



# Water Resources Data for California

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

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-78-2  
WATER YEAR 1978

Prepared in cooperation with the California  
Department of Water Resources and with  
other agencies

# CALENDAR FOR WATER YEAR 1978

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Volume 2. Pacific Slope Basins from Arroyo  
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except Central Valley

R E C E I V E D  
OCT 22 1979

PUBLIC INQUIRIES OFFICE  
U. S. GEOLOGICAL SURVEY  
LOS ANGELES, CALIFORNIA

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-78-2

## WATER YEAR 1978

Prepared in cooperation with the California  
Department of Water Resources and with  
other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

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## PREFACE

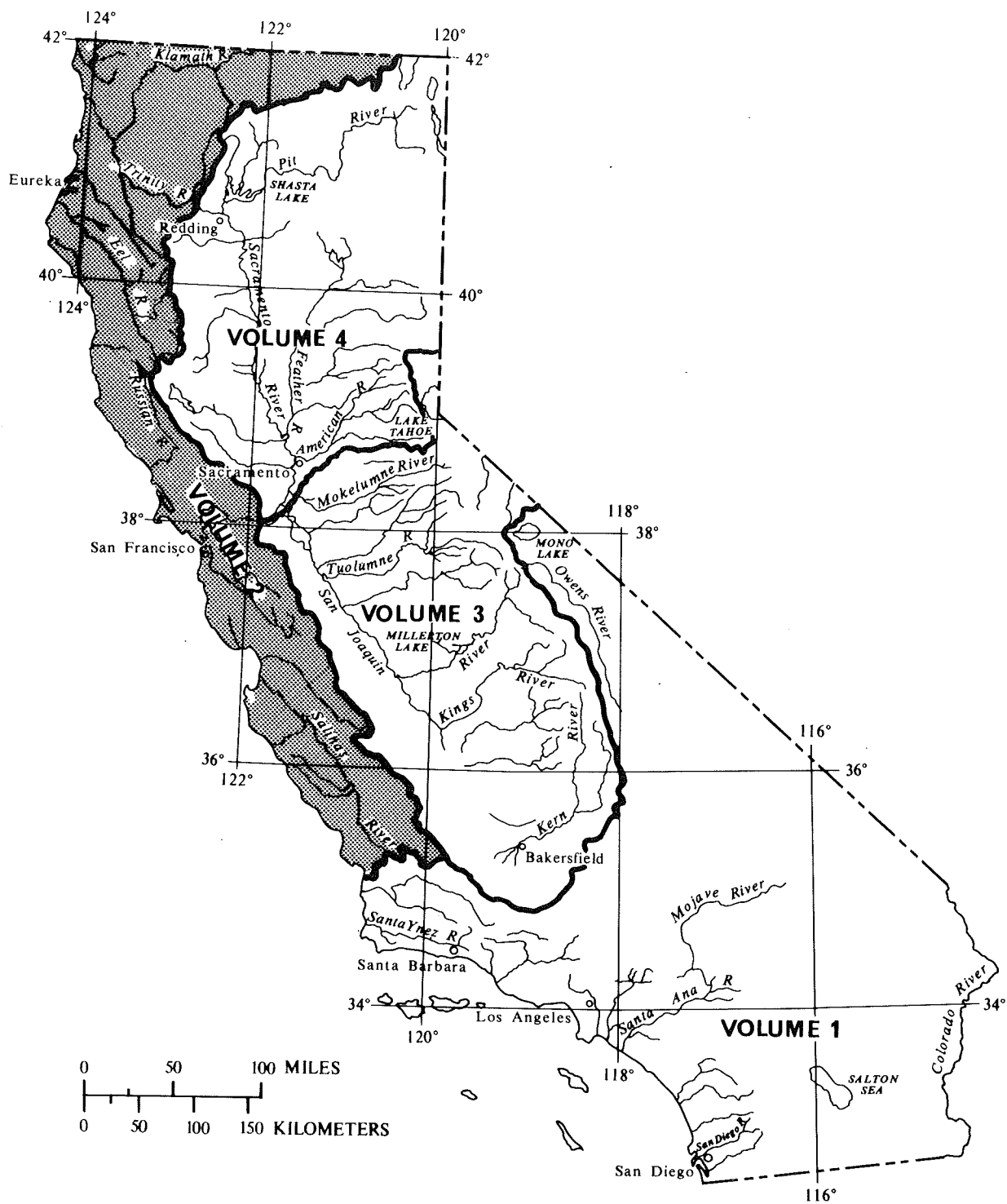
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This report is one of a series issued by State. General direction for the series is by Philip Cohen, Acting Chief Hydrologist.

Data for California are in four volumes as follows:

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

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

IX

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

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## WATER RESOURCES DATA FOR CALIFORNIA, 1978

### Volume 2

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#### INTRODUCTION

Water-resources data for the 1978 water year for California consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; records of water levels in selected observation wells; and selected chemical analyses of ground water. Records for a few pertinent streamflow and water-quality stations in bordering States are also included. These data, a contribution to the National Water Data System, were collected by the Geological Survey and cooperating local, State, and Federal agencies in California.

Records of discharge or stage of streams and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface-Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled, "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, Virginia 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released, either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published together as an official Survey report on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report CA-78-2." For archiving and general distribution, the reports for water years 1971-74 are also identified as water-data reports. Water-data reports are for sale, in paper copy or in microfiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161.

## 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:

California Department of Water Resources, R. B. Robie, Director.  
California Regional Water Quality Control Board, North Coast Region,  
David C. Joseph, Executive Officer.  
Alameda County Flood Control and Water Conservation District,  
P. E. Lanferman, Engineer-Manager.  
Alameda County Water District, M. P. Whitfield, General Manager-Chief Engineer.  
Contra Costa County Flood Control and Water Conservation District,  
J. E. Taylor, Deputy Chief Engineer.  
Marin County Department of Public Works, Ray W. Foreaker, Jr., Director.  
Marin Municipal Water District, J. Dietrich Stroeh, General Manager.  
Monterey County Flood Control and Water Conservation District,  
Loran Bunte, Jr., District Engineer.  
Napa County Department of Public Works, Harry D. Hamilton, Director.  
North Marin County Water District, John Olaf Nelson, Manager.  
San Benito County Water Conservation and Flood Control District,  
Ralph G. Towle, District Secretary.  
San Francisco, City and County Water Department, Eugene J. Kelleher,  
General Manager and Chief Engineer.  
San Luis Obispo County Engineering Department,  
G. C. Protopapas, County Engineer.  
San Mateo County Department of Public Works, S. H. Cantwell, Jr., Director.  
Santa Clara Valley Water District, J. T. O'Halloran, General Manager.  
Santa Cruz County Flood Control and Water Conservation District,  
D. A. Porath, District Engineer.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army; Bureau of Reclamation, Bureau of Land Management, and National Park Service, U.S. Department of the Interior; and Forest Service, U.S. Department of Agriculture.

The following organizations aided in collecting records: Pacific Power and Light Co. and Pacific Gas and Electric Co.

## HYDROLOGIC CONDITIONS

Following two years of drought, the 1978 water year began with near normal runoff in streams in the north-coastal region of California. Several storms during November produced significant amounts of precipitation over most of northern California, with the greatest amount occurring in Marin County north of San Francisco Bay. Cumulative runoff at the index station, Smith River near Crescent City, was 220 percent of normal for the first quarter.

Heavy precipitation began late in December and continued through the first half of February, bringing an official end to the drought. During February, runoff of Smith River near Crescent City, which is indicative of runoff in the north coastal region, was 129 percent of the 1941-70 median. Cumulative runoff, at 137 percent of the median for the first 6 months of the water year, remained considerably above normal. At the end of March, contents in the 10 major reservoirs in northern California were 96 percent of average, having increased from only 32 percent of average at the end of the 1977 water year.

During the last half of the water year, runoff varied from above normal to near normal for the May to August period. September storms resulted in record maximum monthly and mean daily flows at the Smith River index station. The mean daily flow was 133 percent of the median for 47 years of record. Contents in the 10 major reservoirs in northern California had increased to 122 percent of average by the end of the water year.

The areal distribution of runoff in California for the 1978 water year is shown in figure 1. Runoff at 11 selected index stations in the area covered by this volume is given as a percentage of the median runoff for the 30-year period 1941-70. Runoff ranged from 117 percent for Salmon River at Somesbar to 413 percent for Arroyo Grande at Arroyo Grande. Average runoff for the 11 index stations was 194 percent of the 30-year median.

The quality of surface water varied seasonally throughout the area. Because of the higher than normal runoff, concentrations of dissolved solids were lower than normal.

Ground-water levels rose in the central-coastal and north-coastal part of the State in response to above average rainfall during the winter of 1977-78. During the period spring 1977 to spring 1978, water levels rose an average of 6 feet (1.8 m).

#### DEFINITION OF TERMS

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

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

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

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

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

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

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

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

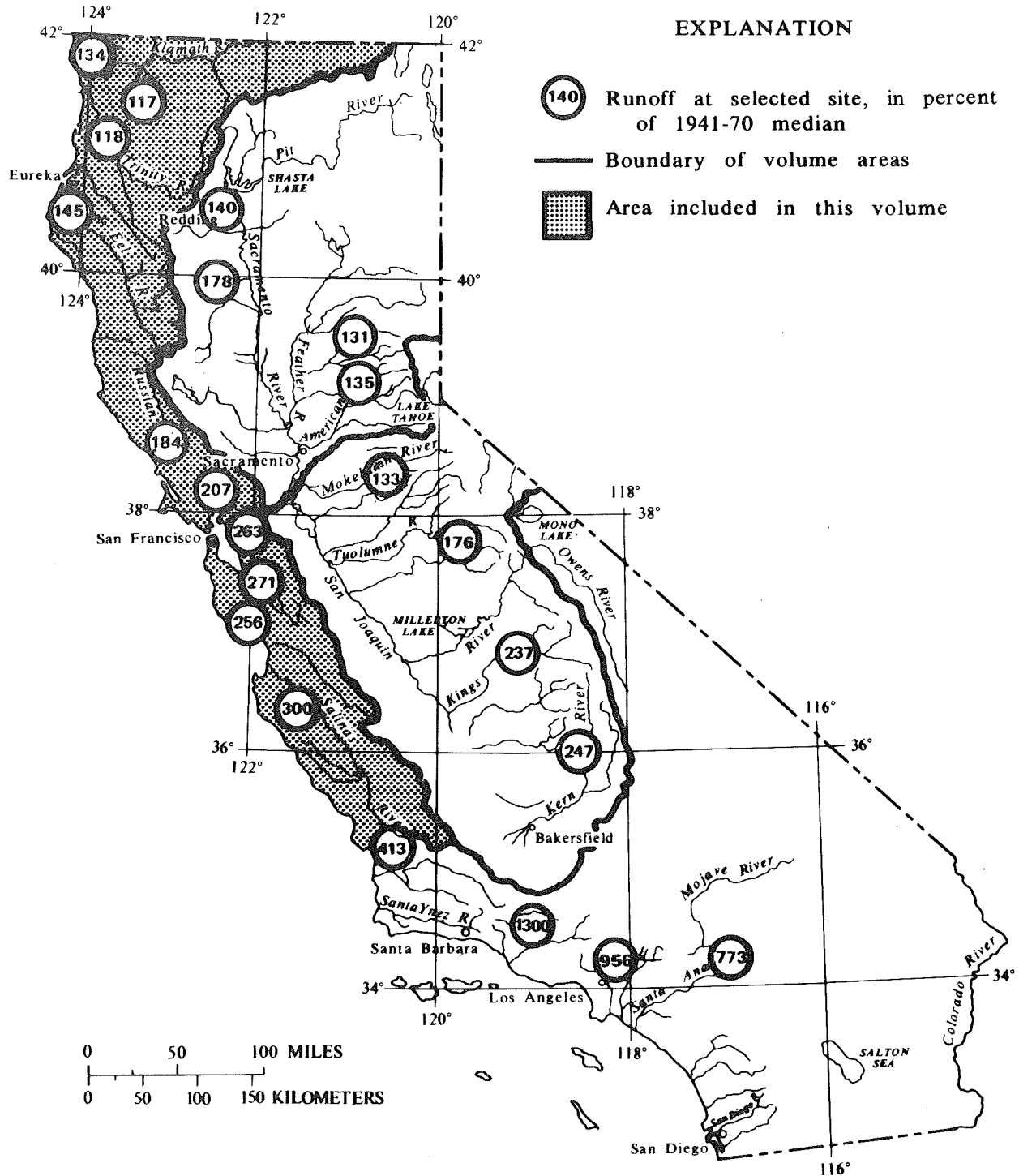


FIGURE 1.--Runoff for the current water year.



