216	301	579	89	47	83	86	90	91
25	111	19	31	243	273	519	97	49	80	86	91	91
26	112	16	30	277	256	443	90	49	79	87	93	91
27	113	15	24	372	250	467	88	49	79	87	93	91
28	112	17	20	412	248	411	84	48	79	86	93	91
29	149	20	28	342	---	364	82	48	79	86	95	91
30	133	18	28	376	---	331	85	48	78	93	95	90
31	119	---	61	332	---	304	---	49	---	93	95	---
TOTAL	3474	2484	820	4281	20486	29765	3857	1749	1811	2749	2882	2756
MEAN	112	82.8	26.5	138	732	960	129	56.4	60.4	88.7	93.0	91.9
MAX	149	115	61	412	1960	4020	283	90	83	97	95	97
MIN	100	15	10	19	248	246	71	47	46	79	90	89
AC-FT	6890	4930	1630	8490	40630	59040	7650	3470	3590	5450	5720	5470
CAL YR 1986	TOTAL	178271	MEAN 488	MAX	15000	MIN 10	AC-FT	353600				
WTR YR 1987	TOTAL	77114	MEAN 211	MAX	4020	MIN 10	AC-FT	153000				

MAD RIVER BASIN

11481000 MAD RIVER NEAR ARCATA, CA

LOCATION.--Lat 40°54'35", long 124°03'35", in NW 1/4 NW 1/4 sec.15, T.6 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, on right bank 100 ft upstream from bridge on U.S. Highway 299, 1.0 mi downstream from Warren Creek, and 2.8 mi northeast of Arcata.

DRAINAGE AREA.--485 mi².

PERIOD OF RECORD.--October 1910 to September 1913, August 1950 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WDR CA-72-1: 1965(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 12.79 ft above National Geodetic Vertical Datum of 1929. December 1910 to September 1913, nonrecording gage at site 0.1 mi upstream at different datum. Aug. 15, 1950, to July 23, 1956, water-stage recorder at site 0.6 mi upstream at datum 11.00 ft higher. July 24, 1956, to Apr. 9, 1965, water-stage recorder at datum 5.00 ft higher, at present site.

REMARKS.--Estimated daily discharges: May 14-28. Records fair except those for flows below 150 ft³/s, which are poor. Flow regulated by Ruth Reservoir (station 11480400), 68 mi upstream, beginning in July 1961. Water is diverted 0.5 mi upstream from station for municipal supply and industrial use in Humboldt Bay area.

AVERAGE DISCHARGE (adjusted for diversions).--40 years, 1,512 ft³/s, 1,095,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,000 ft³/s, Dec. 22, 1964, gage height, 30.7 ft, present datum, from high-water profile and flood routing study; minimum daily, 0.10 ft³/s, Aug. 29, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,000 ft³/s, Feb. 2, gage height, 10.69 ft; minimum daily, 13 ft³/s, Aug. 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	417	626	396	4000	2010	484	1040	371	83	27	31	20
2	348	446	327	4550	6480	459	960	417	70	27	31	20
3	300	339	279	5440	6100	1980	892	310	44	29	31	21
4	209	290	231	4920	4010	1700	832	262	37	32	29	22
5	180	248	1620	2910	2800	5900	693	230	33	35	26	23
6	128	224	2470	1890	2070	5090	539	206	35	34	27	24
7	67	299	1170	1380	1530	3270	486	184	36	32	25	24
8	64	495	788	1110	1210	2460	432	156	38	30	24	24
9	51	362	595	1100	993	2040	383	145	40	32	25	27
10	46	355	475	960	864	1690	472	138	38	30	26	28
11	48	318	396	834	1170	1770	603	132	35	30	26	26
12	50	269	339	982	943	4320	473	131	29	29	24	25
13	48	216	348	1390	3400	9290	431	123	31	30	26	27
14	48	177	523	1130	5260	8760	387	119	28	28	25	26
15	54	148	443	966	5000	6900	323	113	28	24	27	25
16	65	125	366	819	4550	4870	309	110	29	23	28	25
17	92	106	314	714	3280	3880	297	105	27	28	28	25
18	135	122	313	627	2510	4550	321	102	25	38	28	26
19	120	204	392	545	1960	4520	302	97	23	43	29	24
20	117	379	577	477	1570	3650	286	93	23	40	27	24
21	110	2860	508	421	1340	2870	274	89	30	39	26	23
22	99	3580	684	385	1130	2430	260	86	46	38	24	25
23	105	2330	1450	591	988	2450	249	82	41	38	21	22
24	104	951	1050	1300	875	2310	239	79	39	32	18	22
25	109	1260	791	2160	754	2070	229	76	42	29	15	23
26	144	598	911	2200	659	1820	229	73	57	27	13	23
27	329	437	830	2050	581	1630	226	70	53	38	17	25
28	369	406	650	4980	527	1520	221	68	53	39	18	24
29	369	634	648	3060	---	1380	211	65	37	38	19	23
30	1170	507	743	2480	---	1230	219	59	30	29	20	23
31	948	---	876	2130	---	1110	---	73	---	27	17	---
TOTAL	6443	19311	21503	58501	64564	98403	12818	4364	1160	995	751	719
MEAN	208	644	694	1887	2306	3174	427	141	38.7	32.1	24.2	24.0
MAX	1170	3580	2470	5440	6480	9290	1040	417	83	43	31	28
MIN	46	106	231	385	527	459	211	59	23	23	13	20
AC-FT	12780	38300	42650	116000	128100	195200	25420	8660	2300	1970	1490	1430
a	5020	4690	4670	4020	4300	4630	4350	4970	4800	5250	5350	5020
CAL YR 1986	TOTAL	564456	MEAN	1546	MAX	36600	MIN	28	AC-FT	1120000		
WTR YR 1987	TOTAL	289532	MEAN	793	MAX	9290	MIN	13	AC-FT	574300		

a Diversion, in acre-feet, for municipal supply and industrial use; provided by Humboldt Bay Municipal Water District.

LITTLE RIVER BASIN

11481200 LITTLE RIVER NEAR TRINIDAD, CA

LOCATION.--Lat 41°00'40", long 124°04'50", in NE 1/4 sec.8, T.7 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, on right bank 0.5 mi upstream from Coon Creek, 4.7 mi southeast of Trinidad, and 9.1 mi north of Arcata.

DRAINAGE AREA.--40.5 mi².

PERIOD OF RECORD.--October 1955 to current year. Prior to October 1971, published as "at Crannell."

REVISED RECORDS.--WSP 2129: 1956-60. WDR CA-78-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 17.62 ft above National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--32 years, 144 ft³/s, 104,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,830 ft³/s, Mar. 18, 1975, gage height, 14.19 ft, from rating curve extended above 3,100 ft³/s on basis of slope-area measurement at gage height 14.08 ft; minimum daily, 2.8 ft³/s, Oct. 20-22, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 17, 18, 1953, reached a stage of 15.7 ft, observed by an employee of Hammond Lumber Co.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 1	1115	*1,380	*5.06				

Minimum daily, 3.3 ft³/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	21	38	61	734	223	65	74	53	20	9.4	7.3	3.5
2	18	28	50	399	731	64	70	43	16	9.6	6.5	3.7
3	16	22	43	654	457	109	68	35	15	10	6.1	3.7
4	15	19	39	555	299	80	64	31	14	10	5.7	3.9
5	14	17	411	326	225	364	60	28	14	10	5.8	4.2
6	12	16	249	219	177	297	57	27	15	9.7	5.1	4.2
7	11	45	129	159	145	183	54	25	14	8.7	5.4	4.6
8	11	47	89	126	124	154	53	23	14	8.5	5.7	4.2
9	11	33	71	119	110	194	50	22	14	8.0	5.7	4.2
10	11	33	59	97	102	150	61	22	14	8.0	5.7	4.2
11	11	29	52	87	198	153	68	21	14	8.0	5.7	4.1
12	11	25	46	186	160	551	53	20	13	8.0	5.7	4.2
13	11	21	68	223	477	536	49	20	13	7.9	5.5	4.2
14	11	21	73	164	365	717	47	19	13	7.4	5.1	4.2
15	11	18	60	129	339	504	44	18	13	7.4	5.1	4.2
16	11	17	52	106	293	325	42	18	13	7.3	5.1	4.4
17	20	16	48	90	228	275	41	18	12	6.8	4.7	4.0
18	21	18	53	76	182	366	47	17	12	11	4.6	3.9
19	16	37	83	71	152	401	42	17	12	17	4.6	3.7
20	14	108	94	65	129	307	40	17	12	13	4.6	3.7
21	14	250	72	59	130	244	40	17	17	11	4.6	3.7
22	13	188	217	58	112	196	37	16	15	11	4.9	3.7
23	13	123	244	130	110	206	35	16	12	10	5.1	3.3
24	13	85	143	308	97	168	34	16	12	8.8	4.8	3.4
25	13	95	106	325	86	144	34	16	11	8.7	4.9	3.7
26	16	65	114	328	78	126	32	17	10	8.5	4.8	3.7
27	38	51	97	364	72	111	30	17	9.9	7.9	4.2	3.7
28	25	92	82	800	72	101	30	16	9.4	7.4	4.2	3.6
29	94	123	81	391	---	92	28	16	9.4	7.4	4.2	3.7
30	99	79	74	348	---	85	28	15	9.4	7.4	4.2	3.3
31	57	---	257	270	---	80	---	23	---	7.4	4.1	---
TOTAL	672	1759	3317	7966	5873	7348	1412	679	392.1	281.2	159.7	116.8
MEAN	21.7	58.6	107	257	210	237	47.1	21.9	13.1	9.07	5.15	3.89
MAX	99	250	411	800	731	717	74	53	20	17	7.3	4.6
MIN	11	16	39	58	72	64	28	15	9.4	6.8	4.1	3.3
AC-FT	1330	3490	6580	15800	11650	14570	2800	1350	778	558	317	232

CAL YR 1986	TOTAL	53817.6	MEAN	147	MAX	2840	MIN	4.6	AC-FT	106700
WTR YR 1987	TOTAL	29975.8	MEAN	82.1	MAX	800	MIN	3.3	AC-FT	59460

REDWOOD CREEK BASIN

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA

LOCATION.--Lat 40°54'22", long 123°48'51", in SE 1/4 NE 1/4 sec.15, T.6 N., R.3 E., Humboldt County, Hydrologic Unit 18010102, on right bank 400 ft upstream from Lupton Creek and 9.1 mi east of town of Blue Lake.

DRAINAGE AREA.--67.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1953 to September 1958, October 1972 to current year.

REVISED RECORDS.--WDR CA-78-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 850 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair except those for period Feb. 2 to Apr. 28, which are poor. No regulation or diversion above station.

AVERAGE DISCHARGE.--20 years, 257 ft³/s, 186,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft³/s, Mar. 18, 1975, gage height, 13.70 ft, from rating curve extended above 6,400 ft³/s; minimum daily, 2.0 ft³/s several days during September 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft³/s (revised) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	1430	*2,020	*5.84				

Minimum daily, 2.0 ft³/s several 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	21	26	90	740	315	155	276	151	39	11	8.3	2.3
2	20	21	79	500	1100	150	264	125	34	11	7.5	2.4
3	18	18	71	763	642	386	259	103	30	11	6.9	2.4
4	16	16	70	567	483	283	243	93	29	12	6.7	2.5
5	16	14	345	397	395	878	226	83	29	12	6.5	2.5
6	15	13	270	300	348	459	214	73	28	12	6.2	2.5
7	14	19	181	248	302	345	201	68	27	12	6.1	2.5
8	14	26	141	219	274	308	188	65	26	11	5.8	2.5
9	13	20	119	217	261	279	180	60	25	11	5.8	2.5
10	13	20	102	194	257	267	192	57	25	11	5.8	2.3
11	12	18	89	181	332	294	207	54	24	10	5.5	2.2
12	12	17	80	214	305	571	174	52	23	9.7	5.2	2.2
13	12	15	135	229	651	601	160	51	21	8.6	5.1	2.2
14	12	14	152	211	589	614	148	49	20	8.0	4.9	2.2
15	12	13	117	199	691	524	140	48	20	8.0	4.8	2.2
16	12	13	99	179	573	461	131	47	21	8.0	4.8	2.2
17	12	13	88	167	490	487	128	45	22	8.3	4.6	2.0
18	14	14	90	157	454	538	133	44	21	10	4.5	2.0
19	13	27	99	146	412	508	121	42	20	13	4.5	2.0
20	13	47	102	136	382	472	111	41	19	12	4.4	2.0
21	12	247	87	128	370	448	104	40	21	11	4.2	2.0
22	12	442	179	123	345	407	99	39	22	11	4.2	2.0
23	12	227	247	138	283	444	93	38	20	12	4.1	2.0
24	12	172	195	310	233	407	88	38	18	12	3.9	2.0
25	12	171	159	325	216	392	83	39	17	12	3.9	2.0
26	13	123	199	304	196	378	78	40	15	11	3.4	2.0
27	24	98	166	345	181	358	74	39	14	11	3.0	2.0
28	18	119	144	482	166	333	70	39	14	10	3.0	2.0
29	24	137	179	348	---	314	68	37	14	9.5	3.1	2.0
30	53	105	168	336	---	300	82	35	12	9.4	2.7	2.0
31	36	---	215	320	---	288	---	42	---	9.0	2.7	---
TOTAL	512	2225	4457	9123	11246	12649	4535	1777	670	327.5	152.1	65.6
MEAN	16.5	74.2	144	294	402	408	151	57.3	22.3	10.6	4.91	2.19
MAX	53	442	345	763	1100	878	276	151	39	13	8.3	2.5
MIN	12	13	70	123	166	150	68	35	12	8.0	2.7	2.0
AC-FT	1020	4410	8840	18100	22310	25090	9000	3520	1330	650	302	130

CAL YR 1986	TOTAL	87552.0	MEAN 240	MAX 5050	MIN 3.8	AC-FT 173700
WTR YR 1987	TOTAL	47739.2	MEAN 131	MAX 1100	MIN 2.0	AC-FT 94690

REDWOOD CREEK BASIN

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

CHEMICAL DATA: Water years 1974-75.

WATER TEMPERATURE: Water years 1973 to current year.

SEDIMENT DATA: Water years 1973 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1972 to September 1981, October 1981 to current year (storm season only).

SUSPENDED-SEDIMENT DISCHARGE: October 1972 to September 1981, October 1981 to current year (storm season only).

REMARKS.--Sediment samples were collected on most days where a water temperature is published.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 33.5 °C, Aug. 2, 1977; minimum recorded, 0.5 °C, Jan. 9, 1977.

SEDIMENT CONCENTRATION: Maximum daily mean, 11,200 mg/L, Mar. 18, 1975; minimum daily mean, 0 mg/L, on several days in 1976, 1980, and 1983-85.

SEDIMENT LOAD: Maximum daily, 276,000 tons, Mar. 18, 1975; minimum daily, 0 ton, several days in 1976, 1980, and 1983-85.

EXTREMES FOR CURRENT YEAR (storm season only).--

SEDIMENT CONCENTRATION: Maximum daily mean, 787 mg/L, Mar. 5; minimum daily mean, 1 mg/L, many days during the year.

SEDIMENT LOAD: Maximum daily, 2,530 tons, Feb. 2; minimum daily, 0.03 ton, Oct. 14-15, 22-25.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR
1	---	---	---	---	---	8.5	---
2	---	---	---	7.0	9.0	9.5	10.5
3	---	---	---	7.5	---	9.0	9.0
4	14.5	---	6.5	7.5	---	9.5	11.0
5	---	---	7.5	6.5	---	9.0	---
6	---	---	---	6.5	9.0	8.0	10.5
7	19.0	---	---	4.5	9.0	7.0	---
8	---	---	---	---	8.5	9.0	13.5
9	---	10.0	---	---	9.0	10.0	13.5
10	19.0	---	---	---	10.0	8.0	11.0
11	---	---	---	---	---	---	11.0
12	11.0	7.5	8.0	7.0	10.0	9.5	---
13	---	---	8.5	5.0	8.5	8.5	14.0
14	---	---	7.0	6.0	7.5	7.5	---
15	---	10.5	6.0	---	7.5	8.0	14.0
16	10.0	---	6.0	---	9.0	9.5	15.0
17	---	---	6.0	3.0	8.5	8.5	12.0
18	---	8.0	7.5	---	7.5	6.5	10.5
19	13.0	---	7.0	---	7.5	---	12.0
20	---	10.0	---	---	6.5	7.0	14.0
21	---	10.0	---	---	---	8.0	16.0
22	---	---	7.0	5.5	6.0	---	16.5
23	---	---	7.0	5.0	7.0	8.5	16.0
24	---	---	---	6.5	6.0	9.5	15.5
25	---	---	---	---	6.0	10.0	---
26	---	---	7.5	8.0	---	10.0	---
27	---	---	6.5	8.0	7.0	---	17.0
28	---	---	7.0	6.0	7.5	---	---
29	---	---	7.5	7.0	---	12.0	14.5
30	---	---	7.0	7.5	---	12.5	13.0
31	---	---	7.0	---	---	---	---

REDWOOD CREEK BASIN

11481500 REDWOOD CREEK NEAR BLUE LAKE, 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	21	4	.23	26	2	.14	90	4	.97
2	20	4	.22	21	2	.11	79	3	.64
3	18	3	.15	18	2	.10	71	2	.38
4	16	3	.13	16	1	.04	70	2	.38
5	16	3	.13	14	1	.04	345	150	187
6	15	3	.12	13	1	.04	270	88	64
7	14	3	.11	19	7	.36	181	50	24
8	14	2	.08	26	6	.42	141	32	12
9	13	1	.04	20	2	.11	119	21	6.7
10	13	1	.04	20	2	.11	102	21	5.8
11	12	2	.06	18	1	.05	89	15	3.6
12	12	3	.10	17	1	.05	80	8	1.7
13	12	2	.06	15	1	.04	135	5	1.8
14	12	1	.03	14	1	.04	152	13	4.8
15	12	1	.03	13	1	.04	117	2	.63
16	12	2	.06	13	1	.04	99	2	.53
17	12	2	.06	13	1	.04	88	1	.24
18	14	2	.08	14	2	.08	90	1	.24
19	13	2	.07	27	2	.15	99	2	.53
20	13	2	.07	47	14	6.8	102	1	.28
21	12	2	.06	247	85	57	87	1	.23
22	12	1	.03	442	178	283	179	33	19
23	12	1	.03	227	45	28	247	32	22
24	12	1	.03	172	24	11	195	10	5.3
25	12	1	.03	171	21	9.7	159	7	3.0
26	13	1	.04	123	10	3.3	199	15	8.3
27	24	1	.06	98	6	1.6	166	6	2.7
28	18	1	.05	119	10	3.2	144	3	1.2
29	24	10	.65	137	8	3.0	179	6	2.9
30	53	6	.86	105	5	1.4	168	3	1.4
31	36	2	.19	---	---	---	215	24	14
TOTAL	512	---	3.90	2225	---	410.00	4457	---	396.25
JANUARY			FEBRUARY			MARCH			
1	740	287	775	315	18	15	155	4	1.7
2	500	143	193	1100	662	2530	150	3	1.2
3	763	280	626	642	280	485	386	132	160
4	567	130	199	483	115	150	283	53	52
5	397	44	47	395	79	84	878	787	1990
6	300	23	19	348	40	38	459	120	149
7	248	17	11	302	17	14	345	50	47
8	219	15	8.9	274	9	6.7	308	41	34
9	217	13	7.6	261	7	4.9	279	20	15
10	194	10	5.2	257	6	4.2	267	24	17
11	181	6	2.9	332	26	25	294	24	21
12	214	14	8.1	305	20	20	571	251	448
13	229	12	7.4	651	272	502	601	210	341
14	211	6	3.4	589	100	159	614	220	365
15	199	6	3.2	691	113	215	524	122	173
16	179	5	2.4	573	45	70	461	61	76
17	167	4	1.8	490	26	34	487	76	109
18	157	4	1.7	454	14	17	538	95	138
19	146	4	1.6	412	10	11	508	54	74
20	136	3	1.1	382	7	7.2	472	32	41
21	128	3	1.0	370	6	6.0	448	25	30
22	123	2	.66	345	5	4.7	407	18	20
23	138	3	1.1	283	6	4.6	444	22	26
24	310	208	197	233	5	3.1	407	16	18
25	325	110	104	216	4	2.3	392	13	14
26	304	40	33	196	4	2.1	378	6	6.1
27	345	165	212	181	4	2.0	358	5	4.8
28	482	90	117	166	4	1.8	333	4	3.6
29	348	20	19	---	---	---	314	4	3.4
30	336	25	23	---	---	---	300	7	5.7
31	320	22	19	---	---	---	288	5	3.9
TOTAL	9123	---	2652.06	11246	---	4418.6	12649	---	4388.4

REDWOOD CREEK BASIN

11481500 REDWOOD CREEK NEAR BLUE LAKE, 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)
APRIL			
1	276	6	4.5
2	264	7	5.0
3	259	6	4.2
4	243	6	3.9
5	226	3	1.8
6	214	1	.58
7	201	2	1.1
8	188	3	1.5
9	180	3	1.5
10	192	5	2.6
11	207	5	2.8
12	174	3	1.4
13	160	3	1.3
14	148	3	1.2
15	140	3	1.1
16	131	2	.71
17	128	2	.69
18	133	3	1.1
19	121	2	.65
20	111	1	.30
21	104	1	.28
22	99	1	.27
23	93	1	.25
24	88	1	.24
25	83	1	.22
26	78	1	.21
27	74	2	.40
28	70	1	.19
29	68	1	.18
30	82	3	.66
31	---	---	---
TOTAL	4535	---	40.83
PERIOD	44747		12310.04

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO APRIL 1987

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1986	512.00	3.90	0	4
NOVEMBER ...	2225.00	410.00	49	459
DECEMBER ...	4457.00	396.25	24	420
JANUARY 1987	9123.00	2652.06	738	3390
FEBRUARY ...	11246.00	4418.60	1420	5840
MARCH	12649.00	4388.40	1410	5800
APRIL	4535.00	40.83	13	54
PERIOD	44747.00	12310.04	3654	15967

REDWOOD CREEK BASIN

11481500 REDWOOD CREEK NEAR BLUE LAKE, 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. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
DEC								
05...	1015	254	7.5	174	119	--	--	--
JAN								
03...	0930	1010	7.5	328	894	--	--	--
03...	1615	758	7.5	351	718	--	--	--
FEB								
02...	1325	1750	9.0	1600	7560	15	19	26
MAR								
05...	1130	1010	8.5	1070	2920	--	--	--
05...	1453	948	9.0	873	2230	--	--	--
12...	1500	643	9.5	399	693	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
DEC								
05...	--	--	89	93	96	98	100	--
JAN								
03...	--	--	58	66	75	89	99	100
03...	--	--	44	50	58	70	86	100
FEB								
02...	35	45	54	65	77	90	98	100
MAR								
05...	--	--	54	62	73	86	97	100
05...	--	--	53	61	68	78	89	97
12...	--	--	65	76	88	97	100	--

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, 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)	STREAM WIDTH (FT)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
FEB									
02...	1245	9.0	19	1700	83.0	413	1	1	6
23...	1145	6.0	21	257	59.5	15	--	--	--
MAR									
05...	1410	9.0	15	958	76.0	1140	--	--	2

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
FEB								
02...	14	21	28	37	53	77	97	100
23...	1	4	20	76	96	100	--	--
MAR								
05...	8	24	49	65	75	85	96	100

REDWOOD CREEK BASIN

11482110 LACKS CREEK NEAR ORICK, CA

LOCATION.--Lat 41°03'39", long 123°51'57", unsurveyed, Humboldt County, Hydrologic Unit 18010102, on right bank at private road bridge, 0.3 mi upstream from mouth, and 19 mi southeast of Orick.

DRAINAGE AREA.--16.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 480 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharge: Oct. 17-21, Jan. 1-14, 18, 20, Jan. 28 to Feb. 2. Records fair. No regulation or diversion above gage.

AVERAGE DISCHARGE.--7 years, 74.3 ft³/s, 53,830 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,070 ft³/s, Feb. 17, 1986, gage height, 27.03 ft; minimum daily, 0.16 ft³/s, Sept. 1-4, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 880 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	Unknown	*1,000	Unknown				

Minimum daily, 0.16 ft³/s, Sept. 1-4.

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	16	24	39	430	110	26	33	29	5.5	1.1	.70	.16
2	13	18	34	240	750	25	30	19	4.3	1.1	.65	.16
3	10	15	32	375	361	33	29	14	3.7	1.1	.58	.16
4	8.0	13	30	270	191	29	27	12	3.5	1.2	.54	.16
5	7.1	11	166	175	114	179	24	11	3.5	1.3	.49	.25
6	6.3	9.5	107	130	86	126	23	10	3.4	1.3	.45	.30
7	5.6	13	72	100	69	88	21	9.3	3.1	1.1	.44	.33
8	5.1	12	55	80	58	80	20	8.8	3.0	1.1	.41	.33
9	4.7	11	45	62	50	73	19	7.9	2.9	1.0	.40	.33
10	4.4	11	38	52	45	62	21	7.4	2.8	1.0	.40	.33
11	4.0	9.6	32	45	54	116	21	7.0	2.7	.96	.40	.33
12	3.6	8.9	28	58	94	329	18	6.8	2.6	.89	.40	.33
13	3.4	8.2	56	92	369	351	17	6.8	2.4	.79	.40	.33
14	3.2	8.0	53	65	323	404	18	6.4	2.1	.73	.40	.33
15	3.0	7.4	43	60	308	312	15	6.1	2.1	.65	.40	.33
16	3.0	7.0	36	50	244	183	14	6.1	2.4	.63	.40	.33
17	11	6.6	32	45	152	144	14	6.0	2.4	.68	.40	.33
18	9.0	7.5	31	40	105	203	15	5.6	2.3	1.4	.37	.32
19	7.2	12	36	36	83	210	14	5.5	2.1	2.1	.35	.30
20	5.7	30	34	33	68	165	13	5.1	2.0	1.7	.33	.27
21	4.4	109	30	30	60	125	12	4.9	3.1	1.4	.33	.27
22	3.5	191	76	29	51	100	12	4.8	2.7	1.3	.33	.25
23	3.3	89	89	41	47	124	11	4.7	2.2	1.3	.33	.24
24	3.3	67	70	255	42	103	11	4.7	1.9	1.2	.33	.22
25	3.2	63	59	186	37	89	11	4.9	1.7	1.1	.33	.24
26	5.3	47	62	135	33	76	10	5.1	1.5	1.1	.32	.25
27	14	40	54	180	31	63	9.7	4.9	1.3	.96	.29	.25
28	8.4	38	46	240	28	54	9.4	4.8	1.3	.95	.27	.25
29	33	39	50	170	---	47	8.9	4.6	1.2	.85	.26	.23
30	54	44	45	130	---	41	11	4.3	1.1	.84	.24	.19
31	37	---	64	120	---	37	---	7.1	---	.79	.20	---
TOTAL	302.7	969.7	1644	3954	3963	3997	510.0	244.6	76.8	33.62	12.14	8.10
MEAN	9.76	32.3	53.0	128	142	129	17.0	7.89	2.56	1.08	.39	.27
MAX	54	191	166	430	750	404	33	29	5.5	2.1	.70	.33
MIN	3.0	6.6	28	29	28	25	8.9	4.3	1.1	.63	.20	.16
AC-FT	600	1920	3260	7840	7860	7930	1010	485	152	67	24	16

CAL YR 1986	TOTAL	26526.93	MEAN	72.7	MAX	1620	MIN	.27	AC-FT	52620
WTR YR 1987	TOTAL	15715.66	MEAN	43.1	MAX	750	MIN	.16	AC-FT	31170

REDWOOD CREEK BASIN

11482110 LACKS CREEK NEAR ORICK, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975-76, 1978 to current year.

CHEMICAL DATA: Water years 1975-76, 1978.

SEDIMENT DATA: Water years 1975, 1978 to current year.

REMARKS.--Prior to October 1975, published in U.S. Geological Survey Open-File Report 76-678, "Redwood National Park Studies." Zero bedload discharge observed for flows less than 45 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	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT											
16...	1330	3.2	11.0	1	0.01	--	--	--	--	--	--
DEC											
04...	1245	27	8.0	2	0.15	--	--	--	--	--	--
05...	1150	321	7.5	169	146	60	--	--	--	--	--
JAN											
02...	1615	65	8.0	7	1.2	--	--	--	--	--	--
FEB											
02...	1300	895	9.5	530	1280	66	74	81	88	97	100
24...	1145	45	5.0	3	0.36	--	--	--	--	--	--
MAR											
31...	1130	39	10.5	1	0.11	--	--	--	--	--	--
APR											
29...	1250	9.0	13.5	1	0.02	--	--	--	--	--	--

REDWOOD CREEK BASIN

11482120 REDWOOD CREEK ABOVE PANTHER CREEK, NEAR ORICK, CA

LOCATION.--Lat 41°05'21", long 123°54'23", unsurveyed, Humboldt County, Hydrologic Unit 18010102, on right bank 100 ft upstream from Panther Creek, 2.0 mi upstream from south boundary of Redwood National Park, 16 mi southeast of Orick, and 28 mi upstream from mouth.

DRAINAGE AREA.--150 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1980 to current year.

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

REMARKS.--Estimated daily discharge; June 10. Records fair.

AVERAGE DISCHARGE.--7 years, 611 ft³/s, 442,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,700 ft³/s, Feb. 17, 1986, gage height, 17.49 ft; minimum daily, 4.9 ft³/s, Sept. 4-6, 26-30, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	1415	*4,880	*9.40				

Minimum daily, 4.9 ft³/s, Sept. 4-6, 26-30.

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	81	111	229	1970	1090	361	511	266	74	23	15	5.2
2	70	88	201	1780	3440	346	467	229	65	21	15	5.2
3	62	76	177	2400	2540	708	451	181	59	20	14	5.0
4	56	68	163	2050	1700	575	420	162	55	21	13	4.9
5	51	62	898	1480	1290	2010	374	147	52	22	11	4.9
6	47	57	825	1110	1060	1480	352	133	52	22	9.2	4.9
7	42	68	479	878	891	1000	329	120	52	22	9.2	5.2
8	41	83	349	716	760	860	307	113	50	21	9.0	5.9
9	39	71	286	671	671	784	291	105	48	21	8.7	6.2
10	36	71	244	572	616	709	301	99	44	20	8.5	6.2
11	34	66	213	510	711	826	353	93	41	20	8.2	6.2
12	33	62	190	595	733	1870	287	91	43	18	7.8	6.2
13	31	59	303	665	1900	2250	263	89	42	17	7.8	6.2
14	30	56	371	574	1860	2510	243	85	39	17	7.8	6.4
15	29	54	277	521	2000	2190	229	84	39	16	7.8	6.6
16	29	52	237	460	1830	1720	216	84	39	15	7.8	6.6
17	43	51	212	414	1440	1530	208	82	40	15	7.8	6.6
18	44	52	203	382	1150	1890	219	79	40	17	7.8	6.6
19	38	84	222	349	962	1850	202	77	37	25	7.8	6.6
20	34	120	231	324	828	1630	187	74	36	25	7.8	6.4
21	32	681	199	304	753	1390	178	72	38	21	7.7	5.9
22	31	1090	401	296	669	1180	170	70	41	21	7.4	5.7
23	30	603	636	359	631	1310	164	69	39	20	7.4	5.2
24	29	394	466	1190	580	1130	156	69	35	20	7.4	5.2
25	29	407	377	1200	518	975	150	69	32	19	7.3	5.0
26	33	293	444	1080	463	873	141	70	28	19	7.0	4.9
27	73	237	384	1150	422	783	133	70	26	17	7.0	4.9
28	63	283	329	2180	382	706	127	70	25	17	5.5	4.9
29	109	355	355	1520	---	636	124	66	20	17	5.2	4.9
30	219	267	353	1300	---	586	132	66	22	17	5.2	4.9
31	162	---	490	1140	---	547	---	76	---	15	5.2	---
TOTAL	1680	6021	10744	30140	31890	37215	7685	3160	1253	601	263.3	169.5
MEAN	54.2	201	347	972	1139	1200	256	102	41.8	19.4	8.49	5.65
MAX	219	1090	898	2400	3440	2510	511	266	74	25	15	6.6
MIN	29	51	163	296	382	346	124	66	20	15	5.2	4.9
AC-FT	3330	11940	21310	59780	63250	73820	15240	6270	2490	1190	522	336
CAL YR 1986	TOTAL	214590.7	MEAN	588	MAX	13100	MIN	5.8	AC-FT	425600		
WTR YR 1987	TOTAL	130821.8	MEAN	358	MAX	3440	MIN	4.9	AC-FT	259500		

11482120 REDWOOD CREEK ABOVE PANTHER CREEK, NEAR ORICK, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-76, 1980 to current year.

CHEMICAL DATA: Water years 1974-75.

SEDIMENT DATA: Water years 1974-76, 1980 to current year.

REMARKS.--Prior to October 1975, published in U.S. Geological Survey Open-File Report 76-678, "Redwood National Park Studies." Zero-bedload discharge observed for flows less than 424 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- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT								
13...	1015	32	13.0	4	0.35	--	--	--
DEC								
05...	1445	1380	9.0	446	1660	--	--	--
JAN								
03...	1200	3000	9.0	1070	8670	--	--	--
19...	1430	348	5.0	13	12	--	--	--
28...	1015	2300	7.0	288	1790	--	--	--
28...	1315	2200	7.5	235	1400	--	--	--
FEB								
02...	1245	4690	9.0	1620	20500	14	19	28
27...	1245	424	7.5	8	9.2	--	--	--
MAR								
05...	1015	2290	9.5	958	5920	24	32	42
05...	1315	2530	9.5	1040	7100	20	28	37
13...	1030	2220	9.0	299	1790	--	--	--
13...	1345	2230	--	248	1490	--	--	--
27...	1215	789	9.5	20	43	--	--	--
MAY								
04...	1440	162	17.0	1	0.44	--	--	--

[illegible]

REDWOOD CREEK BASIN

11482120 REDWOOD CREEK ABOVE PANTHER CREEK, NEAR ORICK, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM
SEP 23...	1400	22	5.2	0	1	3	10	18
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	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
SEP 23...		26	39	54	67	85	99	100

REDWOOD CREEK BASIN

11482125 PANTHER CREEK NEAR ORICK, CA

LOCATION.--Lat 41°05'19", long 123°54'26", unsurveyed, Humboldt County, Hydrologic Unit 18010102, on right bank 300 ft upstream from mouth, 16 mi southeast of Orick.