Bacteria (continued)

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  $35^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$  on KF Streptococcus agar (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

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

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

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

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

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

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

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

Bottom material: See Bed material.

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

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

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

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

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

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

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

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

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

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

Dissolved is that material in a representative water sample which passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate. It is recognized that certain kinds of samples cannot be filtered; to provide for this, procedures that are considered equivalent to filtering through a 0.45-micrometer membrane filter will be identified and announced a later date.

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

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

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

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

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

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

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

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap that is required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ( $\text{CaCO}_3$ ).

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

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

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

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

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

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

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

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

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

Micrograms per liter (UG/L,  $\mu\text{g/L}$ ) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

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

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

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

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

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area of the habitat, usually square meter ( $\text{m}^2$ ), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

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

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

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

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

Classification	Size (mm)	Method of analysis
Clay.....	0.00024-0.004	Sedimentation
Silt.....	0.004-0.062	Sedimentation
Sand.....	0.062-2.0	Sedimentation or sieve
Gravel.....	2.0-64.0	Sieve.

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

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

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

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

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

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

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

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

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

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

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

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

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

Milligrams of carbon per area or volume per unit time [ $\text{mg C}/(\text{m}^2 \cdot \text{time})$  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.

Primary productivity (continued)

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

Pseudomonas aeruginosa is a motile, gram-negative, rod-shaped bacterium that excretes a water-soluble, greenish, fluorescent pigment. The bacterium is noted for its aerobic, nutritional versatility, utilizing more than one hundred organic compounds as its sole source of carbon and energy, but can be an anaerobe in the presence of nitrate, reducing it to either nitrite, ammonia, or free nitrogen. P. aeruginosa is a pathogen of humans and animals and has been suggested as an indicator of sewage contamination because the human intestinal tract appears to be the major reservoir from which this bacterium reaches water environments. Its sanitary significance in surface waters is primarily related to its association with outer-ear infections of swimmers.

Sediment is solid material that is derived mostly from disintegrated rocks and is transformed by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

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

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

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

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

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft or 0.09 m above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

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

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

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

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

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

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

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

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

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring 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 Geological Survey topographic map as the boundary of the lake and measured by a planimeter. In localities not covered by topographic maps, the areas are computed from the best maps available. Areas shown are for the lake stage at the time the map was made.

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

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

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the

Suspended, recoverable (continued)

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.....	<u>Hexagenia</u>
Species.....	<u>limbata</u>

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

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

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

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

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 per-



cent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

Turbidity of a sample is the reduction of transparency due to the presence of particulate matter. In this report it is expressed in Nephelometric turbidity units (NTU), obtained from the Nephelometric method for turbidity determination which measures the intensity of light scattered by suspended particles at 90 degrees from the path of an incident light source (see also p. 23).

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

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

#### DOWNSTREAM ORDER AND STATION NUMBER

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

As an added means of identification, each surface-water station, water-quality station, and partial-record station has been assigned a station number. These are in the same downstream order as used in this report. In assigning station numbers, no distinction is made between partial-record and continuous-record stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station. Gaps are left between the numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such as 11467000, which appears just to the left of the station name, includes the 2-digit number "11" plus the 6-digit downstream order number "467000". In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records for California are in Part 9 (Colorado River basin), Part 10 (The Great Basin), and Part 11 (Pacific slope basins in California). All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

## NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

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

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

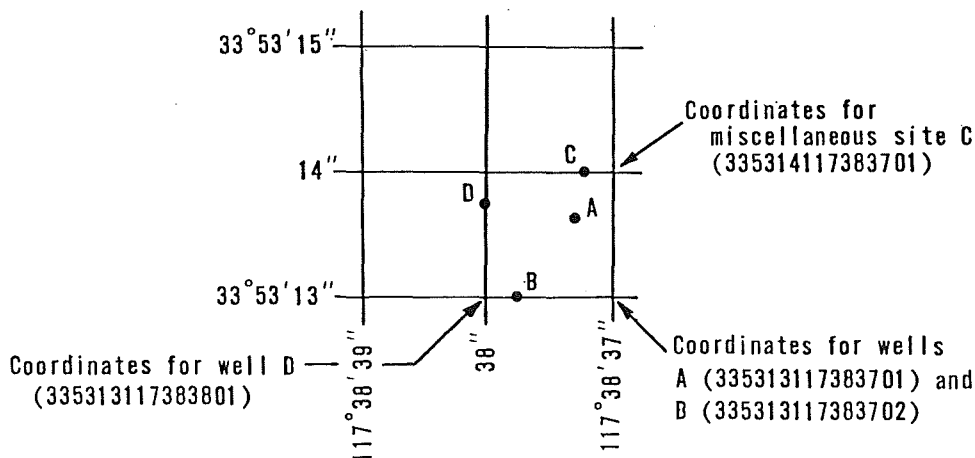


Figure 2.--System for numbering wells and miscellaneous sites (latitude and longitude).

#### Local well numbers

Wells and springs in California are assigned numbers according to their location on the rectangular system for the subdivision of public land. For example, in the number 005S/010E-22G01 M, the part of the number preceding the slash indicates the township (T.5 S.) and the number between the slash and hyphen indicates the range (R.10 E.); the digits following the hyphen indicate the section (sec.22); the letter following the section number indicates the 40-acre subdivision of the section. Within each 40-acre tract, the wells are numbered serially, as indicated by the final digit. The final letter, separated from the rest of the number by a space, indicates the base line and meridian. Base-line and meridian designations are as follows: H, Humboldt; M, Mount Diablo; S, San Bernardino. See figure 3.

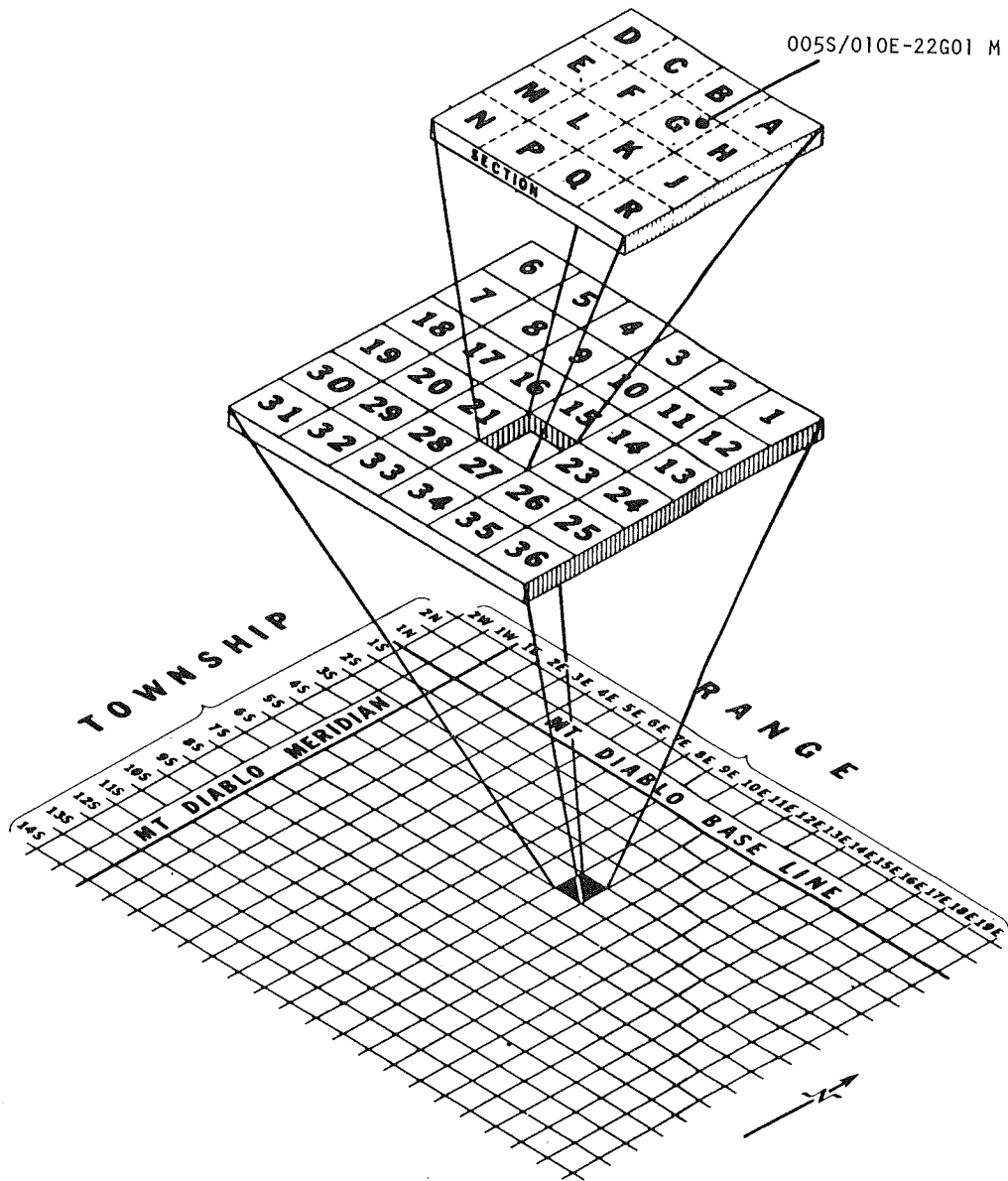


FIGURE 3.--California well-numbering system.

## SPECIAL NETWORKS AND PROGRAMS

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

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped basin. Stations in this network are listed below:

Volume 2:

11475500 Elder Creek near Branscomb, CA

Volume 3:

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

National stream-quality accounting network is an accounting network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated in the network design. Areal configuration of the network is based on the river-basin accounting units designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality. Stations in this network are listed below:

Volume 1:

09424190 Colorado River Aqueduct near San Jacinto, CA  
09429500 Colorado River above Imperial Dam, AZ-CA  
10254970 New River at International Boundary, at Calexico, CA  
10261500 Mojave River at lower narrows, near Victorville, CA  
10277400 Owens River below Tinemaha Reservoir, near Big Pine, CA  
11042000 San Luis River at Oceanside, CA  
11074000 Santa Ana River below Prado Dam, CA  
11103010 Los Angeles River at Willow Street Bridge, at Long Beach, CA

Volume 2:

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

Volume 3:

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

Volume 4:

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

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams whose waters are used for irrigation or in streams in areas where contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal inter-agency activity.

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

## EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

### Collection and computation of data

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

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

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

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

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

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

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

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the current year is shown on the reverse side of the front cover to facilitate finding the day of the week for any date.

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

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published, along with the current records, in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge are affected by the revision, that fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only the peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given.

The type of gage currently in use, the datum of the present gage referred to National Geodetic Vertical Datum of 1929, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS" on page 8.

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

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance.

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

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

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in acre-feet (line headed "AC-FT"). In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

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

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

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

#### Accuracy of field data and computed results

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

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

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

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

#### Other data available

Information of a more detailed nature than that published for most of the gaging stations, such as observations of water temperatures, discharge measurements, gage-height records, and rating tables, is on file in the District Office. Also, most gaging-station records are available in computer-usable form and many statistical analyses have been made. Information on the availability of unpublished data or statistical analyses may be obtained from the District Office.

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

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

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



## EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

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

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

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

Water analysis

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

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

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

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

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

Water temperature

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

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

### Sediment

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

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

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

In addition to the records of suspended-sediment discharge, estimates of bedload and total-sediment discharge are included for some stations. Also included are particle-size distribution analyses of suspended sediment, surface bed material, and bedload material (sediment in transit within 0.25 ft (0.076 m) of the bed).

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

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

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

### Turbidity

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

Measured values of turbidity are significantly influenced by the type of instrument used. Turbidity values published in California reports prior to July 1966 were determined by means of a Hellige Turbidimeter and are not directly comparable with those published subsequently. Data published in parts per million as silica from July 1966 to September 1968, and in milligrams per liter as silica from October 1968 to September 1970, were measured with a model 1860 Hach Turbidimeter which is optically similar to the model 2100 Hach Turbidimeter used from October 1970 to September 1974, and the model 2100A Hach Turbidimeter used since October 1974. Scales are available for those instruments providing a readout in either milligrams per liter or in Nephelometric turbidity units. Hence, conversion of data for the period July 1966 through September 1970, from parts per million or milligrams per liter of silica to Nephelometric turbidity units can be made by use of table 1.

Table 1.--Conversion of turbidity values, measured by Hach Turbidimeters Model 2100 or 2100A, from parts per million or milligrams per liter of silica to Nephelometric turbidity units.

<u>Turbidity, in ppm or mg/L</u>	<u>Turbidity, in NTU</u>
5	3.0
10	6.0
50	30
100	55
200	110
500	240
1000	450

### EXPLANATION OF GROUND-WATER LEVEL RECORDS

#### Collection of the data

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

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

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

Water-level measurements in this report are given in feet with reference to either National Geodetic Vertical Datum of 1929 (NGVD) or land-surface datum (lsd). National Geodetic Vertical Datum is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum referred to National Geodetic Vertical Datum is given in the well description. The height of the measuring point (MP above

or below land-surface datum), if known, is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (EOM).

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

#### PUBLICATIONS OF TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office). Prices are effective October 1978 but are subject to change.

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

- 1-D1. Water temperature-influential factors, field measurement, and data presentation, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages. \$1.60.
- 1-D2. Guidelines for collection and field analysis of ground-water samples for selected unstable constituents, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages. \$0.85.
- 2-D1. Application of surface geophysics to ground-water investigations, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages. \$1.90.
- 2-E1. Application of borehole geophysics to water-resources investigations, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages. \$1.75.
- 3-A1. General field and office procedures for indirect discharge measurements, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages. \$1.00.
- 3-A2. Measurement of peak discharge by the slope-area method, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages. \$0.35.
- 3-A3. Measurement of peak discharge at culverts by indirect methods, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3, 1968. 60 pages. \$0.40.
- 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. \$1.00.
- 3-A5. Measurement of peak discharge at dams by indirect methods, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5, 1967. 29 pages. \$0.35.
- 3-A6. General procedure for gaging streams, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6, 1968. 13 pages. \$1.00.
- 3-A7. Stage measurements at gaging stations, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages. \$1.40.

- 3-A8. Discharge measurements at gaging stations, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages. \$1.25.
- 3-A11. Measurement of discharge by moving-boat method, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages. \$1.20.
- 3-A12. Fluorometric procedures for dye tracing, by J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A12. 1968. 31 pages. \$0.35. Not currently available.
- 3-B1. Aquifer-test design, observation, and data analyses, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages. \$0.70.
- 3-B2. Introduction to ground-water hydraulics, a programed text for self-instruction, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages. \$2.50
- 3-C1. Fluvial sediment concepts, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages. \$2.50.
- 3-C2. Field methods for measurement of fluvial sediment, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2, 1970. 59 pages. \$2.50.
- 3-C3. Computation of fluvial-sediment discharge, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages. \$2.10.
- 4-A1. Some statistical tools in hydrology, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages. \$1.60.
- 4-A2. Frequency curves, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages. \$0.35.
- 4-B1. Low-flow investigations, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages. \$1.20.
- 4-B2. Storage analyses for water supply, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages. \$0.75.
- 4-B3. Regional analyses of streamflow characteristics, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages. \$0.65.
- 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. \$1.10.
- 5-A1. Methods for determination of inorganic substances in water and fluvial sediments, edited by M. W. Skougstad, M. J. Fishman, L. C. Friedman, D. E. Erdmann, and S. S. Duncan: USGS--TWRI Book 5, Chapter A1. 626 p., \$10.00.
- 5-A2. Determination of minor elements in water by emission spectroscopy, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages. \$0.80.
- 5-A3. Methods for analysis of organic substances in water, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages. \$0.90.
- 5-A4. Methods for collection and analysis of aquatic biological and microbiological samples, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages. \$9.25.
- 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. \$5.75.
- 5-C1. Laboratory theory and methods for sediment analyses, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages. \$2.10.
- 7-C1. Finite-difference model for aquifer simulation in two dimensions with results of numerical experiments, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages. \$2.30.
- 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. \$0.70.
- 8-B2. Calibration and maintenance of vertical-axis type current meters, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages. \$1.10.

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

LOCATION.--Lat 35°11'03", long 120°26'11", in Arroyo Grande Grant, San Luis Obispo County, Hydrologic Unit 18060006, on right bank at county road bridge 100 ft (30 m) upstream from Phoenix Creek, 8.8 mi (14.2 km) northeast of Arroyo Grande.

DRAINAGE AREA.--13.5 mi<sup>2</sup> (35.0 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 550 ft (168 m), from topographic map.

REMARKS.--Records poor. No regulation or diversion above station except for small stock ponds.

AVERAGE DISCHARGE.--11 years, 2.85 ft<sup>3</sup>/s (0.081 m<sup>3</sup>/s), 2,060 acre-ft/yr (2.54 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,270 ft<sup>3</sup>/s (36.0 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 6.83 ft (2.082 m) in gage well, 6.57 ft (2.003 m) from floodmarks, from rating curve extended above 350 ft<sup>3</sup>/s (9.91 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; minimum daily, 0.12 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Sept. 7, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft<sup>3</sup>/s (0.6 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 90 ft<sup>3</sup>/s (2.5 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 27	unknown	156 4.42	5.23 1.594	Feb. 10	unknown	562 15.9	7.20 2.195
Jan. 16	1415	659 18.7	7.60 2.316	Mar. 4	0845	*826 23.4	8.29 2.527
Feb. 7	1500	223 6.32	5.60 1.707	Apr. 16	unknown	172 4.87	5.32 1.622

Minimum daily discharge, 0.20 ft<sup>3</sup>/s (0.006 m<sup>3</sup>/s) Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.33	.35	.45	.93	.81	3.8	6.9	6.6	3.1	3.0	.76	.25
2	.34	.35	.45	1.0	.66	4.5	7.3	6.2	3.2	4.0	.60	1.3
3	.33	.35	.45	1.4	.49	7.0	8.4	6.0	2.9	4.1	.47	1.5
4	.35	.36	.43	1.2	.37	260	16	5.8	3.4	3.8	.41	1.1
5	.38	.49	.52	3.9	.59	45	11	6.0	3.8	3.2	.64	.90
6	.32	.40	.51	7.8	.40	30	9.0	5.4	3.4	2.7	.62	.56
7	.29	.38	.51	1.5	1.0	23	3.9	5.4	2.6	2.7	.78	.56
8	.26	.36	.51	1.4	17	21	4.5	5.7	3.0	3.0	.58	.57
9	.28	.35	.50	8.2	87	22	4.4	6.0	3.8	3.3	.28	.56
10	.29	.36	.50	5.5	320	20	4.3	5.9	4.5	3.7	.28	.56
11	.31	.35	.50	2.0	25	18	4.4	6.1	4.8	4.8	.40	.55
12	.31	.37	.52	1.7	31	19	5.6	6.1	4.6	5.0	.50	.54
13	.31	.40	.54	1.5	44	18	6.3	5.0	4.5	5.6	.35	.53
14	.33	.35	.54	15	32	17	6.1	3.5	4.3	5.8	.42	.50
15	.32	.35	.70	40	23	17	17	3.3	4.1	4.0	.54	.50
16	.36	.35	1.8	120	17	16	27	3.7	3.6	2.2	.57	.50
17	.40	.37	1.9	70	14	15	13	3.6	3.3	1.7	.52	.50
18	.45	.40	1.5	35	12	14	8.3	3.5	2.7	1.6	.62	.51
19	.45	.40	.80	19	11	13	8.2	3.4	3.5	1.4	.94	.59
20	.45	.43	.35	6.8	9.7	12	6.8	3.7	5.4	1.5	.47	.92
21	.43	.45	.24	3.6	8.0	13	6.6	3.6	5.5	1.5	.93	.85
22	.40	.57	.28	2.3	6.3	15	6.2	3.4	5.6	1.5	.70	.77
23	.40	.51	.35	1.3	5.7	12	7.0	3.3	3.8	1.4	.61	.83
24	.40	.45	.38	1.0	5.0	11	7.6	3.4	4.1	1.3	.56	.73
25	.40	.43	.30	1.9	4.0	9.4	10	3.4	3.0	1.3	.57	.61
26	.43	.41	.29	2.9	3.5	9.0	11	3.5	2.4	1.1	.53	.49
27	.44	.41	8.0	2.4	3.0	8.6	8.9	3.4	2.3	1.2	.54	.55
28	.45	.39	6.0	1.9	3.3	8.2	8.3	3.4	2.4	1.4	.70	.51
29	.45	.40	2.4	1.6	---	7.7	7.3	3.5	2.4	1.3	.64	.53
30	.44	.41	1.3	1.2	---	9.6	6.9	3.8	2.7	1.0	.20	.50
31	.41	---	1.0	.95	---	13	---	4.2	---	.90	.37	---
TOTAL	11.51	11.95	34.52	364.88	685.82	711.8	258.2	139.8	108.7	81.00	17.10	19.87
MEAN	.37	.40	1.11	11.8	24.5	23.0	8.61	4.51	3.62	2.61	.55	.66
MAX	.45	.57	8.0	120	320	260	27	6.6	5.6	5.8	.94	1.5
MIN	.26	.35	.24	.93	.37	3.8	3.9	3.3	2.3	.90	.20	.25
AC-FT	23	24	68	724	1360	1410	512	277	216	161	34	39

CAL YR 1977 TOTAL 258.25 MEAN .71 MAX 8.0 MIN .12 AC-FT 512  
WTR YR 1978 TOTAL 2445.15 MEAN 6.70 MAX 320 MIN .20 AC-FT 4850

LOCATION.--Lat 35°13'48", long 120°28'22", in SEÑEKE sec.16, T.31 S., R.14 E., San Luis Obispo County, Hydrologic Unit 18060006, on right bank 0.7 mi (1.1 km) upstream from small right-bank tributary, 3.2 mi (5.1 km) upstream from mouth, and 9.2 mi (14.8 km) northeast of Arroyo Grande.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,830 ft<sup>3</sup>/s (80.1 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 9.26 ft (2.822 m) in gage well, 10.8 ft (3.29 m) from floodmarks, from rating curve extended above 300 ft<sup>3</sup>/s (8.50 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; minimum daily, 0.30 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Aug. 1, 1977.