DRAINAGE AREA.--6.07 mi².

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Estimated daily discharge: Jan. 7 to 21 and Aug. 22 to Sept. 30. Records poor. No regulation or diversion above station.

AVERAGE DISCHARGE.--8 years, 27.8 ft³/s, 20,140 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 839 ft³/s, Feb. 17, 1986, gage height, 4.28 ft; minimum daily, 0.25 ft³/s, Sept. 1-4, 1987.

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)
Feb. 2	1000	*109	*2.30				

Minimum daily, 0.25 ft³/s, Sept. 1-4.

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	4.6	7.2	14	52	52	26	27	13	4.9	2.3	1.5	.25
2	4.2	6.8	14	46	87	26	26	9.3	4.3	2.3	1.5	.25
3	3.4	6.1	13	69	75	28	25	8.3	3.7	2.3	1.3	.25
4	3.0	6.1	13	69	66	26	23	7.7	3.5	2.3	1.3	.25
5	2.6	6.0	28	59	59	46	22	7.2	3.5	2.3	1.3	.29
6	2.3	6.0	24	49	55	42	21	6.8	3.7	2.3	1.1	.35
7	2.3	8.7	21	42	49	37	21	6.8	3.5	2.1	1.1	.43
8	2.3	7.3	19	37	45	35	19	6.5	3.2	2.0	.94	.43
9	2.0	7.7	18	31	42	34	17	6.1	3.2	2.0	.89	.43
10	3.8	7.8	17	28	40	30	19	5.6	3.1	2.1	.75	.43
11	4.0	7.0	16	25	40	31	19	5.5	2.6	2.0	.75	.43
12	3.2	7.2	16	39	40	54	16	5.8	2.6	2.0	.75	.43
13	2.9	6.6	19	39	63	64	14	5.2	2.6	1.8	.75	.43
14	2.6	6.9	18	31	53	76	14	4.6	2.7	1.5	.75	.43
15	2.6	7.0	16	28	55	70	13	4.5	2.9	1.5	.75	.43
16	2.5	6.6	16	26	55	65	12	4.5	2.9	1.6	.73	.43
17	5.7	6.3	15	24	51	63	13	4.8	2.9	1.8	.65	.43
18	3.9	8.3	15	23	49	65	13	4.7	2.8	3.7	.65	.41
19	3.8	9.5	17	22	46	64	12	4.4	2.6	3.6	.63	.39
20	4.0	14	16	21	46	59	12	4.1	2.6	2.6	.55	.37
21	5.2	22	15	21	45	56	11	4.1	3.5	2.4	.55	.34
22	5.0	22	24	23	41	52	10	4.1	2.8	2.3	.55	.33
23	4.8	18	23	27	38	51	9.8	4.1	2.6	2.0	.54	.32
24	4.7	18	23	42	34	47	9.1	4.1	2.5	1.7	.53	.31
25	4.7	17	21	44	31	45	8.6	4.1	2.3	1.7	.54	.35
26	6.2	15	23	44	28	42	8.1	4.2	2.3	1.7	.45	.37
27	6.9	14	24	53	27	38	8.1	4.5	2.3	1.7	.40	.37
28	8.9	17	23	73	26	35	7.6	4.4	2.6	1.8	.36	.37
29	16	16	25	61	---	33	7.2	4.1	2.3	1.7	.32	.34
30	14	15	23	60	---	31	8.1	4.4	2.3	1.7	.29	.31
31	11	---	33	57	---	29	---	5.8	---	1.5	.27	---
TOTAL	153.1	323.1	602	1265	1338	1400	445.6	173.3	89.3	64.3	23.44	10.95
MEAN	4.94	10.8	19.4	40.8	47.8	45.2	14.9	5.59	2.98	2.07	.76	.37
MAX	16	22	33	73	87	76	27	13	4.9	3.7	1.5	.43
MIN	2.0	6.0	13	21	26	26	7.2	4.1	2.3	1.5	.27	.25
AC-FT	304	641	1190	2510	2650	2780	884	344	177	128	46	22

CAL YR 1986 TOTAL 10055.23 MEAN 27.5 MAX 420 MIN .65 AC-FT 19940
WTR YR 1987 TOTAL 5888.09 MEAN 16.1 MAX 87 MIN .25 AC-FT 11680

REDWOOD CREEK BASIN

11482125 PANTHER CREEK NEAR ORICK, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979 to current year.

WATER TEMPERATURE: Water year 1980.

SEDIMENT DATA: Water years 1979 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: December 1979 to September 1980.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 18.0 °C, July 29, 1980; minimum recorded, 5.0 °C, Jan. 29, 30, 1980.

REMARKS.--Zero-bedload discharge observed for flows less than 8 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	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 13...	1230	2.8	10.5	1	0.01	--	--	--	--	--	--
DEC 06...	1115	23	9.0	7	0.43	--	--	--	--	--	--
JAN 15...	1540	28	7.0	6	0.45	--	--	--	--	--	--
28...	1245	76	8.5	80	16	57	61	65	71	76	100
FEB 26...	1100	28	6.0	7	0.53	--	--	--	--	--	--
MAR 25...	0945	46	8.0	11	1.4	--	--	--	--	--	--
MAY 04...	1150	7.9	10.0	1	0.02	--	--	--	--	--	--

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

DATE	TIME	TEMPER- ATURE WATER (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	STREAM WIDTH (FT)	SEDI- MENT DIS- CHARGE, BEDLOAD	SED. BEDLOAD
						(TONS/ DAY)	% FINER THAN .062 MM
JAN 15...	1540	7.0	9	28	18.0	0.29	--
FEB 26...	1120	6.0	19	28	20.0	0.05	4
MAR 25...	1010	8.0	19	46	20.0	0.13	2
DATE	SED. BEDLOAD SIEVE DIAM.	SED. BEDLOAD SIEVE DIAM.	SED. BEDLOAD SIEVE DIAM.	SED. BEDLOAD SIEVE DIAM.	SED. BEDLOAD SIEVE DIAM.	SED. BEDLOAD SIEVE DIAM.	SED. BEDLOAD SIEVE DIAM.
	% FINER THAN .125 MM	% FINER THAN .250 MM	% FINER THAN .500 MM	% FINER THAN 1.00 MM	% FINER THAN 2.00 MM	% FINER THAN 4.00 MM	% FINER THAN 8.00 MM
JAN 15...	--	--	--	--	--	--	--
FEB 26...	7	18	48	74	85	97	100
MAR 25...	3	19	49	72	86	94	100

REDWOOD CREEK BASIN

11482125 PANTHER CREEK NEAR ORICK, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM
SEP 23...	1200	8	0.32	0	1	2	7	15

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	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
SEP 23...	25	42	57	66	79	89	100

REDWOOD CREEK BASIN

11482130 COYOTE CREEK NEAR ORICK, CA

LOCATION.--Lat 41°07'03", long 123°54'34", unsurveyed, Humboldt County, Hydrologic Unit 18010102, on left bank 300 ft downstream from small left-bank tributary, 1,900 ft upstream from mouth, and 15 mi southeast of Orick.

DRAINAGE AREA.--7.78 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to September 1982, October 1983 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 450 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 9, 1980, at datum 2.00 ft higher.

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

AVERAGE DISCHARGE.--7 years, 37.6 ft³/s, 27,240 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,900 ft³/s, Dec. 19, 1981, gage height, 5.98 ft; minimum daily, 0.10 ft³/s, Sept. 23-25, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 1	0930	*423	*4.05				

Minimum daily, 0.12 ft³/s, Sept. 24-30.

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	6.3	16	19	231	71	12	13	11	2.4	.56	.34	.14
2	5.3	12	16	115	243	12	13	7.0	2.0	.60	.34	.14
3	4.5	9.6	14	185	117	42	13	5.6	1.8	.60	.31	.15
4	3.9	8.1	14	134	74	26	12	5.0	1.5	.60	.27	.14
5	3.3	7.1	82	82	53	152	11	4.6	1.5	.61	.25	.16
6	3.0	6.2	50	57	40	98	10	4.1	1.4	.59	.24	.18
7	2.7	9.6	32	43	31	61	9.5	3.8	1.2	.56	.25	.19
8	2.5	8.2	24	34	25	56	8.8	3.5	1.2	.54	.23	.19
9	2.3	7.8	20	30	21	55	7.9	3.2	1.2	.49	.21	.21
10	2.1	7.7	17	23	19	42	10	2.9	1.1	.49	.21	.23
11	1.9	6.7	14	20	30	59	9.5	2.8	1.1	.46	.22	.23
12	1.7	6.1	13	40	46	178	8.2	2.7	1.0	.45	.23	.22
13	1.6	5.7	35	40	149	179	7.6	2.6	.97	.42	.23	.20
14	1.4	5.3	27	31	81	203	7.2	2.4	.92	.40	.23	.19
15	1.4	5.0	21	25	115	126	6.6	2.4	.96	.37	.24	.17
16	1.4	4.7	17	22	85	82	6.1	2.4	.98	.35	.23	.15
17	10	4.4	15	19	62	73	6.3	2.3	.98	.38	.23	.15
18	7.1	5.9	15	17	48	93	6.9	2.2	.92	.58	.21	.14
19	4.8	8.4	23	15	38	89	5.9	2.1	.84	.76	.21	.14
20	3.9	30	21	14	30	72	5.6	2.0	.85	.65	.23	.14
21	3.3	61	18	12	29	63	5.2	1.9	1.1	.56	.25	.14
22	3.0	80	76	13	23	51	5.1	1.8	.96	.53	.25	.14
23	2.7	41	65	28	22	68	5.0	1.8	.88	.51	.24	.13
24	2.5	41	45	191	19	50	4.8	1.8	.82	.46	.22	.12
25	2.3	36	35	151	17	40	4.4	2.0	.72	.46	.23	.12
26	3.3	25	32	99	14	33	4.1	2.0	.66	.46	.19	.12
27	6.4	20	25	122	13	26	3.9	2.0	.62	.45	.19	.12
28	4.6	37	21	173	12	22	3.8	1.9	.59	.42	.19	.12
29	26	33	24	99	---	19	3.7	1.9	.56	.40	.19	.12
30	64	23	21	94	---	16	4.4	2.2	.56	.40	.19	.12
31	27	---	61	77	---	14	---	3.2	---	.39	.15	---
TOTAL	216.2	571.5	912	2236	1527	2112	222.5	97.1	32.29	15.50	7.20	4.71
MEAN	6.97	19.1	29.4	72.1	54.5	68.1	7.42	3.13	1.08	.50	.23	.16
MAX	64	80	82	231	243	203	13	11	2.4	.76	.34	.23
MIN	1.4	4.4	13	12	12	12	3.7	1.8	.56	.35	.15	.12
AC-FT	429	1130	1810	4440	3030	4190	441	193	64	31	14	9.3

CAL YR 1986	TOTAL	13377.81	MEAN	36.7	MAX	671	MIN	.35	AC-FT	26530
WTR YR 1987	TOTAL	7954.00	MEAN	21.8	MAX	243	MIN	.12	AC-FT	15780

REDWOOD CREEK BASIN

11482130 COYOTE CREEK NEAR ORICK, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1979-83, October 1984 to current year.

WATER TEMPERATURE: December 1979 to September 1980.

SEDIMENT DATA: November 1979-83, October 1984 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: December 1979 to September 1980.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum recorded, 29.5 °C, July 27, 1980; minimum recorded, 5.5 °C, Dec. 15-16, 1979.

REMARKS.--Prior to October 1975, published in U.S. Geological Survey Open-File Report 76-678, "Redwood National Park Studies." Zero bedload observed for flows less than 14 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	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT											
14...	1230	1.4	11.0	1	0.00	--	--	--	--	--	--
DEC											
05...	1145	146	9.0	154	61	84	87	90	93	96	100
JAN											
03...	1355	237	9.0	199	127	67	--	--	--	--	--
15...	1315	25	6.0	8	0.54	--	--	--	--	--	--
FEB											
02...	1450	237	9.5	160	102	73	80	87	93	100	--
26...	1400	14	7.0	5	0.19	--	--	--	--	--	--
MAR											
10...	1045	41	9.0	9	1.0	--	--	--	--	--	--
25...	1230	41	9.0	8	0.89	--	--	--	--	--	--
MAY											
04...	1020	5.1	13.0	1	0.01	--	--	--	--	--	--

REDWOOD CREEK BASIN

11482468 LITTLE LOST MAN CREEK AT SITE NO. 2, NEAR ORICK, CA

LOCATION.--Lat 41°19'20", long 124°01'10", in NE 1/4 SE 1/4 sec.23, T.11 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, Redwood National Park, on right bank 0.8 mi upstream from mouth, and 3.2 mi northeast of Orick.

DRAINAGE AREA.--3.46 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1974 to September 1982, October 1984 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good above 1.0 ft³/s and fair below. No regulation or diversion above station.

AVERAGE DISCHARGE.--11 years, 10.3 ft³/s, 7,460 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 808 ft³/s, Mar. 18, 1975, gage height, 4.32 ft; minimum daily, 0.10 ft³/s, Dec. 19-26, 28, 1976, Feb. 19, 1977.

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. 3	1315	*76	*2.24				

Minimum daily, 0.13 ft³/s, 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	1.1	2.7	4.2	47	28	5.5	4.1	3.7	1.1	.51	.35	.13
2	.87	1.9	3.6	40	33	5.6	3.8	2.8	.97	.51	.28	.13
3	.76	1.5	3.0	63	33	11	4.1	2.5	.92	.51	.27	.13
4	.69	1.3	2.8	51	26	10	4.0	2.3	.84	.51	.23	.13
5	.63	1.0	8.6	32	20	46	3.7	2.1	.84	.51	.22	.13
6	.57	.87	9.4	20	15	41	3.3	2.0	.84	.51	.22	.13
7	.51	1.8	7.1	13	11	26	3.2	1.8	.84	.51	.22	.13
8	.52	1.5	5.5	11	9.6	21	2.9	1.6	.84	.50	.21	.13
9	.51	1.3	4.5	9.5	8.6	21	2.7	1.5	.84	.46	.19	.13
10	.51	1.5	3.6	7.6	8.0	16	3.3	1.5	.84	.46	.19	.13
11	.51	1.3	3.1	6.6	9.4	14	3.7	1.4	.84	.46	.19	.13
12	.51	1.1	2.6	20	10	34	2.8	1.4	.84	.46	.19	.13
13	.51	.99	4.3	23	40	44	2.6	1.3	.77	.44	.19	.13
14	.47	.98	4.0	18	35	61	2.5	1.3	.70	.44	.19	.13
15	.49	.90	3.5	14	36	56	2.4	1.3	.69	.44	.19	.13
16	.51	.84	3.0	11	30	38	2.2	1.3	.69	.44	.19	.17
17	2.2	.74	2.6	9.1	25	34	2.5	1.3	.69	.44	.19	.19
18	1.3	.78	3.0	8.0	19	50	3.0	1.2	.69	.77	.18	.19
19	.79	1.2	3.9	6.6	15	54	2.6	1.2	.65	.75	.15	.16
20	.66	6.9	4.3	5.7	12	45	2.2	1.1	.64	.54	.15	.16
21	.63	15	3.8	5.0	12	32	2.2	1.1	1.0	.46	.15	.16
22	.63	9.4	10	4.7	10	21	2.2	1.1	.71	.46	.15	.13
23	.57	7.4	14	6.5	9.6	20	2.2	1.1	.63	.46	.15	.13
24	.54	5.7	11	13	8.9	16	2.2	1.1	.63	.46	.15	.13
25	.51	4.5	8.7	31	8.0	13	2.3	1.1	.63	.46	.15	.13
26	.76	3.7	7.8	41	7.2	11	2.1	1.1	.55	.46	.15	.13
27	1.5	3.0	6.5	41	6.2	8.5	1.9	1.1	.57	.44	.15	.13
28	1.0	4.4	5.5	66	5.7	7.3	1.9	1.1	.51	.43	.13	.13
29	5.6	6.0	5.7	45	---	6.4	1.9	1.1	.51	.35	.13	.13
30	7.2	5.0	5.1	41	---	5.7	2.0	1.1	.51	.35	.13	.13
31	4.2	---	11	32	---	4.8	---	1.4	---	.35	.13	---
TOTAL	37.76	95.20	175.7	742.3	491.2	778.8	82.5	47.0	22.32	14.85	5.76	4.15
MEAN	1.22	3.17	5.67	23.9	17.5	25.1	2.75	1.52	.74	.48	.19	.14
MAX	7.2	15	14	66	40	61	4.1	3.7	1.1	.77	.35	.19
MIN	.47	.74	2.6	4.7	5.7	4.8	1.9	1.1	.51	.35	.13	.13
AC-FT	75	189	349	1470	974	1540	164	93	44	29	11	8.2

CAL YR 1986	TOTAL	4375.68	MEAN	12.0	MAX	299	MIN	.31	AC-FT	8680
WTR YR 1987	TOTAL	2497.54	MEAN	6.84	MAX	66	MIN	.13	AC-FT	4950

REDWOOD CREEK BASIN

11482468 LITTLE LOST MAN CREEK AT SITE NO. 2, NEAR ORICK, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-82, October 1984 to current year.

CHEMICAL DATA: Water years 1974-77.

SEDIMENT DATA: Water years 1974-76, 1978-82, October 1984 to current year.

REMARKS.--Prior to October 1975, published in U.S. Geological Survey Open-File Report 76-678, "Redwood National Park Studies." Zero bedload discharge observed for flows less than 8 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- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT					
15...	1215	0.46	10.0	2	0.00
DEC					
01...	1230	4.2	8.0	2	0.02
JAN					
23...	1200	7.1	7.5	2	0.04
FEB					
25...	1245	8.0	6.5	3	0.06
MAR					
09...	1450	21	10.0	3	0.17
24...	1115	16	8.0	3	0.13
APR					
27...	1130	1.9	10.0	2	0.01

REDWOOD CREEK BASIN

11482500 REDWOOD CREEK AT ORICK, CA

LOCATION.--Lat 41°17'58", Long 124°03'00", in NE 1/4 NE 1/4 sec.34, T.11 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, on right bank on U.S. Highway 101, 0.8 mi north of Orick, 300 ft downstream from Prairie Creek, and 3.7 mi upstream from mouth. Prior to April 16, 1987, at site 0.9 mi downstream.

DRAINAGE AREA.--277 mi², revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1911 to September 1913, October 1953 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1315-B: 1912-13.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 5.16 ft above National Geodetic Vertical Datum of 1929. Sept. 10, 1911, to Aug. 9, 1913, nonrecording gage at different datum. October 1953 to April 16, 1987, at site 0.9 mi downstream at same datum. May 7, 1987, to Aug. 3, 1987, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 15-21, Apr. 17 to May 6, May 8-10, June 1, 8, 10, 11, 15-20, 24-27, 30, July 1, 7, 8, 12-15, 18, 28, 29, 31, Aug. 2, 3. Records good except those for periods of no record, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--36 years, 1,066 ft³/s, 772,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,500 ft³/s, Dec. 22, 1964, gage height, 24.0 ft, former site, from outside high-water marks; minimum daily, 3.8 ft³/s, Sept. 30, 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 18, 1953, reached a stage of 23.95 ft, former site, from floodmarks, discharge, 50,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	2015	*5,870	*11.93				

Minimum daily, 3.8 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	151	241	424	2550	1800	689	841	640	115	47	26	6.0
2	129	182	373	2900	3930	668	784	540	109	47	23	5.9
3	114	149	331	3380	3740	1170	757	370	105	45	20	5.3
4	101	128	303	3270	2580	1080	728	300	94	45	18	4.9
5	89	113	876	2350	1980	2630	666	265	94	45	17	4.9
6	81	102	1320	1750	1630	2620	623	229	90	45	15	4.9
7	74	126	871	1340	1410	1770	587	207	90	43	14	4.9
8	69	160	888	1120	1250	1440	555	189	88	41	13	5.3
9	65	143	574	1070	1120	1330	524	180	87	39	12	5.9
10	62	140	488	953	1050	1110	525	168	85	37	12	6.1
11	59	127	427	862	1270	1160	621	159	83	37	12	6.6
12	56	116	385	1070	1140	2610	510	159	80	35	11	6.6
13	53	107	479	1240	2670	3620	465	153	77	33	11	6.6
14	51	101	687	1070	2710	3930	438	150	74	31	11	6.6
15	50	98	540	959	2630	3560	414	150	74	29	11	6.6
16	48	96	458	853	2570	2700	397	147	74	27	10	6.6
17	103	94	408	765	2070	2250	385	137	74	26	9.5	6.6
18	137	120	402	703	1720	2740	390	132	74	30	9.2	6.4
19	95	190	452	651	1470	2990	372	129	76	45	9.2	6.0
20	78	340	503	602	1300	2610	350	118	78	45	9.2	6.0
21	69	800	431	542	1240	2240	325	118	80	39	9.2	6.0
22	63	1170	642	511	1110	1880	310	118	74	39	9.2	6.0
23	60	1000	1070	694	1060	1930	300	118	68	33	9.2	6.0
24	60	681	875	1610	994	1770	285	118	64	32	9.2	6.0
25	58	690	745	2010	916	1570	279	118	60	30	9.1	5.6
26	59	547	732	2070	838	1400	261	118	56	28	8.6	5.3
27	122	441	712	1850	777	1250	249	114	52	28	8.1	5.3
28	132	459	628	3600	734	1150	238	114	49	27	7.6	5.2
29	194	655	621	2700	---	1060	230	114	47	27	7.6	4.5
30	477	507	656	2350	---	972	280	109	47	26	7.3	3.8
31	376	---	872	1950	---	902	---	137	---	26	6.7	---
TOTAL	3335	9823	18973	49345	47709	58801	13689	5818	2318	1107	364.9	172.4
MEAN	108	327	612	1592	1704	1897	456	188	77.3	35.7	11.8	5.75
MAX	477	1170	1320	3600	3930	3930	841	640	115	47	26	6.6
MIN	48	94	303	511	734	668	230	109	47	26	6.7	3.8
AC-FT	6610	19480	37630	97880	94630	116600	27150	11540	4600	2200	724	342
CAL YR 1986	TOTAL	380419.0	MEAN	1042	MAX	19800	MIN	12	AC-FT	754600		
WTR YR 1987	TOTAL	211455.3	MEAN	579	MAX	3930	MIN	3.8	AC-FT	419400		

REDWOOD CREEK BASIN

11482500 REDWOOD CREEK AT ORICK, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955-56, 1959 to current year.

CHEMICAL DATA: Water years 1959-66, 1973-81.

WATER TEMPERATURE: Water years 1966 to current year.

SEDIMENT DATA: Water years 1955-56, 1970 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1965 to September 1981, October 1981 to current year (storm season only).

SUSPENDED-SEDIMENT DISCHARGE: March 1970 to September 1981, October 1981 to current year (storm season only).

REMARKS.--Sediment samples were collected on most days where a water temperature is published.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 9,610 mg/L, Mar. 18, 1975; minimum daily mean, 0 mg/L, Nov. 10-12, 1986, Apr. 20, 29, 30, 1987.

SEDIMENT LOAD: Maximum daily, 1,070,000 tons, Mar. 18, 1975; minimum daily, 0 ton, Nov. 10-12, 1986, Apr. 20, 29, 30, 1987.

EXTREMES FOR CURRENT YEAR (storm season only).--

SEDIMENT CONCENTRATION: Maximum daily mean, 864 mg/L, Feb. 2; minimum daily mean, 0 mg/L, Nov. 10-12, Apr. 20, 29, 30.

SEDIMENT LOAD: Maximum daily, 11,600 tons, Feb. 2; minimum daily, 0 ton, Nov. 10-12, Apr. 20, 29, 30.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO APRIL 1987
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR
1	15.5	17.0	9.5	10.0	9.5	10.0	14.0
2	18.0	17.0	9.0	9.0	10.0	11.0	11.0
3	14.5	16.0	9.0	9.5	10.0	11.5	10.5
4	---	13.0	8.0	9.0	10.5	10.5	12.0
5	20.0	14.5	9.0	8.0	11.5	10.5	10.0
6	---	13.0	9.0	9.0	10.0	11.0	11.0
7	13.0	10.5	14.0	---	11.0	10.0	13.0
8	---	13.5	8.0	7.0	11.0	10.0	13.5
9	14.5	10.5	9.0	9.5	10.5	11.0	---
10	14.5	14.0	10.0	---	11.5	10.5	11.0
11	---	---	9.0	10.0	12.0	10.0	10.0
12	---	12.0	---	8.5	10.0	10.0	10.0
13	16.5	12.0	9.5	8.0	11.0	10.0	14.0
14	---	12.0	10.0	7.5	9.5	9.0	11.5
15	14.0	13.0	9.0	7.0	10.0	9.5	12.5
16	---	---	10.5	6.5	9.0	9.0	14.5
17	15.5	13.0	8.0	7.5	10.0	10.0	12.5
18	---	12.0	9.0	---	10.0	9.0	12.0
19	---	13.0	9.0	7.5	---	9.0	9.5
20	13.5	12.0	9.5	8.5	---	9.0	15.0
21	12.5	12.5	10.0	7.0	10.5	8.5	15.5
22	---	11.5	9.5	7.0	8.5	9.5	15.0
23	13.0	12.0	9.5	8.5	10.0	9.0	12.0
24	14.5	11.0	10.5	9.5	8.5	9.5	12.0
25	---	9.5	---	10.0	7.5	11.0	12.0
26	15.5	10.0	11.0	10.0	---	10.0	---
27	16.5	---	---	10.0	---	12.0	13.0
28	13.0	9.5	9.0	8.5	10.5	13.0	14.0
29	15.0	10.0	11.0	9.5	---	---	14.0
30	---	10.0	9.0	9.5	---	11.0	14.0
31	---	---	10.0	9.0	---	14.0	---

REDWOOD CREEK BASIN

11482500 REDWOOD CREEK AT ORICK, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO APRIL 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	151	3	1.2	241	8	5.2	424	4	4.6
2	129	3	1.0	182	3	1.5	373	4	4.0
3	114	3	.92	149	1	.40	331	4	3.6
4	101	3	.82	128	1	.35	303	4	3.3
5	89	7	1.7	113	1	.31	876	170	678
6	81	10	2.2	102	1	.28	1320	190	677
7	74	10	2.0	126	1	.34	871	53	125
8	69	9	1.7	160	2	.86	688	23	43
9	65	8	1.4	143	1	.39	574	20	31
10	62	2	.33	140	0	.00	488	11	14
11	59	2	.32	127	0	.00	427	7	8.1
12	56	3	.45	116	0	.00	385	6	6.2
13	53	3	.43	107	2	.58	479	14	22
14	51	3	.41	101	3	.82	687	29	54
15	50	4	.54	98	4	1.1	540	9	13
16	48	4	.52	96	3	.78	458	6	7.4
17	103	10	2.8	94	2	.51	408	6	6.6
18	137	8	3.0	120	3	.97	402	4	4.3
19	95	8	2.1	190	4	2.1	452	6	7.3
20	78	9	1.9	340	6	5.5	503	5	6.8
21	69	8	1.5	800	160	346	431	4	4.7
22	63	6	1.0	1170	233	846	642	46	100
23	60	4	.65	1000	90	243	1070	70	202
24	60	10	1.6	681	22	40	875	37	87
25	58	8	1.3	690	30	56	745	26	52
26	59	8	1.3	547	14	21	732	25	49
27	122	9	3.0	441	7	8.3	712	15	29
28	132	11	3.9	459	14	20	628	10	17
29	194	28	20	655	29	51	621	15	25
30	477	26	33	507	13	18	656	17	30
31	376	13	13	---	---	---	872	65	171
TOTAL	3335	---	105.99	9823	---	1671.29	18973	---	2485.9
JANUARY			FEBRUARY			MARCH			
1	2550	604	6060	1800	100	486	689	15	28
2	2900	450	3520	3930	864	11600	668	21	38
3	3380	635	6570	3740	620	6260	1170	95	323
4	3270	300	2650	2580	292	2030	1080	50	146
5	2350	150	952	1980	203	1090	2630	558	4690
6	1750	95	449	1630	126	555	2620	260	1840
7	1340	60	217	1410	80	305	1770	100	478
8	1120	42	127	1250	41	138	1440	81	315
9	1070	36	104	1120	31	94	1330	66	237
10	953	29	75	1050	24	68	1110	54	162
11	862	23	54	1270	57	200	1160	50	157
12	1070	50	144	1140	34	105	2610	423	3290
13	1240	46	154	2670	327	2420	3620	430	4200
14	1070	30	87	2710	240	1760	3930	437	4630
15	959	30	78	2630	235	1700	3560	230	2210
16	853	32	74	2570	192	1330	2700	170	1240
17	765	22	45	2070	145	810	2250	150	911
18	703	22	42	1720	108	502	2740	175	1290
19	651	24	42	1470	78	310	2990	148	1190
20	602	19	31	1300	51	179	2610	125	881
21	542	12	18	1240	39	131	2240	100	605
22	511	15	21	1110	33	99	1880	86	437
23	694	60	112	1060	29	83	1930	97	505
24	1610	351	1770	994	26	70	1770	92	440
25	2010	227	1320	916	24	59	1570	66	280
26	2070	153	855	838	21	48	1400	55	208
27	1850	149	910	777	18	38	1250	50	169
28	3600	563	5530	734	17	34	1150	36	112
29	2700	300	1900	---	---	---	1060	20	57
30	2350	190	1000	---	---	---	972	23	60
31	1950	130	684	---	---	---	902	17	41
TOTAL	49345	---	35595	47709	---	32504	58801	---	31170

REDWOOD CREEK BASIN

11482500 REDWOOD CREEK AT ORICK, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO APRIL 1987

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			
1	841	14	32
2	784	12	25
3	757	14	29
4	728	10	20
5	666	11	20
6	623	8	13
7	587	9	14
8	555	8	12
9	524	6	8.5
10	525	5	7.1
11	621	15	25
12	510	6	8.3
13	465	7	8.8
14	438	6	7.1
15	414	4	4.5
16	397	3	3.2
17	385	2	2.1
18	390	1	1.1
19	372	1	1.0
20	350	0	.00
21	325	1	.88
22	310	2	1.7
23	300	2	1.6
24	285	2	1.5
25	279	1	.75
26	261	1	.70
27	249	1	.67
28	238	1	.64
29	230	0	.00
30	280	0	.00
31	---	---	---
TOTAL	13689	---	250.14
PERIOD	201675		103782.32

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO APRIL 1987

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER	3335.00	105.99	230	336
NOVEMBER ...	9823.00	1671.29	2150	3820
DECEMBER ...	18973.00	2485.90	5460	7950
JANUARY	49345.00	35595.00	17200	52800
FEBRUARY ...	47709.00	32504.00	16600	49100
MARCH	58801.00	31170.00	19900	51100
APRIL	13689.00	250.14	250	500
PERIOD	201675.00	103782.32	61790	165606

REDWOOD CREEK BASIN

11482500 REDWOOD CREEK AT ORICK, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO APRIL 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	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
MAR 13...	1335	3620	10.0	377	3680	65	75	87	96	98	100

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1986 TO APRIL 1987

DATE	TIME	TEMPER- ATURE WATER (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	STREAM WIDTH (FT)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM
DEC 03...	1045	8.0	21	331	104	35	--	5
JAN 20...	1505	7.5	24	604	116	597	--	6
FEB 25...	1350	7.0	20	918	125	515	--	5
MAR 09...	1245	10.5	20	1310	160	254	2	22
MAR 13...	1240	10.0	21	3640	179	2220	2	9

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
DEC 03...	20	44	68	83	88	100	--
JAN 20...	32	56	77	90	98	100	--
FEB 25...	18	44	73	90	98	100	--
MAR 09...	44	62	80	92	99	100	--
MAR 13...	19	32	47	70	87	96	100

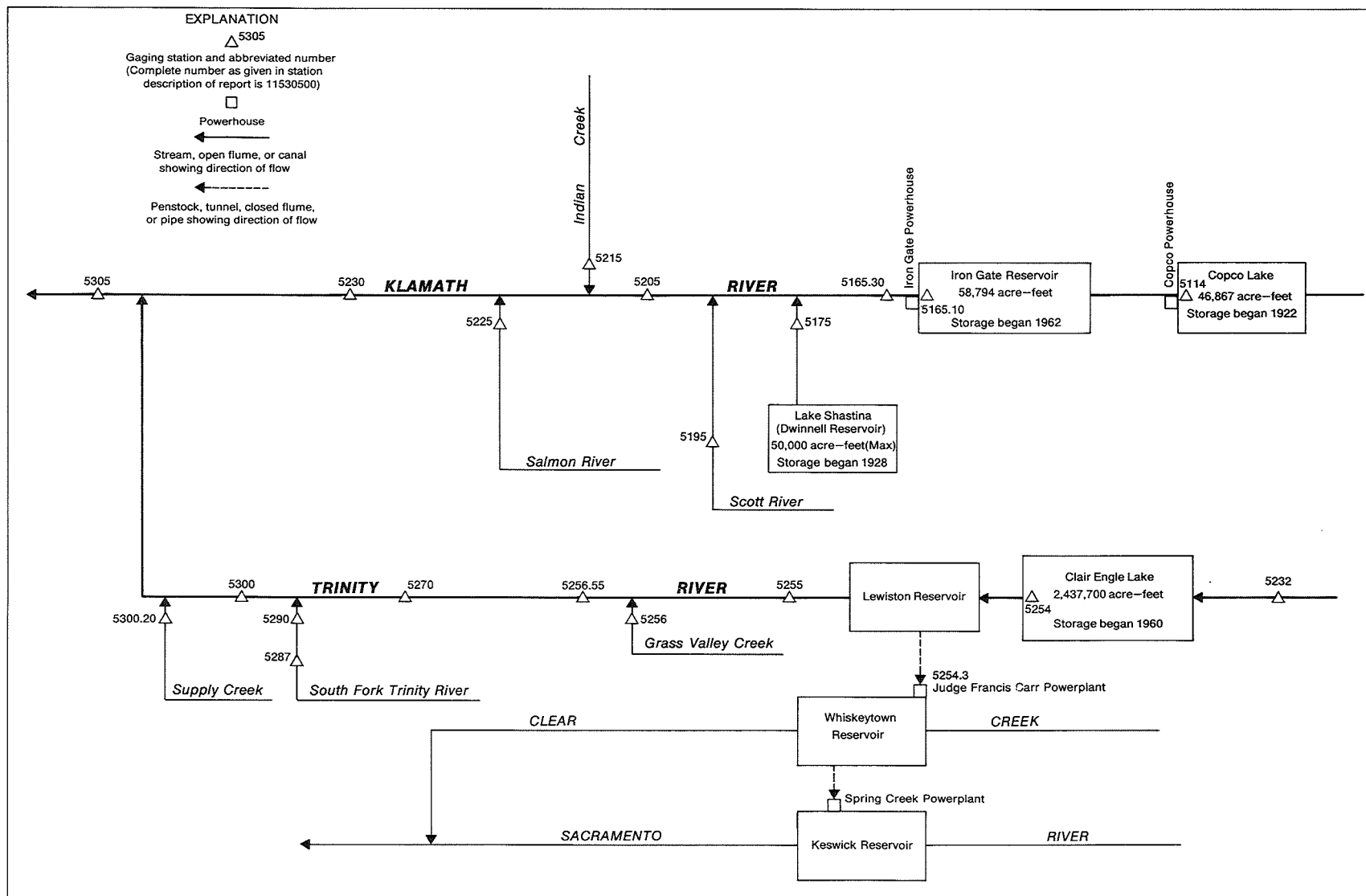


Figure 23. - Schematic diagram showing diversions and storage in Klamath River and Trinity River basins.