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)		Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Dec. 27	1830	451	12.8	5.37	1.637	Feb. 8	2345	1090	30.9	6.79	2.070
Jan. 6	0330	251	7.11	4.73	1.442	Feb. 12	1945	299	8.47	4.92	1.500
Jan. 9	1500	196	5.55	4.53	1.381	Mar. 4	0930	*1960	55.5	8.17	2.490
Jan. 16	1430	992	28.1	6.61	2.015	Apr. 15	2000	223	6.31	4.62	1.408

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.94	1.4	2.5	7.3	28	19	14	8.1	5.5	3.9	3.9
2	1.1	.93	1.4	2.3	7.1	81	20	13	8.1	5.5	3.9	3.9
3	1.1	.85	1.4	2.3	6.4	182	20	12	8.1	5.5	4.2	4.2
4	1.2	.93	1.4	2.2	6.3	577	26	12	8.0	5.5	4.2	4.7
5	1.2	1.3	1.4	9.0	6.8	232	24	12	7.6	5.7	3.9	5.1
6	1.2	1.3	1.4	101	8.7	119	33	12	7.1	5.3	4.0	3.9
7	1.2	1.3	1.4	18	117	83	37	12	6.7	4.8	4.4	3.4
8	1.1	1.3	1.4	9.8	175	59	35	11	6.6	4.7	4.2	3.3
9	1.1	1.2	1.4	71	600	54	27	11	6.3	4.5	4.4	3.3
10	1.1	1.1	1.4	100	441	41	19	10	6.3	4.7	4.4	3.4
11	1.2	1.1	1.4	35	193	40	22	11	6.3	4.8	4.4	3.2
12	1.0	1.1	1.5	16	157	32	19	11	6.3	4.7	4.6	3.2
13	.92	1.1	1.5	10	191	24	18	11	6.3	4.2	4.5	3.2
14	.92	1.1	1.5	76	134	22	25	11	6.3	4.2	4.3	3.1
15	.85	1.1	2.0	103	99	19	78	11	6.3	4.2	4.1	3.1
16	.87	1.1	2.0	259	75	24	53	11	6.3	4.1	4.0	3.1
17	.96	1.1	4.2	190	53	15	31	10	6.3	4.1	3.8	3.1
18	1.0	1.1	5.6	64	45	14	25	9.8	6.3	4.1	3.7	3.1
19	1.0	1.1	3.6	43	39	14	22	9.8	6.2	3.9	3.6	3.1
20	1.1	1.2	3.1	28	34	14	21	9.8	5.8	3.9	3.8	3.1
21	1.1	1.3	2.9	19	27	17	20	9.8	5.5	3.9	3.8	2.9
22	1.0	1.5	2.9	17	22	20	19	9.8	5.5	3.9	4.0	2.9
23	.98	1.7	4.1	13	21	19	18	9.4	5.5	3.7	4.4	2.9
24	.93	1.5	4.3	11	17	15	18	8.7	5.4	3.7	4.2	2.9
25	.92	1.5	3.6	11	16	14	23	8.7	5.3	3.7	4.0	2.9
26	.94	1.5	3.4	11	19	13	19	8.7	5.5	3.6	4.0	2.9
27	.98	1.5	86	9.8	13	13	18	8.7	5.5	3.6	4.3	2.9
28	.94	1.4	77	9.2	17	15	17	8.5	5.5	3.7	4.2	2.9
29	1.0	1.4	12	8.3	---	15	16	8.1	5.5	3.6	3.4	2.9
30	1.0	1.4	5.5	8.1	---	15	15	8.1	5.5	3.8	3.5	2.9
31	.94	---	3.6	7.8	---	24	---	8.1	---	4.0	3.8	---
TOTAL	31.95	36.95	245.7	1267.3	2547.6	1854	757	321.0	190.0	135.1	125.9	99.4
MEAN	1.03	1.23	7.93	40.9	91.0	59.8	25.2	10.4	6.33	4.36	4.06	3.31
MAX	1.2	1.7	86	259	600	577	78	14	8.1	5.7	4.6	5.1
MIN	.85	.85	1.4	2.2	6.3	13	15	8.1	5.3	3.6	3.4	2.9
AC-FT	63	73	487	2510	5050	3680	1500	637	377	268	250	197
CAL YR 1977	TOTAL	797.98	MEAN	2.19	MAX	86	MIN	.30	AC-FT	1580		
WTR YR 1978	TOTAL	7611.90	MEAN	20.9	MAX	600	MIN	.85	AC-FT	15100		

11141400 TAR SPRING CREEK NEAR ARROYO GRANDE, CA

LOCATION.--Lat 35°07'56", long 120°32'30", in Santa Manuela Grant, San Luis Obispo County, Hydrologic Unit 18060006, on right bank 0.5 mi (0.8 km) upstream from mouth, and 2.1 mi (3.4 km) northeast of Arroyo Grande.

DRAINAGE AREA.--18.2 mi<sup>2</sup> (47.1 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 180 ft (55 m), from topographic map. Prior to May 20, 1969, at site 0.3 mi (0.5 km) upstream at datum 24.00 ft (7.315 m) higher.

REMARKS.--Records poor including those for period of no gage-height record, Dec. 27 to Sept. 30. No regulation; some diversion above station for irrigation.

AVERAGE DISCHARGE.--11 years, 3.28 ft<sup>3</sup>/s (0.093 m<sup>3</sup>/s), 2,380 acre-ft/yr (2.93 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,340 ft<sup>3</sup>/s (37.9 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 10.1 ft (3.08 m) from floodmarks, from rating curve extended above 68 ft<sup>3</sup>/s (1.93 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft<sup>3</sup>/s (0.6 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 300 ft<sup>3</sup>/s (8.50 m<sup>3</sup>/s) as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 27	unknown	unknown	unknown	Feb. 9	unknown	550 15.6	6.69 2.039
Jan. 6	do	do	do	Mar. 4	do	820 23.2	7.97 2.429
Jan. 16	do	*1100	31.2 10.36	Apr. 15	do	unknown	unknown

Minimum daily discharge, 0.04 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) Oct. 24-30, Nov. 5-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.06	.06	.09	1.4	6.0	4.5	10	2.6	1.3	.46	.45
2	.08	.06	.06	.08	1.1	8.0	4.2	7.3	3.0	1.7	.49	.47
3	.09	.06	.06	.08	.85	80	4.6	8.0	4.0	1.9	.50	.52
4	.08	.05	.06	.07	.72	410	5.4	7.2	4.5	1.8	.47	.58
5	.06	.04	.06	.15	.74	70	11	6.2	5.2	1.5	.47	.50
6	.06	.04	.06	2.1	.78	25	13	5.6	4.3	1.3	.50	.43
7	.06	.04	.06	.25	35	17	15	5.0	3.5	1.3	.51	.39
8	.06	.04	.06	.15	150	14	13	4.7	2.5	1.4	.50	.39
9	.08	.06	.06	.40	540	15	9.7	4.4	2.2	1.6	.50	.40
10	.09	.06	.08	1.6	400	13	7.7	4.0	2.1	1.7	.50	.40
11	.09	.06	.09	.70	96	12	8.5	4.1	2.3	2.3	.51	.38
12	.09	.06	.09	.35	120	12	7.5	4.5	2.2	2.4	.54	.38
13	.09	.06	.09	.25	170	12	7.2	4.0	2.2	2.7	.52	.37
14	.09	.06	.09	.80	45	11	13	3.0	2.1	2.8	.50	.36
15	.09	.06	.10	210	30	11	30	2.5	1.9	2.9	.48	.36
16	.09	.06	.08	130	24	10	15	2.7	1.8	2.5	.47	.36
17	.09	.06	.09	90	22	9.4	10	2.8	1.6	2.0	.45	.36
18	.09	.06	.09	60	18	8.9	9.0	2.6	1.3	1.8	.43	.37
19	.09	.06	.09	35	16	8.3	9.3	2.5	1.4	1.7	.44	.47
20	.09	.06	.09	23	13	8.0	9.8	2.7	2.5	1.6	.46	.64
21	.06	.07	.09	10	11	9.0	10	2.7	2.6	1.7	.48	.58
22	.06	.06	.09	5.0	10	10	6.0	2.5	2.6	1.7	.51	.56
23	.05	.06	.10	3.2	8.0	7.5	5.0	2.4	2.3	1.6	.50	.58
24	.04	.06	.09	2.5	7.0	6.4	7.0	2.5	1.9	1.0	.48	.46
25	.04	.06	.09	2.2	6.0	6.0	12	2.5	1.7	.45	.46	.40
26	.04	.06	.10	2.1	4.9	5.8	8.0	2.5	1.2	.32	.48	.37
27	.04	.06	2.0	1.9	4.6	5.5	5.0	2.5	1.1	.37	.50	.39
28	.04	.06	1.2	1.8	5.4	5.2	4.3	2.5	1.1	.42	.42	.37
29	.04	.06	.35	1.6	---	5.0	3.4	2.5	1.1	.43	.40	.39
30	.04	.06	.20	1.5	---	4.8	8.4	2.5	1.2	.45	.43	.39
31	.06	---	.13	1.5	---	6.3	---	2.5	---	.46	.46	---
TOTAL	2.13	1.72	5.96	667.57	1741.49	832.1	276.5	121.4	70.0	47.10	14.82	13.07
MEAN	.069	.057	.19	21.5	62.2	26.8	9.22	3.92	2.33	1.52	.48	.44
MAX	.09	.07	2.0	210	540	410	30	10	5.2	2.9	.54	.64
MIN	.04	.04	.06	.07	.72	4.8	3.4	2.4	1.1	.32	.40	.36
AC-FT	4.2	3.4	12	1320	3450	1650	548	241	139	93	29	26
CAL YR 1977	TOTAL	33.80	MEAN	.093	MAX	2.0	MIN	.02	AC-FT	67		
WTR YR 1978	TOTAL	3793.86	MEAN	10.4	MAX	540	MIN	.04	AC-FT	7530		



CAL YR 1977	TOTAL	1382.10	MEAN	3.79	MAX	43	MIN	.61	AC-FT	2740
WTR YR 1978	TOTAL	11608.60	MEAN	31.8	MAX	574	MIN	1.4	AC-FT	23030

## ARROYO GRANDE BASIN

11141600 LOS BERROS CREEK NEAR NIPOMO, CA

LOCATION.--Lat 35°05'17", long 120°30'32", in Nipomo Grant (on boundary), San Luis Obispo County, Hydrologic Unit 18060006, on left bank at upstream side of bridge, 0.8 mi (1.3 km) downstream from Adobe Creek, and 3.7 mi (6.0 km) northwest of Nipomo.

DRAINAGE AREA.--15.0 mi<sup>2</sup> (38.8 km<sup>2</sup>).

PERIOD OF RECORD.--August 1968 to September 1978 (discontinued).

GAGE.--Water-stage recorder and broad-crested weir. Altitude of gage is 312 ft (95 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, Apr. 10 to May 16, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--10 years, 2.20 ft<sup>3</sup>/s (0.062 m<sup>3</sup>/s), 1,590 acre-ft/yr (1.96 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 599 ft<sup>3</sup>/s (17.0 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 5.43 ft (1.655 m), from rating curve extended above 230 ft<sup>3</sup>/s (6.51 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow Oct. 6 to Dec. 26, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft<sup>3</sup>/s (0.6 m<sup>3</sup>/s), revised, and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 16	1345	259	7.33	Mar. 4	1115	*402	11.4
Feb. 10	0715	368	10.4	Mar. 11	1245	31	.88
Feb. 13	1130	159	4.50	Apr. 17	0430	46	1.30

Minimum daily discharge, no flow Oct. 6 to Dec. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01		0	.15	1.3	6.0	6.2	4.7	1.9	.84	.46	.46
2	.01		0	.15	1.2	6.4	6.0	4.4	2.0	.85	.46	.64
3	.01		0	.16	1.1	11	5.5	4.0	1.8	.78	.45	.56
4	.01		0	.16	.99	197	5.4	3.4	1.7	.84	.39	.50
5	.01		0	.31	1.3	70	4.3	3.2	1.7	.71	.38	.52
6	0		0	2.6	1.6	37	6.3	3.3	1.7	.72	.36	.42
7	0		0	1.7	8.3	22	7.6	3.4	1.6	.74	.36	.41
8	0		0	1.3	25	17	7.0	3.6	1.6	.77	.36	.39
9	0		0	2.3	145	15	6.1	3.3	1.6	.90	.34	.36
10	0		0	5.0	231	13	5.1	3.2	1.4	.89	.31	.37
11	0		0	3.7	65	12	6.2	3.1	1.3	.77	.31	.37
12	0		0	2.7	46	10	5.1	3.1	1.3	.74	.33	.36
13	0		0	2.1	75	8.8	4.7	3.0	1.3	.71	.28	.36
14	0		0	6.9	49	8.3	4.1	2.8	1.3	.55	.39	.36
15	0		0	30	29	7.7	9.6	2.6	1.4	.68	.41	.37
16	0		0	76	18	7.2	17	2.4	1.4	.77	.41	.30
17	0		0	57	13	6.6	13	2.3	1.2	.74	.41	.34
18	0		0	18	9.9	6.5	9.4	2.3	1.1	.74	.41	.30
19	0		0	18	8.6	6.3	7.5	2.3	1.1	.73	.49	.38
20	0		0	16	7.4	6.8	6.2	2.2	1.1	.66	.56	.39
21	0		0	8.8	6.8	6.2	5.8	2.2	1.2	.64	.48	.44
22	0		0	6.0	6.2	7.2	5.6	2.2	1.1	.59	.41	.36
23	0		0	3.3	5.7	7.8	5.2	2.2	1.1	.55	.44	.29
24	0		0	1.9	5.3	6.9	5.8	2.3	1.0	.56	.40	.27
25	0		0	2.8	5.2	6.3	9.2	2.2	.96	.52	.41	.26
26	0		0	2.3	5.1	5.4	6.6	2.1	1.0	.48	.33	.22
27	0		1.0	2.0	5.2	5.0	6.0	2.0	1.1	.45	.40	.22
28	0		1.1	1.8	6.3	4.6	5.4	1.9	1.2	.48	.50	.26
29	0		.21	1.7	---	4.7	5.0	1.8	1.3	.46	.51	.24
30	0		.16	1.5	---	5.4	4.8	1.8	1.1	.46	.49	.24
31	0	---	.15	1.4	---	7.1	---	1.9	---	.46	.49	---
TOTAL	.05	0	2.62	277.73	783.49	541.2	201.7	85.2	40.56	20.78	12.73	10.96
MEAN	.002	0	.085	8.96	28.0	17.5	6.72	2.75	1.35	.67	.41	.37
MAX	.01	0	1.1	76	231	197	17	4.7	2.0	.90	.56	.64
MIN	0	0	0	.15	.99	4.6	4.1	1.8	.96	.45	.28	.22
AC-FT	.10	0	5.2	551	1550	1070	400	169	80	41	25	22
CAL YR 1977 TOTAL	73.84		MEAN	.20	MAX	1.1	MIN	0	AC-FT	146		
WTR YR 1978 TOTAL	1977.02		MEAN	5.42	MAX	231	MIN	0	AC-FT	3920		

## 11142080 MORRO CREEK AT MORRO BAY, CA

LOCATION.--Lat 35°22'42", long 120°51'12", in Moro Y Cayucos Grant, San Luis Obispo County, Hydrologic Unit 18060006, on left bank at upstream side of frontage road bridge in town of Morro Bay, and 700 ft (213 m) downstream from Little Morro Creek.

DRAINAGE AREA.--24.0 mi<sup>2</sup> (62.2 km<sup>2</sup>).

PERIOD OF RECORD.--October 1970 to September 1978 (discontinued).

GAGE.--Water-stage recorder. Concrete control since Nov. 7, 1971. Altitude of gage is 20 ft (6.1 m), from topographic map.

REMARKS.--Records good including those for period of no gage-height record, July 25 to Sept. 30. No regulation; small diversion above station for individual use.

AVERAGE DISCHARGE.--8 years, 8.87 ft<sup>3</sup>/s (0.251 m<sup>3</sup>/s), 6,430 acre-ft/yr (7.93 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,960 ft<sup>3</sup>/s (55.5 m<sup>3</sup>/s) Jan. 18, 1973, gage height, 10.38 ft (3.164 m), from rating curve extended above 440 ft<sup>3</sup>/s (12.5 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow for long periods in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 60 ft<sup>3</sup>/s (1.7 m<sup>3</sup>/s) and maximum (\*) from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 27	1615	407 11.5	5.11 1.558	Feb. 10	0330	858 24.3	6.85 2.088
Jan. 5	2400	166 4.70	4.01 1.222	Feb. 12	1730	*1120 31.7	7.75 2.362
Jan. 9	1030	360 10.2	4.90 1.494	Mar. 4	0815	813 23.0	6.69 2.039
Jan. 16	1400	780 22.1	6.57 2.003	Apr. 15	1600	336 9.52	4.78 1.457

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	11	9.8	33	22	20	8.2	4.5	2.6	1.1
2			0	12	9.4	45	20	19	7.8	3.9	2.7	1.1
3			0	11	8.5	92	20	18	7.3	3.7	2.6	1.1
4			0	8.6	7.9	411	29	18	7.4	3.8	2.6	1.3
5			0	22	13	199	22	17	7.0	3.8	2.6	2.1
6			0	65	15	119	28	16	6.9	3.6	2.5	1.8
7			0	30	114	88	30	15	6.8	3.5	2.4	1.6
8			0	21	167	69	26	15	6.8	3.7	2.4	1.6
9			0	98	486	73	25	15	6.2	3.6	2.5	1.3
10			0	89	451	56	24	14	5.5	3.5	2.4	1.4
11			0	42	165	53	23	14	5.7	3.6	2.2	1.4
12			0	29	337	42	22	13	5.3	3.4	2.1	1.4
13			0	21	295	36	22	13	4.9	3.1	2.1	1.3
14			0	99	153	34	21	12	4.7	3.0	2.0	1.4
15			0	177	103	32	86	12	4.7	3.0	2.0	1.5
16			0	266	83	31	73	12	4.7	2.9	1.9	1.6
17			0	148	65	29	43	11	4.7	2.9	1.9	1.5
18			0	71	52	28	36	11	4.3	2.9	1.8	1.4
19			0	61	44	27	33	10	4.7	2.8	1.7	1.3
20			0	52	39	26	30	10	4.9	2.9	1.7	1.2
21			0	41	35	25	28	10	5.0	2.9	1.7	1.1
22			0	33	34	34	26	10	4.7	2.8	1.7	.90
23			.91	28	32	25	24	9.8	4.5	2.8	1.7	.78
24			0	24	30	24	23	9.8	4.2	2.8	1.6	.74
25			0	21	28	23	32	9.5	4.1	2.7	1.5	.75
26			.01	18	27	23	35	9.0	4.3	2.7	1.4	.76
27			122	17	26	22	24	8.7	4.4	2.7	1.3	.78
28			161	15	35	22	22	8.0	4.1	2.6	1.3	.79
29			37	14	---	22	21	7.8	4.0	2.5	1.2	.78
30			23	13	---	23	20	7.8	4.1	2.5	1.2	.75
31		---	16	11	---	26	---	7.9	---	2.5	1.1	---
TOTAL	0	0	359.92	1568.6	2864.6	1792	890	383.3	161.9	97.6	60.4	36.33
MEAN	0	0	11.6	50.6	102	57.8	29.7	12.4	5.40	3.15	1.95	1.21
MAX	0	0	161	266	486	411	86	20	8.2	4.5	2.7	2.1
MIN	0	0	0	8.6	7.9	22	20	7.8	4.0	2.5	1.1	.74
AC-FT	0	0	714	3110	5680	3550	1770	760	321	194	120	72
CAL YR 1977	TOTAL	394.77	MEAN	1.08	MAX	161	MIN	0	AC-FT	783		
WTR YR 1978	TOTAL	8214.65	MEAN	22.5	MAX	486	MIN	0	AC-FT	16290		

## TORO CREEK BASIN

1f142100 TORO CREEK NEAR MORRO BAY, CA

LOCATION.--Lat 35°25'31", long 120°51'33", in Moro Y Cayucos Grant, San Luis Obispo County, Hydrologic Unit 18060006, on left bank at downstream side of county road bridge, 0.3 mi (0.5 km) downstream from small right-bank tributary, and 2.3 mi (3.7 km) north of town of Morro Bay.

DRAINAGE AREA.--14.0 mi<sup>2</sup> (36.3 km<sup>2</sup>).

PERIOD OF RECORD.--October 1970 to September 1978 (discontinued).

GAGE.--Water-stage recorder. Concrete control since Aug. 2, 1972. Altitude of gage is 40 ft (12 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, Apr. 16 to May 17, which are fair. No regulation; small diversion above station for individual use.

AVERAGE DISCHARGE.--8 years, 5.74 ft<sup>3</sup>/s (0.163 m<sup>3</sup>/s), 4,160 acre-ft/yr (5.13 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,600 ft<sup>3</sup>/s (130 m<sup>3</sup>/s) Jan. 18, 1973, gage height, 9.65 ft (2.941 m), from rating curve extended above 140 ft<sup>3</sup>/s (3.96 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 40 ft<sup>3</sup>/s (1.1 m<sup>3</sup>/s) and maximum (\*) from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 27	1530	264 7.48	2.87 .875	Feb. 28	2200	142 4.02	2.35 .716
Jan. 5	2330	463 13.1	3.51 1.070	Mar. 4	0815	264 7.48	2.87 .875
Jan. 9	1000	254 7.19	2.83 .863	Mar. 9	1400	100 2.83	2.13 .649
Jan. 14	2115	752 21.3	4.26 1.298	Mar. 22	0245	54 1.53	1.84 .561
Jan. 19	0230	182 5.15	2.53 .771	Apr. 4	0515	87 2.46	2.05 .625
Feb. 8	1930	597 16.9	3.88 1.183	Apr. 15	1400	616 17.4	3.93 1.198
Feb. 12	1615	*801 22.7	4.37 1.332				

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	3.5	6.0	19	13	12	4.7	2.3	1.8	.79
2			0	5.1	5.6	36	12	12	4.5	2.1	1.8	.83
3			0	3.8	5.2	58	12	11	4.6	2.1	1.8	.84
4			0	3.4	5.0	163	25	11	4.7	2.1	1.8	1.2
5			0	19	6.2	110	16	11	4.7	2.2	1.7	1.5
6			0	65	5.9	76	25	10	4.7	2.3	1.7	1.2
7			0	22	67	60	25	9.4	4.0	2.3	1.6	1.1
8			0	13	124	51	21	9.1	3.8	2.4	1.7	.99
9			0	53	235	54	19	8.9	3.5	2.4	1.6	.95
10			0	56	189	43	19	8.7	3.3	2.3	1.4	1.0
11			0	30	93	39	18	8.5	3.4	2.3	1.4	1.0
12			0	18	165	35	17	7.9	3.2	2.4	1.4	.90
13			0	12	132	32	16	7.6	3.0	2.3	1.4	.87
14			0	70	79	29	15	7.3	3.0	2.3	1.3	.96
15			0	104	55	27	91	7.2	3.1	2.1	1.3	1.0
16			0	144	46	26	50	7.0	3.2	2.2	1.3	1.1
17			.65	87	36	24	35	6.5	3.3	2.2	1.2	1.1
18			.13	56	30	22	28	6.1	3.0	2.1	1.1	1.0
19			0	68	26	20	25	5.9	2.9	2.1	1.1	.90
20			0	41	25	19	21	5.7	2.9	2.1	1.1	.81
21			0	32	24	19	19	5.7	2.9	1.9	1.2	.75
22			0	28	20	28	18	5.7	2.9	1.7	1.2	.65
23			.49	22	18	20	17	5.7	2.9	1.7	1.1	.52
24			0	17	16	17	16	5.5	2.8	1.7	1.1	.50
25			0	14	15	16	22	5.3	2.7	1.7	1.0	.47
26			0	12	14	15	24	5.3	2.8	1.7	.98	.41
27			52	9.9	14	14	16	5.2	2.8	1.7	.89	.45
28			79	8.9	23	13	14	5.0	2.6	1.6	.78	.56
29			20	7.7	---	13	14	4.6	2.5	1.6	.81	.53
30			8.9	6.9	---	13	13	4.5	2.5	1.6	.77	.62
31		---	5.1	6.4	---	17	---	4.6	---	1.8	.73	---
TOTAL	0	0	166.27	1038.6	1479.9	1128	676	229.9	100.9	63.3	40.06	25.50
MEAN	0	0	5.36	33.5	52.9	36.4	22.5	7.42	3.36	2.04	1.29	.85
MAX	0	0	79	144	235	163	91	12	4.7	2.4	1.8	1.5
MIN	0	0	0	3.4	5.0	13	12	4.5	2.5	1.6	.73	.41
AC-FT	0	0	330	2060	2940	2240	1340	456	200	126	79	51
CAL YR 1977 TOTAL	189.52			.52	79	MIN 0	AC-FT 376					
WTR YR 1978 TOTAL	4948.43			13.6	235	MIN 0	AC-FT 9820					

## ARROYO DE LA CRUZ BASIN

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11142500 ARROYO DE LA CRUZ NEAR SAN SIMEON, CA

LOCATION.--Lat 35°43'02", long 121°17'02", in Piedra Blanca Grant, San Luis Obispo County, Hydrologic Unit 18060006, on right bank 1.7 mi (2.7 km) upstream from mouth, and 7 mi (11 km) northwest of San Simeon.

DRAINAGE AREA.--41.2 mi<sup>2</sup> (106.7 km<sup>2</sup>).

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1245: 1951. WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 22 ft (6.7 m), from topographic map.