KLAMATH RIVER BASIN

RESERVOIRS IN KLAMATH RIVER BASIN, CA

11511400 COPCO LAKE NEAR COPCO.--Lat 41°58'46", long 122°20'00", in SE 1/4 SW 1/4 sec.29, T.48 N., R.4 W., Siskiyou County, Hydrologic Unit 18010206, 12.7 mi northeast of Hornbrook. DRAINAGE AREA, 4,300 mi². PERIOD OF RECORD, October 1967 to current year (monthend contents only). GAGE, pressure device and telemark read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pacific Power & Light Co.). Monthend contents computed from capacity table dated Aug. 25, 1964, provided by Pacific Power & Light Co. REMARKS.--Lake is formed by gravity-type dam completed in 1922. Usable capacity, 17,107 acre-ft between elevations 2,607.5 ft, top of tainter gates, and 2,588.5 ft, invert to powerplant intake. Dead storage, 29,760 acre-ft below elevation 2,588.5 ft. Figures given herein represent total contents at 0800 hours. Lake is used for power generation.

COOPERATION.--Records were provided by Pacific Power & Light Co., in connection with a Federal Regulation Commission Project.

EXTREMES (at 0800) FOR PERIOD OF RECORD.--Maximum contents, 46,818 acre-ft, June 24, 1969, elevation, 2,607.45 ft; minimum since first filling, 30,360 acre-ft, Aug. 19, 1971, elevation, 2,589.24 ft.

EXTREMES (at 0800) FOR CURRENT YEAR.--Maximum contents, 46,521 acre-ft, July 5, elevation, 2,607.15 ft; minimum, 40,115 acre-ft, May 1, elevation, 2,600.44 ft.

11516510 IRON GATE RESERVOIR NEAR HORN BROOK.--Lat 41°55'58", long 122°26'06", in SW 1/4 SW 1/4 sec.9, T.47 N., R.5 W., Siskiyou County, Hydrologic Unit 18010206, 6.6 mi northeast of Hornbrook. DRAINAGE AREA, 4,573 mi². PERIOD OF RECORD, October 1967 to current year (monthend contents only). GAGE, pressure device and telemark read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pacific Power & Light Co.). Monthend contents computed from capacity table dated Feb. 15, 1960, provided by Pacific Power & Light Co.

REMARKS.--Reservoir is formed by earth and rockfill dam completed in 1962. Usable capacity, 58,387 acre-ft, between elevations 2,328.0 ft, crest of spillway, and 2,184.75 ft, invert to diversion tunnel. Dead storage 407 acre-ft. Normal operating pool is from elevations 2,305.0 ft, capacity, 39,963 acre-ft, to 2,328.0 ft, capacity, 58,794 acre-ft. Figures herein represent total contents at 0800 hours. Reservoir is used for power generation and recreation.

COOPERATION.--Records were provided by Pacific Power & Light Co., in connection with a Federal Regulatory Commission Project.

EXTREMES (at 0800) FOR PERIOD OF RECORD.--Maximum contents, 61,776 acre-ft, Mar. 3, 1972, elevation, 2,330.96 ft; minimum since first filling, 50,103 acre-ft, Dec. 9, 1968, elevation, 2,318.40 ft.

EXTREMES (at 0800) FOR CURRENT YEAR.--Maximum contents, 59,438 acre-ft, Mar. 19, elevation, 2,328.65 ft; minimum, 55,327 acre-ft, Oct. 21, 22, elevation, 2,324.35 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)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
11511400 COPCO LAKE				11516510 IRON GATE RESERVOIR		
Sept. 30.....	2603.08	42583	--	2326.78	57612	--
Oct. 31.....	2602.36	41905	-678	2326.20	57058	-554
Nov. 30.....	2602.15	41706	-199	2328.36	59150	+2092
Dec. 31.....	2605.57	44972	+3266	2326.98	57802	-1348
CAL YR 1986.....	--	--	+2047	--	--	-361
Jan. 31.....	2603.20	42697	-2275	2328.23	59022	+1220
Feb. 29.....	2602.47	42008	-689	2328.24	59032	+10
Mar. 31.....	2602.36	41905	-103	2328.49	59279	+247
Apr. 30.....	2600.77	40420	-1485	2326.24	57096	-2183
May 31.....	2604.60	44035	+3615	2327.46	58269	+1173
June 30.....	2604.44	43880	-155	2328.13	58923	+654
July 31.....	2605.85	45245	+1365	2326.94	57764	-1159
Aug. 31.....	2606.42	45803	+558	2325.55	56445	-1319
Sept. 30.....	2604.75	44179	-1624	2326.58	57420	+975
WTR YR 1987.....	--	--	+1596	--	--	-192

KLAMATH RIVER BASIN

11516530 KLAMATH RIVER BELOW IRON GATE DAM, CA

LOCATION.--Lat 41°55'41", long 122°26'35", in SE 1/4 NE 1/4 sec.17, T.47 N., R.5 W., Siskiyou County, Hydrologic Unit 18010206, on left bank 0.1 mi downstream from Bogus Creek, 0.6 mi downstream from Iron Gate Dam, and 5.9 mi northeast of Hornbrook.

DRAINAGE AREA.--4,630 mi², approximately (not including Lost River and Lower Klamath Lake basins).

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

CHEMICAL DATA: Water years 1962-81.

WATER TEMPERATURE: Water years 1963-80.

GAGE.--Water-stage recorder. Datum of gage is 2,162.44 ft above National Geodetic Vertical Datum of 1929 (levels by Pacific Power & Light Co.).

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated by Upper Klamath Lake, capacity, 523,700 acre-ft; Iron Gate Reservoir (station 11516510), other smaller reservoirs, and diversions above station.

AVERAGE DISCHARGE.--27 years, 2,281 ft³/s, 1,653,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,400 ft³/s, Dec. 22, 1964, gage height, 13.63 ft, from rating curve extended above 15,000 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 647 ft³/s, Oct. 30, Nov. 6, 1960; Sept. 24, Oct. 1, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,350 ft³/s, Mar. 18, gage height, 5.46 ft; minimum daily, 720 ft³/s, June 3, 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	1810	1800	2450	1810	2260	2240	2400	1030	751	761	1010	1330
2	1810	1800	2550	1780	2600	2230	2100	1010	721	745	1020	1320
3	1810	1730	2550	1800	2770	2240	1750	1010	720	740	1010	1320
4	1800	1640	2550	1780	2670	2250	1740	1010	740	737	1010	1320
5	1800	1640	2560	1770	2590	2150	1740	1010	735	737	1010	1320
6	1800	1640	2560	1770	2490	1810	1740	1010	741	738	921	1320
7	1800	1700	2560	1770	2490	1770	1740	1000	730	739	913	1320
8	1800	1750	2550	1760	2480	1770	1630	999	731	745	917	1320
9	1800	1740	2550	1760	2380	1770	1310	1010	725	747	915	1320
10	1800	1750	2550	1760	2270	1770	1310	1010	720	749	917	1320
11	1800	1750	2540	1760	2330	1770	1310	1010	728	743	914	1330
12	1800	1750	2310	1760	2410	1920	1310	1010	728	741	918	1330
13	1800	1740	2220	1760	2630	2630	1310	1010	728	739	917	1330
14	1800	1740	2210	1760	2660	3110	1310	1010	733	732	920	1320
15	1800	1750	2210	1760	2600	2990	1310	1010	743	726	918	1320
16	1800	1750	2200	1760	2660	3080	1310	1010	731	724	921	1340
17	1800	1750	2200	1760	2760	3270	1310	1010	732	734	918	1340
18	1800	1750	2110	1760	2750	3310	1300	1010	800	733	921	1340
19	1800	1750	1770	1760	2740	3300	1300	1010	771	733	917	1340
20	1800	1770	1770	1760	2740	3260	1300	1010	743	732	920	1340
21	1800	1770	1770	1770	2730	3220	1300	1010	764	740	918	1340
22	1800	1780	1770	1760	2720	3200	1310	1020	754	741	921	1340
23	1800	1770	1770	1770	2720	3250	1310	1020	747	736	919	1340
24	1800	1780	1770	1770	2730	3220	1310	1020	744	735	925	1340
25	1800	1780	1770	1780	2740	3100	1300	1020	753	800	924	1340
26	1800	1780	1770	1770	2610	2960	1300	1020	744	1070	926	1340
27	1800	2280	1770	1790	2420	2950	1300	1020	740	1070	924	1340
28	1800	2570	1770	1860	2270	2950	1310	1020	736	1090	927	1340
29	1800	2570	1770	2410	---	2930	1310	1020	734	1070	928	1350
30	1800	2560	1770	2310	---	2890	1310	1020	725	1020	914	1340
31	1800	---	1770	2280	---	2720	---	1020	---	1020	938	---
TOTAL	55830	55330	66440	56630	72220	82030	43590	31409	22192	24867	28991	39950
MEAN	1801	1844	2143	1827	2579	2646	1453	1013	740	802	935	1332
MAX	1810	2570	2560	2410	2770	3310	2400	1030	800	1090	1020	1350
MIN	1800	1640	1770	1760	2260	1770	1300	999	720	724	913	1320
AC-FT	110700	109700	131800	112300	143200	162700	86460	62300	44020	49320	57500	79240
CAL YR 1986	TOTAL	920517	MEAN	2522	MAX	13100	MIN	713	AC-FT	1826000		
WTR YR 1987	TOTAL	579479	MEAN	1588	MAX	3310	MIN	720	AC-FT	1149000		

KLAMATH RIVER BASIN

11517500 SHASTA RIVER NEAR YREKA, CA

LOCATION.--Lat 41°49'23", long 122°35'40", in SE 1/4 NE 1/4 sec.24, T.46 N., R.7 W., Siskiyou County, Hydrologic Unit 18010207, on right bank 24 mi downstream from Lake Shastina, 0.5 mi upstream from mouth, and 7 mi north of Yreka.

DRAINAGE AREA.--793 mi².

PERIOD OF RECORD.--October 1933 to December 1941, December 1944 to current year.

CHEMICAL DATA: Water years 1959-79.

WATER TEMPERATURE: Water years 1965-79.

SEDIMENT DATA: Water years 1955-56, 1958-62.

REVISED RECORDS.--WSP 1929: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 2,000 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 2, 1933, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Low flow completely regulated by Lake Shastina (formerly Lake Dwinnell) beginning in 1928; storage limited to 50,000 acre-ft. Many diversions above station for irrigation.

AVERAGE DISCHARGE.--50 years (water years 1934-41, 1946-87), 189 ft³/s, 136,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,500 ft³/s, Dec. 22, 1964, gage height, 12.92 ft, in gage well, 13.85 ft, from floodmarks, from rating curve extended above 4,100 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 1.5 ft³/s, Aug. 24, 1981, July 17, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 630 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 2	0015	*312	*3.70				

Minimum daily, 9.0 ft³/s, Jan. 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	164	188	219	245	230	203	112	82	57	16	16	16
2	161	188	215	279	262	198	112	86	51	50	20	16
3	165	192	215	275	266	198	98	82	64	70	21	17
4	167	196	213	281	245	199	95	72	42	57	27	32
5	165	201	213	249	237	199	105	64	30	57	18	35
6	163	198	212	228	230	222	111	50	33	48	9.0	29
7	162	196	211	217	227	221	109	42	38	41	13	38
8	142	197	207	211	226	208	91	47	43	35	27	41
9	141	196	205	208	225	200	84	33	35	25	20	45
10	141	204	202	207	221	193	78	35	28	20	37	50
11	141	209	200	206	228	195	64	39	24	31	45	42
12	139	197	199	206	231	205	61	36	28	23	30	46
13	147	191	201	207	248	208	54	28	36	21	16	45
14	145	193	202	206	270	219	44	26	42	13	28	51
15	155	193	202	204	259	228	34	28	57	16	26	41
16	165	199	202	199	249	217	35	26	55	18	26	52
17	167	203	200	200	240	211	34	31	65	21	35	50
18	171	199	201	201	237	211	40	35	62	49	26	62
19	175	199	202	202	235	213	47	28	55	48	18	64
20	177	201	199	201	228	203	49	25	66	43	17	76
21	177	221	199	203	227	195	41	36	51	32	22	80
22	177	224	206	204	229	197	35	42	50	60	27	86
23	176	220	202	208	225	197	40	46	49	60	28	79
24	174	214	202	229	219	183	35	46	42	38	31	80
25	176	217	200	228	214	178	32	60	40	30	26	88
26	173	213	199	228	211	157	41	74	39	39	18	91
27	184	207	197	227	208	147	44	55	50	39	19	89
28	187	219	196	272	206	133	36	44	52	32	17	91
29	189	235	196	260	---	133	37	36	35	30	20	92
30	193	229	196	244	---	124	43	48	22	18	16	88
31	189	---	198	237	---	107	---	61	---	17	15	---
TOTAL	5148	6139	6311	6972	6533	5902	1841	1443	1341	1097	714.0	1712
MEAN	166	205	204	225	233	190	61.4	46.5	44.7	35.4	23.0	57.1
MAX	193	235	219	281	270	228	112	86	66	70	45	92
MIN	139	188	196	199	206	107	32	25	22	13	9.0	16
AC-FT	10210	12180	12520	13830	12960	11710	3650	2860	2660	2180	1420	3400

CAL YR 1986	TOTAL	71570.0	MEAN	196	MAX	2440	MIN	17	AC-FT	142000
WTR YR 1987	TOTAL	45153.0	MEAN	124	MAX	281	MIN	9.0	AC-FT	89560

KLAMATH RIVER BASIN

11519500 SCOTT RIVER NEAR FORT JONES, CA

LOCATION.--Lat 41°38'27", long 123°00'50", in NE 1/4 NE 1/4 sec.29, T.44 N., R.10 W., Siskiyou County, Hydrologic Unit 18010208, on right bank 1.8 mi upstream from Snow Creek and 9.0 mi west of Fort Jones.

DRAINAGE AREA.--653 mi².

PERIOD OF RECORD.--December 1941 to current year. Monthly discharge only October to December 1941, published in WSP 1315-B.

CHEMICAL DATA: Water years 1959-79.

SEDIMENT DATA: Water years 1955-56.

REVISED RECORDS.--WSP 1445: 1942-43(M), 1946(M), 1948. WSP 1715: 1951-52(M). WSP 1929: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2,623.80 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1966, water-stage recorder 400 ft downstream at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of about 30,000 acres above station.

AVERAGE DISCHARGE.--46 years, 668 ft³/s, 484,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,600 ft³/s, Dec. 22, 1964, gage height, 25.34 ft, from floodmarks, from rating curve extended above 15,000 ft³/s on basis of slope-area measurement at 21.40 ft, site and datum then in use; minimum daily, 5.0 ft³/s, several days during August 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 5	2215	*3,920	*10.66				

Minimum daily, 9.3 ft³/s, Aug. 31.

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	69	155	138	189	346	358	482	1110	292	60	21	9.8
2	81	151	136	329	583	347	543	911	260	58	21	9.8
3	80	144	136	350	705	366	688	790	246	58	20	9.8
4	81	136	136	390	560	620	725	767	224	57	19	9.8
5	80	132	140	316	487	2260	668	836	201	54	17	9.8
6	81	125	148	271	438	2250	631	999	202	51	17	10
7	82	124	148	240	416	1220	605	1100	191	49	15	10
8	83	121	148	223	397	954	599	1100	187	45	15	10
9	84	118	146	210	386	816	641	1050	189	43	14	11
10	82	117	141	202	378	725	693	1020	193	43	14	12
11	84	116	140	197	430	699	866	942	192	43	14	12
12	83	116	138	196	541	1210	826	904	183	43	13	13
13	84	117	138	196	1030	1900	743	891	171	41	13	13
14	86	118	143	191	1220	1430	763	829	165	40	13	14
15	87	118	146	182	996	1210	836	815	160	40	13	14
16	88	118	146	171	841	1010	910	784	154	39	12	14
17	88	114	146	161	714	905	979	706	144	37	12	14
18	88	109	144	159	637	876	952	615	137	37	12	14
19	90	107	143	159	576	809	834	547	121	37	12	15
20	90	109	142	159	533	737	726	477	111	36	12	15
21	90	119	141	158	507	692	692	426	109	34	12	15
22	90	139	146	157	480	645	805	391	108	36	12	15
23	91	150	157	158	455	611	983	367	101	34	11	16
24	92	149	157	176	435	577	1000	364	92	32	11	17
25	92	149	157	250	413	542	961	387	85	31	11	17
26	93	144	154	458	391	521	991	392	77	30	11	17
27	94	140	153	407	378	499	1130	357	72	29	10	17
28	98	134	151	502	366	486	1380	328	68	27	10	17
29	107	138	151	460	---	469	1400	324	67	27	10	17
30	149	138	151	401	---	466	1240	307	63	24	10	17
31	169	---	158	357	---	467	---	290	---	22	9.3	---
TOTAL	2836	3865	4519	7975	15639	26677	25292	21126	4565	1237	416.3	405.0
MEAN	91.5	129	146	257	559	861	843	681	152	39.9	13.4	13.5
MAX	169	155	158	502	1220	2260	1400	1110	292	60	21	17
MIN	69	107	136	157	346	347	482	290	63	22	9.3	9.8
AC-FT	5630	7670	8960	15820	31020	52910	50170	41900	9050	2450	826	803
CAL YR 1986	TOTAL	262845.0	MEAN	720	MAX	13500	MIN	29	AC-FT	521400		
WTR YR 1987	TOTAL	114552.3	MEAN	314	MAX	2260	MIN	9.3	AC-FT	227200		

KLAMATH RIVER BASIN

11520500 KLAMATH RIVER NEAR SEIAD VALLEY, CA

LOCATION.--Lat 41°51'14", long 123°13'52", in SW 1/4 SW 1/4 sec.3, T.46 N., R.12 W., Siskiyou County, Hydrologic Unit 18010206, Klamath National Forest, on left bank 0.4 mi upstream from Bittenbender Creek, 1.4 mi downstream from Grider Creek, 2.2 mi west of Seiad Valley, and 55 mi downstream from Iron Gate Dam.

DRAINAGE AREA.--6,940 mi², approximately (not including Lost River or Lower Klamath Lake basins).

PERIOD OF RECORD.--October 1912 to September 1925, July 1951 to current year. Monthly discharges only for some periods, published in WSP 1315-B.

CHEMICAL DATA: Water years 1959-66.

WATER TEMPERATURE: Water years 1964-79.

SEDIMENT DATA: Water years 1955-56.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,320 ft above National Geodetic Vertical Datum of 1929, from river-profile map. November 1912 to June 1925, nonrecording gage at site 3.5 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Low flow regulated considerably by reservoirs and powerplants above station. Large diversions above station for irrigation.

AVERAGE DISCHARGE.--49 years (water years 1913-25, 1952-87), 4,127 ft³/s, 2,990,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 165,000 ft³/s, Dec. 23, 1964, gage height, 33.75 ft, from floodmarks, from rating curve extended above 49,000 ft³/s on basis of slope-area measurements at gage heights 20.1 and 29.2 ft; minimum daily, 320 ft³/s, Nov. 25, 1917.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 6	0230	*6,820	*7.18				

Minimum daily, 928 ft³/s, July 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	2220	2430	3210	2660	3690	3360	3850	3500	1760	996	1230	1170
2	2220	2400	3190	2980	5000	3320	3770	2980	1480	1030	1210	1410
3	2220	2370	3190	3230	5410	3390	3440	2750	1430	1030	1210	1420
4	2230	2250	3180	3200	4740	3650	3380	2700	1400	1030	1200	1430
5	2240	2230	3240	2920	4370	4780	3290	2780	1360	1030	1200	1440
6	2230	2230	3250	2770	4060	5730	3240	3020	1330	1030	1160	1440
7	2230	2220	3240	2660	3920	4170	3200	3230	1320	1020	1080	1440
8	2220	2320	3210	2600	3870	3750	3190	3210	1330	999	1080	1460
9	2220	2320	3190	2570	3830	3340	2960	3150	1340	989	1080	1470
10	2210	2320	3180	2540	3630	3380	2890	3070	1280	977	1070	1470
11	2210	2330	3160	2520	3730	3330	3090	2930	1360	976	1070	1470
12	2200	2330	3080	2500	3880	4180	3080	2860	1290	976	1080	1470
13	2200	2320	2860	2500	4910	5800	2930	2830	1250	969	1070	1470
14	2200	2310	2860	2500	5740	6060	2920	2710	1220	963	1060	1470
15	2200	2310	2840	2460	5330	5760	3010	2660	1210	950	1060	1470
16	2200	2310	2830	2420	4990	5320	3130	2610	1240	928	1060	1470
17	2240	2310	2810	2400	4830	5370	3240	2500	1210	931	1060	1480
18	2240	2310	2810	2410	4660	5370	3230	2350	1200	1050	1060	1480
19	2240	2310	2540	2430	4480	5330	3060	2230	1230	1030	1060	1480
20	2240	2340	2390	2420	4360	5160	2870	2120	1170	1010	1050	1490
21	2240	2520	2370	2410	4270	5010	2820	2030	1150	1000	1050	1500
22	2240	2630	2440	2410	4170	4890	2990	1980	1150	1060	1050	1500
23	2240	2570	2520	2420	4110	4860	3280	1940	1130	1070	1050	1510
24	2230	2500	2480	2550	4050	4840	3370	1940	1110	1040	1050	1510
25	2230	2500	2460	3050	4010	4660	3310	1950	1090	999	1050	1510
26	2240	2460	2450	3720	3920	4480	3320	1970	1090	1100	1050	1520
27	2270	2530	2430	3530	3660	4350	3540	1930	1070	1300	1050	1530
28	2280	3170	2420	3850	3460	4300	3890	1870	1060	1290	1050	1530
29	2340	3300	2430	3890	---	4240	3930	1820	1050	1300	1050	1530
30	2540	3250	2440	3850	---	4210	3750	1800	1030	1270	1060	1530
31	2490	---	2450	3640	---	4140	---	1840	---	1230	1050	---
TOTAL	69750	73700	87150	88010	121080	140530	97970	77260	37340	32573	33710	44070
MEAN	2250	2457	2811	2839	4324	4533	3266	2492	1245	1051	1087	1469
MAX	2540	3300	3250	3890	5740	6060	3930	3500	1760	1300	1230	1530
MIN	2200	2220	2370	2400	3460	3320	2820	1800	1030	928	1050	1170
AC-FT	138300	146200	172900	174600	240200	278700	194300	153200	74060	64610	66860	87410
CAL YR 1986	TOTAL	1553918	MEAN	4257	MAX	40200	MIN	998	AC-FT	3082000		
WTR YR 1987	TOTAL	903143	MEAN	2474	MAX	6060	MIN	928	AC-FT	1791000		

KLAMATH RIVER BASIN

11521500 INDIAN CREEK NEAR HAPPY CAMP, CA

LOCATION.--Lat 41°50'07", long 123°22'55", in SW 1/4 SW 1/4 sec.26, T.17 N., R.7 E., Siskiyou County, Hydrologic Unit 18010209, on left bank 0.2 mi upstream from Slater Creek, 3.0 mi north of Happy Camp, and 3.5 mi upstream from mouth.

DRAINAGE AREA.--120 mi².

PERIOD OF RECORD.--September 1911 to September 1921 (fragmentary), December 1956 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1635: 1957-58.

GAGE.--Water-stage recorder. Datum of gage is 1,198.37 ft above National Geodetic Vertical Datum of 1929. Prior to December 1956, nonrecording gages at sites 1.0 mi upstream at different datums. December 1956 to Sept. 20, 1969, water-stage recorder at site 0.8 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 1, 2 and Feb. 17-19, 21-23. Records good. Small diversions above station for irrigation.

AVERAGE DISCHARGE.--33 years (water years 1912-14, 1958-87), 437 ft³/s, 316,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,000 ft³/s, Dec. 22, 1964, gage height, 24.3 ft, from floodmarks, present site and datum, from rating curve extended above 6,000 ft³/s on basis of slope-area measurement at gage height 29.0 ft, previous site and datum; minimum discharge observed, 20 ft³/s, Aug. 19 to Sept. 6, 1914.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 21, 1955, reached a stage of 29.0 ft, at 1956-69 site and datum, from floodmarks, discharge, 23,000 ft³/s on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 2	0445	*4,010	*9.40	Mar. 12	1630	3,740	9.17

Minimum daily, 35 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	122	164	174	573	1360	370	589	493	174	72	54	36
2	110	133	161	578	3130	402	634	421	159	71	52	38
3	100	117	150	873	1680	1490	634	398	155	70	50	38
4	96	107	154	608	1170	1270	577	409	151	69	48	38
5	95	100	241	463	931	2150	543	466	146	70	47	39
6	92	95	235	367	798	1570	515	496	139	69	46	40
7	85	98	209	310	727	1140	510	483	133	67	45	41
8	82	97	188	274	691	973	556	445	131	66	45	43
9	78	95	171	249	665	923	577	410	127	65	44	43
10	77	96	159	229	671	836	613	372	123	63	43	42
11	73	92	147	220	797	946	632	347	118	63	43	42
12	72	88	143	220	819	2930	542	339	113	61	42	42
13	70	85	186	212	1580	2210	503	322	110	59	42	41
14	70	87	215	204	1320	1690	513	300	107	57	43	40
15	70	89	191	196	1160	1370	536	291	107	55	43	39
16	69	85	175	183	987	1140	553	276	107	55	42	39
17	81	84	161	178	861	1060	574	250	104	60	41	39
18	80	87	175	175	777	1050	530	235	101	65	40	39
19	74	104	191	171	699	943	466	221	98	69	39	39
20	72	130	191	163	642	856	435	210	97	63	39	40
21	70	424	178	161	602	792	467	203	101	64	39	39
22	70	766	327	161	557	726	582	195	96	76	40	39
23	69	397	463	166	525	712	585	191	92	73	40	39
24	69	290	345	226	487	663	524	192	88	74	39	38
25	68	264	280	974	452	629	504	198	86	66	38	38
26	72	218	277	1360	422	606	550	185	83	61	37	38
27	95	199	262	1180	398	576	611	177	81	59	37	38
28	86	221	238	1140	380	550	612	171	78	58	37	38
29	125	214	290	808	---	528	531	166	76	56	36	36
30	460	191	300	688	---	518	524	166	73	56	36	35
31	255	---	306	634	---	539	---	205	---	55	36	---
TOTAL	3107	5217	6883	13944	25288	32158	16522	9233	3354	1987	1303	1176
MEAN	100	174	222	450	903	1037	551	298	112	64.1	42.0	39.2
MAX	460	766	463	1360	3130	2930	634	496	174	76	54	43
MIN	68	84	143	161	380	370	435	166	73	55	36	35
AC-FT	6160	10350	13650	27660	50160	63790	32770	18310	6650	3940	2580	2330

CAL YR 1986	TOTAL	144600	MEAN	396	MAX	5080	MIN	33	AC-FT	286800
WTR YR 1987	TOTAL	120172	MEAN	329	MAX	3130	MIN	35	AC-FT	238400

KLAMATH RIVER BASIN

11522500 SALMON RIVER AT SOMES BAR, CA

LOCATION.--Lat 41°22'40", long 123°28'35", in NE 1/4 sec.3, T.11 N., R.6 E., Siskiyou County, Hydrologic Unit 18010210, Klamath National Forest, on left bank at Somes Bar, 1.0 mi upstream from mouth.

DRAINAGE AREA.--751 mi².

PERIOD OF RECORD.--September 1911 to September 1915, October 1927 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1285: 1912, 1914, 1915(M), 1946(M), 1948(M). WDR CA-72-1: 1971(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 482.97 ft above National Geodetic Vertical Datum of 1929. Prior to October 1927, nonrecording gage at different datum; October 1927 to Dec. 22, 1964, water-stage recorder at site 0.5 mi upstream at datum 6.54 ft higher.

REMARKS.--Estimated daily discharges: Nov. 23-25, May 12-28, and June 28 to July 28. Records good. No storage or large diversion above station.

AVERAGE DISCHARGE.--64 years, 1,824 ft³/s, 1,321,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 133,000 ft³/s, Dec. 22, 1964, gage height, 46.6 ft, present site and datum, from floodmarks, from rating curve extended above 33,000 ft³/s; minimum, 70 ft³/s, Aug. 25, Sept. 4, 5, 1931.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft³/s and maximum(*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 12	2245	*7,560	*7.96				

Minimum daily, 113 ft³/s, Sept. 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	564	653	521	1780	1820	1080	1870	2680	900	330	187	121
2	499	536	511	2280	3840	1070	1970	2090	807	320	179	121
3	441	470	497	2420	4090	1330	2130	1930	801	316	173	121
4	422	427	490	2260	2930	1670	1970	2050	832	308	169	124
5	455	398	707	1670	2310	3160	1870	2530	817	300	163	131
6	463	374	759	1310	1970	3220	1800	2980	757	292	159	131
7	443	360	655	1110	1810	2370	1730	3100	727	286	155	131
8	408	367	597	977	1720	2030	1790	2890	791	280	155	134
9	380	360	554	900	1660	1840	1950	2710	714	275	150	136
10	355	362	524	848	1640	1700	2160	2570	680	270	148	136
11	335	364	499	821	1870	1740	2650	2350	647	268	148	136
12	317	350	480	835	1840	5030	2200	2150	620	264	145	136
13	301	337	569	838	3450	5960	1990	2000	588	260	143	136
14	288	326	772	781	3590	4560	2090	1900	560	255	143	136
15	281	318	659	745	3340	3900	2320	1790	557	250	143	134
16	269	311	599	690	3020	3340	2460	1620	539	246	143	126
17	324	306	559	683	2580	3050	2660	1500	514	242	143	125
18	349	301	543	665	2250	3110	2390	1350	480	240	141	125
19	326	389	543	636	2000	2860	2010	1220	457	235	138	125
20	308	408	534	606	1830	2630	1830	1120	447	230	138	125
21	297	865	501	592	1710	2470	2000	1050	451	225	135	125
22	288	1340	670	585	1580	2270	2600	990	436	220	134	125
23	279	1050	914	598	1490	2220	2880	960	411	217	134	125
24	272	880	821	1040	1390	2070	2670	950	396	213	134	118
25	272	780	731	1900	1310	1970	2510	990	385	210	130	113
26	283	673	713	2960	1230	1900	2730	960	374	208	129	116
27	429	598	701	2400	1170	1820	3170	920	369	205	129	121
28	418	587	653	2740	1120	1760	3520	900	360	200	127	121
29	480	609	699	2300	---	1700	3150	866	350	195	125	119
30	1340	543	760	2040	---	1680	2940	860	340	190	121	116
31	895	---	828	1810	---	1740	---	988	---	188	121	---
TOTAL	12781	15642	19563	41820	60560	77250	70010	52964	17107	7738	4482	3789
MEAN	412	521	631	1349	2163	2492	2334	1709	570	250	145	126
MAX	1340	1340	914	2960	4090	5960	3520	3100	900	330	187	136
MIN	269	301	480	585	1120	1070	1730	860	340	188	121	113
AC-FT	25350	31030	38800	82950	120100	153200	138900	105100	33930	15350	8890	7520

CAL YR 1986	TOTAL	743666	MEAN	2037	MAX	31200	MIN	137	AC-FT	1475000
WTR YR 1987	TOTAL	383706	MEAN	1051	MAX	5960	MIN	113	AC-FT	761100

KLAMATH RIVER BASIN

11523000 KLAMATH RIVER AT ORLEANS, CA

LOCATION.--Lat 41°18'13", long 123°32'00", in SW 1/4 NE 1/4 sec.31, T.11 N., R.6 E., Humboldt County, Hydrologic Unit 18010209, Six Rivers National Forest, on right bank at Orleans, 25 ft upstream from highway bridge, and 0.2 mi downstream from Cheenitch Creek.

DRAINAGE AREA.--8,475 mi², not including Lost River or Lower Klamath Lake basins.

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1965, published as "at Somesbar."

REVISED RECORDS.--WSP 1565: 1935(M), 1949.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 355.98 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1965, at site 6.7 mi upstream at datum 90.68 ft higher.

REMARKS.--Estimated daily discharges: Dec. 17-28, Feb. 3-11. Records good except those for estimated daily discharge, which are fair. Flow considerably regulated by reservoirs and powerplants above station. Large diversions above station for irrigation.

AVERAGE DISCHARGE.--60 years, 8,341 ft³/s, 6,043,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 307,000 ft³/s, Dec. 22, 1964, gage height, 76.5 ft, from floodmarks, site and datum then in use, from rating curve extended above 80,000 ft³/s by slope-conveyance study; minimum daily, 320 ft³/s, Aug. 25, Sept. 1, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 12	2330	*32,600	*13.19				

Minimum daily, 1,230 ft³/s, Aug. 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	3320	4100	4360	8320	11200	6330	9290	8960	3340	1610	1440	1240
2	3170	3690	4250	10600	20600	6270	9250	7270	3000	1590	1420	1340
3	3070	3480	4160	11400	21500	9990	9350	6540	2770	1600	1410	1480
4	3050	3310	4130	10800	15000	10900	8730	6470	2740	1590	1410	1490
5	3050	3160	5000	8320	12000	15600	8330	7120	2650	1590	1400	1500
6	3050	3100	5160	6790	10400	18000	8010	8090	2540	1580	1390	1510
7	3010	3060	4800	5890	9600	12900	7760	8550	2480	1560	1340	1520
8	2960	3160	4560	5300	9000	10700	7880	8310	2540	1530	1300	1520
9	2900	3170	4390	4930	8400	10100	8140	7840	2450	1510	1290	1540
10	2850	3210	4260	4670	8390	9260	8100	7460	2380	1470	1290	1550
11	2820	3190	4160	4500	9000	9500	9080	6910	2400	1420	1290	1550
12	2780	3150	4080	4540	9510	23600	8340	6710	2290	1410	1290	1550
13	2760	3110	4160	4570	16600	27200	7710	6590	2200	1390	1290	1550
14	2760	3080	4760	4330	18100	22100	7670	6170	2120	1360	1270	1550
15	2750	3080	4340	4200	16900	19300	8120	5980	2090	1340	1270	1540
16	2730	3070	4180	4030	15600	16600	8390	5800	2090	1310	1260	1520
17	4020	3040	3990	3940	13100	15300	8830	5360	2080	1300	1270	1520
18	4450	3040	4010	3880	11300	15600	8540	4830	2020	1340	1270	1530
19	4140	3240	4200	3800	10700	14500	7690	4460	1990	1460	1270	1530
20	3740	3270	3790	3730	10300	13500	7050	4090	1990	1420	1260	1530
21	3560	5390	3600	3680	9590	12600	7110	3840	1960	1390	1260	1530
22	4200	7610	4500	3680	9090	11800	8200	3690	1930	1420	1260	1540
23	5910	6030	5800	3840	8660	11500	9060	3570	1890	1470	1260	1540
24	5130	4610	5050	5540	8270	11000	8820	3540	1850	1490	1260	1540
25	4580	4490	4700	11300	7890	10600	8450	3640	1810	1410	1260	1540
26	4570	4040	4500	18200	7540	10200	8680	3560	1770	1370	1250	1540
27	4410	3750	4300	13600	7130	9790	9510	3450	1750	1440	1250	1550
28	4280	4210	4150	15000	6670	9500	10200	3320	1710	1520	1250	1550
29	3320	4840	4650	12100	---	9260	9690	3220	1690	1520	1240	1550
30	6130	4540	4610	11100	---	9130	9150	3150	1660	1520	1230	1530
31	5090	---	4800	9920	---	9180	---	3440	---	1480	1240	---
TOTAL	114560	114220	137400	226500	322040	401810	255130	171930	66180	45410	40190	45470
MEAN	3695	3807	4432	7306	11500	12960	8504	5546	2206	1465	1296	1516
MAX	6130	7610	5800	18200	21500	27200	10200	8960	3340	1610	1440	1550
MIN	2730	3040	3600	3680	6670	6270	7050	3150	1660	1300	1230	1240
AC-FT	227200	226600	272500	449300	638800	797000	506100	341000	131300	90070	79720	90190
CAL YR 1986	TOTAL	3948330	MEAN	10820	MAX	229000	MIN	1580	AC-FT	7832000		
WTR YR 1987	TOTAL	1940840	MEAN	5317	MAX	27200	MIN	1230	AC-FT	3850000		

KLAMATH RIVER BASIN

11523200 TRINITY RIVER ABOVE COFFEE CREEK, NEAR TRINITY CENTER, CA

LOCATION.--Lat 41°06'41", long 122°42'16", in SW 1/4 NW 1/4 sec.32, T.38 N., R.7 W., Trinity County, Hydrologic Unit 18010211, Shasta National Forest, on left bank 24 ft upstream from State Highway No. 3 bridge, 1.8 mi upstream from Coffee Creek, and 8.6 mi north of Trinity Center.

DRAINAGE AREA.--149 mi².

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

REVISED RECORDS.--WDR CA-85-2: 1982 (M).

GAGE.--Water-stage recorder. Datum of gage is 2,536.93 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1978, water-stage recorder at site 0.2 mi downstream at datum 3.57 ft lower.

REMARKS.--Estimated daily discharges: July 31 to Aug. 4. Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--30 years, 421 ft³/s, 305,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,500 ft³/s, Jan. 16, 1974, gage height, 12.96 ft, site and datum then in use, from rating curve extended above 4,500 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 13.78 ft, Nov. 16, 1981, present site and datum; minimum daily, 16 ft³/s, Sept. 11-14, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached a stage of 10.5 ft, previous site and datum, from floodmarks, discharge, 11,400 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	0230	2,970	8.50	Mar. 12	1730	3,490	8.92
Mar. 5	1000	*5,850	*10.50				

Minimum daily, 31 ft³/s, Sept. 23, 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	74	88	64	94	165	194	616	941	193	79	43	34
2	69	79	64	90	182	225	716	717	188	81	42	34
3	66	74	64	107	174	1720	893	652	187	79	41	34
4	63	70	65	102	164	1440	763	744	183	75	41	34
5	60	67	83	91	161	4660	728	921	178	73	42	34
6	59	64	81	87	165	2050	718	1010	169	70	40	34
7	58	64	75	75	183	1070	686	1050	165	69	39	34
8	57	64	71	72	197	776	771	961	166	68	39	34
9	56	64	69	80	213	636	866	918	178	66	38	35
10	56	64	67	78	326	577	961	822	164	64	38	35
11	55	62	65	78	862	576	950	754	152	63	38	34
12	53	61	65	78	903	2300	776	741	142	62	37	34
13	52	60	66	78	2100	1850	746	684	134	60	37	34
14	52	60	68	78	930	1170	856	634	128	57	37	34
15	52	58	65	74	639	854	1000	610	126	56	38	34
16	52	58	65	71	465	690	1170	558	126	54	38	34
17	68	58	65	79	376	601	1220	477	122	58	38	35
18	71	59	69	76	333	566	997	426	117	79	36	35
19	64	65	75	74	301	496	756	360	112	71	36	34
20	61	62	75	72	278	436	707	319	108	65	36	34
21	60	75	71	72	266	413	855	298	106	62	36	34
22	58	78	78	72	249	371	1110	289	103	68	36	33
23	57	76	80	75	236	381	1190	283	100	67	36	31
24	58	69	76	83	224	359	1120	267	96	62	36	31
25	62	71	71	89	208	350	1100	266	91	59	36	32
26	62	68	73	130	199	350	1160	247	85	57	36	33
27	109	65	72	196	196	351	1340	233	86	55	35	34
28	80	65	69	297	194	346	1470	223	85	53	35	34
29	116	68	71	208	---	355	1320	222	82	51	35	34
30	146	64	68	192	---	385	1240	219	80	46	34	33
31	104	---	80	176	---	478	---	202	---	43	34	---
TOTAL	2110	2000	2190	3224	10889	27026	28801	17048	3952	1972	1163	1013
MEAN	68.1	66.7	70.6	104	389	872	960	550	132	63.6	37.5	33.8
MAX	146	88	83	297	2100	4660	1470	1050	193	81	43	35
MIN	52	58	64	71	161	194	616	202	80	43	34	31
AC-FT	4190	3970	4340	6390	21600	53610	57130	33810	7840	3910	2310	2010

CAL YR 1986	TOTAL	165888	MEAN 454	MAX 5080	MIN 32	AC-FT 329000
WTR YR 1987	TOTAL	101388	MEAN 278	MAX 4660	MIN 31	AC-FT 201100

KLAMATH RIVER BASIN

11525400 CLAIR ENGLE LAKE NEAR LEWISTON, CA

LOCATION.--Lat 40°48'05", long 122°45'44", in NW 1/4 SW 1/4 sec.15, T.34 N., R.8 W., Trinity County, Hydrologic Unit 18010211, Trinity National Forest, Whiskeytown-Shasta-Trinity National Recreation Area, on side of intake structure of Trinity Dam on Trinity River, 9 mi north of Lewiston.

DRAINAGE AREA.--692 mi².

PERIOD OF RECORD.--November 1960 to current year. Prior to October 1963, published as Trinity Lake near Lewiston.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Jan. 4, 1962, nonrecording gage at same site and datum. Contents based on capacity table dated April 1962, provided by U.S. Bureau of Reclamation.

REMARKS.--The lake is formed by an earthfill dam completed in November 1960. Storage began Nov. 23, 1960. Usable capacity, 2,437,700 acre-ft between elevations 1,995.5 ft, elevation of invert of river outlets, and 2,370.0 ft, crest of glory hole spillway. Dead storage, 10,000 acre-ft. Operating pool is from elevation 2,145.0 ft, capacity, 312,621 acre-ft, to 2,370.0 ft, capacity, 2,447,700 acre-ft. Figures given herein represent total contents at 2400 hours. Lake is used for power generation, flood control, and recreation.

COOPERATION.--Records were provided by U.S. Bureau of Reclamation.

EXTREMES (at 2400) FOR PERIOD OF RECORD.--Maximum contents, 2,588,000 acre-ft, Jan. 19, 1974, elevation, 2,378.32 ft; minimum since first filling, 222,400 acre-ft, Nov. 9, 1977, elevation, 2,120.22 ft.
EXTREMES (at 2400) FOR CURRENT YEAR.--Maximum contents, 2,331,405 acre-ft, June 3, elevation, 2,362.62 ft; minimum, 1,778,278 acre-ft, Dec. 30, elevation, 2,325.04 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)
(Abstracted from table dated April 1962, provided by U.S. Bureau of Reclamation)

2,100	162,231	2,250	955,140
2,140	292,859	2,310	1,583,586
2,190	529,611	2,380	2,616,989

CONTENTS, IN ACRE-FEET AT 2400 HOURS, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1898778	1832016	1785000	1782447	1803067	1874672	2091256	2234240	2329188	2298952	2107512	2020242
2	1896400	1832290	1785000	1782847	1806047	1876477	2095429	2238244	2330139	2292544	2101987	2013388
3	1894585	1830515	1785000	1785539	1807401	1887320	2099899	2242099	2331405	2286447	2095876	2005243
4	1893047	1828746	1785135	1787016	1808759	1897379	2103624	2246731	2330455	2279757	2090067	1997404
5	1893467	1826973	1786077	1787419	1810114	1932725	2105719	2253378	2329188	2273223	2084125	1989872
6	1891512	1824657	1785808	1788227	1811064	1948651	2107961	2260346	2329347	2267323	2078191	1982648
7	1889554	1822342	1786208	1788227	1812286	1957067	2109904	2266858	2329505	2260812	2075669	1975295
8	1887599	1820842	1786208	1788361	1814184	1963804	2111401	2273687	2329822	2254921	2075372	1968251
9	1885649	1821115	1786077	1788630	1815542	1968825	2115141	2279134	2330297	2248433	2074778	1960649
10	1883426	1819618	1785000	1788630	1817847	1973279	2118730	2285824	2329030	2243951	2071377	1952500
11	1881065	1817982	1784193	1789438	1824385	1978034	2123086	2290040	2327925	2237936	2070341	1944513
12	1880787	1816085	1782982	1788496	1832290	1999285	2126389	2295513	2328084	2232545	2067386	1936984
13	1878700	1814320	1782581	1788496	1850926	2013675	2129843	2298796	2326342	2226695	2065611	1930172
14	1876177	1812286	1783251	1788765	1860009	2024619	2133297	2303491	2326183	2221165	2062359	1923248
15	1873142	1810250	1783385	1788496	1867198	2032808	2137667	2306006	2323337	2214875	2061620	1915906
16	1869547	1810521	1782847	1787823	1871620	2038968	2142945	2308210	2322070	2206294	2061179	1908457
17	1866506	1808759	1782716	1787958	1874672	2043510	2148068	2311984	2319698	2198343	2058667	1900872
18	1863050	1805911	1781908	1788630	1877173	2048217	2152755	2315129	2319540	2191931	2056755	1894306
19	1863327	1803337	1781505	1788496	1879674	2052339	2156992	2317014	2317487	2185987	2056313	1887739
20	1860286	1801042	1780563	1788496	1880091	2055871	2160774	2316857	2316542	2180047	2053370	1881065
21	1856980	1798748	1781236	1787823	1879117	2059257	2165318	2320331	2315444	2173365	2052486	1874811
22	1853680	1796720	1782178	1787150	1877451	2063099	2171085	2321436	2313083	2167138	2049838	1867752
23	1850241	1797125	1781908	1787419	1875643	2066202	2177312	2322545	2313240	2161531	2048806	1860978
24	1847216	1794695	1781908	1789303	1874116	2069158	2183246	2323178	2311670	2155780	2046010	1854093
25	1844331	1792130	1782716	1790915	1872727	2072409	2189644	2323812	2311670	2149730	2045715	1846803
26	1844879	1789569	1781505	1792130	1873699	2073444	2196659	2324758	2310410	2143695	2043070	1839680
27	1842280	1789838	1780024	1793749	1872727	2076111	2204916	2325391	2309938	2137667	2042633	1832838
28	1838996	1787688	1780428	1796182	1873699	2078785	2213493	2326342	2309308	2131497	2039992	1826158
29	1836944	1785135	1779621	1797937	---	2082049	2221932	2327292	2306636	2125187	2033835	1819618
30	1834615	1785404	1778278	1799559	---	2084571	2229004	2327767	2306006	2118730	2027688	1813101
31	1833657	---	1778817	1801042	---	2087686	---	2328242	---	2113048	2027104	---
MAX	1898778	1832290	1786208	1801042	1880091	2087686	2229004	2328242	2331405	2298952	2107512	2020242
MIN	1833657	1785135	1778278	1782447	1803067	1874672	2091256	2234240	2306006	2113048	2027104	1813101
a	2329.13	2325.57	2325.08	2326.73	2332.04	2346.91	2356.25	2362.62	2361.21	2348.61	2342.80	2327.62
b	-67343	-48253	-6587	+22225	+72657	+213987	+141318	+99238	-22236	-192958	-85944	-214003
c	2370	831	415	385	1010	2050	4870	6380	8250	8650	8670	4670

CAL YR 1986 MAX 2388600 MIN 1472600 b + 306917
WTR YR 1987 MAX 2331405 MIN 1778278 b - 87899

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet; not reviewed by U.S. Geological Survey.

KLAMATH RIVER BASIN

11525430 JUDGE FRANCIS CARR POWERPLANT NEAR FRENCH GULCH, CA

LOCATION.--Lat 40°38'49", long 122°37'34", Shasta County, Hydrologic Unit 18010212, at powerplant 1.6 mi downstream from Mill Creek and 3.8 mi south of French Gulch.

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

GAGE.--Recorded powerplant output.

REMARKS.--Water is diverted from Trinity River at NW 1/4 SE 1/4 sec.8, T.33 N., R.8 W., through a tunnel to powerplant and then into Whiskeytown Lake (station 11371700). See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records were provided by U.S. Bureau of Reclamation.

AVERAGE DISCHARGE.--24 years, 1,513 ft³/s, 1,096,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,910 ft³/s, Feb. 11, 1970; no flow many days 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	762	890	0	0	0	0	0	0	0	3350	2454	2820
2	960	0	0	0	0	0	0	0	0	2523	2878	2926
3	816	617	0	0	0	0	0	0	0	2336	2958	3564
4	788	741	0	0	0	0	233	0	813	2503	2878	3350
5	0	782	0	0	0	0	768	91	801	2572	2892	3260
6	873	811	0	0	0	0	789	38	0	2736	2770	3260
7	798	862	0	0	0	0	737	479	0	2711	925	3180
8	816	704	0	0	0	0	1403	29	0	2675	0	3180
9	934	0	0	0	0	0	633	0	718	3073	0	3700
10	959	811	334	0	0	0	842	0	0	2448	971	3700
11	877	747	334	0	0	752	714	449	793	2770	0	3700
12	0	662	334	344	0	301	683	229	0	2611	857	3068
13	741	798	329	0	0	254	652	836	814	2916	0	3038
14	860	640	0	0	0	0	705	151	0	2517	1214	3097
15	1668	621	0	0	0	0	705	809	813	2468	0	3332
16	1843	0	0	126	0	0	610	805	0	2613	0	3405
17	1250	648	0	0	0	0	514	0	810	2613	901	3314
18	1302	1149	439	0	0	0	456	0	0	1931	713	2996
19	0	1158	465	0	0	0	0	0	811	2840	0	3187
20	1421	1148	445	0	861	0	201	0	0	2931	887	3189
21	1518	1174	0	236	1453	0	366	0	0	2416	0	3084
22	1522	1284	0	244	1513	0	334	0	823	2336	871	3055
23	1545	0	0	254	1473	0	303	0	0	2550	0	3026
24	1543	960	0	131	1493	0	307	0	799	2605	959	3154
25	1555	1149	0	0	1006	0	204	0	0	2716	0	3154
26	0	1036	502	0	0	517	0	0	802	2656	859	3118
27	1536	0	502	0	969	0	199	0	0	2551	0	3153
28	1482	1036	0	17	0	0	174	0	0	2551	872	3084
29	1397	975	502	0	---	0	0	0	790	2542	2755	3154
30	1455	0	414	0	---	0	299	0	0	2523	2820	3084
31	771	---	0	0	---	0	---	0	---	2506	0	---
TOTAL	31992	21403	4600	1352	8768	1824	12831	3916	9587	81089	32434	96332
MEAN	1032	713	148	43.6	313	58.8	427	126	319	2615	1046	3211
MAX	1843	1284	502	344	1513	752	1403	836	823	3350	2958	3700
MIN	0	0	0	0	0	0	0	0	0	1931	0	2820
AC-FT	63460	42450	9120	2680	17390	3620	25450	7770	19020	160800	64330	191100
CAL YR 1986	TOTAL	370797.00	MEAN	1015	MAX	3700	MIN	0	AC-FT	735500		
WTR YR 1987	TOTAL	306128.00	MEAN	838	MAX	3700	MIN	0	AC-FT	607200		

KLAMATH RIVER BASIN

11525500 TRINITY RIVER AT LEWISTON, CA

LOCATION.--Lat 40°43'10", long 122°48'09", in SW 1/4 NW 1/4 sec.17, T.33 N., R.8 W., Trinity County, Hydrologic Unit 18010211, on right bank 400 ft upstream from Deadwood Creek, 0.8 mi downstream from Lewiston Diversion Dam, and 0.8 mi northeast of Lewiston.

DRAINAGE AREA.--719 mi².

PERIOD OF RECORD.--August 1911 to current year.

CHEMICAL DATA: Water years 1951-81.

WATER TEMPERATURE: Water years 1952-55, 1958-83.

SEDIMENT DATA: Water years 1955-61.

REVISED RECORDS.--WSP 331: 1911-12. WSP 1181: 1949. WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,815.95 ft above National Geodetic Vertical Datum of 1929. See WSP 1929 for history of changes prior to July 7, 1964.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Clair Engle Lake (station 11525400) beginning in November 1960 and Lewiston Lake, capacity, 14,660 acre-ft, when diversion to Judge Francis Carr powerplant (station 11525430) began in April 1963. Small diversions above head of Clair Engle Lake for irrigation, power, placer mining, and domestic use between Trinity Dam and station at Lewiston.

AVERAGE DISCHARGE.--49 years (water years 1912-60) prior to storage and diversions, 1,641 ft³/s, 1,189,000 acre-ft/yr; 27 years (water years 1961-87), 1,946 ft³/s, 1,410,000 acre-ft/yr, adjusted for changes in contents, evaporation, and diversion; unadjusted flow for same period was 433 ft³/s, 313,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,600 ft³/s, Dec. 22, 1955, gage height, 27.3 ft, from floodmarks, site and datum then in use; minimum, 23 ft³/s, July 30, 1924. Since completion of Trinity Dam in 1960, maximum discharge, 14,400 ft³/s, Jan. 18, 1974, gage height, 10.41 ft; minimum daily, 100 ft³/s, Apr. 14, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1861 reached a stage of 21.6 ft, from floodmarks, at site 1.1 mi downstream at different datum, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 827 ft³/s, May 1, gage height, 4.62 ft; minimum daily, 281 ft³/s, Dec. 8, 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	322	316	302	311	298	304	456	723	721	594	451	424
2	325	314	301	305	300	304	566	819	720	531	332	330
3	324	312	298	307	299	304	574	815	722	537	332	298
4	323	312	299	305	300	304	579	818	720	545	331	298
5	323	311	298	302	299	305	573	818	722	545	330	298
6	320	311	299	303	302	299	571	820	724	543	331	298
7	320	313	297	305	305	347	573	817	723	540	330	298
8	323	314	281	305	305	316	576	820	724	544	328	298
9	322	315	281	305	304	313	570	817	722	539	328	298
10	321	314	299	307	304	315	574	817	728	568	330	298
11	320	307	300	305	303	318	574	817	724	653	328	297
12	318	306	301	304	302	319	571	818	727	653	328	303
13	316	305	302	304	304	310	564	813	704	654	329	297
14	316	306	300	305	303	308	562	813	709	649	329	300
15	314	305	297	305	302	305	560	812	716	653	328	299
16	313	305	297	306	298	303	558	813	722	656	328	299
17	317	306	297	306	300	305	561	568	712	656	325	299
18	318	306	299	303	300	304	563	438	701	660	327	300
19	317	306	304	298	301	303	568	438	705	665	337	302
20	320	302	302	299	303	303	562	439	705	655	342	300
21	318	305	301	302	298	307	561	620	707	649	343	299
22	320	306	299	302	300	305	561	712	706	658	340	299
23	320	301	300	303	302	303	562	721	705	664	341	299
24	320	302	301	298	302	302	564	720	700	660	340	298
25	320	304	300	293	303	301	566	722	707	651	341	296
26	320	303	298	293	303	301	567	722	707	646	340	296
27	321	306	300	299	304	302	568	725	701	647	340	302
28	317	306	302	299	303	302	564	724	704	645	424	291
29	316	303	299	299	---	301	563	720	708	645	449	301
30	316	302	302	301	---	299	569	720	717	645	449	297
31	317	---	305	299	---	299	---	721	---	643	459	---
TOTAL	9897	9224	9261	9378	8447	9511	16900	22680	21413	19193	10890	9112
MEAN	319	307	299	303	302	307	563	732	714	619	351	304
MAX	325	316	305	311	305	347	579	820	728	665	459	424
MIN	313	301	281	293	298	299	456	438	700	531	325	291
AC-FT	19630	18300	18370	18600	16750	18870	33520	44990	42470	38070	21600	18070
MEAN a	295	224	347	714	1941	3879	3443	2576	800	237	141	0
AC-FT a	18120	13330	21320	43890	107800	238500	205200	158400	47510	14600	8650	0

CAL YR 1986 TOTAL 248916 MEAN 682 MAX 6250 MIN 281 AC-FT 493700 MEAN a 2199 AC-FT a 1592000
WTR YR 1987 TOTAL 155906 MEAN 427 MAX 820 MIN 281 AC-FT 309200 MEAN a 1211 AC-FT a 877100

a Adjusted for change in contents and evaporation from Clair Engle Lake and diversion to Judge Francis Carr powerplant. Adjustments provided by U.S. Bureau of Reclamation; evaporation adjustments not reviewed by U.S. Geological Survey.

NOTE.--When inflow to lake is small and other quantities large, discordant figures of net runoff may appear.

KLAMATH RIVER BASIN

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA

LOCATION.--Lat 40°40'35", long 122°49'46", in SW 1/4, NE 1/4 sec.36, T.33 N., R.9 W., Trinity County, Hydrologic Unit 18010211, on right bank 0.1 mi upstream from Phillips Gulch and 2.5 mi southwest of Lewiston.

DRAINAGE AREA.--30.8 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR-86-2: 1983(M)

GAGE.--Water-stage recorder. Datum of gage is 2,049.73 ft above National Geodetic Vertical Datum of 1929 (California State Highway Department bench mark).

REMARKS.--No estimated daily discharge. Records fair. No regulation; small pumping diversions above station.

AVERAGE DISCHARGE.--11 years (water years 1977-87), 50.6 ft³/s, 36,660 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,140 ft³/s, Feb. 28, 1983; gage height, 10.11 ft, from rating curve extended above 700 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 4.3 ft³/s, many days in 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 220 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 5	0830	*570	*6.80	Mar. 12	1700	260	5.92

Minimum daily, 6.2 ft³/s, Aug. 31.

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	18	17	35	24	24	54	38	22	12	8.8	6.3
2	15	17	17	30	33	24	56	36	21	12	8.4	6.7
3	15	17	17	38	32	54	67	34	20	11	8.0	6.8
4	15	17	18	29	28	67	58	33	19	11	7.8	7.0
5	15	17	22	22	27	406	54	32	19	11	7.7	6.7
6	15	17	19	23	26	196	53	31	19	11	7.5	7.0
7	15	17	18	20	25	151	52	30	19	11	7.5	7.4
8	15	17	17	18	24	116	52	30	19	11	7.5	7.6
9	15	17	17	17	24	94	50	29	18	10	7.2	7.6
10	15	17	17	17	32	89	51	28	18	9.9	7.2	7.4
11	15	17	17	16	58	93	51	27	17	10	7.2	7.5
12	15	17	17	16	67	199	49	27	16	10	7.3	7.8
13	16	17	18	16	156	161	46	26	15	9.9	7.3	7.9
14	16	17	18	15	102	138	46	25	15	9.4	7.6	8.3
15	16	17	17	15	99	112	45	25	15	9.3	8.1	8.4
16	17	17	17	13	72	95	45	25	15	9.1	7.6	8.1
17	19	17	17	16	58	85	45	25	15	9.8	7.2	7.9
18	17	17	20	16	51	81	44	25	14	11	6.9	7.7
19	17	17	22	15	45	79	43	24	13	11	7.0	7.7
20	16	18	23	15	41	77	42	23	13	10	7.3	7.9
21	16	19	19	15	39	77	42	24	14	10	7.4	7.7
22	16	19	23	15	35	75	41	25	13	11	7.2	7.6
23	17	17	21	16	33	76	39	24	12	11	7.2	7.4
24	18	17	19	18	31	73	38	23	12	10	7.1	7.2
25	18	17	19	19	28	71	38	24	12	10	6.9	7.6
26	18	17	20	20	27	69	37	23	11	9.8	6.7	7.7
27	21	17	19	24	26	66	36	23	11	9.5	6.7	8.0
28	18	18	18	31	25	62	36	23	12	9.4	6.7	8.2
29	21	18	19	23	---	60	35	23	12	9.3	6.5	8.0
30	20	17	18	34	---	57	38	22	12	9.1	6.4	7.8
31	18	---	22	27	---	57	---	22	---	9.1	6.2	---
TOTAL	515	518	582	644	1268	3084	1383	829	463	317.6	226.1	226.9
MEAN	16.6	17.3	18.8	20.8	45.3	99.5	46.1	26.7	15.4	10.2	7.29	7.56
MAX	21	19	23	38	156	406	67	38	22	12	8.8	8.4
MIN	15	17	17	13	24	24	35	22	11	9.1	6.2	6.3
AC-FT	1020	1030	1150	1280	2520	6120	2740	1640	918	630	448	450

CAL YR 1986 TOTAL 19642.2 MEAN 53.8 MAX 808 MIN 9.4 AC-FT 38960
WTR YR 1987 TOTAL 10056.6 MEAN 27.6 MAX 406 MIN 6.2 AC-FT 19950

KLAMATH RIVER BASIN

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, 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	36	1.5	18	27	1.3	17	10	.46
2	15	34	2.1	17	21	.96	17	8	.37
3	15	32	1.3	17	16	.73	17	6	.28
4	15	30	1.2	17	10	.46	18	8	.44
5	15	28	1.1	17	10	.46	22	35	2.1
6	15	26	1.1	17	14	.64	19	31	1.6
7	15	25	1.0	17	17	.78	18	28	1.4
8	15	24	.97	17	21	.96	17	28	1.3
9	15	24	.97	17	21	.96	17	26	1.2
10	15	23	.93	17	21	.96	17	26	1.2
11	15	23	.93	17	20	.92	17	25	1.1
12	15	22	.89	17	20	.92	17	24	1.1
13	16	22	.95	17	19	.87	18	26	1.3
14	16	20	.86	17	18	.83	18	24	1.2
15	16	18	.78	17	17	.78	17	23	1.1
16	17	20	.99	17	16	.73	17	23	1.1
17	19	44	2.3	17	16	.73	17	22	1.0
18	17	39	1.8	17	14	.64	20	26	1.4
19	17	36	1.7	17	14	.64	22	36	2.2
20	16	35	1.5	18	18	.93	23	35	2.2
21	16	31	1.3	19	26	1.3	19	26	1.3
22	16	27	1.2	19	30	1.5	23	36	2.3
23	17	24	1.1	17	28	1.3	21	26	1.5
24	18	21	1.0	17	26	1.2	19	21	1.1
25	18	19	.92	17	18	.83	19	20	1.0
26	18	20	.97	17	9	.41	20	25	1.4
27	21	38	2.2	17	8	.37	19	17	.87
28	18	32	1.6	18	15	.77	18	14	.68
29	21	38	2.2	18	20	.97	19	16	.83
30	20	40	2.2	17	14	.64	18	12	.58
31	18	33	1.6	---	---	---	22	34	2.1
TOTAL	515	---	41.16	518	---	25.49	582	---	37.71
JANUARY				FEBRUARY			MARCH		
1	35	100	11	24	72	4.7	24	54	3.5
2	30	46	3.7	33	74	6.6	24	58	3.8
3	38	120	13	32	54	4.7	54	256	40
4	29	50	3.9	28	41	3.1	67	235	66
5	22	28	1.7	27	32	2.3	406	1620	2040
6	23	33	2.1	26	26	1.8	196	319	169
7	20	35	1.9	25	20	1.4	151	112	46
8	18	33	1.6	24	19	1.2	116	91	29
9	17	31	1.4	24	27	1.7	94	88	22
10	17	28	1.3	32	56	4.8	89	78	19
11	16	27	1.2	58	172	27	93	74	19
12	16	26	1.1	67	157	50	199	314	179
13	16	23	.99	156	1150	517	161	257	112
14	15	22	.89	102	374	106	138	187	70
15	15	20	.81	99	283	78	112	143	43
16	13	20	.70	72	157	30	95	104	27
17	16	18	.78	58	98	15	85	86	20
18	16	17	.73	51	60	8.3	81	82	18
19	15	16	.65	45	38	4.6	79	80	17
20	15	15	.61	41	26	2.9	77	75	16
21	15	14	.57	39	38	4.0	77	71	15
22	15	14	.57	35	49	4.6	75	68	14
23	16	15	.65	33	60	5.3	76	63	13
24	18	17	.83	31	70	5.9	73	58	11
25	19	19	.97	28	56	4.2	71	55	11
26	20	20	1.1	27	40	2.9	69	53	9.9
27	24	44	3.6	26	47	3.3	66	51	9.1
28	31	123	10	25	50	3.4	62	45	7.5
29	23	110	6.8	---	---	---	60	45	7.3
30	34	125	11	---	---	---	57	45	6.9
31	27	96	7.0	---	---	---	57	40	6.2
TOTAL	644	---	93.15	1268	---	904.7	3084	---	3070.2

KLAMATH RIVER BASIN

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, 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	54	38	5.5	38	17	1.7	22	7	.42
2	56	48	7.3	36	17	1.7	21	7	.40
3	67	122	22	34	15	1.4	20	7	.38
4	58	89	14	33	12	1.1	19	6	.31
5	54	75	11	32	10	.86	19	6	.31
6	53	68	9.7	31	10	.84	19	4	.21
7	52	60	8.4	30	8	.65	19	2	.10
8	52	51	7.2	30	6	.49	19	2	.10
9	50	39	5.3	29	12	.94	18	2	.10
10	51	39	5.4	28	10	.76	18	3	.15
11	51	38	5.2	27	8	.58	17	3	.14
12	49	37	4.9	27	8	.58	16	3	.13
13	46	32	4.0	26	8	.56	15	4	.16
14	46	32	4.0	25	9	.61	15	4	.16
15	45	32	3.9	25	9	.61	15	4	.16
16	45	30	3.6	25	10	.68	15	3	.12
17	45	29	3.5	25	9	.61	15	3	.12
18	44	28	3.3	25	9	.61	14	2	.08
19	43	28	3.3	24	8	.52	13	2	.07
20	42	27	3.1	23	8	.50	13	2	.07
21	42	24	2.7	24	7	.45	14	2	.08
22	41	21	2.3	25	6	.41	13	2	.07
23	39	21	2.2	24	6	.39	12	2	.06
24	38	20	2.1	23	6	.37	12	1	.03
25	38	20	2.1	24	6	.39	12	1	.03
26	37	22	2.2	23	6	.37	11	1	.03
27	36	20	1.9	23	5	.31	11	1	.03
28	36	19	1.8	23	4	.25	12	1	.03
29	35	18	1.7	23	3	.19	12	1	.03
30	38	18	1.8	22	5	.30	12	1	.03
31	---	---	---	22	7	.42	---	---	---
TOTAL	1383	---	155.4	829	---	20.15	463	---	4.11
JULY				AUGUST				SEPTEMBER	
1	12	1	.03	8.8	1	.02	6.3	1	.02
2	12	1	.03	8.4	1	.02	6.7	1	.02
3	11	1	.03	8.0	1	.02	6.8	0	.00
4	11	1	.03	7.8	1	.02	7.0	0	.00
5	11	1	.03	7.7	1	.02	6.7	0	.00
6	11	1	.03	7.5	0	.00	7.0	0	.00
7	11	1	.03	7.5	1	.02	7.4	0	.00
8	11	0	.00	7.5	1	.02	7.6	1	.02
9	10	1	.03	7.2	0	.00	7.6	1	.02
10	9.9	1	.03	7.2	0	.00	7.4	1	.02
11	10	1	.03	7.2	0	.00	7.5	1	.02
12	10	1	.03	7.3	0	.00	7.8	1	.02
13	9.9	1	.03	7.3	0	.00	7.9	1	.02
14	9.4	1	.03	7.6	0	.00	8.3	1	.02
15	9.3	1	.03	8.1	0	.00	8.4	1	.02
16	9.1	1	.02	7.6	0	.00	8.1	1	.02
17	9.8	1	.03	7.2	1	.02	7.9	2	.04
18	11	1	.03	6.9	3	.06	7.7	2	.04
19	11	1	.03	7.0	3	.06	7.7	3	.06
20	10	1	.03	7.3	2	.04	7.9	4	.09
21	10	1	.03	7.4	2	.04	7.7	3	.06
22	11	1	.03	7.2	1	.02	7.6	3	.06
23	11	1	.03	7.2	1	.02	7.4	2	.04
24	10	1	.03	7.1	1	.02	7.2	2	.04
25	10	0	.00	6.9	0	.00	7.6	2	.04
26	9.8	0	.00	6.7	0	.00	7.7	2	.04
27	9.5	0	.00	6.7	1	.02	8.0	1	.02
28	9.4	1	.03	6.7	1	.02	8.2	1	.02
29	9.3	1	.03	6.5	1	.02	8.0	1	.02
30	9.1	1	.02	6.4	1	.02	7.8	0	.00
31	9.1	1	.02	6.2	1	.02	---	---	---
TOTAL	317.6	---	0.78	226.1	---	0.52	226.9	---	0.79
YEAR	10056.6		4354.16						

KLAMATH RIVER BASIN

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, 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	515.00	41.16	0	41
NOVEMBER....	518.00	25.49	0	25
DECEMBER....	582.00	37.71	0	38
JANUARY 1987	644.00	93.15	0	93
FEBRUARY....	1268.00	904.70	27	932
MARCH.....	3084.00	3070.20	410	3480
APRIL.....	1383.00	155.40	6	161
MAY.....	829.00	20.15	0	20
JUNE.....	463.00	4.11	0	4
JULY.....	317.60	0.78	0	1
AUGUST.....	226.10	0.52	0	1
SEPTEMBER...	226.90	0.79	0	1
TOTAL.....	10056.60	4354.16	443	4797

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	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
JAN											
03...	1000	48	4.0	276	36	6	14	39	79	98	100
28...	1130	29	3.0	120	9.4	10	15	34	72	96	100
FEB											
13...	1100	137	5.0	1720	636	5	7	16	42	70	90
MAR											
05...	1355	453	7.0	2100	2570	16	23	35	54	76	90
06...	1200	184	5.0	472	234	15	21	32	52	80	94
09...	1120	94	6.5	88	22	26	32	43	64	88	100
APR											
07...	1250	52	7.0	59	8.3	13	18	25	41	69	100

KLAMATH RIVER BASIN

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	NUMBER OF SAM- PLING POINTS	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
JAN							
05...	1215	22	3.5	1	2	6	12
05...	1220	22	3.5	1	1	10	39
05...	1225	22	3.5	1	1	4	7
FEB							
20...	1300	42	3.5	1	--	1	2
20...	1305	42	3.5	1	1	2	4
20...	1310	42	3.5	1	3	8	17
20...	1315	42	3.5	1	1	3	7
20...	1320	42	3.5	1	--	--	--
MAR							
09...	1130	94	6.5	1	1	2	5
09...	1135	94	6.5	1	--	1	1
09...	1140	94	6.5	1	--	2	4
09...	1145	94	6.5	1	--	--	--
09...	1150	94	6.5	1	--	--	1

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	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
JAN							
05...	14	16	20	22	70	100	--
05...	77	97	100	--	--	--	--
05...	12	16	21	25	39	100	--
FEB							
20...	5	10	13	18	43	100	--
20...	8	13	19	28	60	100	--
20...	27	38	40	44	46	100	--
20...	14	23	26	31	63	100	--
20...	--	2	3	8	18	100	--
MAR							
09...	9	14	17	23	33	100	--
09...	3	4	4	6	75	100	--
09...	10	15	17	19	22	27	100
09...	1	2	3	3	3	100	--
09...	3	6	7	10	14	34	100

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

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM WIDTH (FT)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
JAN							
28...	1140	29	3.0	16	34.0	24	2
SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM							
SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM							
SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM							
SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM							
SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM							
SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM							
JAN							
28...	15	38	66	94	99	100	

KLAMATH RIVER BASIN

11525655 TRINITY RIVER BELOW LIMEKILN GULCH, NEAR DOUGLAS CITY, CA

LOCATION.--Lat 40°40'21", long 122°55'07", in SW 1/4 NW 1/4 sec. 32, T.33 N., R.9 W., Trinity County, Hydrologic Unit 18010211, on left bank 1.8 mi northeast of Douglas City, 11.3 mi downstream from Lewiston Diversion Dam, and 2.3 mi downstream from Limekiln Gulch.