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

AVERAGE DISCHARGE.--28 years, 54.1 ft<sup>3</sup>/s (1.532 m<sup>3</sup>/s), 39,200 acre-ft (48.3 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,200 ft<sup>3</sup>/s (997 m<sup>3</sup>/s) Dec. 6, 1966, gage height, 15.27 ft (4.654 m), from rating curve extended above 7,600 ft<sup>3</sup>/s (215 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 12.40 ft (3.780 m) and 15.27 ft (4.654 m); no flow for long periods in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft<sup>3</sup>/s (71 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 23	0400	6930 196	9.13 2.783	Jan. 16	1400	*14600 413	11.59 3.533
Dec. 27	1545	4360 123	7.82 2.384	Feb. 7	1215	5500 156	8.45 2.576
Jan. 5	2230	5070 144	8.22 2.505	Feb. 12	1815	3530 100	7.26 2.213
Jan. 9	1045	2960 83.8	6.79 2.070				

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	65	54	81	98	52	15	2.8	.01	
2			0	177	50	285	79	48	15	2.1	0	
3			0	523	47	291	70	45	14	1.9	0	
4			0	499	44	701	186	42	14	1.9	0	
5			0	1060	178	389	102	38	12	1.8	0	
6			0	828	273	251	125	36	11	1.4	0	
7			0	266	1100	186	155	34	10	.96	0	
8			0	162	1110	155	114	32	8.6	.85	0	
9			0	752	1800	230	92	31	7.7	.89	0	
10			0	451	589	175	82	30	7.2	.85	0	
11			0	241	334	152	75	29	7.3	.83	0	
12			0	161	962	136	70	27	7.1	.77	0	
13			0	293	788	115	66	27	6.9	.82	0	
14			0	2190	456	102	62	27	6.7	.80	0	
15			0	1390	337	92	181	26	6.6	.69	0	
16			0	3180	261	83	184	25	6.9	.64	0	
17			123	833	213	76	108	23	6.5	.63	0	
18			25	448	179	70	84	21	6.3	.66	0	
19			0	644	154	65	73	20	6.0	.64	0	
20			0	353	133	61	68	18	5.9	.60	0	
21			0	261	118	61	62	18	5.6	.53	0	
22			93	203	105	492	56	17	4.7	.41	0	
23			1890	163	95	191	51	17	3.9	.33	0	
24			273	132	86	128	49	16	3.4	.24	0	
25			136	111	80	104	185	15	3.2	.18	0	
26			98	94	74	92	130	15	3.0	.15	0	
27			1500	81	70	83	87	14	3.1	.12	0	
28			591	74	67	77	69	14	3.3	.08	0	
29			260	68	---	73	61	17	3.4	.05	0	
30			145	62	---	74	56	16	3.3	.01	0	
31		---	91	58	---	133	---	15	---	.01	0	---
TOTAL	0	0	5225	15823	9757	5204	2880	805	217.6	24.64	.01	0
MEAN	0	0	169	510	348	168	96.0	26.0	7.25	.79	.0003	0
MAX	0	0	1890	3180	1800	701	186	52	15	2.8	.01	0
MIN	0	0	0	58	44	61	49	14	3.0	.01	0	0
AC-FT	0	0	10360	31380	19350	10320	5710	1600	432	49	.02	0
CAL YR 1977	TOTAL	5404.16	MEAN	14.8	MAX	1890	MIN	0	AC-FT	10720		
WTR YR 1978	TOTAL	39936.25	MEAN	109	MAX	3180	MIN	0	AC-FT	79210		

## SAN CARPOFORO CREEK BASIN

11142550 SAN CARPOFORO CREEK NEAR SAN SIMEON, CA

LOCATION.--Lat 35°45'25", long 121°17'57", in Sec.15, T.25 S., R.6 E., San Luis Obispo County, Hydrologic Unit 18060006, on left bank 100 ft (30 m) downstream from small right-bank tributary, 1.8 mi (2.9 km) upstream from mouth, and 9.9 mi (15.9 km) northwest of San Simeon.

DRAINAGE AREA.--34.6 mi<sup>2</sup> (89.6 km<sup>2</sup>).

PERIOD OF RECORD.--October 1977 to September 1978 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 70 ft (21 m) from topographic map.

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

COOPERATION.--Two discharge measurements were furnished by San Luis Obispo County.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft<sup>3</sup>/s (42 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 3,000 ft<sup>3</sup>/s (85.0 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow:

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Dec. 17	1415	2640	74.8	6.57	2.003	Jan. 16	1245	*14200	402	13.80	4.206
Dec. 23	0300	6710	190	9.81	2.990	Feb. 7	1115	6940	197	9.96	3.036
Dec. 27	1415	4050	115	7.83	2.387	Feb. 12	1700	4100	116	7.87	2.399
Jan. 5	2115	5380	152	8.87	2.704	Mar. 4	1415	2070	58.6	6.02	1.835
Jan. 9	0900	4540	129	8.23	2.509	Mar. 22	0445	1650	46.7	5.56	1.695

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	45	29	74	141	84	19	7.7	1.9	.36
2			0	296	24	329	122	75	19	7.6	1.9	.35
3			0	910	20	324	109	69	18	7.4	1.8	.35
4			0	1030	17	1510	219	63	17	7.3	1.6	.36
5			0	1510	231	692	144	57	17	6.6	1.5	.55
6			0	1090	167	336	168	53	15	6.2	1.5	.81
7			0	340	1370	217	173	50	14	5.9	1.3	.76
8			0	171	1380	171	154	47	13	5.7	1.1	.61
9			0	1380	2590	223	132	45	12	5.5	1.0	.47
10			0	739	1030	184	116	43	12	5.3	1.0	.50
11			0	353	419	151	106	40	12	5.1	1.0	.53
12			0	212	1300	133	98	38	11	4.9	.92	.59
13			0	377	1220	113	91	35	11	4.7	.93	.50
14			0	3510	637	100	84	34	11	4.5	.92	.47
15			0	1860	413	92	374	33	11	4.4	.85	.50
16			0	3900	296	85	288	32	11	4.2	.75	.50
17			895	1070	229	78	185	29	11	4.1	.73	.50
18			171	474	185	73	146	28	10	3.9	.72	.50
19			31	561	153	67	123	26	9.8	3.8	.66	.54
20			18	314	131	63	109	25	9.8	3.6	.58	.56
21			12	218	113	64	98	23	9.8	3.6	.53	.56
22			632	167	99	571	89	22	9.4	3.6	.54	.53
23			2870	135	89	169	81	24	9.3	3.4	.51	.55
24			261	111	74	121	76	24	8.9	3.2	.46	.62
25			85	96	66	101	233	24	8.6	3.0	.40	.58
26			55	87	64	88	200	23	8.3	2.9	.40	.53
27			1840	78	62	80	142	22	8.1	2.7	.43	.50
28			669	64	64	74	115	22	8.1	2.5	.40	.52
29			219	52	---	70	102	21	8.1	2.4	.37	.61
30			105	43	---	101	91	21	8.1	2.3	.35	.62
31		---	62	36	---	177	---	20	---	2.1	.36	---
TOTAL	0	0	7925	21229	12472	6631	4309	1152	350.3	140.1	27.41	15.93
MEAN	0	0	256	685	445	214	144	37.2	11.7	4.52	.88	.53
MAX	0	0	2870	3900	2590	1510	374	84	19	7.7	1.9	.81
MIN	0	0	0	36	17	63	76	20	8.1	2.1	.35	.35
AC-FT	0	0	15720	42110	24740	13150	8550	2280	695	278	54	32

WTR YR 1978 TOTAL 54251.74 MEAN 149 MAX 3900 MIN 0 AC-FT 107600

## 11143000 BIG SUR RIVER, NEAR BIG SUR, CA

LOCATION.--Lat 36°14'45", long 121°46'20", in SW¼SW¼ sec.29, T.19 S., R.2 E., Monterey County, Hydrologic Unit 18060006, on right bank at downstream side of bridge, 0.4 mi (0.6 km) upstream from Post Creek, and 2.6 mi (4.2 km) southeast of town of Big Sur.

DRAINAGE AREA.--46.5 mi<sup>2</sup> (120.4 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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. Altitude of gage is 400 ft (122 m), from topographic map. Prior to Oct. 1, 1951, nonrecording gage at site 0.9 mi (1.4 km) downstream at different datum.

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

AVERAGE DISCHARGE.--28 years, 95.2 ft<sup>3</sup>/s (2.696 m<sup>3</sup>/s), 68,970 acre-ft/yr (85.0 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft<sup>3</sup>/s (303 m<sup>3</sup>/s) Jan. 5, 1978, gage height, 14.30 ft (4.359 m); minimum daily, 2.6 ft<sup>3</sup>/s (0.074 m<sup>3</sup>/s) Aug. 23, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft<sup>3</sup>/s (20 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 17	1130	2600 73.6	8.17 2.490	Feb. 8	2100	5210 148	10.65 3.246
Dec. 22	2400	4360 123	9.92 3.024	Feb. 12	1315	5940 168	11.21 3.417
Jan. 2	1800	1330 37.7	6.51 1.984	Mar. 4	0800	5930 168	11.20 3.414
Jan. 5	1800	*10700 303	14.30 4.359	Mar. 9	0130	1980 56.1	7.41 2.259
Jan. 9	0800	3520 99.7	9.12 2.780	Mar. 22	0215	1680 47.6	7.02 2.140
Jan. 14	1900	4800 136	10.30 3.139	Apr. 4	0315	1200 34.0	6.34 1.932
Jan. 16	1200	7140 202	12.03 3.667	Apr. 6	0815	1160 32.9	6.29 1.917
Jan. 18	2330	1710 48.4	7.01 2.137	Apr. 15	1600	1230 34.8	6.38 1.945
Feb. 6	1315	3150 89.2	8.75 2.667	Apr. 25	0745	910 25.8	6.00 1.829

Minimum daily discharge, 6.3 ft<sup>3</sup>/s (0.18 m<sup>3</sup>/s) Oct. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	7.3	7.5	72	147	345	241	205	89	59	36	30
2	6.9	7.3	7.5	205	118	411	225	196	87	58	36	29
3	7.0	7.2	7.5	202	128	269	215	187	86	58	35	28
4	6.9	7.2	7.5	525	120	2090	358	180	84	58	34	28
5	6.8	9.8	7.7	1290	786	2040	239	173	86	57	32	34
6	6.6	9.6	7.6	760	1420	1400	361	169	84	57	31	33
7	6.6	8.0	7.5	401	1910	1080	281	161	82	57	30	31
8	6.8	7.4	7.5	290	2220	1000	264	155	82	57	32	30
9	6.9	7.2	7.5	947	2690	1030	243	149	84	56	36	30
10	6.9	7.5	7.5	789	1620	705	227	145	84	54	36	38
11	6.6	7.7	7.6	437	560	601	211	138	84	52	36	33
12	6.3	7.9	8.2	336	1690	569	205	134	84	51	36	32
13	6.5	8.1	7.9	559	1730	519	204	130	87	50	36	31
14	6.6	8.1	8.0	1610	1290	479	195	126	76	48	36	32
15	6.6	7.9	32	1480	940	445	466	124	71	45	35	32
16	6.6	7.8	17	3040	937	395	336	120	70	45	36	32
17	6.6	7.9	1060	2540	940	368	307	117	69	47	36	31
18	6.8	7.9	188	1410	847	354	299	114	68	48	36	27
19	6.9	8.1	76	1250	785	336	287	113	67	47	37	27
20	6.9	8.0	46	955	646	325	272	112	67	47	36	27
21	6.7	9.4	54	784	576	352	257	110	67	47	34	27
22	6.6	69	599	600	555	522	241	108	67	46	33	27
23	6.5	19	1280	501	493	325	230	107	67	46	32	26
24	6.4	11	218	474	485	304	231	105	67	44	31	26
25	6.4	9.3	121	396	461	291	379	103	67	42	31	26
26	6.6	8.5	91	354	400	280	284	100	67	41	30	26
27	7.0	7.9	147	322	379	266	253	97	69	41	30	25
28	7.3	7.5	163	259	361	258	239	90	68	40	30	26
29	8.5	7.2	123	290	---	246	229	84	66	37	29	25
30	8.1	7.3	103	243	---	241	219	85	61	34	28	25
31	7.7	---	85	209	---	287	---	88	---	38	28	---
TOTAL	212.1	314.0	4510.0	23530	25234	18133	7998	4025	2257	1507	1034	874
MEAN	6.84	10.5	145	759	901	585	267	130	75.2	48.6	33.4	29.1
MAX	8.5	69	1280	3040	2690	2090	466	205	89	59	37	38
MIN	6.3	7.2	7.5	72	118	241	195	84	61	34	28	25
AC-FT	421	623	8950	46670	50050	35970	15860	7980	4480	2990	2050	1730
CAL YR 1977	TOTAL	7748.5	MEAN	21.2	MAX	1280	MIN	2.6	AC-FT	15370		
WTR YR 1978	TOTAL	89628.1	MEAN	246	MAX	3040	MIN	6.3	AC-FT	177800		

## BIG SUR RIVER BASIN

11143000 BIG SUR RIVER NEAR BIG SUR, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water year 1977.

WATER TEMPERATURES: Water years 1966 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1965 to current year.