DRAINAGE AREA.--812 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1981 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,650 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Clair Engle Lake (station 11525400) and transbasin diversion to Judge Francis Carr powerplant (station 11525430). Small diversion for irrigation above station.

AVERAGE DISCHARGE.--6 years, 906 ft³/s, 656,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,070 ft³/s, June 12, 1983, gage height, 10.45 ft; minimum daily, 286 ft³/s, Nov. 4, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,300 ft³/s, Mar. 12, gage height, 6.04 ft; minimum daily, 293 ft³/s, Dec. 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	360	347	325	386	361	340	492	770	730	611	494	434
2	354	342	325	377	427	340	698	867	730	546	339	353
3	350	340	325	407	428	453	734	867	730	546	334	305
4	350	340	323	386	389	458	715	877	723	546	330	302
5	350	340	323	354	370	931	705	912	711	546	330	302
6	350	336	326	349	361	731	696	926	713	540	329	302
7	350	335	325	353	353	595	690	921	714	540	325	302
8	343	335	319	346	350	518	690	915	706	540	325	302
9	335	335	293	340	345	478	690	907	704	543	325	302
10	335	335	311	340	345	457	697	888	704	551	325	302
11	335	331	311	337	389	459	735	893	706	609	325	302
12	335	330	311	335	383	928	707	894	706	615	323	300
13	335	330	314	331	716	899	693	896	702	615	322	302
14	335	330	321	325	592	720	690	887	698	615	321	302
15	335	330	321	325	573	630	690	891	690	613	321	302
16	336	330	321	319	482	561	690	885	700	608	321	302
17	349	330	321	316	437	520	703	717	702	608	321	301
18	345	330	321	316	402	500	689	521	689	608	321	298
19	345	330	323	316	384	477	683	505	683	615	323	299
20	345	328	325	316	371	456	674	496	683	614	335	302
21	345	330	325	311	360	458	660	600	683	610	335	302
22	345	330	329	311	352	446	690	716	675	615	338	302
23	345	330	330	316	349	455	704	730	675	615	340	302
24	345	330	329	338	342	451	696	730	674	615	340	302
25	345	330	325	340	340	434	690	730	667	615	340	302
26	345	330	325	347	340	424	700	730	667	613	340	300
27	345	330	325	359	340	419	718	730	667	608	340	307
28	343	330	325	396	340	419	730	730	667	608	399	296
29	351	329	321	371	---	418	708	730	660	608	454	310
30	375	325	321	371	---	413	685	730	660	607	452	299
31	355	---	327	369	---	413	---	730	---	601	448	---
TOTAL	10711	9978	9966	10703	11221	16201	20742	24321	20819	18344	10815	9238
MEAN	346	333	321	345	401	523	691	785	694	592	349	308
MAX	375	347	330	407	716	931	735	926	730	615	494	434
MIN	335	325	293	311	340	340	492	496	660	540	321	296
AC-FT	21250	19790	19770	21230	22260	32130	41140	48240	41290	36390	21450	18320
CAL YR 1986	TOTAL	301853	MEAN 827	MAX 7110	MIN 293	AC-FT 598700						
WTR YR 1987	TOTAL	173059	MEAN 474	MAX 931	MIN 293	AC-FT 343300						

11525655 TRINITY RIVER BELOW LIMEKILN GULCH, NEAR DOUGLAS CITY, CA--Continued

WATER-QUALITY RECORDS

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

WATER TEMPERATURE: Water years 1981 to current year.

SEDIMENT DATA: Water years 1981 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: April 1981 to current year.

REMARKS.--Sediment samples were collected most days where a water temperature is published.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 1,990 mg/L, Feb. 14, 1986; minimum daily mean, 0 mg/L, several days most years.

SEDIMENT LOAD: Maximum daily, 17,300 tons, Feb. 14, 1986; minimum daily, 0 ton, many days most years.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 261 mg/L, Mar. 5; minimum daily mean, 0 mg/L many days during the year.

SEDIMENT LOAD: Maximum daily, 724 tons, Mar. 5; minimum daily, 0 ton, many days during the year.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
ONCE-DAILY

[illegible]

KLAMATH RIVER BASIN

11525655 TRINITY RIVER BELOW LIMEKILN GULCH, NEAR DOUGLAS CITY, 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	360	4	3.9	347	2	1.9	325	1	.88
2	354	4	3.8	342	2	1.8	325	1	.88
3	350	6	5.7	340	2	1.8	325	0	.00
4	350	8	7.6	340	2	1.8	323	3	2.6
5	350	10	9.5	340	2	1.8	323	4	3.5
6	350	11	10	336	2	1.8	326	4	3.5
7	350	6	5.7	335	3	2.7	325	4	3.5
8	343	2	1.9	335	4	3.6	319	4	3.4
9	335	2	1.8	335	4	3.6	293	4	3.2
10	335	2	1.8	335	3	2.7	311	4	3.4
11	335	2	1.8	331	3	2.7	311	3	2.5
12	335	2	1.8	330	3	2.7	311	3	2.5
13	335	2	1.8	330	3	2.7	314	3	2.5
14	335	2	1.8	330	3	2.7	321	3	2.6
15	335	2	1.8	330	2	1.8	321	3	2.6
16	336	2	1.8	330	2	1.8	321	3	2.6
17	349	2	1.9	330	3	2.7	321	3	2.6
18	345	2	1.9	330	4	3.6	321	3	2.6
19	345	1	.93	330	4	3.6	323	3	2.6
20	345	1	.93	328	4	3.5	325	2	1.8
21	345	1	.93	330	4	3.6	325	2	1.8
22	345	1	.93	330	4	3.6	329	2	1.8
23	345	1	.93	330	4	3.6	330	2	1.8
24	345	1	.93	330	3	2.7	329	1	.89
25	345	1	.93	330	3	2.7	325	1	.88
26	345	2	1.9	330	2	1.8	325	1	.88
27	345	2	1.9	330	2	1.8	325	1	.88
28	343	2	1.9	330	1	.89	325	1	.88
29	351	2	1.9	329	1	.89	321	1	.87
30	375	2	2.0	325	1	.88	321	2	1.7
31	355	2	1.9	---	---	---	327	2	1.8
TOTAL	10711	---	84.31	9978	---	73.76	9966	---	63.94
JANUARY			FEBRUARY			MARCH			
1	386	12	13	361	3	2.9	340	1	.92
2	377	8	8.1	427	3	3.5	340	1	.92
3	407	20	22	428	3	3.5	453	8	9.8
4	386	10	10	389	3	3.2	458	6	7.4
5	354	3	2.9	370	3	3.0	931	261	724
6	349	3	2.8	361	2	1.9	731	31	61
7	353	2	1.9	353	1	.95	595	19	31
8	346	1	.93	350	1	.95	518	10	14
9	340	1	.92	345	1	.93	478	6	7.7
10	340	1	.92	345	1	.93	457	5	6.2
11	337	0	.00	389	6	6.3	459	5	6.2
12	335	0	.00	383	5	5.2	928	80	232
13	331	0	.00	716	87	173	899	20	49
14	325	0	.00	592	9	14	720	12	23
15	325	1	.88	573	16	25	630	11	19
16	319	1	.86	482	7	9.1	561	9	14
17	316	1	.85	437	3	3.5	520	7	9.8
18	316	1	.85	402	2	2.2	500	7	9.5
19	316	1	.85	384	2	2.1	477	6	7.7
20	316	1	.85	371	3	3.0	456	5	6.2
21	311	0	.00	360	3	2.9	458	5	6.2
22	311	0	.00	352	3	2.9	446	4	4.8
23	316	0	.00	349	3	2.8	455	5	6.1
24	338	1	.91	342	3	2.8	451	6	7.3
25	340	2	1.8	340	2	1.8	434	5	5.9
26	347	2	1.9	340	1	.92	424	3	3.4
27	359	5	4.8	340	1	.92	419	2	2.3
28	396	8	8.6	340	1	.92	419	2	2.3
29	371	6	6.0	---	---	---	418	2	2.3
30	371	3	3.0	---	---	---	413	2	2.2
31	369	3	3.0	---	---	---	413	2	2.2
TOTAL	10703	---	98.62	11221	---	281.12	16201	---	1284.34

KLAMATH RIVER BASIN

11525655 TRINITY RIVER BELOW LIMEKILN GULCH, NEAR DOUGLAS CITY, 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	492	4	5.3	770	4	8.3	730	6	12
2	698	6	11	867	4	9.4	730	6	12
3	734	20	40	867	4	9.4	730	6	12
4	715	7	14	877	4	9.5	723	4	7.8
5	705	4	7.6	912	4	9.8	711	3	5.8
6	696	4	7.5	926	4	10	713	2	3.9
7	690	4	7.5	921	4	9.9	714	2	3.9
8	690	4	7.5	915	3	7.4	706	2	3.8
9	690	3	5.6	907	3	7.3	704	3	5.7
10	697	3	5.6	888	4	9.6	704	4	7.6
11	735	3	6.0	893	5	12	706	4	7.6
12	707	3	5.7	894	4	9.7	706	3	5.7
13	693	3	5.6	896	3	7.3	702	2	3.8
14	690	3	5.6	887	3	7.2	698	1	1.9
15	690	3	5.6	891	2	4.8	690	1	1.9
16	690	3	5.6	885	2	4.8	700	1	1.9
17	703	3	5.7	717	2	3.9	702	2	3.8
18	689	3	5.6	521	2	2.8	689	2	3.7
19	683	4	7.4	505	1	1.4	683	2	3.7
20	674	4	7.3	496	1	1.3	683	2	3.7
21	660	5	8.9	600	1	1.6	683	2	3.7
22	690	5	9.3	716	1	1.9	675	2	3.6
23	704	4	7.6	730	1	2.0	675	1	1.8
24	696	4	7.5	730	1	2.0	674	0	.00
25	690	5	9.3	730	1	2.0	667	0	.00
26	700	6	11	730	2	3.9	667	0	.00
27	718	6	12	730	2	3.9	667	0	.00
28	730	6	12	730	2	3.9	667	0	.00
29	708	5	9.6	730	2	3.9	660	1	1.8
30	685	4	7.4	730	4	7.9	660	1	1.8
31	---	---	---	730	6	12	---	---	---
TOTAL	20742	---	266.3	24321	---	190.8	20819	---	124.90
JULY			AUGUST			SEPTEMBER			
1	611	1	1.6	494	1	1.3	434	1	1.2
2	546	1	1.5	339	1	.92	353	2	1.9
3	546	1	1.5	334	1	.90	305	2	1.6
4	546	0	.00	330	1	.89	302	2	1.6
5	546	0	.00	330	1	.89	302	1	.82
6	540	0	.00	329	0	.00	302	1	.82
7	540	0	.00	325	0	.00	302	0	.00
8	540	0	.00	325	0	.00	302	4	3.3
9	543	2	2.9	325	1	.88	302	5	4.1
10	551	1	1.5	325	1	.88	302	6	4.9
11	609	1	1.6	325	1	.88	302	4	3.3
12	615	1	1.7	323	1	.87	300	3	2.4
13	615	1	1.7	322	0	.00	302	2	1.6
14	615	1	1.7	321	0	.00	302	1	.82
15	613	1	1.7	321	0	.00	302	1	.82
16	608	1	1.6	321	0	.00	302	0	.00
17	608	2	3.3	321	0	.00	301	0	.00
18	608	2	3.3	321	2	1.7	298	1	.80
19	615	2	3.3	323	4	3.5	299	2	1.6
20	614	1	1.7	335	5	4.5	302	3	2.4
21	610	1	1.6	335	3	2.7	302	3	2.4
22	615	1	1.7	338	1	.91	302	3	2.4
23	615	1	1.7	340	0	.00	302	3	2.4
24	615	1	1.7	340	2	1.8	302	3	2.4
25	615	2	3.3	340	3	2.8	302	3	2.4
26	613	2	3.3	340	3	2.8	300	4	3.2
27	608	2	3.3	340	2	1.8	307	4	3.3
28	608	2	3.3	399	1	1.1	296	4	3.2
29	608	2	3.3	454	0	.00	310	2	1.7
30	607	2	3.3	452	0	.00	299	1	.81
31	601	1	1.6	448	1	1.2	---	---	---
TOTAL	18344	---	58.70	10815	---	33.22	9238	---	58.19
YEAR	173059		2618.20						

KLAMATH RIVER BASIN

11525655 TRINITY RIVER BELOW LIMEKILN GULCH, NEAR DOUGLAS CITY, 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	10711.00	84.31	0	84
NOVEMBER....	9978.00	73.76	0	74
DECEMBER....	9966.00	63.94	0	64
JANUARY 1987	10703.00	98.62	0	99
FEBRUARY....	11221.00	281.12	0	281
MARCH.....	16201.00	1284.34	5	1290
APRIL.....	20742.00	266.30	1	267
MAY.....	24321.00	190.80	22	213
JUNE.....	20819.00	124.90	2	127
JULY.....	18344.00	58.70	0	59
AUGUST.....	10815.00	33.22	0	33
SEPTEMBER...	9238.00	58.19	0	58
TOTAL.....	173059.00	2618.20	30	2649

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	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
FEB									
13...	1340	738	5.5	28	56	92	97	100	--
MAR									
05...	1415	1140	7.0	266	819	90	96	99	100
06...	1400	690	6.0	25	47	93	98	100	--

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 .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
AUG								
05...	1215	12.5	1	330	1	3	7	12
05...	1220	12.5	1	330	--	1	1	2
05...	1225	12.5	1	330	1	2	5	9
05...	1230	12.5	1	330	--	1	3	6
05...	1235	12.5	1	330	1	1	2	4

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	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
AUG							
05...	17	25	33	43	61	100	--
05...	3	4	5	9	46	100	--
05...	12	13	14	16	23	58	100
05...	11	16	18	21	34	46	100
05...	6	8	10	14	34	100	--

KLAMATH RIVER BASIN

11527000 TRINITY RIVER NEAR BURNT RANCH, CA

LOCATION.--Lat 40°47'20", long 123°26'20", in S 1/2 sec.19, T.5 N., R.7 E., Trinity County, Hydrologic Unit 18010211, Trinity National Forest, on left bank 500 ft upstream from Cedar Flat Creek, 700 ft upstream from highway bridge at Cedar Flat, and 2.3 mi southeast of town of Burnt Ranch.

DRAINAGE AREA.--1,439 mi².

PERIOD OF RECORD.--October 1931 to September 1940, October 1956 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WDR CA-78-2: 1975 (M). WSP 1929: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 944.05 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1931, to Jan. 19, 1940, at site 2 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Jan. 17 to Mar. 3 and May 25 to June 22. Records good, except those for missing periods which are fair. Flow regulated since November 1960 by Clair Engle Lake (station 11525400), 64 mi upstream, and by transbasin diversion to Judge Francis Carr powerplant (station 11525430) since April 1963. Small diversions above station for irrigation.

AVERAGE DISCHARGE.--13 years (water years 1932-40, 1957-60), 2,785 ft³/s, 2,016,000 acre-ft/yr; 24 years (water years 1964-87), 1,785 ft³/s, 1,293,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,500 ft³/s, Feb. 25, 1958, gage height, 30.50 ft, from rating curve extended above 40,000 ft³/s on basis of slope-area measurement at gage height 43.2 ft; minimum, 82 ft³/s, Aug. 31, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached a stage of 43.2 ft, from floodmarks, discharge, 172,000 ft³/s, on basis of slope-area measurement of maximum flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,000 ft³/s, Mar. 12, gage height, 12.16 ft; minimum daily, 332 ft³/s, Sept. 25, 26, 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	654	626	495	1130	1020	850	1860	1930	1140	787	610	448
2	594	557	491	1900	1900	830	2160	1820	1080	676	468	430
3	550	517	487	1930	3500	1500	2370	1700	1060	637	378	372
4	536	493	488	1980	2550	3010	2200	1710	1070	611	365	344
5	543	479	592	1430	2050	7910	2060	1930	1040	603	358	344
6	544	468	689	1150	1600	5920	1980	2180	1030	599	351	344
7	533	459	614	1010	1280	4020	1890	2230	1040	611	347	344
8	522	457	571	887	1130	3070	1890	2210	1060	603	347	344
9	511	452	540	822	1040	2490	2000	2100	1040	599	345	338
10	503	452	520	781	980	2210	2130	2080	1030	611	340	338
11	489	450	524	775	1180	2210	2410	1940	1020	603	338	338
12	479	444	518	791	1240	7990	2100	1940	980	599	338	338
13	467	440	525	784	2100	8640	1930	1990	965	644	338	338
14	458	436	618	753	4600	6180	1930	1910	960	642	338	338
15	453	431	591	728	3750	5070	2030	1880	955	633	339	338
16	447	429	559	692	3050	4110	2090	1890	950	624	341	338
17	465	429	542	650	2550	3500	2200	1740	940	622	341	338
18	493	426	544	620	2150	3230	2000	1420	915	631	339	338
19	483	440	586	610	1850	2850	1790	1270	880	641	335	338
20	474	460	622	580	1630	2540	1660	1140	860	646	339	338
21	467	549	597	545	1500	2480	1710	1090	870	643	348	338
22	462	652	627	530	1350	2280	1950	1220	880	653	350	338
23	456	689	701	570	1230	2280	2100	1240	866	652	350	338
24	459	585	683	700	1150	2240	1990	1250	846	647	349	335
25	471	561	643	880	1070	2140	1910	1250	846	642	347	332
26	489	540	640	1180	990	2080	1930	1260	855	630	347	332
27	556	517	634	1350	940	2010	2090	1210	853	622	346	333
28	588	509	615	1900	890	1920	2350	1170	844	617	343	338
29	551	530	619	1550	---	1850	2230	1160	825	613	410	332
30	1010	511	629	1300	---	1790	2010	1140	803	610	439	337
31	759	---	680	1170	---	1810	---	1140	---	610	439	---
TOTAL	16466	14988	18184	31678	50270	101010	60950	50140	28503	19561	11363	10379
MEAN	531	500	587	1022	1795	3258	2032	1617	950	631	367	346
MAX	1010	689	701	1980	4600	8640	2410	2230	1140	787	610	448
MIN	447	426	487	530	890	830	1660	1090	803	599	335	332
AC-FT	32660	29730	36070	62830	99710	200400	120900	99450	56540	38800	22540	20590
CAL YR 1986	TOTAL	787795	MEAN	2158	MAX	30400	MIN	351	AC-FT	1563000		
WTR YR 1987	TOTAL	413492	MEAN	1133	MAX	8640	MIN	332	AC-FT	820200		

KLAMATH RIVER BASIN

11528700 SOUTH FORK TRINITY RIVER BELOW HYAMPOM, CA

LOCATION.--Lat 40°39'00", long 123°29'35", in NW 1/4 SW 1/4 sec.10, T.3 N., R.6 E., Trinity County, Hydrologic Unit 18010212, Trinity National Forest, on left bank 0.3 mi downstream from Big Creek, 3.0 mi northeast of Hyampom, and 3.5 mi downstream from Hayfork Creek.

DRAINAGE AREA.--764 mi².

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,211.37 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 23-24, Mar. 3-4, Apr. 7-14, Aug. 9-10. Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--22 years, 1,502 ft³/s, 1,088,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,000 ft³/s, Feb. 17, 1986, gage height, 25.47 ft, from rating curve extended above 15,000 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 28.00 ft, Jan. 26, 1983; minimum daily, 14 ft³/s, Aug. 24, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 30.45 ft, from floodmarks, discharge, 88,000 ft³/s, on basis of flood-routing study.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 13	1100	8,880	8.85	Mar. 12	2230	*20,800	*13.20
Mar. 5	1700	8,770	8.80				

Minimum daily, 20 ft³/s, Aug. 29-31, Sept. 1-2, 25-26.

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	181	223	184	2150	1830	960	1510	626	279	96	57	20
2	168	188	174	3290	5050	963	1430	579	264	95	53	20
3	160	168	168	3990	5490	1500	1370	545	250	94	51	22
4	152	155	172	3620	3520	2700	1290	511	235	93	46	22
5	148	147	308	2280	2590	6360	1210	493	222	92	42	24
6	136	141	425	1550	2150	6060	1130	482	216	90	38	26
7	134	135	365	1170	1900	3980	1090	468	212	87	36	24
8	132	134	305	929	1730	3080	1040	454	221	83	33	24
9	131	133	268	837	1540	2580	1010	422	220	78	31	24
10	130	133	244	758	1530	2270	970	412	201	77	30	24
11	129	131	225	700	1880	2440	930	408	192	77	29	24
12	129	127	212	680	1950	10100	900	400	186	75	28	24
13	127	127	229	669	7050	13900	870	396	180	72	27	26
14	125	125	261	638	6300	9050	840	366	171	69	28	26
15	125	124	252	600	5290	6720	812	361	168	60	26	25
16	125	122	237	545	4340	5120	778	346	167	57	25	23
17	131	122	227	508	3810	4130	768	327	166	64	28	23
18	141	123	244	503	3190	3830	740	334	164	63	28	23
19	141	126	302	474	2770	3490	712	348	162	73	26	22
20	140	133	371	452	2450	3120	692	330	159	75	25	22
21	137	205	353	438	2180	2990	676	322	158	86	24	22
22	135	250	412	431	1870	2750	660	316	156	90	24	22
23	138	244	574	457	1620	2680	643	309	149	93	24	22
24	140	209	512	750	1410	2510	624	304	142	88	23	22
25	147	196	420	1320	1240	2370	609	315	133	82	23	20
26	147	191	397	1790	1120	2230	593	314	123	76	23	20
27	158	173	372	1830	1040	2080	575	298	120	72	22	21
28	163	180	339	2530	999	1940	548	289	112	64	21	22
29	192	203	369	2110	---	1810	532	283	108	58	20	22
30	286	193	415	2080	---	1690	550	277	103	62	20	22
31	280	---	545	1960	---	1610	---	283	---	60	20	---
TOTAL	4708	4861	9881	42039	77839	117083	26102	11918	5339	2401	931	683
MEAN	152	162	319	1356	2780	3777	870	384	178	77.5	30.0	22.8
MAX	286	250	574	3990	7050	13900	1510	626	279	96	57	26
MIN	125	122	168	431	999	960	532	277	103	57	20	20
AC-FT	9340	9640	19600	83380	154400	232200	51770	23640	10590	4760	1850	1350

CAL YR 1986	TOTAL	681617	MEAN	1867	MAX	55700	MIN	53	AC-FT	1352000
WTR YR 1987	TOTAL	303785	MEAN	832	MAX	13900	MIN	20	AC-FT	602600

KLAMATH RIVER BASIN

11530000 TRINITY RIVER AT HOOPA, CA

LOCATION.--Lat 41°03'00", long 123°40'15", in SE 1/4 NW 1/4 sec.25, T.8 N., R.4 E., Humboldt County, Hydrologic Unit 18010211, in Hoopa Valley Indian Reservation, on left bank at Hoopa, 0.4 mi upstream from Supply Creek.

DRAINAGE AREA.--2,853 mi².

PERIOD OF RECORD.--October 1911 to January 1914, October 1916 to September 1918, October 1931 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Published as "near Hoopa" 1931-60.

REVISED RECORDS.--WSP 1565: 1913. WDR CA-77-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 274.82 ft above National Geodetic Vertical Datum of 1929. Prior to October 1931, nonrecording gage at site 0.4 mi upstream at different datum. October 1931 to Dec. 22, 1964, water-stage recorder at site 2.5 mi upstream at datum 31.67 ft higher.

REMARKS.--Estimated daily discharges: Aug. 16, 17. Records good. Flow regulated since November 1960 by Clair Engle Lake (station 11525400) 84 mi upstream, and by transbasin diversion to Judge Francis Carr powerplant (station 11525430) since April 1963. Small diversions above station for irrigation.

AVERAGE DISCHARGE.--33 years (water years 1912-13, 1917-18, 1932-60), 5,619 ft³/s, 4,071,000 acre-ft/yr; 24 years (water years 1964-87), 5,043 ft³/s, 3,654,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 231,000 ft³/s, Dec. 22, 1964, gage height, 57.0 ft, present site and datum, from floodmarks, from rating curve extended above 123,000 ft³/s; minimum, 162 ft³/s, Oct. 4, 1931.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 22,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 5	2030	23,900	23.81	Mar. 13	0500	*38,500	*27.42

Minimum daily, 433 ft³/s, Sept. 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	1150	1300	1250	4860	5050	3540	5650	4020	1880	1080	705	442
2	1010	1030	1210	9620	9600	3400	5690	3690	1780	1030	606	448
3	930	939	1180	8510	14500	5400	5850	3390	1750	956	583	448
4	888	889	1170	9350	9870	8050	5700	3260	1780	944	566	451
5	876	853	1690	6130	7740	16000	5280	3360	1770	940	560	451
6	869	832	2390	4640	6450	18100	5020	3630	1700	931	549	451
7	850	820	2020	3740	5750	11700	4820	3660	1650	922	545	450
8	831	825	1730	3300	5300	9570	4670	3620	1690	906	541	447
9	817	814	1560	3040	5000	8310	4700	3440	1640	900	540	450
10	798	813	1430	2790	4880	7340	4800	3350	1600	887	539	462
11	783	809	1370	2630	5450	7310	5310	3140	1570	873	534	455
12	768	798	1310	2630	5720	15200	5000	3060	1540	918	539	449
13	754	787	1370	2690	12100	32300	4550	3090	1510	915	545	448
14	744	780	1610	2510	16500	21700	4400	2990	1460	899	545	448
15	735	772	1560	2400	13400	17000	4440	2910	1450	888	541	448
16	732	767	1460	2250	11800	13300	4460	2880	1430	870	540	448
17	748	762	1390	2060	9730	11000	4540	2740	1380	870	538	444
18	791	760	1370	2000	8360	10400	4360	2430	1350	910	538	444
19	789	796	1450	1950	7310	9720	4000	2200	1300	931	528	444
20	774	837	1600	1850	6580	8900	3730	1990	1280	933	536	438
21	763	1420	1600	1780	6060	8460	3690	1880	1300	921	534	438
22	753	2080	1740	1760	5620	7900	3950	1910	1270	992	533	438
23	745	2170	2380	1810	5330	7710	4160	1970	1240	971	525	435
24	738	1670	2370	2730	4990	7410	4000	1980	1210	965	519	433
25	746	1540	2090	3700	4670	6990	3800	2000	1190	949	578	437
26	775	1410	2050	4740	4330	6710	3730	1990	1180	915	610	437
27	838	1310	1990	4900	4000	6470	3840	1910	1170	881	608	441
28	929	1280	1860	6650	3730	6200	4070	1870	1150	868	605	448
29	905	1360	1850	6160	---	6030	4020	1830	1130	859	624	439
30	1560	1300	1950	5640	---	5800	3730	1820	1100	854	559	435
31	1700	---	2150	5300	---	5690	---	1870	---	847	499	---
TOTAL	27089	32503	52150	124120	209820	313610	135960	83880	43450	28525	17312	13347
MEAN	874	1083	1682	4004	7494	10120	4532	2706	1448	920	558	445
MAX	1700	2170	2390	9620	16500	32300	5850	4020	1880	1080	705	462
MIN	732	760	1170	1760	3730	3400	3690	1820	1100	847	499	433
AC-FT	53730	64470	103400	246200	416200	622000	269700	166400	86180	56580	34340	26470
CAL YR 1986	TOTAL	1986120	MEAN	5441	MAX	98300	MIN	585	AC-FT	3939000		
WTR YR 1987	TOTAL	1081766	MEAN	2964	MAX	32300	MIN	433	AC-FT	2146000		

TRINITY RIVER BASIN

11530020 SUPPLY CREEK AT HOOPA, CA

LOCATION.--Lat 41°03'06", long 123°40'47", in NW 1/4 sec.25, T.8 N., R.4 E., Hoopa Valley Indian Reservation, Humboldt County, Hydrologic Unit 18010211, on left bank side at upstream side of bridge on Loop Road, 1,800 ft upstream from mouth, and 1.0 mi downstream from Rock Creek.

DRAINAGE AREA.--15.8 mi².

PERIOD OF RECORD.--October 1981 to September 1987 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 350 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

AVERAGE DISCHARGE.--6 years, 76.0 ft³/s, 55,060 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,110 ft³/s, Feb. 17, 1986, gage height, 4.80 ft from rating curve extended above 900 ft³/s on basis of runoff comparisons with nearby stations; minimum daily, 3.4 ft³/s, Aug. 31, 1987.

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)
Feb. 3	2345	*668	*5.10				

Minimum daily, 3.4 ft³/s, Aug. 31.

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	16	20	216	152	53	70	38	15	7.6	5.6	3.5
2	13	14	18	211	146	51	66	30	14	7.7	5.5	3.5
3	12	13	16	252	278	56	61	28	13	7.7	5.2	3.5
4	11	12	18	223	402	55	56	26	13	8.0	4.6	3.7
5	11	12	88	158	216	138	53	25	13	8.1	4.5	3.9
6	11	11	79	121	155	117	51	26	13	7.8	4.8	4.0
7	10	13	52	99	122	90	49	24	13	7.4	4.7	4.2
8	10	12	39	85	100	85	47	22	12	7.4	4.7	4.3
9	10	12	31	78	87	78	45	21	12	7.5	5.0	4.3
10	10	12	27	70	89	75	47	20	12	7.5	4.8	4.3
11	9.9	11	23	63	91	95	44	20	11	7.5	4.7	4.3
12	9.6	11	21	67	99	216	41	20	11	6.9	4.0	4.3
13	9.6	11	38	73	234	262	40	19	11	6.6	4.0	4.5
14	9.6	11	43	74	242	272	39	18	11	6.5	4.4	4.5
15	9.6	11	35	71	244	238	37	18	12	6.2	4.5	4.2
16	9.6	10	29	65	220	183	36	18	11	6.0	4.7	4.2
17	11	10	26	61	173	160	36	18	11	6.5	4.1	4.5
18	11	11	25	57	144	171	35	17	11	7.7	3.9	4.3
19	10	13	27	54	122	167	33	16	10	7.9	4.0	4.3
20	9.9	18	26	51	107	152	32	16	11	7.0	4.1	4.3
21	9.6	53	24	48	97	139	32	16	12	7.1	3.8	4.1
22	9.6	89	44	48	87	122	31	16	11	8.8	3.8	3.7
23	9.3	51	65	55	81	142	30	16	9.9	7.5	3.9	3.6
24	9.3	36	53	215	75	130	29	16	9.2	7.1	3.9	3.6
25	9.3	30	44	208	69	118	28	16	9.1	7.0	3.8	3.7
26	10	24	49	179	65	107	28	16	8.6	6.8	3.6	3.8
27	13	20	44	167	60	99	27	15	8.3	6.6	3.7	3.8
28	11	21	39	216	56	91	26	15	8.3	6.2	3.6	3.7
29	16	26	44	181	---	84	26	14	8.2	6.0	3.6	3.7
30	23	23	41	167	---	78	28	15	7.7	5.9	3.5	3.6
31	19	---	61	147	---	74	---	18	---	5.8	3.4	---
TOTAL	350.9	617	1189	3780	4013	3898	1203	613	332.3	220.3	132.4	119.9
MEAN	11.3	20.6	38.4	122	143	126	40.1	19.8	11.1	7.11	4.27	4.00
MAX	23	89	88	252	402	272	70	38	15	8.8	5.6	4.5
MIN	9.3	10	16	48	56	51	26	14	7.7	5.8	3.4	3.5
AC-FT	696	1220	2360	7500	7960	7730	2390	1220	659	437	263	238

CAL YR 1986	TOTAL	26433.3	MEAN	72.4	MAX	1490	MIN	4.3	AC-FT	52430
WTR YR 1987	TOTAL	16468.8	MEAN	45.1	MAX	402	MIN	3.4	AC-FT	32670

KLAMATH RIVER BASIN

11530500 KLAMATH RIVER NEAR KLAMATH, CA
(National stream-quality accounting network station)

LOCATION.--Lat 41°30'52", long 123°59'57", in SW 1/4, sec.13, T.13 N., R.2 E., Del Norte County, Hydrologic Unit 18010209, on right bank 0.2 mi upstream from Turwar Creek and 2.2 mi southeast of Klamath.

DRAINAGE AREA.--12,100 mi², approximately (not including Lost River or Lower Klamath Lake basins).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to December 1926 (published as "near Requa"), October 1950 to current year.
Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1285: 1951(P). WSP 1445: 1918-20. WDR CA-81-2: 1980.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is National Geodetic Vertical Datum (NGVD) of 1929. Prior to June 1926, nonrecording gage at site 2.6 mi upstream at different datum. Oct. 1, 1950, to Oct. 2, 1975, water-stage recorder at site 2.6 mi upstream at datum 5.60 ft above NGVD.

REMARKS.--Estimated daily discharge: Aug. 5-12. Records fair except those for June 1 to Sept. 30, which are poor. Medium and low flows considerably regulated by reservoirs and powerplants above station. Large diversions for irrigation above station.

AVERAGE DISCHARGE.--53 years, 17,990 ft³/s, 13,030,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 557,000 ft³/s, Dec. 23, 1964, gage height, 55.3 ft, former datum, from floodmarks, from rating curve extended above 230,000 ft³/s on basis of flood-routing study; minimum daily, 1,310 ft³/s, Sept. 4, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 90,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 13	1030	*81,300	*19.74				

Minimum daily, 2,160 ft³/s, Aug. 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	5680	9550	8280	18300	25100	13300	19100	16200	7220	3540	3100	2230
2	5490	7660	7850	32200	47300	12800	18800	14600	6750	3460	3050	2250
3	5160	6710	7520	29900	56400	16300	18900	12800	6140	3350	2890	2580
4	4930	6530	7360	33400	40800	23800	18200	12200	5980	3310	2720	2600
5	4870	6420	8870	24900	32000	30100	17200	12500	5940	3320	2680	2570
6	4870	6000	11500	19700	26800	47700	16500	13800	5780	3290	2650	2610
7	4800	5620	10500	16500	23600	34800	15900	14500	5560	3250	2560	2630
8	4660	5510	9360	14500	21500	27800	15500	14500	5560	3210	2520	2660
9	4540	5420	8620	13000	20100	25400	15700	13800	5540	3150	2490	2690
10	4480	5390	8110	11700	19100	22700	15700	13200	5370	3100	2430	2690
11	4440	5330	7740	10900	19600	21900	16900	12400	5250	3070	2370	2690
12	4810	5180	7480	11200	20100	38600	16500	11900	5190	3050	2330	2680
13	6460	5050	7800	11800	30500	74400	15200	11800	5010	3060	2300	2690
14	7100	5010	9170	11000	45900	61000	14700	11400	4830	3000	2290	2700
15	7460	5050	8780	10400	41200	52500	14900	11000	4710	2930	2280	2670
16	7260	5040	8150	9800	39600	43300	15200	10800	4680	2870	2300	2640
17	7410	4900	7720	9260	33700	37600	15600	10400	4650	2840	2290	2620
18	7490	4830	7550	8910	29200	37600	15600	9630	4550	2930	2260	2650
19	6470	7880	7780	8640	25900	36200	14600	8910	4420	3170	2250	2660
20	5740	8530	7840	8310	23400	32500	13400	8320	4370	3240	2230	2670
21	5240	14600	7470	8030	21600	30000	12900	7790	4380	3130	2220	2670
22	4900	20400	8110	7920	20100	27700	13800	7470	4340	3120	2210	2670
23	5320	15300	12200	8470	18900	27100	15100	7410	4250	3270	2220	2670
24	6090	10600	12100	14500	17800	26100	15100	7340	4130	3270	2210	2660
25	5800	9460	10600	24000	16800	24600	14600	7390	4030	3240	2210	2640
26	5570	8470	9860	37000	15900	23400	14400	7440	3930	3100	2200	2630
27	6150	7660	9660	29600	15100	22300	15100	7250	3860	3000	2190	2660
28	6470	7880	9040	33500	14200	21300	16200	7060	3790	3210	2170	2670
29	6320	9390	8980	30300	---	20400	16300	6840	3710	3230	2160	2660
30	11300	8880	9780	27000	---	19700	15400	6690	3640	3220	2200	2650
31	15800	---	10400	24600	---	19200	---	7020	---	3180	2250	---
TOTAL	193080	234250	276180	559240	762200	952100	473000	324360	147560	98110	74230	78760
MEAN	6228	7808	8908	18040	27220	30710	15770	10460	4919	3165	2395	2625
MAX	15800	20400	12200	37000	56400	74400	19100	16200	7220	3540	3100	2700
MIN	4440	4830	7360	7920	14200	12800	12900	6690	3640	2840	2160	2230
AC-FT	383000	464600	547800	1109000	1512000	1888000	938200	643400	292700	194600	147200	156200
CAL YR 1986	TOTAL	7586360	MEAN	20780	MAX	404000	MIN	2490	AC-FT	15050000		
WTR YR 1987	TOTAL	4173070	MEAN	11430	MAX	74400	MIN	2160	AC-FT	8277000		

KLAMATH RIVER BASIN

11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

CHEMICAL DATA: Water years 1951 to current year.

BIOLOGICAL DATA: Water years 1975-81.

SPECIFIC CONDUCTANCE: Water years 1975-81.

WATER TEMPERATURE: Water years 1966-81.

SEDIMENT DATA: Water years 1955-56, 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to September 1981.

WATER TEMPERATURE: November 1965 to September 1981.

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 HG)	TUR- BID- ITY (NTU)	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)
NOV											
18...	1535	4870	190	8.3	10.0	755	1.3	11.0	98	K3	K2
JAN											
14...	1330	11000	149	8.0	6.5	770	2.8	12.2	98	K3	K4
MAR											
17...	1645	36900	126	7.8	9.0	760	38	11.6	101	K6	41
MAY											
19...	1350	8770	128	8.3	17.0	760	0.90	9.5	99	K1	K13
JUL											
22...	1500	3120	177	8.6	19.0	765	0.60	10.2	110	K2	26
SEP											
15...	1230	2670	225	8.5	17.5	770	0.70	10.1	105	K3	K8

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)	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)
NOV											
18...	73	0	16	8.1	9.5	22	0.5	1.5	93	--	77
JAN											
14...	66	4	15	6.8	5.1	14	0.3	0.80	74	--	60
MAR											
17...	60	6	14	6.0	3.8	12	0.2	0.70	66	--	54
MAY											
19...	56	0	13	5.8	4.0	13	0.2	0.60	70	--	57
JUL											
22...	72	0	16	7.7	7.1	17	0.4	1.2	98	1	82
SEP											
15...	87	0	19	9.6	14	25	0.7	2.1	110	--	90

DATE	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)	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)
NOV											
18...	77	11	4.8	<0.10	23	121	120	0.16	<0.010	0.350	<0.010
JAN											
14...	62	8.3	2.3	<0.10	18	100	94	0.14	<0.010	0.240	<0.010
MAR											
17...	54	7.9	1.8	<0.10	15	--	82	0.09	<0.010	<0.100	<0.010
MAY											
19...	57	5.0	2.0	<0.10	14	76	79	0.10	<0.010	<0.100	<0.010
JUL											
22...	82	10	4.7	0.10	13	102	110	0.14	<0.010	<0.100	<0.010
SEP											
15...	89	20	6.6	0.10	22	135	150	0.18	<0.010	0.180	0.020

See footnotes at end of table.

KLAMATH RIVER BASIN

11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	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)
NOV 18...	<0.010	0.60	0.050	0.050	0.040	20	4	24	<0.5	1	<1
JAN 14...	0.010	0.40	0.030	0.040	0.020	30	2	16	<0.5	<1	<1
MAR 17...	<0.010	0.30	0.020	0.020	0.010	--	--	--	--	--	--
MAY 19...	<0.010	0.80	0.020	0.020	0.020	<10	1	12	<0.5	<1	<1
JUL 22...	<0.010	0.70	0.040	0.020	0.020	--	--	--	--	--	--
SEP 15...	<0.010	0.40	0.100	0.080	0.070	<10	2	17	<0.5	<1	<1

DATE	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	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)
NOV 18...	<3	1	24	<5	8	3	0.1	<10	2	<1	<1
JAN 14...	<3	2	34	<5	5	4	2.4	<10	2	<1	<1
MAR 17...	--	--	--	--	--	--	--	--	--	--	--
MAY 19...	<3	2	11	<5	<4	2	<0.1	<10	<1	<1	<1
JUL 22...	--	--	--	--	--	--	--	--	--	--	--
SEP 15...	<3	2	9	<5	<4	4	<0.1	<10	2	<1	<1

DATE	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)
NOV 18...	110	<6	5	--	--	--	--	--	--	--	--
JAN 14...	92	<6	18	--	--	--	--	--	--	--	--
MAR 17...	--	--	--	<0.4	<0.4	0.7	<0.4	0.6	<0.4	0.02	0.01
MAY 19...	71	<6	6	--	--	--	--	--	--	--	--
JUL 22...	--	--	--	--	--	--	--	--	--	--	--
SEP 15...	130	<6	<3	<0.4	<0.4	1.9	<0.4	1.5	<0.4	0.02	0.15

K Results based on colony count outside the acceptable range (non-ideal count).
 < Actual value is known to be less than the value shown.

KLAMATH RIVER BASIN

11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

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 (PER- CENT SATUR- ATION)	SEDI- MENT, SUS- PENDE (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR									
17...*	1515	631	127	7.8	9.0	760	11.7	101	73
17...*	1555	486	126	7.8	9.0	760	11.7	101	67
17...*	1625	371	126	7.8	9.0	760	11.6	101	46
17...*	1705	271	124	7.8	9.0	760	11.7	101	64
17...*	1755	148	125	7.8	9.0	760	11.6	101	54
SEP									
15...	1055	194	225	8.4	17.5	770	9.6	99	92
15...*	1145	294	226	8.5	17.5	770	9.9	102	91
15...*	1235	394	224	8.5	17.5	770	10.1	105	83
15...*	1315	469	226	8.6	17.5	770	10.2	106	83
15...*	1400	554	223	8.6	17.5	770	10.9	113	94

*Instantaneous streamflow at the time of cross-sectional measurements: Mar. 17, 36,900 ft³/s;
Sept. 15, 2,670 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
NOV						
18...	1535	4870	10.0	9	118	--
JAN						
14...	1330	11000	6.5	11	327	--
MAR						
17...	1645	36900	9.0	131	13100	58
MAY						
19...	1350	8770	17.0	23	545	46
JUL						
22...	1500	3120	19.0	3	25	94
SEP						
15...	1230	2670	17.5	4	29	84

SMITH RIVER BASIN

11532500 SMITH RIVER NEAR CRESCENT CITY, CA
(National stream-quality accounting network station)

LOCATION.--Lat 41°47'22", long 124°03'14", in SW 1/4 SW 1/4 sec.10, T.16 N., R.1 E., Del Norte County, Hydrologic Unit 18010101, Six Rivers National Forest, on left bank 0.5 mi downstream from South Fork and 8.1 mi east of Crescent City.

DRAINAGE AREA.--609 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 89.61 ft above National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--56 years, 3,863 ft³/s, 2,799,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 228,000 ft³/s, Dec. 22, 1964, gage height, 48.5 ft, from floodmarks, from rating curve extended above 110,000 ft³/s on basis of slope-area measurement at gage height 39.51 ft; minimum daily, 160 ft³/s, Oct. 24, 25, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 36,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 25	1715	41,800	24.29	Feb. 2	0545	*42,400	*24.49

Minimum daily, 187 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	917	2940	3280	16700	14400	2200	2820	1670	910	377	290	204
2	781	2050	2690	14000	32900	2200	2720	1590	743	375	282	203
3	684	1550	2330	14800	15700	5420	2600	1530	670	375	273	202
4	612	1260	2130	11300	9840	4780	2450	1440	630	375	267	202
5	564	1080	3620	7530	7400	8610	2300	1330	618	380	261	201
6	524	952	4060	5620	6010	9130	2190	1260	598	378	253	203
7	489	1070	3200	4430	5090	6630	2110	1180	579	363	249	206
8	460	1010	2660	3630	4440	5690	2070	1130	566	357	248	209
9	436	924	2330	3110	3950	7230	2010	1050	554	351	248	209
10	417	923	2080	2760	3570	5770	2010	992	542	341	245	206
11	403	855	1880	2530	3790	5670	2150	950	523	337	246	204
12	386	798	1730	3030	3580	21200	1940	916	515	330	246	204
13	371	754	2580	3620	13400	22500	1810	895	502	326	241	206
14	363	729	3590	3180	12400	21200	1720	857	487	320	241	206
15	357	722	2950	2810	11000	14400	1660	832	488	309	243	204
16	348	668	2550	2530	10500	9520	1600	805	497	297	241	204
17	618	638	2230	2300	7910	8170	1600	772	497	295	234	195
18	612	675	2100	2110	6420	9860	1650	746	479	338	233	193
19	471	1230	2320	1940	5410	9010	1500	723	464	374	228	192
20	431	2500	2390	1790	4700	7120	1420	703	462	348	230	191
21	398	9620	2150	1660	4210	5890	1370	691	554	328	233	191
22	384	15400	3560	1610	3740	4970	1390	678	509	337	233	191
23	369	7160	6020	2060	3440	5450	1380	665	469	343	231	191
24	387	4520	4350	11900	3120	5090	1310	656	447	326	230	189
25	371	3720	3510	25700	2840	4520	1250	689	430	322	227	189
26	420	2910	3160	23700	2630	4130	1220	668	419	318	220	189
27	1730	3210	2820	14000	2460	3770	1220	645	405	311	216	191
28	1480	7810	2500	14300	2320	3450	1210	632	394	304	216	189
29	2060	6370	3340	10100	---	3190	1150	621	386	301	214	189
30	8710	4290	3670	8560	---	3010	1190	650	386	300	207	187
31	5100	---	4290	8330	---	2900	---	1140	---	295	205	---
TOTAL	31653	88338	92070	231640	207170	232680	53020	29106	15723	10431	7431	5940
MEAN	1021	2945	2970	7472	7399	7506	1767	939	524	336	240	198
MAX	8710	15400	6020	25700	32900	22500	2820	1670	910	380	290	209
MIN	348	638	1730	1610	2320	2200	1150	621	386	295	205	187
AC-FT	62780	175200	182600	459500	410900	461500	105200	57730	31190	20690	14740	11780

CAL YR 1986	TOTAL	1584905	MEAN	4342	MAX	76300	MIN	196	AC-FT	3144000
WTR YR 1987	TOTAL	1005202	MEAN	2754	MAX	32900	MIN	187	AC-FT	1994000

SMITH RIVER BASIN

11532500 SMITH RIVER NEAR CRESCENT CITY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952 to current year.

CHEMICAL DATA: Water years 1952 to current year.

BIOLOGICAL DATA: Water years 1978-81.

SPECIFIC CONDUCTANCE: Water years 1979-81.

WATER TEMPERATURE: Water years 1966-81.

SEDIMENT DATA: Water years 1955-56, November 1977 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1978 to September 1981.

WATER TEMPERATURE: October 1965 to September 1981.

SUSPENDED-SEDIMENT DISCHARGE: November 1977 to September 1979, October 1980 to September 1981.

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 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 09...	1200	2330	111	8.0	6.5	765	0.20	12.5	101	K3	K16	53
MAR 18...	1400	9960	75	7.9	7.5	760	2.8	12.7	106	K5	24	40
JUN 25...	1115	426	129	8.3	20.0	760	0.40	9.2	102	<1	53	64
SEP 17...	1000	193	151	8.3	16.0	760	0.30	9.9	101	K3	K9	79

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)
DEC 09...	1	4.8	10	1.9	7	0.1	0.40	63	52	52	3.1	2.5
MAR 18...	0	3.8	7.4	1.6	8	0.1	0.10	49	40	40	2.7	1.8
JUN 25...	2	7.4	11	2.3	7	0.1	0.40	75	62	62	3.4	2.3
SEP 17...	5	8.5	14	2.8	7	0.1	0.40	89	73	74	4.7	3.3

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)
DEC 09...	<0.10	14	67	68	0.09	<0.010	<0.100	<0.010	<0.010	0.20	0.020
MAR 18...	<0.10	13	49	54	0.07	<0.010	<0.100	<0.010	<0.010	0.20	0.010
JUN 25...	<0.10	13	70	77	0.09	<0.010	<0.100	0.020	0.010	1.1	<0.010
SEP 17...	0.10	14	82	92	0.11	<0.010	<0.100	0.020	<0.010	0.20	<0.010

See footnotes at end of table.

SMITH RIVER BASIN

11532500 SMITH RIVER NEAR CRESCENT CITY, 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 09...	0.010	<0.010	30	2	15	<0.5	<1	3	<3	<1	16
MAR 18...	0.010	<0.010	30	<1	4	<0.5	<1	4	<3	1	26
JUN 25...	0.020	<0.010	<10	<1	9	<0.5	<1	4	<3	<1	8
SEP 17...	0.010	0.010	<10	<1	8	<0.5	<1	3	<3	2	<3

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	<4	<1	<0.1	<10	8	<1	<1	27	<6	7
MAR 18...	<5	<4	<1	<0.1	<10	8	<1	<1	19	<6	6
JUN 25...	<5	<4	<1	<0.1	<10	5	<1	<1	39	<6	6
SEP 17...	<5	<4	1	<0.1	<10	6	<1	<1	47	<6	6

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)
MAR 18...	1245	298	75	7.9	7.5	755	12.9	109	5
MAR 18...	1320	210	75	7.9	7.5	755	12.9	109	7
MAR 18...	1355	158	76	8.0	7.5	760	12.8	107	6
MAR 18...	1430	114	75	8.0	7.5	760	12.5	104	4
MAR 18...	1505	55.0	75	7.9	7.5	760	12.5	104	4
SEP 17...	1200	49.0	156	8.0	16.5	760	10.0	103	1
SEP 17...	1215	72.0	155	7.9	16.0	760	9.9	101	2
SEP 17...	1230	89.0	155	7.9	16.0	760	9.9	101	1
SEP 17...	1240	110	154	7.9	16.0	760	9.9	101	1
SEP 17...	1255	125	154	7.9	16.0	760	9.9	101	1

*Instantaneous streamflow at the time of cross-sectional measurements: Mar. 18, 9,960 ft³/s;
Sept. 17, 193 ft³/s.

SMITH RIVER BASIN

11532500 SMITH RIVER NEAR CRESCENT CITY, 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- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
DEC 09...	1200	2330	6.5	1	6.3
MAR 18...	1504	10000	7.5	5	135
JUN 25...	1115	426	20.0	1	1.2
SEP 17...	1200	193	16.0	1	0.52

DISCHARGE AT PARTIAL-RECORD STATIONS

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the 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- or flood-flow analyses, depending on the type of data collected.

Low-Flow Partial-Record Stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. The column headed "Period of record" shows the water years in which measurements were made at the same or practically the same site.

Discharge measurements made at low-flow partial-record stations during water year 1987

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
Klamath River basin						
11525520	Deadwood Creek at Lewiston, CA	Lat 40°43'02", long 122°48'04", in SW 1/4 NW 1/4 sec.17, T.33 N., R.8 W., Trinity County, 300 ft up-stream from mouth and 0.7 mi northeast of Lewiston.	9.10	1965-75 1976-87	11-05-85* 12-06-85* 02-07-86* 02-20-86* 02-23-86* 02-26-86* 03-04-86* 03-08-86* 04-03-86* 02-05-87 07-09-87	1.03 6.10 15.3 83.1 38.2 24.5 12.1 42.4 9.08 5.0 .52

Discharge Measurements Made At Partial-Record Sites During Water Year 1987

Stream	Tributary to	Location	Drainage area (mi ²)	Measured Previously (water year)	Measurements	
					Date	Discharge (ft ³ /s)
Alameda Creek Basin						
Vallecitos Creek	Arroyo de la Laguna	Lat 37°35'42", long 121°52'51", in Valle de San Jose Grant, Alameda County, Hydrologic Unit 18050004, on right bank at culvert on Sunol Road, 700 ft upstream from mouth and 0.3 mi east of Sunol.	7.48	1975-76 1977-87	10-10-85*	0.39
					11-21-85*	15.3
					12-17-85*	29.7
					02-12-86*	1.40
					04-28-86*	.36
					10-29-86	8.34
					12-12-86	22.7
					01-28-87	1.34
					03-12-87	13.2
					04-09-87	13.1
					05-20-87	28.2
					07-02-87	41.0
					08-13-87	34.2
Russian River Basin						
Hobson Creek	Russian River	Lat 38°30'49", long 122°55'55", in NW 1/4 NE 1/4 sec.26, T.8 N., R.10 W, Sonoma County, Hydrologic Unit 18010110, at bridge 50 ft north of McPeak Road, 0.5 mi upstream from mouth at Russian River, and 4.0 mi east of Guerneville.	1.70	1986	02-17-86*	450
Hulbert Creek	Russian River	Lat 38°30'01", long 123°10'19", in NE 1/4 NE 1/4 sec.36, T.8 N., R.11 W., Sonoma County, Hydrologic Unit 18010110, on downstream side of bridge on Cazadero Road, 1.5 mi west of Guerneville.	7.01	1986	02-17-86*	4,950
Redwood Creek	Russian River	Lat 38°31'39", long 122°59'57", in NE 1/4 NE 1/4 sec.19, T.8 N., R.10 W., Sonoma County, Hydrologic Unit 18010110, at culvert on Armstrong Woods Road, 100 ft upstream from confluence with Fife Creek, and 1.8 mi north of Guerneville.	2.87	1986	02-17-86*	1,980

* Not previously published.

Discharge Measurements Made At Partial-Record Sites During Water year 1987

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water year)	Measurements	
					Date	Discharge (ft ³ /s)
Pomponio Creek basin						
Pomponio Creek		Lat 37°18'12", long 122°22'44", in San Antonio or Pescadero Grant, San Mateo County, Hydrologic Unit 18050006, at bridge culvert at intersection of Stage Road and Pomponio Road 2.3 mi south of San Gregorio.	5.48	1985-86	10-14-86	a0.15
					11-14-86	a.18
					12-29-86	a.28
					01-23-87	.93
					02-18-87	6.47
					03-24-87	7.55
					04-16-87	a.99
					05-14-87	a.31
					07-02-87	a.21
08-18-87	a.04					
San Gregorio Creek basin						
La Honda Creek	San Gregorio Creek	Lat 37°19'09", long 122°16'21", in SW 1/4 SW 1/4 sec.14, T.7 S., R.4 W., San Mateo County, Hydrologic Unit 18050006, at bridge on Entrada Way 500 ft east of intersection with La Honda Road at La Honda.	10.8	1985-86	10-14-86	a.66
					11-14-86	a.93
					12-29-86	a.81
					01-23-87	2.67
					02-18-87	5.35
					03-24-87	8.94
					04-16-87	a1.79
					05-14-87	a.98
					07-02-87	a.42
08-18-87	a.24					
Alpine Creek	San Gregorio Creek	Lat 37°17'58", long 122°15'48", in NW 1/4 NE 1/4 sec.26, T.7 S., R.4 W., San Mateo County, Hydrologic Unit 18050006, at upstream bridge at intersection of Alpine Road and Pescadero Road, 1.5 mi southeast of La Honda.	8.29	1985-86	10-14-86	a1.15
					11-14-86	a1.22
					12-29-86	a1.08
					01-23-87	2.95
					02-18-87	3.25
					03-24-87	4.60
					04-16-87	a1.56
					05-14-87	a.92
					07-02-87	a.44
08-18-87	a.22					
Tunitas Creek basin						
Tunitas Creek		Lat 37°21'26", long 122°23'46", in San Gregorio Grant, San Mateo County, Hydrologic Unit 18050006, at bridge crossing on State Highway 1, 2.5 mi north of San Gregorio.	11.6	1985-86	10-14-86	a.29
					11-14-86	a.18
					12-29-86	a.51
					01-23-87	2.36
					02-18-87	7.06
					03-24-87	7.28
					04-18-87	a.82
					05-14-87	a.22
					07-02-87	a.15
08-18-87	a.01					
Salinas River basin						
Arroyo Seco	Salinas River	Lat 36°14'15", long 121°28'50", in NE 1/4 SE 1/4 sec.36, T.19 S., R.4 E., Monterey County, Hydrologic Unit 18060005, on right bank 0.6 mi downstream from Rocky Creek and 14.5 mi southwest of Greenfield.	113	1962-86	10-10-86	a13.2
					11-07-86	a13.1
					12-22-86	19.8
					01-16-87	a22.7
					02-14-87	396
					03-09-87	150
					04-15-87	a46.8
					05-12-87	a19.1

a Base flow.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

PAJARO RIVER BASIN

11153500 LLAGAS CREEK NEAR MORGAN HILL, CA

LOCATION.--Lat 37°06'52", long 121°41'22", in Las Uvas Grant, Santa Clara County, Hydrologic Unit 18060002, 500 ft upstream from Llagas Avenue bridge, 0.3 mi downstream from Chesbro Dam, 0.3 mi upstream from small left-bank tributary, and 2.3 mi west of Morgan Hill.

DRAINAGE AREA.--19.6 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1979 to current year.

SEDIMENT DATA: Water year 1985.

REMARKS.--Streamflow data provided by Santa Clara Valley Water District; not reviewed by U.S. Geological Survey.

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)	TUR- BID- ITY (FTU)	BARO- METRIC PRES- SURE (MM HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CaCO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CaCO3
DEC 06...	1515	1.7	398	8.3	11.0	18	755	10.4	95	200	0
JAN 29...	1230	0.90	390	8.5	9.0	9.4	750	11.8	104	200	10
FEB 12...	1215	1.0	401	8.2	10.0	8.0	765	10.8	95	200	3
MAR 06...	1215	1.6	378	8.2	14.0	11	760	10.6	103	190	3
JUN 03...	1115	1.0	414	8.2	19.0	5.8	755	8.3	90	210	11
JUL 08...	1200	2.9	447	8.2	21.5	3.2	750	7.6	88	220	7
AUG 12...	1230	2.9	455	8.2	22.0	9.0	750	7.7	90	230	16

DATE	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)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)
DEC 06...	40	25	10	10	0.3	1.5	213	21	17	0.1	--
JAN 29...	39	26	10	10	0.3	1.6	195	17	9.4	0.1	<0.01
FEB 12...	39	25	9.9	10	0.3	1.4	198	19	9.1	0.1	--
MAR 06...	35	24	9.5	10	0.3	1.3	183	21	10	0.1	--
JUN 03...	41	27	11	10	0.3	1.4	203	19	14	0.1	--
JUL 08...	42	28	12	11	0.4	1.6	213	20	12	<0.1	--
AUG 12...	44	30	12	10	0.4	1.7	218	21	11	0.1	0.023

DATE	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
DEC 06...	--	17	260	0.35	0.02	--	0.20	--	0.05	0.05
JAN 29...	0.01	14	235	0.32	<0.01	<0.01	<0.10	<0.10	0.02	0.03
FEB 12...	--	13	235	0.32	<0.01	--	0.10	--	0.02	0.02
MAR 06...	--	12	223	0.30	0.01	--	0.30	--	0.06	0.07
JUN 03...	--	11	247	0.34	<0.01	--	<0.10	--	0.05	0.07
JUL 08...	--	12	256	0.35	<0.01	--	<0.10	--	0.05	0.03
AUG 12...	0.01	13	265	0.36	0.01	<0.01	<0.10	<0.10	0.06	0.04

See footnote at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

PAJARO RIVER BASIN

11153500 LLAGAS CREEK NEAR MORGAN HILL, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
DEC 06...	0.50	0.50	0.70	<0.01	0.01	--	170	5	4.8	--	--
JAN 29...	1.0	0.40	--	0.03	0.01	<0.01	180	<3	--	3.7	0.7
FEB 12...	0.70	0.20	0.80	0.02	<0.01	<0.01	170	19	4.2	3.7	0.6
MAR 06...	1.7	0.80	2.0	0.04	0.01	0.02	160	6	4.6	4.1	0.5
JUN 03...	1.0	0.40	--	0.06	0.03	0.02	190	11	5.7	3.9	--
JUL 08...	0.70	0.60	--	0.05	0.04	0.02	210	5	5.0	4.5	--
AUG 12...	0.90	0.80	--	0.11	0.04	0.02	220	4	6.1	5.3	--

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	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)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)
JAN 29...	1230	10	1	59	1	<1	<1	3	<5	6
AUG 12...	1230	<10	2	71	<1	<1	1	1	<5	<4

DATE	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)
JAN 29...	9	<0.1	4	2	<1	<1.0	210	4	10
AUG 12...	480	--	<1	4	<1	<1.0	250	5	<3

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

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

PAJARO RIVER BASIN

11153530 LLAGAS CREEK AT MACHADO SCHOOL, NEAR MORGAN HILL, CA

LOCATION.--Lat 37°05'23", long 121°39'38", in San Francisco de Las Llagas Grant, Santa Clara County, Hydrologic Unit 18060002, on left bank at Machado School, 125 ft upstream from Sycamore Avenue bridge, 1,300 ft downstream from small right-bank tributary, and 2.8 mi south of Morgan Hill.

DRAINAGE AREA.--24.1 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1980 to current year.

SEDIMENT DATA: Water year 1985 to current year.

REMARKS.--Bed-material samples were divided into two fractions prior to analysis. Chemical and particle-size analyses are representative of the sample fraction which was finer than 2.0 mm. Streamflow data provided by Santa Clara Valley Water District; not reviewed by U.S. Geological Survey.

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)	TUR- BID- ITY (FTU)	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
DEC											
06...	1400	1.5	425	7.9	13.0	1.7	755	11.2	107	220	9
JAN											
29...	1045	1.6	413	7.9	11.0	1.1	755	12.0	110	220	14
FEB											
12...	1100	1.2	426	8.0	10.5	0.5	765	10.5	94	220	9
MAR											
06...	1115	2.3	408	7.9	14.0	1.5	755	12.9	126	210	8
JUN											
03...	1030	1.1	434	7.8	18.0	1.2	755	8.4	90	220	9
JUL											
08...	1100	2.2	452	8.1	20.0	1.6	750	8.5	95	220	9
AUG											
12...	1100	2.7	457	8.2	19.0	3.6	750	8.8	97	--	0

DATE	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)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)
DEC											
06...	39	29	12	11	0.4	1.1	208	46	11	0.1	--
JAN											
29...	38	30	11	10	0.3	0.9	205	17	12	0.1	<0.01
FEB											
12...	38	30	11	10	0.3	0.8	210	21	13	0.1	--
MAR											
06...	36	28	11	10	0.3	0.8	197	20	13	0.1	--
JUN											
03...	38	30	11	10	0.3	0.8	210	19	16	0.1	--
JUL											
08...	41	29	12	10	0.4	1.3	213	20	13	0.1	--
AUG											
12...	--	34	14	--	--	1.6	218	21	12	0.2	0.063

DATE	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
DEC										
06...	--	24	287	0.39	<0.01	--	0.50	--	0.01	<0.01
JAN										
29...	0.003	21	255	0.35	<0.01	<0.01	0.50	0.45	<0.01	0.01
FEB										
12...	--	21	261	0.35	<0.01	--	0.40	--	<0.01	0.01
MAR										
06...	--	20	247	0.34	<0.01	--	0.70	--	<0.01	0.01
JUN										
03...	--	21	262	0.36	<0.01	--	0.40	--	0.04	0.05
JUL										
08...	--	16	260	0.35	<0.01	--	0.10	--	0.04	0.03
AUG										
12...	0.001	--	--	--	<0.01	<0.01	0.50	0.12	0.03	<0.01

See footnote at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

PAJARO RIVER BASIN

11153530 LLAGAS CREEK AT MACHADO SCHOOL, NEAR MORGAN HILL, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)
DEC 06...	0.30	0.50	0.80	<0.01	<0.01	--	160	8	3.1	--	--
JAN 29...	0.30	0.30	0.80	0.02	0.01	<0.01	160	3	--	2.3	0.3
FEB 12...	0.60	0.30	1.0	<0.01	<0.021	<0.01	170	<3	2.7	2.3	0.1
MAR 06...	0.90	0.20	1.6	0.01	0.01	0.02	150	8	2.7	2.5	0.1
JUN 03...	0.60	0.70	1.0	0.03	0.03	0.02	180	8	3.5	2.4	--
JUL 08...	1.0	0.80	1.1	0.03	0.04	0.02	200	<3	3.9	3.9	--
AUG 12...	--	0.50	--	0.06	0.03	0.01	210	<10	5.4	4.3	--

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, DIS- SOLVED (UG/L AS CO)
JAN 29...	1045	<10	<1	--	49	<1	--	<1	--	<1
AUG 12...	1100	<10	1	3	--	<1	<1	<1	80	<1

DATE	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY DIS- SOLVED (UG/L AS HG)
JAN 29...	--	<1	--	--	<5	--	6	7	--	<0.1
AUG 12...	<50	<1	30	19000	<5	<10	<10	<10	710	0.2

DATE	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G 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)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	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)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)
JAN 29...	--	4	1	<1	--	<1.0	190	2	12	--
AUG 12...	<0.1	<1	1	<1	<1	<1.0	260	5	--	50

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

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	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
AUG 1987 12...	1100	2.7	19.0	2	4	9	28	68	100

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GUADALUPE RIVER BASIN

11166900 ALAMITOS CREEK NEAR NEW ALMADEN, CA

WATER-QUALITY RECORDS

LOCATION.--Lat 37°13'21", long 121°51'00", in Pueblo Lands of San Jose Grant, Santa Clara County, on right bank at Greystone bridge, 1.1 mi downstream from Arroyo Calero, 3.4 mi southwest of Edenvale, and 3.5 mi northwest of New Almaden.