INSTRUMENTATION.--Temperature recorder since October 1965.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 21.5°C July 14, 15, 27, 1978; minimum recorded, 5.0°C on several days in 1967, 1974-77.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 21.5°C July 14, 15, 27; minimum recorded, 8.0°C Apr. 7, 16.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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



11143000 BIG SUR RIVER NEAR BIG SUR, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	10.5	13.0	10.0			---	---	20.0	18.0	18.0	16.5
2	11.0	10.5	14.0	12.0			---	---	19.5	18.0	18.0	17.0
3	11.0	10.0	14.5	12.0			---	---	19.5	18.0	17.5	15.5
4	11.0	9.0	13.5	12.0			---	---	19.5	18.0	17.0	16.0
5	10.0	8.5	12.5	11.5			---	---	20.5	18.0	17.5	16.5
6	10.0	9.0	13.0	10.5			---	---	21.0	19.0	17.5	17.0
7	9.5	8.0	13.5	11.0			---	---	21.0	19.0	17.0	15.5
8	10.5	8.5	14.0	11.0			---	---	21.0	19.0	16.0	14.5
9	12.0	9.5	14.0	11.5			---	---	21.0	19.0	16.0	15.0
10	12.5	10.5	13.5	11.0			---	---	21.0	19.5	16.5	15.5
11	12.5	11.0	14.0	11.0			---	---	21.0	19.0	16.5	15.5
12	12.0	10.5	14.5	11.0			---	---	20.5	18.5	16.5	15.0
13	12.0	11.0	15.5	12.5			21.0	17.0	19.5	17.5	16.5	15.5
14	11.0	10.5	15.5	13.0			21.5	18.0	19.5	17.5	16.5	15.5
15	10.5	8.5	14.5	13.0			21.5	18.0	19.5	17.0	16.0	15.0
16	9.5	8.0	13.5	11.0			21.0	18.0	18.5	17.5	16.5	15.5
17	11.0	9.0	14.0	11.5			21.0	18.0	18.5	16.0	16.5	15.5
18	12.0	9.5	15.0	12.0			21.0	18.0	18.5	16.0	15.5	14.5
19	12.5	11.0	15.5	12.0			20.5	18.0	18.5	16.0	15.0	14.0
20	12.0	11.0	15.0	12.5			20.5	17.5	18.5	16.0	15.0	13.5
21	11.5	10.0	14.0	12.5			20.5	18.0	18.5	16.5	15.0	14.0
22	12.0	10.0	13.5	12.0			20.5	18.0	18.5	16.5	15.5	15.0
23	12.5	10.5	13.0	11.0			20.5	17.0	18.0	15.5	16.0	15.0
24	12.5	11.5	13.0	10.5			21.0	18.5	17.5	15.0	16.0	15.0
25	12.5	11.5	13.5	11.0			20.0	18.0	18.0	15.5	16.5	16.0
26	12.5	11.0	14.5	11.5			20.5	18.5	18.0	16.0	17.0	16.0
27	13.5	10.5	---	---			21.5	18.5	18.0	15.5	17.0	16.0
28	13.5	11.5	---	---			21.0	18.5	18.5	16.0	17.0	16.0
29	13.0	11.0	---	---			20.5	18.0	19.0	17.0	17.5	16.5
30	12.5	11.0	---	---			20.0	17.5	19.0	17.0	17.0	16.0
31	---	---	---	---			20.0	18.0	19.0	15.0	---	---
MONTH	13.5	8.0	15.5	10.0			21.5	17.0	21.0	15.0	18.0	13.5

## 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 downstream side of county road bridge at Robles del Rio, 0.2 mi (0.3 km) downstream from Hitchcock Canyon, and 11 mi (18 km) southeast of town of Carmel.

DRAINAGE AREA.--193 mi<sup>2</sup> (500 km<sup>2</sup>).

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

REVISED RECORDS.--WSP 1715: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 270 ft (82 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, May 26 to July 10, which are fair. Flow regulated by Los Padres Reservoir 11 mi (18 km) upstream, capacity, 3,000 acre-ft (3.70 hm<sup>3</sup>) and San Clemente Reservoir 4 mi (6 km) upstream, capacity, 1,600 acre-ft (1.97 hm<sup>3</sup>). Diversion from San Clemente Reservoir for municipal supply amounted to 5,600 acre-ft (6.90 hm<sup>3</sup>) for the current year.

AVERAGE DISCHARGE (unadjusted).--21 years, 77.7 ft<sup>3</sup>/s (2.200 m<sup>3</sup>/s), 56,290 acre-ft/yr (69.4 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,100 ft<sup>3</sup>/s (201 m<sup>3</sup>/s) Apr. 2, 1958, gage height, 10.50 ft (3.200 m); no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 11.7 ft (3.57 m) from floodmarks, discharge, 6,930 ft<sup>3</sup>/s (196 m<sup>3</sup>/s) by slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,030 ft<sup>3</sup>/s (199 m<sup>3</sup>/s) Jan. 16, gage height, 10.47 ft (3.191 m); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	56	153	230	244	224	86	21	8.6	2.0
2			0	83	140	439	233	213	84	20	8.0	2.2
3			0	113	129	503	221	205	80	18	6.9	1.9
4			0	331	122	2240	325	195	76	17	6.7	2.0
5			0	955	347	2320	246	189	72	16	6.7	3.1
6			0	607	550	1570	389	182	68	15	7.7	2.6
7			0	232	1240	1290	332	174	65	14	5.8	2.4
8			0	152	1240	980	301	169	62	13	4.5	2.6
9			0	408	2510	968	275	163	59	12	4.9	2.3
10			0	236	1920	882	251	158	57	11	4.8	2.2
11			0	162	1360	747	238	153	54	9.5	4.4	2.3
12			0	134	1730	711	229	147	52	3.9	4.4	2.1
13			0	163	1710	615	223	144	50	3.1	4.1	1.8
14			0	1170	1300	560	216	140	48	2.5	4.4	2.0
15			0	1410	1010	508	415	138	46	2.3	4.0	1.7
16			0	2780	827	465	457	135	43	2.3	3.6	1.8
17			11	2500	712	431	370	130	41	2.5	4.2	2.1
18			0	1400	603	402	337	127	40	8.8	4.6	2.0
19			0	903	532	375	317	123	38	3.0	3.9	1.9
20			0	638	472	357	310	121	36	3.0	3.5	2.3
21			2.7	549	420	359	295	120	35	4.2	3.3	2.0
22			7.3	493	376	500	270	118	33	9.9	3.4	2.1
23			510	409	340	363	260	116	32	17	2.7	2.3
24			200	347	312	328	254	115	30	17	2.5	1.9
25			116	302	285	308	320	114	29	13	2.3	1.7
26			84	264	269	289	276	112	27	11	2.5	2.2
27			81	235	255	272	258	107	26	11	2.0	2.1
28			85	217	241	259	245	101	25	11	2.0	2.2
29			78	194	---	249	233	97	23	11	2.1	2.6
30			72	178	---	246	218	93	22	9.5	2.3	2.1
31		---	63	166	---	281	---	89	---	9.0	2.1	---
TOTAL	0	0	1310.0	17787	21105	20047	8558	4412	1439	321.5	132.9	64.5
MEAN	0	0	42.3	574	754	647	285	142	48.0	10.4	4.29	2.15
MAX	0	0	510	2780	2510	2320	457	224	86	21	8.6	3.1
MIN	0	0	0	56	122	230	216	89	22	2.3	2.0	1.7
AC-FT	0	0	2600	35280	41860	39760	16970	8750	2850	638	264	128
CAL YR 1977	TOTAL	1322.60	MEAN	3.62	MAX	510	MIN	0	AC-FT	2620		
WTR YR 1978	TOTAL	75176.90	MEAN	206	MAX	2780	MIN	0	AC-FT	149100		

## 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 (0.5 km) downstream from Potrero Canyon, and 3 mi (5 km) east of Carmel.

DRAINAGE AREA.--246 mi<sup>2</sup> (637 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 45 ft (14 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, Sept. 1-30, which are fair. Flow regulated by Los Padres Reservoir, capacity, 3,000 acre-ft (3.70 hm<sup>3</sup>) and San Clemente Reservoir, capacity, 1,600 acre-ft (1.97 hm<sup>3</sup>). Diversion from San Clemente Reservoir for municipal supply amounted to 5,600 acre-ft (6.90 hm<sup>3</sup>) for the current year.

AVERAGE DISCHARGE (unadjusted).--16 years, 97.7 ft<sup>3</sup>/s (2.767 m<sup>3</sup>/s), 70,780 acre-ft/yr (87.3 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,620 ft<sup>3</sup>/s (244 m<sup>3</sup>/s) Jan. 26, 1969, gage height, 17.30 ft (5.273 m) in gage well, 17.4 ft (5.30 m) from floodmarks; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,360 ft<sup>3</sup>/s (208 m<sup>3</sup>/s) Jan. 16, gage height, 14.92 ft (4.548 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	14	166	244	252	238	99	29	4.9	1.8
2			0	20	146	391	238	226	96	27	6.8	1.7
3			0	53	134	573	223	216	94	25	4.2	1.8
4			0	162	128	2750	356	206	95	23	3.9	1.6
5			0	974	338	3570	273	201	95	20	3.2	1.7
6			0	881	766	1420	461	190	94	19	3.8	2.4
7			0	308	1620	1070	404	180	94	17	5.0	2.0
8			0	179	1220	935	343	171	88	16	4.6	2.2
9			0	526	3720	1020	310	165	84	14	5.1	2.1
10			0	370	1790	946	282	158	80	13	4.0	1.9
11			0	226	926	791	265	157	73	9.8	8.0	1.8
12			0	166	1690	754	254	151	74	7.3	2.6	1.9
13			0	118	2140	639	242	145	75	4.8	3.6	1.5
14			0	1190	970	580	232	141	70	2.4	3.4	1.6
15			0	2350	722	514	490	138	68	1.7	3.6	1.5
16			0	3450	742	465	632	133	64	1.3	3.2	1.4
17			11	3160	653	428	448	130	60	1.2	3.1	1.6
18			9.2	1070	602	395	391	126	58	1.1	3.4	1.7
19			8.9	913	538	366	359	120	56	1.1	3.7	1.6
20			8.9	668	479	344	344	120	53	1.1	3.3	1.9
21			9.4	490	430	345	328	116	51	1.1	3.0	1.7
22			10	433	389	496	302	114	49	1.0	2.8	1.8
23			266	415	353	370	287	110	47	1.3	2.8	1.9
24			135	353	321	328	276	109	45	2.0	2.4	1.8
25			61	307	297	307	370	106	42	3.3	2.1	1.5
26			30	280	282	290	311	106	40	4.9	2.0	1.6
27			19	256	264	271	286	105	38	5.8	2.4	1.8
28			19	234	254	258	268	104	36	7.1	3.1	1.8
29			18	215	---	246	258	101	34	4.8	3.4	2.1
30			16	196	---	245	236	101	32	4.0	1.6	2.0
31		---	15	182	---	298	---	102	---	2.9	1.9	---
TOTAL	0	0	636.4	20159	22080	21649	9721	4486	1984	273.0	110.9	53.7
MEAN	0	0	20.5	650	789	698	324	145	66.1	8.81	3.58	1.79
MAX	0	0	266	3450	3720	3570	632	238	99	29	8.0	2.4
MIN	0	0	0	14	128	244	223	101	32	1.0	1.6	1.4
AC-FT	0	0	1260	39990	43800	42940	19280	8900	3940	541	220	107
CAL YR 1977	TOTAL	636.40	MEAN	1.74	MAX	266	MIN	0	AC-FT	1260		
WTR YR 1978	TOTAL	81153.00	MEAN	222	MAX	3720	MIN	0	AC-FT	161000		

## ARROYO DEL REY BASIN

11143300 ARROYO DEL REY AT DEL REY OAKS, CA

LOCATION.--Lat 36°35'38", long 121°50'12", in Noche Buena Grant, Monterey County, Hydrologic Unit 18060012, on right bank in Del Rey Park, at Del Rey Oaks, 0.1 mi (0.2 km) downstream from State Highway 218.