DRAINAGE AREA.--31.8 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1985 to current year.

SEDIMENT DATA: Water year 1985, water year 1987 to current year.

REMARKS.--Bed-material samples were divided into two fractions prior to analysis. Chemical and particle-size analyses are representative of the sample fraction which was finer than 2.0 mm. Streamflow data provided by Santa Clara Valley Water District, not reviewed by U.S. Geological Survey.

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)	TUR- BID- ITY (FTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS TOTAL (MG/L AS CaCO3)
DEC 06...	1045	4.7	513	8.3	14.0	0.8	760	11.0	107	<10	240
JAN 28...	1430	2.8	474	8.6	13.0	1.1	760	11.7	111	12	230
FEB 11...	1115	2.7	444	8.4	15.0	1.6	760	12.6	125	<10	200
MAR 05...	1145	14	310	8.0	13.0	50	755	9.4	90	37	130
JUN 02...	1230	1.6	558	8.4	21.0	3.0	760	11.0	124	<10	270
JUL 07...	1215	1.4	613	8.3	22.0	140	755	8.6	100	<10	290
AUG 11...	1245	1.8	614	8.6	21.0	10	750	11.4	130	<10	280

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- 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)
DEC 06...	19	36	37	19	15	0.5	1.2	223	30	21	0.2
JAN 28...	32	35	35	19	15	0.6	1.4	200	30	22	0.1
FEB 11...	21	33	29	17	15	0.5	1.2	181	32	19	0.1
MAR 05...	20	22	19	13	17	0.5	2.1	113	27	17	0.1
JUN 02...	17	39	43	20	14	0.5	1.3	258	32	22	0.2
JUL 07...	27	40	45	26	16	0.7	1.3	258	33	33	0.1
AUG 11...	31	38	46	26	17	0.7	1.4	254	32	35	0.2

DATE	BROMIDE DIS- SOLVED (MG/L AS Br)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
DEC 06...	--	--	23	301	0.41	<0.01	--	1.4	--	0.02	0.02
JAN 28...	0.02	0.002	19	287	0.39	<0.01	<0.01	1.2	1.2	0.01	0.01
FEB 11...	--	--	16	256	0.35	<0.01	--	0.90	--	<0.01	<0.01
MAR 05...	--	--	9.9	178	0.24	0.04	--	1.0	--	0.13	0.13
JUN 02...	--	--	22	334	0.45	<0.01	--	0.60	--	0.03	0.03
JUL 07...	--	--	26	359	0.49	<0.01	--	1.0	--	0.04	0.05
AUG 11...	0.078	0.005	25	357	0.48	<0.01	<0.01	0.80	<0.10	<0.01	0.01

See footnote at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GUADALUPE RIVER BASIN

11166900 ALAMITOS CREEK NEAR NEW ALMADEN, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
DEC 06...	0.60	0.40	2.0	0.02	0.01	--	140	6	3.3	--	--
JAN 28...	0.60	0.20	1.8	0.02	0.02	<0.01	120	5	--	2.9	0.3
FEB 11...	0.60	0.50	1.5	0.02	0.01	0.02	--	120	--	3.1	0.2
MAR 05...	0.70	0.60	1.7	0.13	0.13	0.06	--	40	--	6.8	0.8
JUN 02...	0.80	0.20	1.4	0.04	0.03	<0.01	180	<3	1.0	1.5	--
JUL 07...	1.1	0.60	2.1	0.15	0.03	0.01	180	14	5.5	2.4	--
AUG 11...	0.60	0.30	1.4	0.08	0.01	<0.01	190	4	2.7	2.0	--

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, DIS- SOLVED (UG/L AS CO)
JAN 28...	1430	<10	1	--	78	1	--	<1	--	<1
AUG 11...	1245	<10	1	9	100	<1	1	<1	130	2

DATE	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY DIS- SOLVED (UG/L AS HG)
JAN 28...	--	1	--	--	<5	--	10	3	--	<0.1
AUG 11...	<50	1	40	14000	<5	<10	8	4	490	<0.1

DATE	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G 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)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	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)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)
JAN 28...	--	3	3	<1	--	<1.0	290	1	9	--
AUG 11...	2.6	<1	2	<1	<1	<1.0	260	4	<3	60

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

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GUADALUPE RIVER BASIN

11166900 ALAMITOS CREEK NEAR NEW ALMADEN, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	BED MAT. FALL DIAM.DW % FINER THAN .002 MM	BED MAT. FALL DIAM.DW % FINER THAN .004 MM	BED MAT. FALL DIAM.DW % FINER THAN .008 MM	BED MAT. FALL DIAM.DW % FINER THAN .016 MM
AUG 1987 11...	1245	1.8	21.0	2	3	4	4
DATE		BED MAT. FALL DIAM.DW % FINER THAN .031 MM	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
AUG 1987 11...	5	7	12	18	33	61	100

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GUADALUPE RIVER BASIN

11167500 GUADALUPE CREEK AT GUADALUPE, CA

LOCATION.--Lat 37°13'02", long 121°54'35", in SW 1/4 sec.19, T.8 S, R.1 E., Santa Clara County, Hydrologic Unit 18050003, on left bank 0.1 mi downstream from small left-bank tributary, 0.5 mi northwest of Guadalupe.

DRAINAGE AREA.--12.8 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1980 to current year.

SEDIMENT DATA: Water year 1985 to current year.

REMARKS.--Bed-material samples were divided into two fractions prior to analysis. Chemical and particle-size analyses are representative of the sample fraction which was finer than 2.0 mm. Streamflow data provided by Santa Clara Valley Water District; not reviewed by U.S. Geological Survey.

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)	TUR- BID- ITY (FTU)	BARO- METRIC PRES- SURE (MM HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3
DEC 06...	0915	2.0	587	8.4	10.0	4.8	760	10.2	91	14	290	33
JAN 28...	1315	2.5	553	8.3	9.5	6.6	755	11.2	99	19	280	37
FEB 11...	1015	2.1	643	8.3	11.5	0.5	760	11.1	102	12	310	8
MAR 05...	1045	4.7	517	8.4	11.0	6.5	750	11.1	102	15	250	22
JUN 02...	1115	1.2	518	8.5	15.0	3.0	755	10.3	103	<10	250	16
JUL 07...	1130	0.70	553	8.4	18.0	2.5	750	9.4	101	37	260	8
AUG 11...	1115	0.60	599	8.6	17.0	1.5	750	10.5	111	27	290	9

DATE	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)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3	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)	BROMIDE DIS- SOLVED (MG/L AS BR)
DEC 06...	52	40	22	14	0.6	1.8	2	262	52	13	0.2	--
JAN 28...	49	37	20	14	0.5	1.6	--	238	50	15	0.1	<0.01
FEB 11...	55	42	25	15	0.6	1.6	--	303	53	21	0.1	--
MAR 05...	47	33	20	15	0.6	1.6	2	232	44	16	0.2	--
JUN 02...	46	34	19	14	0.5	1.1	--	239	42	13	0.2	--
JUL 07...	45	36	20	14	0.6	1.4	--	253	34	14	0.1	--
AUG 11...	47	42	24	15	0.6	1.7	--	282	32	16	0.2	0.018

DATE	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
DEC 06...	--	14	355	0.48	<0.01	--	<0.10	--	<0.01	<0.01
JAN 28...	0.003	14	330	0.45	<0.01	<0.01	<0.10	<0.10	<0.01	<0.01
FEB 11...	--	13	392	0.53	<0.01	--	<0.10	--	<0.01	<0.01
MAR 05...	--	12	317	0.43	0.01	--	0.30	--	<0.01	0.02
JUN 02...	--	12	311	0.42	<0.01	--	<0.10	--	0.01	0.01
JUL 07...	--	12	315	0.43	<0.01	--	<0.10	--	0.03	0.03
AUG 11...	0.009	12	345	0.47	<0.01	<0.01	<0.10	<0.10	<0.01	<0.01

See footnote at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GUADALUPE RIVER BASIN

11167500 GUADALUPE CREEK AT GUADALUPE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
DEC 06...	0.30	0.60	--	<0.01	<0.01	--	370	8	3.3	--	--
JAN 28...	0.50	0.20	--	0.03	0.02	0.01	310	8	--	3.2	0.4
FEB 11...	0.30	<0.20	--	<0.01	0.01	0.01	--	11	--	2.6	0.2
MAR 05...	0.20	0.20	0.50	0.04	0.03	0.02	330	27	--	4.9	0.3
JUN 02...	0.50	0.30	--	<0.01	0.03	<0.01	350	<3	2.0	2.6	--
JUL 07...	0.40	0.50	--	0.02	0.03	<0.01	380	9	2.9	2.7	--
AUG 11...	0.60	0.40	--	0.07	0.01	<0.01	510	5	2.3	2.4	--

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, DIS- SOLVED (UG/L AS CO)
JAN 28...	1315	<10	3	--	73	<1	--	<1	--	<1
AUG 11...	1115	<10	5	26	77	<1	1	<1	330	1

DATE	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY DIS- SOLVED (UG/L AS HG)
JAN 28...	--	<1	--	--	<5	--	14	6	--	<0.1
AUG 11...	60	<1	50	35000	<5	10	11	4	880	<0.1

DATE	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G 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)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	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)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)
JAN 28...	--	5	9	<1	--	<1.0	330	<3	5	--
AUG 11...	3.9	<1	7	<1	<1	<1.0	310	2	<3	90

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

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GUADALUPE RIVER BASIN

11167500 GUADALUPE CREEK AT GUADALUPE, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	BED MAT. FALL DIAM.DW % FINER THAN .002 MM	BED MAT. FALL DIAM.DW % FINER THAN .004 MM	BED MAT. FALL DIAM.DW % FINER THAN .008 MM	BED MAT. FALL DIAM.DW % FINER THAN .016 MM
AUG 1987 11...	1115	0.60	17.0	38	44	57	74
DATE		BED MAT. FALL DIAM.DW % FINER THAN .031 MM	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 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
AUG 1987 11...	83	87	95	96	98	99	100

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GUADALUPE RIVER BASIN

11167572 GUADALUPE RIVER AT ALAMITOS RECHARGE FACILITY, AT SAN JOSE, CA

LOCATION.--Lat 37°14'51", long 121°52'08", in San Juan Bautista Grant, Santa Clara County, Hydrologic Unit 18050003, at south city limits of San Jose, 0.2 mi downstream from confluence at Alamitos and Guadalupe Creeks.

DRAINAGE AREA.--53.0 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1979 to current year.

SEDIMENT DATA: Water year 1985 to current year.

REMARKS.--Bed-material samples were divided into two fractions prior to analysis. Chemical and particle-size analyses are representative of the sample fraction which was finer than 2.0 mm. Streamflow data provided by Santa Clara spliley Water District; not reviewed by U.S. Geological Survey.

WATER QUALITY DATA, 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)	TUR- BID- ITY (FTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS TOTAL (MG/L AS CAO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CAO3
DEC												
06...	0815	13	493	8.0	13.0	2.7	760	8.5	81	11	230	35
JAN												
28...	1600	14	425	8.9	12.5	4.0	760	14.8	139	25	190	36
FEB												
11...	1230	14	444	8.8	14.5	2.1	760	15.4	152	10	180	31
MAR												
05...	1230	36	512	8.2	13.5	4.8	755	7.6	74	<10	210	31
JUN												
02...	1315	10	444	8.5	22.0	1.5	760	11.8	136	15	200	25
JUL												
07...	1300	21	486	8.8	23.5	0.6	755	10.8	129	<10	180	30
AUG												
11...	1400	22	520	8.6	24.0	0.8	755	10.7	129	14	170	33

DATE	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)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CAO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)
DEC												
06...	36	33	21	17	0.6	1.4	--	191	38	24	0.2	--
JAN												
28...	31	28	23	20	0.7	1.5	--	157	35	29	0.1	0.027
FEB												
11...	30	26	26	24	0.9	1.5	--	151	41	31	0.1	--
MAR												
05...	33	31	25	20	0.8	1.6	--	179	46	35	0.1	--
JUN												
02...	36	26	20	18	0.6	1.7	10	172	41	20	0.2	--
JUL												
07...	32	24	32	28	1	2.1	--	149	42	42	0.1	--
AUG												
11...	30	22	44	36	2	2.6	--	133	39	62	0.2	0.11

DATE	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
DEC										
06...	--	15	283	0.39	0.02	--	0.90	--	0.06	0.06
JAN										
28...	0.006	7.8	254	0.34	0.01	0.01	0.90	0.89	<0.01	<0.01
FEB										
11...	--	7.9	254	0.35	<0.01	--	0.80	--	<0.01	<0.01
MAR										
05...	--	11	290	0.39	0.02	--	1.3	--	0.01	0.02
JUN										
02...	--	13	282	0.38	0.01	--	0.50	--	0.02	0.02
JUL										
07...	--	13	277	0.38	<0.01	--	0.20	--	0.04	0.03
AUG										
11...	0.015	10	291	0.39	<0.01	<0.01	0.10	0.13	<0.01	<0.01

See footnote at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GUADALUPE RIVER BASIN

11167572 GUADALUPE RIVER AT ALAMITOS RECHARGE FACILITY, AT SAN JOSE, CA--Continued

WATER QUALITY DATA, OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
DEC 06...	0.90	0.20	1.8	<0.01	0.01	--	120	6	6.1	--	--
JAN 28...	0.80	0.50	1.7	0.04	0.01	<0.01	100	11	--	3.3	1.7
FEB 11...	0.80	0.20	1.6	0.02	<0.01	<0.01	130	16	4.7	3.3	1.0
MAR 05...	0.50	0.20	1.8	0.03	0.01	0.02	130	12	4.5	3.9	0.3
JUN 02...	0.70	0.30	1.2	0.02	0.03	<0.01	110	<3	--	4.1	--
JUL 07...	0.40	0.50	0.60	<0.01	0.03	<0.01	130	4	4.0	3.5	--
AUG 11...	0.70	0.60	0.80	0.07	0.01	<0.01	150	7	--	3.5	--

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, DIS- SOLVED (UG/L AS CO)
JAN 28...	1600	20	1	--	70	<1	--	<1	--	<1
AUG 11...	1400	<10	2	9	64	<1	1	<1	100	2

DATE	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY DIS- SOLVED (UG/L AS HG)
JAN 28...	--	1	--	--	<5	--	9	10	--	<0.1
AUG 11...	<50	<1	30	13000	<5	10	8	5	450	<0.1

DATE	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G 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)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	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)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)
JAN 28...	--	5	2	<1	--	<1.0	220	<6	16	--
AUG 11...	8.5	<1	3	<1	<1	<1.0	250	3	<3	70

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

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GUADALUPE RIVER BASIN

11167572 GUADALUPE RIVER AT ALAMITOS RECHARGE FACILITY, AT SAN JOSE, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	BED MAT. FALL DIAM.DW % FINER THAN .002 MM	BED MAT. FALL DIAM.DW % FINER THAN .004 MM	BED MAT. FALL DIAM.DW % FINER THAN .008 MM	BED MAT. FALL DIAM.DW % FINER THAN .016 MM
AUG 1987 11...	1400	22	24.0	3	4	5	5

DATE	BED MAT. FALL DIAM.DW % FINER THAN .031 MM	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
AUG 1987 11...	6	9	23	66	92	99	100

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GUADALUPE RIVER BASIN

11167970 LOS GATOS CREEK ABOVE LEXINGTON RESERVOIR, NEAR LOS GATOS, CA

LOCATION.--Lat 37°10'02", long 121°58'43", in SE 1/4 NW 1/4 sec.9, T.9 S., R.1 W., Santa Clara County, Hydrologic Unit 18050003, 400 ft upstream from inflow to Lexington Reservoir, 0.3 mi north of Chemeketa Park, and 4.1 mi south of Los Gatos.

DRAINAGE AREA.--19.1 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1978-80, 1985 to current year.

BIOLOGICAL DATA: Water year 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)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT 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)
OCT 14...	1430	5.00	433	8.2	15.5	0.3	750	10.1	103	200	19	50
MAR 17...	0915	2.6	574	8.2	8.5	0.9	745	11.4	100	260	110	66
APR 08...	1300	1.1	616	8.3	14.0	0.6	750	10.7	106	280	100	70
JUN 16...	0930	0.21	626	8.0	15.0	0.6	760	8.60	86	280	83	71
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- 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)
OCT 14...	19	15	14	0.5	1.5	184	50	10	0.2	16	272	0.37
MAR 17...	24	24	16	0.7	1.5	149	130	12	0.3	16	363	0.49
APR 08...	25	24	16	0.6	1.8	176	130	13	0.3	16	386	0.52
JUN 16...	26	23	15	0.6	2.0	202	110	14	0.3	16	384	0.52
DATE		NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 14...	<0.01	<0.10	<0.01	<0.01	0.7	<0.2	--	0.04	0.05	0.03	80	42
MAR 17...	<0.01	0.40	0.02	0.02	0.4	0.5	0.8	0.04	0.02	0.02	70	5
APR 08...	<0.01	0.10	0.04	0.04	0.4	0.4	0.5	0.03	0.02	0.01	80	7
JUN 16...	<0.01	<0.10	0.03	0.03	<0.2	0.2	--	0.06	0.03	0.03	100	7

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

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GUADALUPE RIVER BASIN

11168000 LOS GATOS CREEK AT LOS GATOS, CA

LOCATION.--Lat 37°13'03", long 121°59'11", in SE 1/4 sec.20, T.8 S., R.1 W., Santa Clara County, Hydrologic Unit 18050003, on right bank 0.4 mi upstream from Main Street bridge, 0.7 mi southwest of Los Gatos Post Office, and 1.1 mi downstream from Lexington Dam.

DRAINAGE AREA.--39.1 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1952-66, 1980 to current year.

REMARKS.--Streamflow data provided by Santa Clara Valley Water District; not reviewed by U.S. Geological Survey.

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)	TUR- BID- ITY (FTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3
DEC												
05...	1530	0.90	410	8.4	14.0	0.9	755	11.8	116	12	190	24
JAN												
28...	1130	0.80	429	8.3	10.0	1.1	755	12.2	109	11	210	39
FEB												
11...	0845	0.70	469	8.0	11.0	0.7	760	10.6	96	<10	220	32
MAR												
05...	0945	2.4	339	8.0	12.0	13	750	9.6	91	19	150	27
JUN												
02...	1015	14	471	8.3	14.0	4.2	755	10.4	102	23	220	42
JUL												
07...	1030	21	516	7.6	16.0	2.3	750	--	--	<10	230	61
AUG												
11...	0945	27	548	8.4	21.0	8.0	750	8.4	96	19	260	81

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)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3	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)
DEC										
05...	46	19	14	13	0.5	1.8	4	169	50	0.2
JAN										
28...	51	20	14	13	0.4	1.8	--	171	50	0.2
FEB										
11...	53	21	15	13	0.5	1.7	--	187	57	0.2
MAR										
05...	37	15	10	12	0.4	1.8	--	127	39	0.1
JUN										
02...	55	19	16	14	0.5	2.4	--	174	86	0.2
JUL										
07...	59	20	17	14	0.5	2.5	--	169	87	0.2
AUG										
11...	66	23	19	14	0.5	2.9	--	179	91	0.3

DATE	BROMIDE DIS- SOLVED (MG/L AS BR)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
DEC											
05...	--	--	11	257	0.35	<0.01	--	0.10	--	<0.01	<0.01
JAN											
28...	0.029	0.004	10	264	0.36	<0.01	<0.01	0.10	0.12	<0.01	<0.01
FEB											
11...	--	--	10	283	0.38	<0.01	--	0.10	--	<0.01	<0.01
MAR											
05...	--	--	7.1	196	0.27	0.02	--	0.40	--	0.06	0.04
JUN											
02...	--	--	10	303	0.41	<0.01	--	0.60	--	0.03	0.02
JUL											
07...	--	--	8.3	307	0.42	0.02	--	0.20	--	0.25	0.24
AUG											
11...	0.02	0.018	3.1	325	0.44	<0.01	<0.01	<0.10	<0.10	0.02	0.02

See footnote at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GUADALUPE RIVER BASIN

11168000 LOS GATOS CREEK AT LOS GATOS, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)
DEC 05...	0.20	0.40	0.3	0.02	<0.01	--	70	18	--	--	--
JAN 28...	<0.20	<0.20	--	0.02	0.01	<0.01	70	9	--	2.4	0.3
FEB 11...	0.70	0.20	0.80	0.01	0.01	<0.01	80	13	2.0	2.2	0.2
MAR 05...	0.30	0.30	0.70	0.08	<0.01	0.03	70	22	4.6	4.2	0.2
JUN 02...	0.80	0.70	1.4	0.26	0.03	<0.01	70	<3	--	3.4	--
JUL 07...	0.60	0.70	0.80	0.02	0.03	0.01	60	39	4.4	3.8	--
AUG 11...	0.70	0.70	--	0.09	0.01	<0.01	90	<3	4.6	4.2	--

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	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)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)
JAN 28...	1130	<10	<1	59	1	<1	<1	1	<5	11
AUG 11...	0945	<10	1	66	<1	<1	1	<1	<5	8

DATE	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)
JAN 28...	28	<0.1	6	<1	<1	<1.0	300	<4	11
AUG 11...	69	<0.1	<1	1	<1	<1.0	360	2	<3

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

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GUADALUPE RIVER BASIN

11168660 LOS GATOS CREEK AT LARK AVENUE, AT LOS GATOS, CA

LOCATION.--Lat 37°15'07", long 121°57'48", in Rinconada de Los Gatos Grant, Santa Clara County, Hydrologic Unit 18050003, at bridge on Lark Avenue, 1,800 ft downstream from Vasona Dam, and 2 mi northeast of Los Gatos Post Office.

DRAINAGE AREA.--43.3 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1979 to current year.

SEDIMENT DATA: Water year 1985 to current year.

REMARKS.--Bed material samples were divided into two fractions prior to analysis. Chemical and particle-size analyses are representative of the sample fraction which was finer than 2.0 mm. Streamflow data provided by Santa Clara Valley Water District; not reviewed by U.S. Geological Survey.

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)	TUR- BID- ITY (FTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS TOTAL (MG/L AS CaCO3)
DEC 05...	1345	4.1	392	8.3	13.0	3.0	760	10.5	100	11	180
JAN 28...	0830	0.80	429	8.3	10.0	2.4	755	12.2	109	13	190
MAR 05...	0830	4.4	388	7.9	13.0	1.5	755	8.9	85	12	180
JUN 02...	0830	9.6	450	8.2	20.0	1.5	760	8.1	89	<10	210
JUL 07...	0830	9.2	455	8.0	22.0	1.3	755	7.4	86	<10	200
AUG 11...	0800	19	513	8.3	21.0	1.5	755	7.8	88	18	240

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- 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)
DEC 05...	31	45	17	14	14	0.5	2.1	152	62	11	0.2
JAN 28...	24	48	18	14	13	0.5	2.0	171	52	12	0.2
MAR 05...	36	44	17	14	14	0.5	1.8	144	46	14	0.2
JUN 02...	40	52	20	17	15	0.5	2.2	172	66	14	0.2
JUL 07...	53	45	21	18	16	0.6	2.4	146	73	15	0.2
AUG 11...	69	57	23	19	15	0.6	2.8	169	81	13	0.3

DATE	BROMIDE DIS- SOLVED (MG/L AS Br)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
DEC 05...	--	--	11	254	0.34	<0.01	--	<0.10	--	0.03	0.03
JAN 28...	0.025	0.008	9.2	258	0.35	<0.01	<0.01	<0.10	<0.10	0.02	0.02
MAR 05...	--	--	9.1	233	0.32	0.02	--	0.40	--	0.09	0.09
JUN 02...	--	--	10	285	0.39	0.01	--	0.10	--	0.04	0.03
JUL 07...	--	--	12	274	0.37	<0.01	--	<0.10	--	0.04	0.02
AUG 11...	0.022	0.016	4.8	303	0.41	<0.01	<0.01	<0.10	<0.10	<0.01	0.02

See footnote at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GUADALUPE RIVER BASIN

11168660 LOS GATOS CREEK AT LARK AVENUE, AT LOS GATOS, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
DEC 05...	0.60	0.30	--	0.02	0.01	--	60	9	--	--	--
JAN 28...	0.90	0.40	--	0.03	0.01	<0.01	60	<10	--	3.1	0.3
MAR 05...	3.2	1.5	3.6	0.03	0.01	0.02	50	16	3.9	3.7	0.1
JUN 02...	0.80	0.80	0.90	0.03	0.03	<0.01	70	<3	3.8	--	--
JUL 07...	0.90	0.50	--	0.06	0.03	<0.01	70	4	6.5	4.5	--
AUG 11...	0.80	0.70	--	0.09	0.02	<0.01	90	<3	5.4	4.3	--

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, DIS- SOLVED (UG/L AS CO)
JAN 28...	0830	<10	<1	--	<100	<1	--	<1	--	<1
AUG 11...	0800	<10	1	6	65	<1	<1	<1	40	<1

DATE	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	MERCURY DIS- SOLVED (UG/L AS HG)
JAN 28...	--	<1	--	--	<5	--	<10	40	--	<0.1
AUG 11...	<50	<1	20	15000	<5	<10	8	80	730	<0.1

DATE	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G 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)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	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)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)
JAN 28...	--	7	<1	<1	--	<1.0	320	<8	<10	--
AUG 11...	0.75	<1	2	<1	<1	<1.0	340	2	<3	50

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

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	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
AUG 1987 11...	0800	19	21.0	1	2	6	26	60	100

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GUADALUPE RIVER BASIN

11168800 LOS GATOS CREEK AT LINCOLN AVENUE, AT SAN JOSE, CA

LOCATION.--Lat 37°18'45", long 121°54'12", in San Juan Bautista Grant, Santa Clara County, Hydrologic Unit 18050003, on right bank 100 ft upstream from Lincoln Avenue bridge, 0.6 mi downstream from Dry Creek.

DRAINAGE AREA.--48.4 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1980 to current year.

REMARKS.--Streamflow data provided by Santa Clara Valley Water District; not reviewed by U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
(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)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)
MAR 1985										
10...	1315	128	86	8.2	14.0	55	765	10.0	97	100

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
------	--	---	--	--	--	-------------------	---	---	---

MAR 1985									
10...	31	6	8.8	2.3	3.6	19	0.3	1.2	25

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, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
------	---	---	--	---	---	---	--	---	--

MAR 1985									
10...	12	3.3	<0.10	2.3	49	0.07	0.300	0.340	0.170

DATE	NITRO- GEN, AMMONIA + DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
------	---	---	--	---	---	--	--	--

MAR 1985								
10...	0.150	1.6	0.50	1.9	0.380	0.180	20	44

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)	TUR- BID- ITY (FTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)
JAN											
28...	1745	1.2	315	8.3	12.0	3.2	765	9.9	92	21	120
FEB											
11...	1330	3.9	348	8.8	16.0	2.5	760	11.8	120	19	96
MAR											
05...	1330	40	276	7.9	14.0	21	755	10.1	99	36	79

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GUADALUPE RIVER BASIN

11168800 LOS GATOS CREEK AT LINCOLN AVENUE, AT SAN JOSE, 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)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LILITY 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)
JAN 28...	30	28	12	21	27	0.9	2.1	90	33	21	0.1
FEB 11...	19	22	10	28	38	1	2.3	77	36	35	0.1
MAR 05...	23	18	8.2	25	40	1	2.3	56	31	31	<0.1

DATE	BROMIDE DIS- SOLVED (MG/L AS BR)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
JAN 28...	<0.010	0.005	11	185	0.25	0.02	0.02	0.50	0.51	0.01	0.01
FEB 11...	--	--	11	191	0.26	0.02	--	0.50	--	<0.01	<0.01
MAR 05...	--	--	11	161	0.22	0.04	--	0.80	--	0.12	0.03

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTH, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
JAN 28...	0.90	0.30	1.4	0.08	0.06	0.04	120	23	--	4.7	0.5
FEB 11...	1.2	0.60	1.7	0.10	0.07	0.08	140	32	--	7.3	0.7
MAR 05...	1.1	0.80	1.9	0.21	0.11	0.10	110	95	9.1	8.2	0.7

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	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)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)
JAN 28...	1745	<10	1	40	<1	<1	<1	2	<5	6

DATE	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)
JAN 28...	3	<0.1	4	<1	<1	<1.0	190	1	11

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

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

COYOTE CREEK BASIN

11169860 COYOTE CREEK BELOW COYOTE RESERVOIR, NEAR SAN MARTIN, CA

LOCATION.--Lat 37°07'23", long 121°33'06", Santa Clara County, Hydrologic Unit 18050003, on right bank 2,000 ft downstream from Coyote Dam and 4.1 mi northeast of San Martin.

DRAINAGE AREA.--120 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1987.

REMARKS.--Streamflow data provided by Santa Clara Valley Water District; not reviewed by U.S. Geological Survey.

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)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE	OXYGEN, DIS- SOLVED	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS (MG/L AS CACO3)
							(MM OF HG)	(MG/L)		
MAR 1987										
17...	1500	4.8	370	8.2	13.0	25	745	10.0	97	160
JUN										
16...	1315	9.3	362	7.7	16.0	17	760	3.5	36	170
JUL										
14...	1045	7.4	403	7.6	17.0	1.9	740	2.8	30	190
AUG										
10...	1445	4.8	436	7.8	22.0	7.0	740	4.5	53	190
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)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	
MAR 1987										
17...	18	40	14	16	18	0.6	1.6	140	42	
JUN										
16...	10	43	15	17	18	0.6	1.7	159	38	
JUL										
14...	13	47	17	18	17	0.6	2.0	174	39	
AUG										
10...	0	47	17	18	17	0.6	1.9	196	35	
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, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	
MAR 1987										
17...	9.9	0.20	6.6	210	0.29	0.010	0.300	0.040	0.060	
JUN										
16...	11	0.20	8.6	230	0.31	<0.010	<0.100	0.230	0.210	
JUL										
14...	11	0.20	9.2	250	0.34	<0.010	0.100	0.330	0.310	
AUG										
10...	9.9	0.20	8.9	260	0.35	<0.010	<0.100	0.370	0.360	
DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	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										
17...	0.50	0.70	0.80	0.030	0.010	<0.010	120	6		
JUN										
16...	1.6	0.50	--	0.100	0.020	0.010	130	12		
JUL										
14...	1.1	1.2	1.2	0.100	0.010	0.010	130	<3		
AUG										
10...	1.2	0.80	--	0.110	0.030	0.010	140	6		

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

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

COYOTE CREEK BASIN

11169890 LAS ANIMAS CREEK BELOW SAN FELIPE CREEK, NEAR MADRONE, CA

LOCATION.--Lat 37°12'45", long 121°39'26", Santa Clara County, Hydrologic Unit 18050003, on right bank 500 ft downstream from San Felipe Creek and 4.2 mi north of Madrone.

DRAINAGE AREA.--37.7 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1987.

REMARKS.--Streamflow data provided by Santa Clara Valley Water District; not reviewed by U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	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	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
MAR 17...	1215	0.10	8.3	18.5	2.0	745	9.40	103	730	540	140	93
DATE		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 CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	
MAR 17...	110		25	2	0.8	197	54	490	0.3	18	1020	1.39
DATE		NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (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)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
MAR 17...		<0.01	<0.10	0.03	0.03	0.3	0.5	0.03	0.02	<0.01	120	5

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

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

COYOTE CREEK BASIN

11169970 COYOTE CREEK BELOW LEROY ANDERSON DAM, NEAR MADRONE, CA

LOCATION.--Lat 37°09'54", long 121°37'56", in southeast corner of La Laguna Seca Grant, Santa Clara County, Hydrologic Unit 18050003, on left bank 500 ft downstream from release at Leroy Anderson Dam, 2.3 mi northeast of Madrone.

DRAINAGE AREA.--195 mi².

PERIOD OF RECORD.--

CHEMICAL DATA:: Water year 1980 to current year.

SEDIMENT DATA: Water year 1985.

REMARKS.--Streamflow data provided by Santa Clara Valley Water District; not reviewed by U.S. Geological Survey.

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)	TUR- BID- ITY (FTU)	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
DEC 06...	1300	57	323	8.3	14.0	26	755	9.7	95	140	12
JAN 29...	0930	43	329	8.3	10.0	25	755	10.2	91	140	15
FEB 12...	0915	35	332	8.2	10.0	27	755	11.2	100	140	13
MAR 06...	0945	6.5	332	8.2	10.0	41	755	11.5	103	140	7
JUN 03...	0915	80	351	8.1	13.5	36	755	10.6	103	150	15
JUL 08...	0945	87	382	7.9	17.0	33	750	8.7	92	160	15
AUG 12...	0930	90	406	8.1	20.5	28	750	8.1	92	180	15

DATE	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)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)
DEC 06...	32	14	16	20	0.6	1.8	126	22	10	0.2	--
JAN 29...	33	15	16	19	0.6	1.9	130	33	11	0.2	<0.01
FEB 12...	33	15	16	19	0.6	1.8	131	34	11	0.2	--
MAR 06...	32	14	15	19	0.6	1.7	131	34	11	0.2	--
JUN 03...	35	16	16	18	0.6	1.8	138	34	16	0.2	--
JUL 08...	37	17	18	19	0.6	2.1	148	37	13	0.2	--
AUG 12...	41	19	19	18	0.6	2.2	166	40	12	0.2	<0.01

DATE	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
DEC 06...	--	11	183	0.25	0.02	--	0.20	--	0.03	<0.01
JAN 29...	0.004	11	200	0.27	<0.01	<0.01	0.20	0.18	0.01	<0.01
FEB 12...	--	11	201	0.27	<0.01	--	0.20	--	0.01	0.02
MAR 06...	--	10	197	0.27	0.02	--	0.20	--	0.03	0.02
JUN 03...	--	10	212	0.29	0.01	--	0.20	--	0.03	0.04
JUL 08...	--	11	224	0.3	0.02	--	0.20	--	0.09	0.02
AUG 12...	0.008	11	245	0.33	0.02	<0.01	<0.10	<0.10	0.03	<0.01

See footnote at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

COYOTE CREEK BASIN

11169970 COYOTE CREEK BELOW LEROY ANDERSON DAM, NEAR MADRONE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
DEC 06...	0.30	0.50	0.50	<0.01	<0.01	--	90	<3	3.9	--	--
JAN 29...	1.1	0.40	1.3	0.04	0.01	<0.01	100	3	--	3.7	0.4
FEB 12...	0.70	0.80	0.90	0.02	<0.02	0.01	90	<3	--	3.5	0.4
MAR 06...	0.50	0.70	0.70	0.03	0.01	0.02	90	8	--	3.9	0.4
JUN 03...	0.40	0.60	0.60	0.04	0.03	0.01	90	10	5.2	3.6	--
JUL 08...	0.70	0.70	0.90	0.07	0.01	<0.01	90	5	4.5	3.8	--
AUG 12...	0.50	0.30	--	0.05	0.01	<0.01	110	<3	5.4	4.1	--

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	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)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)
JAN 29...	0930	<10	2	87	1	1	<1	1	<5	12
AUG 12...	0930	<10	1	110	<1	<1	1	1	<5	<4

DATE	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)
JAN 29...	2	<0.1	9	2	<1	<1.0	370	<4	<3
AUG 12...	100	--	<1	3	<1	<1.0	460	3	<3

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

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

COYOTE CREEK BASIN

11171500 COYOTE CREEK NEAR EDENVALE, CA

LOCATION.--Lat 38°16'15", long 121°47'47", at east boundary of Santa Teresa Grant, Santa Clara County, Hydrologic Unit 18050003, at "The Narrows," 1.5 mi northeast of Edenvale, and 7 mi south of San Jose.

DRAINAGE AREA.--229 mi².

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water year 1979 to current year.

SEDIMENT RECORDS: Water years 1985 and 1987.

REMARKS.--Bed material samples were divided into two fractions prior to analysis. Chemical and particle-size analyses are representative of the sample fraction which was finer than 2.0 mm. Streamflow data provided by Santa Clara Valley Water District not reviewed by U.S. Geological Survey.

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)	TUR- BID- ITY (FTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3
DEC 06...	1145	2.2	409	8.2	11.5	1.1	760	8.8	81	180	24
JAN 29...	0800	5.4	429	8.2	10.0	1.8	760	9.2	82	190	23
FEB 12...	1330	4.6	437	8.2	13.5	1.4	760	9.6	92	190	26
MAR 06...	0830	0.20	437	7.9	12.0	2.8	760	5.7	53	190	22
JUN 03...	0800	1.2	398	7.9	19.5	1.1	760	9.0	98	170	12
JUL 08...	0800	30	418	8.2	21.0	2.2	755	7.4	84	180	19
AUG 12...	0800	5.8	433	8.4	21.0	1.2	755	7.1	81	190	25

DATE	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)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)
DEC 06...	39	20	20	19	0.7	1.8	156	42	12	0.1	--
JAN 29...	41	22	20	18	0.6	1.6	171	41	16	0.2	0.026
FEB 12...	42	21	20	18	0.6	1.5	166	44	12	0.2	--
MAR 06...	41	22	20	18	0.6	1.6	171	46	16	0.2	--
JUN 03...	38	19	18	18	0.6	1.7	161	39	17	0.2	--
JUL 08...	39	20	19	19	0.6	1.8	161	41	14	0.2	--
AUG 12...	41	22	21	19	0.7	1.9	169	40	19	0.2	0.01

DATE	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
DEC 06...	--	13	242	0.33	<0.01	--	1.4	--	<0.01	<0.01
JAN 29...	0.002	12	265	0.36	<0.01	<0.01	1.9	1.9	<0.01	<0.01
FEB 12...	--	12	252	0.34	<0.01	--	1.8	--	<0.01	<0.01
MAR 06...	--	12	262	0.36	0.75	--	1.5	--	0.06	0.06
JUN 03...	--	14	244	0.33	<0.01	--	0.30	--	0.02	0.04
JUL 08...	--	12	244	0.33	0.01	--	0.40	--	0.04	0.02
AUG 12...	0.006	11	259	0.35	<0.01	<0.01	0.30	0.25	<0.01	<0.01

See footnote at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

COYOTE CREEK BASIN

11171500 COYOTE CREEK NEAR EDENVALE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)
DEC 06...	0.40	0.40	1.8	<0.01	<0.01	--	100	14	3.7	--	--
JAN 29...	0.70	0.40	2.6	0.01	0.01	<0.01	110	4	4.4	2.9	0.3
FEB 12...	0.40	0.70	2.2	0.01	<0.01	<0.01	110	7	2.8	3.0	0.1
MAR 06...	0.70	0.30	2.2	0.04	0.02	0.03	110	18	3.9	3.8	0.2
JUN 03...	0.30	0.40	0.60	0.03	0.02	0.02	100	11	--	3.4	--
JUL 08...	0.60	0.70	1.0	0.02	0.01	<0.01	100	5	3.6	3.6	--
AUG 12...	0.50	0.50	0.80	0.01	0.01	0.01	110	4	4.1	4.1	--

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, DIS- SOLVED (UG/L AS CO)
JAN 29...	0800	<10	<1	--	83	1	--	<1	--	<1
AUG 12...	0800	<10	1	6	96	<1	<1	<1	110	1

DATE	COBALT, RECOV.		COPPER, RECOV.	IRON, RECOV.		LEAD, RECOV.			MANGA- NESE,	MANGA- NESE,	
	FM BOT- TOM MA- TERIAL	COPPER, DIS- SOLVED	FM BOT- TOM MA- TERIAL	FM BOT- TOM MA- TERIAL	LEAD, DIS- SOLVED	FM BOT- TOM MA- TERIAL	LITHIUM DIS- SOLVED		DIS- SOLVED	FM BOT- TOM MA- TERIAL	MERCURY DIS- SOLVED
	(UG/G AS CO)	(UG/L AS CU)	(UG/G AS CU)	(UG/G AS FE)	(UG/L AS PB)	(UG/G AS PB)	(UG/L AS LI)		(UG/L AS MN)	(UG/G)	(UG/L AS HG)
JAN 29...	--	3	--	--	<5	--	13		3	--	<0.1
AUG 12...	<50	<1	10	10000	<5	10	7		3	260	<0.1

DATE	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G 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)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	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)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)
JAN 29...	--	5	2	<1	--	<1.0	450	2	11	--
AUG 12...	0.1	<1	1	<1	<1	<1.0	480	3	<3	<10

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

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	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
AUG 1987 12...	0800	5.8	21.0	2	4	8	24	50	100

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GERBODE VALLEY CREEK BASIN

11460110 GERBODE VALLEY CREEK NEAR SAUSALITO, CA

LOCATION.--Lat 37°49'59", long 122°31'18", in Saucelito Grant, Marin County, Hydrologic Unit 18050005, at upstream side of footbridge, 400 ft upstream from mouth, 1.8 mi southwest of Sausalito.

DRAINAGE AREA.--3.29 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: October 1985 to current year.

SEDIMENT DATA: October 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESURE (MM HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)
MAR 05...	1245	6.6	189	7.80	11.5	760	9.9	91	4300	5800
JUN 16...	1145	0.19	219	7.70	15.0	765	8.5	84	580	460

DATE	HARDNESS (MG/L AS CaCO ₃)	HARDNESS NONCARBONATE (MG/L AS CaCO ₃)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM DIS-SOLVED (MG/L AS Mg)	SODIUM DIS-SOLVED (MG/L AS Na)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM DIS-SOLVED (MG/L AS K)	BICARBONATE WHOLE IT-FLD (MG/L)	ALKALINITY, CARBONATE IT-FLD (MG/L AS CaCO ₃)
MAR 05...	42	13	7.3	5.7	16	44	1	1.4	35	29
JUN 16...	73	0	13	9.8	18	35	0.9	0.40	96	79

DATE	ALKALINITY WH WAT TOTAL FIELD (MG/L AS CaCO ₃)	SULFATE DIS-SOLVED (MG/L AS SO ₄)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO ₂)	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, NO ₂ +NO ₃ DIS-SOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
MAR 05...	29	19	26	0.10	14	124	110	0.17	0.200	0.010
JUN 16...	81	11	22	0.20	18	137	140	0.19	<0.100	<0.010

DATE	ARSENIC TOTAL (UG/L AS As)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS Cd)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS Cr)	COPPER, TOTAL RECOVERABLE (UG/L AS Cu)	IRON, DIS-SOLVED (UG/L AS Fe)	LEAD, TOTAL RECOVERABLE (UG/L AS Pb)	MERCURY TOTAL RECOVERABLE (UG/L AS Hg)	ZINC, TOTAL RECOVERABLE (UG/L AS Zn)
MAR 05...	<1	30	20	<10	20	440	<100	<0.10	20
JUN 16...	<1	40	<10	30	<10	100	<100	<0.10	<10

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

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

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR 05...	1245	6.6	11.5	78	1.4	94

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

GERBODE VALLEY CREEK BASIN

11460120 RODEO LAGOON AT FORT CRONKHITE, NEAR SAUSALITO, CA

LOCATION.--Lat 37°49'52", long 122°32'07" in Sausalito Grant, Marin County, Hydrologic Unit 18050005, at foot-bridge 600 ft upstream from mouth, 2.3 mi southwest of Sausalito.

DRAINAGE AREA.--4.07 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: October 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CaCO ₃)
MAR 05...	0945	12800	8.60	13.0	765	10.4	103	2100	4600	1300
JUN 16...	0925	16300	9.00	16.0	765	9.3	99	<10	K30	1600

DATE	HARDNESS NONCARB WH WAT TOT FLD (MG/L AS CaCO ₃)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	CARBONATE WATER WHOLE (MG/L)	BICARBONATE WATER WHOLE (MG/L)	ALKALINITY, CARBONATE IT-FLD (MG/L AS CaCO ₃)
MAR 05...	1200	78	260	2200	78	27	76	12	58	67
JUN 16...	1500	110	320	3300	81	36	110	23	90	111

DATE	ALKALINITY WH WAT TOTAL FIELD (MG/L AS CaCO ₃)	SULFATE DIS-SOLVED (MG/L AS SO ₄)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO ₂)	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, NO ₂ +NO ₃ DIS-SOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
MAR 05...	67	450	4200	0.30	12	7740	7300	10.5	<0.100	0.080
JUN 16...	111	730	5600	0.40	6.3	10200	10000	13.9	<0.100	0.010

DATE	ARSENIC TOTAL (UG/L AS AS)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM, TOTAL RECOVERABLE (UG/L AS Cd)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS Cr)	COPPER, TOTAL RECOVERABLE (UG/L AS Cu)	IRON, DIS-SOLVED (UG/L AS Fe)	LEAD, TOTAL RECOVERABLE (UG/L AS Pb)	MERCURY, TOTAL RECOVERABLE (UG/L AS Hg)	ZINC, TOTAL RECOVERABLE (UG/L AS Zn)
MAR 05...	<1	120	60	<10	20	40	<100	<0.10	60
JUN 16...	<1	1300	60	20	40	50	100	<0.10	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.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

TENNESSEE VALLEY CREEK BASIN

11460130 TENNESSEE VALLEY CREEK NEAR TAMALPAIS VALLEY, CA

LOCATION.--Lat 37°50'52", long 122°32'37", in Saucelito Grant, Marin County, Hydrologic Unit 18050005, at downstream side of footbridge, 10 ft downstream from right-bank tributary, and 1.6 mi south of Tamalpais Valley.

DRAINAGE AREA.--1.91 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: October 1985 to current year.

SEDIMENT DATA: October 1985 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)	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 05...	1525	2.3	212	7.80	12.0	760	10.2	95	520	23000
JUN 12...	1345	0.04	227	7.40	15.5	765	7.9	79	180	180

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)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L CACO3)
MAR 05...	54	13	8.7	7.8	19	42	1	2.2	50	41
JUN 12...	58	0	10	8.0	23	46	1	1.4	79	64

DATE	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)	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- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
MAR 05...	41	19	27	<0.10	14	136	120	0.18	0.370	0.020
JUN 12...	64	9.7	30	0.20	16	134	140	0.18	<0.100	0.020

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)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
MAR 05...	<1	40	<10	<10	10	350	<100	0.10	120
JUN 12...	<1	60	<10	<10	<10	560	<100	<0.10	<10

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

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- PENDED (MG/L)	SEDI- MENT, CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR 05...	1525	2.3	12.0	42	0.26	97

ANALYSES OF SAMPLES COLLECTED AT WATER QUALITY PARTIAL-RECORD STATIONS

REDWOOD CREEK BASIN

11460140 REDWOOD CREEK BELOW MUIR WOODS, NEAR MILL VALLEY, CA

LOCATION.--Lat 37°53'22", long 122°33'58", in Saucelito Grant, Marin County, Hydrologic Unit 18050005, on upstream side of Frank Valley Road bridge, 200 ft upstream from small left-bank tributary, and 1.7 mi southwest of Mill Valley Post Office.

DRAINAGE AREA.--4.11 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: October 1985 to current year.

SEDIMENT DATA: October 1985 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)	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 KF AGAR (COLS. PER 100 ML)	
FEB 13...	1500	114	118	7.90	12.5	765	10.4	97	K46	K180	
JUN 10...	1500	0.62	215	7.50	14.0	755	8.7	85	K5	K8	
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)	
FEB 13...	39	5	5.7	5.9	7.8	30	0.6	0.80	40	33	
JUN 10...	82	0	13	12	12	24	0.6	0.80	103	84	
DATE		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)	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- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
FEB 13...	34	9.6	11	<0.10	14	83	75	0.11	0.140	0.080	
JUN 10...	86	12	15	0.10	17	125	130	0.17	<0.100	<0.010	
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)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	
FEB 13...	2	20	<10	20	20	34	100	<0.10	10		
JUN 10...	<1	30	<10	<10	<10	<3	<100	<0.10	<10		

K Results based on colony count outside the acceptable range (non-ideal colony count).
< Actual value is known to be less than value shown.

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- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB 13...	1500	114	12.5	70	22	70

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

REDWOOD CREEK BASIN

11460152 REDWOOD CREEK AT MUIR BEACH, NEAR TAMALPAIS VALLEY, CA

LOCATION.--Lat 37°51'47", long 122°34'27", in Saucelito Grant, Marin County, Hydrologic Unit 18050005, on downstream side bridge of beach access road, 1,000 ft upstream from Big Lagoon, and 1.7 mi southwest of Tamalpais Valley.

DRAINAGE AREA.--7.29 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: October 1985 to current year.

SEDIMENT DATA: October 1985 to current year.

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)	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 13...	1030	30	178	7.30	11.5	770	10.7	97	8000	--
JUN 12...	0915	0.68	228	7.80	12.5	765	8.6	80	K280	130
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)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L CACO3)
MAR 13...	64	4	10	9.5	11	27	0.6	0.60	73	60
JUN 12...	86	2	13	13	14	26	0.7	0.80	102	84
DATE	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)	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- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
MAR 13...	60	13	12	0.10	15	113	110	0.15	0.100	<0.010
JUN 12...	84	13	15	0.10	16	136	140	0.18	<0.100	<0.010
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)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	
MAR 13...	<1	20	<10	40	<10	110	<100	<0.10	<10	
JUN 12...	<1	30	<10	<10	<10	26	<100	<0.10	<10	

K Results based on colony count outside the acceptable range (non-ideal colony count).
< Actual value is known to be less than value shown.

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, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR 13...	1030	30	11.5	8	0.65	97

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

REDWOOD CREEK BASIN

11460154 GREEN GULCH AT MUIR BEACH, NEAR TAMALPAIS VALLEY, CA

LOCATION.--Lat 37°51'47", long 122°34'13", in Saucelito Grant, Marin County, Hydrologic Unit 18050005, on upstream side of bridge, 1.7 mi southwest of Tamalpais Valley.

DRAINAGE AREA.--1.15 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: October 1985 to current year.

SEDIMENT DATA: October 1985 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)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, (PER- CENT UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
MAR 13...	1400	1.2	261	7.40	14.0	770	10.2	98	K500	--
JUN 12...	1105	0.01	518	7.40	13.5	765	6.4	61	23	190

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)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L CACO3)
MAR 13...	80	8	16	9.7	21	36	1	0.90	88	72
JUN 12...	180	0	36	21	40	33	1	1.3	215	177

DATE	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)	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- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
MAR 13...	72	19	22	0.10	11	146	140	0.20	0.680	<0.010
JUN 12...	176	24	50	0.20	13	292	290	0.40	0.540	<0.010

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)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
MAR 13...	<1	40	<10	<10	10	120	<100	0.10	<10
JUN 12...	<1	110	<10	<10	<10	32	<100	<0.10	<10

K Results based on colony count outside the acceptable range (non-ideal colony count).
 < Actual value is known to be less than value shown.

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

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, DISCH, SUSP. + BED MA- TERIAL TOTAL (MG/L)	SEDI- MENT, DISCH, SUSP. + BED MA- TERIAL TOTAL (T/DAY)	SED. TOTAL, SIEVE DIAM. % FINER THAN .062 MM
MAR 13...	1400	14.0	1.2	18	0.06	98

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WEBB CREEK BASIN

11460156 WEBB CREEK NEAR STINSON BEACH, CA

LOCATION.--Lat 37°53'13", long 122°37'31", in Saucelito Grant, Marin County, Hydrologic Unit 18050005, at upstream side of Highway 1 culvert, 900 ft upstream from mouth, and 0.8 mi southeast of Stinson Beach.

DRAINAGE AREA.--1.12 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: October 1985 to current year.

SEDIMENT DATA: October 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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, (PER-CENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)
FEB 13...	1225	29	138	7.60	13.0	755	10.1	97	K150	200
JUN 10...	1230	0.08	388	8.10	12.0	750	9.6	91	K36	K150

DATE	HARDNESS (MG/L AS CaCO ₃)	HARDNESS NONCARBONATE (MG/L AS CaCO ₃)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM DIS-SOLVED (MG/L AS Mg)	SODIUM DIS-SOLVED (MG/L AS Na)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM DIS-SOLVED (MG/L AS K)	BICARBONATE WHOLE (MG/L)	ALKALINITY, CARBONATE IT-FLD (MG/L AS CaCO ₃)
FEB 13...	39	7	7.2	5.1	11	37	0.8	0.80	39	32
JUN 10...	120	4	25	14	19	25	0.8	0.90	141	116

DATE	ALKALINITY WHOLE FIELD (MG/L AS CaCO ₃)	SULFATE DIS-SOLVED (MG/L AS SO ₄)	CHLORIDE DIS-SOLVED (MG/L AS Cl)	FLUORIDE DIS-SOLVED (MG/L AS F)	SILICA DIS-SOLVED (MG/L AS SiO ₂)	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, NO ₂ +NO ₃ DIS-SOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
FEB 13...	32	11	13	<0.10	14	91	82	0.12	0.560	0.050
JUN 10...	116	19	30	0.10	15	193	190	0.26	0.180	<0.010

DATE	ARSENIC TOTAL (UG/L AS AS)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS Cd)	CHROMIUM TOTAL RECOVERABLE (UG/L AS Cr)	COPPER, TOTAL RECOVERABLE (UG/L AS Cu)	IRON, DIS-SOLVED (UG/L AS Fe)	LEAD, TOTAL RECOVERABLE (UG/L AS Pb)	MERCURY TOTAL RECOVERABLE (UG/L AS Hg)	ZINC, TOTAL RECOVERABLE (UG/L AS Zn)
FEB 13...	2	20	10	20	20	72	100	<0.10	20
JUN 10...	2	20	<10	<10	<10	<3	<100	<0.10	<10

K Results based on colony count outside the acceptable range (non-ideal colony count).
< Actual value is known to be less than value shown.

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

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB 13...	1225	29	13.0	110	8.6	71

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

TABLE ROCK CREEK BASIN

11460158 TABLE ROCK CREEK AT STINSON BEACH, CA

LOCATION.--Lat 37°53'55", long 122°38'11", in Saucelito Grant, Marin County, Hydrologic Unit 18050005, at upstream side of Highway 1 bridge, adjacent to Stinson Beach Fire House.

DRAINAGE AREA.--1.34 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: October 1985 to current year.

SEDIMENT DATA: October 1985 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)	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)
FEB 13...	0930	42	135	7.80	13.0	765	10.7	101	K100	850
JUN 10...	0940	0.04	328	8.10	13.5	760	10.3	99	230	390

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)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L CACO3)
FEB 13...	40	6	6.8	5.5	10	35	0.7	1.1	42	34
JUN 10...	110	0	18	15	22	31	0.9	1.0	130	106

DATE	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)	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 SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
FEB 13...	34	12	11	<0.10	17	104	85	0.14	0.810	0.290
JUN 10...	109	18	31	0.10	19	187	190	0.25	0.190	0.010

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)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
FEB 13...	6	20	10	30	20	140	100	<0.10	20
JUN 10...	10	20	<10	<10	<10	16	<100	<0.10	<10

K Results based on colony count outside the acceptable range (non-ideal colony count).
< Actual value is known to be less than value shown.

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- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB 13...	0930	42	13.0	154	17	71

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

KLAMATH RIVER BASIN

11525550 GRASS VALLEY CREEK NEAR FRENCH GULCH, CA

LOCATION.--Lat 40°36'52", long 122°44'43", in NW 1/4 SW 1/4, sec.23, T.32 N., R.8 W., Trinity County, Hydrologic Unit 18010211, on right bank 0.8 mi downstream from an unnamed perennial tributary, 7.1 mi southeast of Lewiston, and 10.6 mi east of Douglas City.

DRAINAGE AREA.--7.93 mi².

PERIOD OF RECORD.--Water years 1984 to current year.

REMARKS.--Record is collected for hydrologic and sediment-transport correlation studies with Grass Valley Creek at Fawn Lodge, near Lewiston.

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- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT											
01...	1315	7.0	8.5	5	0.09	--	--	--	--	--	--
NOV											
05...	0850	7.1	5.0	1	0.02	--	--	--	--	--	--
DEC											
04...	1235	6.7	4.0	1	0.02	--	--	--	--	--	--
JAN											
05...	0905	11	3.0	2	0.06	--	--	--	--	--	--
28...	0905	12	2.0	6	0.19	68	--	--	--	--	--
FEB											
06...	1400	11	4.0	6	0.18	--	--	--	--	--	--
20...	0925	24	4.0	2	0.13	--	--	--	--	--	--
MAR											
05...	1010	291	5.5	426	335	39	54	69	89	97	100
06...	0920	138	3.5	62	23	36	52	76	96	100	--
APR											
07...	0915	33	4.5	3	0.27	--	--	--	--	--	--
MAY											
08...	0935	19	9.5	5	0.26	--	--	--	--	--	--
JUN											
05...	0845	11	10.5	2	0.06	--	--	--	--	--	--
AUG											
05...	0830	6.2	13.0	1	0.02	--	--	--	--	--	--
SEP											
08...	0845	5.2	10.0	0	0.0	--	--	--	--	--	--

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
JAN								
05...	0910	3.0	1	11	3	4	9	20
05...	0915	3.0	1	11	--	2	7	21
05...	0920	3.0	1	11	1	2	4	15
FEB								
20...	0930	4.0	1	24	--	--	3	6
20...	0935	4.0	1	24	--	--	2	12
20...	0940	4.0	1	24	--	--	2	13
MAR								
05...	1025	5.5	1	291	--	1	5	28
05...	1030	5.5	1	291	--	--	1	4
05...	1035	5.5	1	291	--	--	--	2
05...	1040	5.5	1	291	--	--	--	3
05...	1045	5.5	1	291	--	1	1	16

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

KLAMATH RIVER BASIN

11525550 GRASS VALLEY CREEK NEAR FRENCH GULCH, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
JAN							
05...	42	67	88	99	100	--	--
05...	50	72	92	100	--	--	--
05...	37	63	89	97	100	--	--
FEB							
20...	16	67	98	100	--	--	--
20...	29	53	89	100	--	--	--
20...	41	72	94	100	--	--	--
MAR							
05...	72	88	96	100	--	--	--
05...	14	24	37	44	45	50	100
05...	5	15	27	32	36	82	100
05...	25	67	96	100	--	--	--
05...	64	92	100	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

KLAMATH RIVER BASIN

11525580 LITTLE GRASS VALLEY CREEK NEAR LEWISTON, CA

LOCATION.--Lat 40°39'45", long 122°47'57", in NE 1/4 NW 1/4, sec.5, T.32 N., R.8 W., Trinity County, Hydrologic Unit 18010211, on left bank 0.2 mi upstream from the confluence with Grass Valley Creek, 0.9 mi west of Buckhorn Station, and 3.1 mi south of Lewiston on State Highway 299.

DRAINAGE AREA.--10.69 mi².

PERIOD OF RECORD.--Water years 1984 to current year.

REMARKS.--Record is collected for hydrologic and sediment-transport correlation studies with Grass Valley Creek at Fawn Lodge, near Lewiston.

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	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT											
01...	1225	3.3	9.0	17	0.15	--	--	--	--	--	--
NOV											
05...	0945	3.4	5.0	2	0.02	--	--	--	--	--	--
DEC											
04...	1200	3.5	4.0	3	0.03	--	--	--	--	--	--
JAN											
05...	1015	6.0	3.0	19	0.31	44	--	--	--	--	--
28...	1020	5.4	3.0	17	0.25	68	--	--	--	--	--
FEB											
06...	1300	4.9	4.0	7	0.09	--	--	--	--	--	--
13...	0900	12	5.5	154	5.0	63	74	91	100	--	--
20...	1055	7.3	4.0	21	0.41	--	--	--	--	--	--
MAR											
05...	1145	64	6.5	2240	387	44	66	85	97	100	--
06...	1040	30	4.5	590	48	31	45	65	89	99	100
APR											
07...	1040	9.8	6.5	76	2.0	39	55	83	98	100	--
MAY											
08...	1250	4.9	13.5	10	0.13	--	--	--	--	--	--
JUN											
05...	0940	3.9	12.5	8	0.08	--	--	--	--	--	--
JUL											
10...	0855	1.8	14.0	3	0.02	--	--	--	--	--	--
AUG											
05...	0920	1.4	14.0	2	0.01	--	--	--	--	--	--
SEP											
08...	0925	1.6	11.5	3	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
OCT								
01...	1230	9.0	1	3.3	--	3	13	21
01...	1235	9.0	1	3.3	--	1	8	22
01...	1240	9.0	1	3.3	--	1	8	20
JAN								
05...	1020	3.0	1	6.0	--	--	4	18
05...	1025	3.0	1	6.0	--	1	5	13
FEB								
20...	1115	4.0	1	7.3	--	3	8	15
20...	1120	4.0	1	7.3	--	1	6	16
20...	1125	4.0	1	7.3	--	--	3	18
MAR								
05...	1150	6.5	1	64	1	6	24	50
05...	1155	6.5	1	64	1	2	4	10
05...	1200	6.5	1	64	--	--	3	8

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

KLAMATH RIVER BASIN

11525580 LITTLE GRASS VALLEY CREEK NEAR LEWISTON, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.
	% FINER THAN 1.00 MM	% FINER THAN 2.00 MM	% FINER THAN 4.00 MM	% FINER THAN 8.00 MM	% FINER THAN 16.0 MM	% FINER THAN 32.0 MM	% FINER THAN 64.0 MM
OCT							
01...	32	49	80	98	100	--	--
01...	37	56	84	99	100	--	--
01...	37	54	74	85	86	100	--
JAN							
05...	33	49	80	98	100	--	--
05...	25	44	80	92	96	100	--
FEB							
20...	28	49	77	94	98	100	--
20...	33	56	87	99	100	--	--
20...	32	45	75	96	97	100	--
MAR							
05...	72	87	93	95	100	--	--
05...	22	40	59	66	68	90	100
05...	18	32	46	54	62	77	100

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

DATE	TIME	TEMPER- ATURE WATER (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	STREAM WIDTH (FT)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
JAN							
05...	1030	3.0	8	6.0	10.0	5.7	5
FEB							
13...	0915	5.5	19	12	10.0	12	4
20...	1110	4.0	17	7.3	10.4	8.4	2
APR							
07...	1100	6.5	20	9.8	12.6	11	4

DATE	SED. BEDLOAD SIEVE DIAM.	SED. BEDLOAD SIEVE DIAM.	SED. BEDLOAD SIEVE DIAM.	SED. BEDLOAD SIEVE DIAM.	SED. BEDLOAD SIEVE DIAM.	SED. BEDLOAD SIEVE DIAM.
	% FINER THAN .500 MM	% FINER THAN 1.00 MM	% FINER THAN 2.00 MM	% FINER THAN 4.00 MM	% FINER THAN 8.00 MM	% FINER THAN 16.0 MM
JAN						
05...	19	37	61	90	99	100
FEB						
13...	18	37	61	91	99	100
20...	16	42	68	93	100	--
APR						
07...	20	41	68	94	100	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

LAKE MERRITT BASIN

374722122155501 OAKLAND HARBOR ESTUARY, CA

LOCATION.--Lat 37°47'22", long 122°15'55", in Oakland, Alameda County, Hydrologic Unit 18050004.

PERIOD OF RECORD.--April 1980 to September 1987 (discontinued).

COOPERATION.--Water-quality samples collected by Alameda County Flood Control and Water Conservation District, under general supervision of the U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)
OCT							
28...	1235	4.5	44200	7.5	18.0	8.6	17
NOV							
20...	1245	6.0	44000	7.5	15.0	7.9	26
JAN							
08...	1330	4.0	44300	7.3	10.5	17.7	11
22...	1320	4.0	42100	7.5	8.5	10.0	20
FEB							
26...	1335	4.0	37800	7.4	12.5	10.2	2
MAR							
24...	1200	3.5	39800	7.2	13.5	8.6	8
APR							
07...	1330	3.0	40200	7.6	17.5	9.6	8
29...	1220	5.0	43400	7.5	18.0	6.2	7
MAY							
13...	1340	4.5	45000	7.2	20.5	7.5	<1
28...	1200	4.0	45400	7.7	19.0	7.9	4
JUN							
18...	1150	3.0	46100	7.6	20.5	6.4	14
30...	1245	4.0	47400	7.3	20.0	7.0	<1
JUL							
15...	1335	4.5	48400	7.4	22.0	7.1	10
28...	1230	5.0	48500	7.4	21.5	6.8	9
AUG							
12...	0930	3.5	48900	7.1	21.5	8.2	6
26...	0950	4.0	48900	7.4	22.0	6.7	2
SEP							
11...	0930	4.0	49400	7.3	21.0	7.3	9
24...	0930	5.0	49200	7.1	20.0	5.4	38

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, ORTHOPHOS- PHATE, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT						
28...	0.300	0.510	0.19	0.70	0.240	0.210
NOV						
20...	0.200	0.380	0.22	0.60	0.200	0.170
JAN						
08...	0.400	0.500	0.50	1.0	0.230	0.180
22...	0.300	0.460	0.74	1.2	0.230	0.160
FEB						
26...	<0.100	0.170	0.73	0.9	0.110	--
MAR						
24...	0.400	0.280	0.62	0.9	0.240	--
APR						
07...	<0.100	0.310	0.59	0.90	0.170	0.120
29...	0.200	0.330	0.17	0.50	0.160	0.110
MAY						
13...	0.200	0.450	0.65	0.44	0.160	0.140
28...	<0.100	0.330	0.77	1.1	0.170	0.140
JUN						
18...	<0.100	0.390	0.11	0.50	0.270	0.160
30...	<0.100	0.520	0.48	1.0	0.230	0.180
JUL						
15...	<0.100	0.340	0.26	0.60	0.240	0.140
28...	0.100	0.340	0.26	0.60	0.240	0.180
AUG						
12...	<0.100	0.350	0.05	0.40	0.140	0.160
26...	<0.100	0.300	0.50	0.80	0.300	0.170
SEP						
11...	0.200	0.310	0.09	0.40	0.300	0.200
24...	0.100	0.370	0.23	0.60	0.170	0.150

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

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

LAKE MERRITT BASIN

374807122152701 LAKE MERRITT AT LAKE CENTER, CA

LOCATION.--Lat 37°48'07", long 122°15'27", in San Antonio (V and D Peralta) Grant, Alameda County, Hydrologic Unit 18050002.

PERIOD OF RECORD.--Water year 1981 to September 1987 (discontinued).

COOPERATION.--Water-quality samples collected by Alameda County Flood Control and Water Conservation District, under general supervision of the U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)
OCT							
28...	1050	4.0	44100	7.7	18.5	9.3	40
NOV							
20...	1055	4.5	42800	8.0	16.0	12.9	24
JAN							
08...	1105	4.0	38500	7.6	11.5	6.7	12
22...	1135	3.0	39300	8.3	8.5	18.8	38
FEB							
26...	1130	5.0	34300	7.4	13.0	8.2	4
MAR							
24...	1015	5.0	33000	7.6	16.0	9.1	9
APR							
07...	1150	4.0	38100	7.9	18.0	11.6	8
29...	1055	2.5	41800	7.6	20.5	9.7	2
MAY							
13...	1105	4.0	44300	7.5	22.0	10.6	<1
28...	1600	4.0	45400	7.8	19.5	10.8	3
JUN							
18...	1025	4.0	46400	7.7	20.5	7.6	<1
30...	1015	4.0	47000	7.6	21.0	9.0	5
JUL							
15...	1525	4.5	47300	7.7	25.0	11.3	14
28...	0955	4.0	48300	7.3	22.0	6.1	<1
AUG							
12...	1120	4.0	48900	7.3	22.0	10.8	6
26...	1150	4.0	48900	7.4	22.5	7.0	2
SEP							
11...	1125	4.5	49200	7.5	21.5	10.1	8
24...	1145	4.0	49400	7.3	20.0	5.8	40

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED TOTAL (MG/L AS P)
OCT						
28...	<0.100	0.370	0.03	0.40	0.250	0.190
NOV						
20...	<0.100	0.240	0.66	0.90	0.220	0.130
JAN						
08...	0.200	0.310	0.59	0.90	0.290	0.170
22...	<0.100	0.210	1.8	2.0	0.360	0.120
FEB						
26...	0.300	0.300	1.3	1.6	0.160	--
MAR						
24...	<0.100	0.120	1.5	1.6	0.370	<0.010
APR						
07...	<0.100	0.250	0.45	0.70	0.180	0.090
29...	<0.100	0.230	0.47	0.70	0.130	0.080
MAY						
13...	<0.100	0.310	0.19	0.50	0.140	0.100
28...	<0.100	0.250	0.25	0.50	0.150	0.120
JUN						
18...	<0.100	0.330	0.37	0.70	0.260	0.140
30...	<0.100	0.400	1.0	1.4	0.260	0.130
JUL						
15...	<0.100	0.390	0.31	0.70	0.240	0.080
28...	<0.100	0.270	0.43	0.70	0.250	0.150
AUG						
12...	<0.100	0.310	0.59	0.90	0.230	0.140
26...	<0.100	0.220	0.48	0.70	0.210	0.140
SEP						
11...	<0.100	0.190	0.41	0.60	0.230	0.120
24...	0.100	0.390	0.31	0.70	0.250	0.170

< 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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