DRAINAGE AREA.--13.8 mi<sup>2</sup> (35.7 km<sup>2</sup>).

PERIOD OF RECORD.--October 1966 to September 1978 (discontinued).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 40 ft (12 m), from topographic map. Prior to Dec. 23, 1974, at site 0.4 mi (0.6 km) downstream at datum 23.68 ft (7.218 m) lower.

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

AVERAGE DISCHARGE.--12 years, 0.67 ft<sup>3</sup>/s (0.019 m<sup>3</sup>/s), 485 acre-ft/yr (598,000 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64 ft<sup>3</sup>/s (1.81 m<sup>3</sup>/s) Jan. 3, 1974, gage height, 4.24 ft (1.292 m) site and datum then in use, from rating curve extended above 26 ft<sup>3</sup>/s (0.736 m<sup>3</sup>/s); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 18 ft<sup>3</sup>/s (0.5 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 6.8 ft<sup>3</sup>/s (0.2 m<sup>3</sup>/s):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Jan. 18	2400	22	.62	3.90	1.189	Apr. 6	1530	24	.68	3.95	1.204
Feb. 9	0800	37	1.05	4.19	1.277	Apr. 15	2045	*40	1.13	4.24	1.292
Feb. 13	1115	22	.62	3.89	1.186	Apr. 25	0900	30	.85	4.06	1.237
Mar. 5	0245	31	.88	4.08	1.244						

Minimum daily discharge, 0.02 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) Oct. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.18	.20	.13	.36	.59	3.3	1.4	.13	.24	.29	.16
2	.02	.18	.24	.27	.27	1.5	1.8	1.0	.12	.36	.66	.20
3	.03	.05	.16	.28	.21	1.9	1.1	.78	.10	.35	.23	.17
4	.03	.04	.09	.67	.21	9.1	5.3	.98	.10	.27	.28	.06
5	.03	.14	.05	2.3	.91	20	2.3	1.3	.23	.29	.23	.20
6	.03	.11	.04	1.7	1.2	8.4	16	.77	.29	.34	.16	.47
7	.03	.09	.05	.74	4.9	4.4	11	.45	.10	.36	.17	.26
8	.03	.10	.05	.62	4.7	3.2	5.3	.45	.11	.47	.16	.05
9	.03	.10	.06	.79	23	5.8	3.3	.26	.10	.43	.13	.06
10	.03	.06	.05	.71	11	4.0	2.3	.61	.10	.45	.33	.07
11	.03	.05	.05	.65	6.2	2.7	1.7	1.1	.10	.36	.31	.06
12	.13	.06	.05	.73	9.6	1.9	1.5	.68	.09	.36	.26	.06
13	.04	.11	.06	.90	17	1.4	1.5	.65	.23	.30	.22	.06
14	.04	.11	.05	2.4	9.5	1.3	1.9	.34	.09	.27	.23	.05
15	.04	.06	.14	5.4	5.2	1.1	17	.20	.09	.24	.17	.05
16	.04	.06	.10	3.3	3.4	.89	19	.19	.08	.33	.21	.17
17	.04	.06	5.7	3.6	2.6	.75	7.0	.17	.09	.21	.29	.37
18	.19	.06	1.0	3.9	2.0	.64	5.1	.19	.08	.15	.31	.29
19	.21	.06	.32	6.7	1.5	.57	4.3	.17	.09	.26	.36	.20
20	.21	.06	.22	3.1	1.3	.51	4.4	.18	.09	.23	.29	.22
21	.10	.06	.19	1.8	1.1	2.4	4.1	.28	.09	.08	.52	.33
22	.05	.11	.25	1.1	.99	8.0	3.2	.22	.19	.06	.16	.26
23	.05	.06	.44	.72	.88	2.8	2.8	.16	.40	.10	.18	.26
24	.05	.07	.25	.55	.78	1.4	3.5	.20	.34	.19	.22	.37
25	.06	.08	.16	.41	.70	.97	17	.29	.38	.09	.15	.30
26	.05	.07	.15	.34	.64	.75	7.7	.16	.32	.07	.18	.15
27	.04	.07	.16	.24	.58	.62	3.9	.14	.40	.07	.26	.30
28	.04	.06	.15	.19	.58	.53	3.2	.26	.43	.09	.24	.39
29	.05	.11	.15	.29	---	.46	2.6	.20	.29	.07	.11	.35
30	.04	.38	.14	.34	---	.68	2.2	.15	.19	.05	.15	.37
31	.17	---	.13	.36	---	3.7	---	.14	---	.22	.14	---
TOTAL	1.95	2.81	10.85	45.23	111.31	92.96	165.3	14.07	5.44	7.36	7.60	6.31
MEAN	.063	.094	.35	1.46	3.98	3.00	5.51	.45	.18	.24	.25	.21
MAX	.21	.38	5.7	6.7	23	20	19	1.4	.43	.47	.66	.47
MIN	.02	.04	.04	.13	.21	.46	1.1	.14	.08	.05	.11	.05
AC-FT	3.9	5.6	.22	90	221	184	328	28	11	15	15	13
CAL YR 1977	TOTAL	46.10	MEAN	.13	MAX	5.7	MIN	.02	AC-FT	91		
WTR YR 1978	TOTAL	471.19	MEAN	1.29	MAX	23	MIN	.02	AC-FT	935		

## 11143500 SALINAS RIVER NEAR POZO, CA

LOCATION.--Lat 35°17'55", long 120°24'10", in NE¼ sec.19, T.30 S., R.15 E., San Luis Obispo County, Hydrologic Unit 18060005, on right bank at downstream side of county road bridge, 1.0 mi (1.6 km) downstream from Pozo Creek, 1.6 mi (2.6 km) west of Pozo, and 7.4 mi (11.9 km) upstream from Salinas Dam.

DRAINAGE AREA.--70.3 mi<sup>2</sup> (182.1 km<sup>2</sup>).

PERIOD OF RECORD.--July 1942 to current year.

REVISED RECORDS.--WSP 1565: 1943(M). WSP 2129: 1952, 1953(P), 1954(M), 1958(M), 1960(M). WDR CA-74-1: 1973.

GAGE.--Water-stage recorder. Datum of gage is 1,347.78 ft (410.803 m) National Geodetic Vertical Datum of 1929. Prior to May 13, 1969, water-stage recorder at site 0.4 mi (0.6 km) downstream at same datum.

REMARKS.--Records fair except those for period of no gage-height record, May 11 to Sept. 13, which are poor. No regulation or diversion above station. Water is stored in Santa Margarita Lake below station.

AVERAGE DISCHARGE.--36 years, 17.8 ft<sup>3</sup>/s (0.504 m<sup>3</sup>/s), 12,900 acre-ft/yr (15.9 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,600 ft<sup>3</sup>/s (527 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 13.90 ft (4.237 m) in gage well, 15.5 ft (4.72 m) site then in use, from floodmarks, from rating curve extended above 7,100 ft<sup>3</sup>/s (201 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft<sup>3</sup>/s (8.5 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 620 ft<sup>3</sup>/s (17.6 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow:

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Dec. 28	unknown	1180	33.4	13.8	4.21	Feb. 10	0430	6500	184	18.94	5.773
Jan. 6	do	1050	29.7	13.6	4.15	Mar. 4	0930	*9070	257	20.30	6.187
Jan. 10	do	unknown		unknown		Apr. 15	2200	348	9.86	12.08	3.682
Jan. 16	1600	8310	235	20.10	6.126						

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	12	17	40	42	17	4.7	1.6	.68	.48
2			0	11	16	99	34	16	4.0	1.6	.77	.50
3			0	9.0	15	200	30	15	3.9	1.5	.84	.45
4			0	6.9	15	3620	50	14	3.8	1.4	.77	1.2
5			0	14	18	1320	40	13	3.7	1.5	.72	1.4
6			0	550	22	459	48	13	3.4	1.4	.48	1.2
7			0	160	512	275	73	12	3.0	1.3	.53	.94
8			0	50	829	209	55	11	3.3	1.3	.71	.85
9			0	140	2920	211	46	11	3.2	1.3	.65	.80
10			0	590	3520	174	39	11	3.2	1.3	.56	.81
11			0	320	676	141	35	10	2.8	1.3	.45	.82
12			0	130	643	144	31	9.7	2.6	1.3	.54	.79
13			0	60	627	112	29	9.4	2.4	1.2	.68	.84
14			0	219	334	96	27	9.0	2.3	1.2	.88	1.1
15			0	1030	204	84	136	7.0	2.2	1.2	.82	1.2
16			0	2130	148	74	134	6.4	1.9	1.2	.68	1.2
17			9.4	947	108	67	69	6.0	1.9	1.3	.70	1.0
18			14	276	90	63	55	5.5	1.8	1.3	.76	1.1
19			10	196	73	57	46	5.1	1.8	1.4	.81	1.0
20			7.6	127	62	53	38	5.3	1.7	1.3	.86	.99
21			5.3	89	53	52	34	5.6	1.8	1.3	.83	.97
22			4.5	65	48	84	30	5.2	1.9	1.3	.83	.94
23			6.5	50	42	58	27	4.7	1.8	1.3	.86	.93
24			6.4	38	38	49	25	4.5	1.8	1.2	.80	.94
25			5.0	29	35	44	38	4.4	1.7	1.2	.70	.82
26			3.9	26	33	40	31	4.2	1.8	1.0	.61	.80
27			24	23	31	37	25	4.1	1.9	.88	.52	.81
28			92	21	33	35	22	4.0	1.8	.86	.47	.79
29			160	20	---	33	20	3.9	1.8	.80	.36	.75
30			45	19	---	35	19	4.4	1.7	.86	.35	.72
31		---	15	18	---	52	---	5.0	---	.72	.36	---
TOTAL	0	0	408.6	7375.9	11162	8017	1328	256.4	75.6	38.32	20.58	27.14
MEAN	0	0	13.2	238	399	259	44.3	8.27	2.52	1.24	.66	.90
MAX	0	0	160	2130	3520	3620	136	17	4.7	1.6	.88	1.4
MIN	0	0	0	6.9	15	33	19	3.9	1.7	.72	.35	.45
AC-FT	0	0	810	14630	22140	15900	2630	509	150	76	41	54
CAL YR 1977	TOTAL	577.96	MEAN	1.58	MAX	160	MIN	0	AC-FT	1150		
WTR YR 1978	TOTAL	28709.54	MEAN	78.7	MAX	3620	MIN	0	AC-FT	56950		

## SALINAS RIVER BASIN

11144000 TORO CREEK NEAR POZO, CA

LOCATION.--Lat 35°19'26", long 120°25'13", in SE¼ sec.12, T.30 S., R.14 E., San Luis Obispo County, Hydrologic Unit 18060005, on left bank 300 ft (91 m) upstream from mouth, and 3 mi (5 km) northwest of Pozo.

DRAINAGE AREA.--9.56 mi<sup>2</sup> (24.76 km<sup>2</sup>).

PERIOD OF RECORD.--June 1942 to September 1969, October 1971 to current year. Prior to October 1961 low-water records only. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,312.99 ft (400.199 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 8, 1961, at site 250 ft (76 m) downstream at datum 11.83 ft (3.606 m) lower.

REMARKS.--Records poor. Small diversions above station for irrigation and stock reservoir.

AVERAGE DISCHARGE.--15 years (water years, 1962-69, 1972-78), 0.79 ft<sup>3</sup>/s (0.022 m<sup>3</sup>/s), 572 acre-ft/yr (705,000 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,400 ft<sup>3</sup>/s (68.0 m<sup>3</sup>/s) Feb. 24, 1969, gage height, 8.3 ft (2.53 m) from floodmarks, from rating curve extended above 30 ft<sup>3</sup>/s (0.850 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 5.11 ft (1.558 m) and 7.3 ft (2.23 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 15 ft<sup>3</sup>/s (0.4 m<sup>3</sup>/s) and maximum (\*) from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)				
Dec. 27	1745	102	2.89	4.84	1.475	Feb. 12	1700	141	3.99	5.01	1.527
Jan. 16	1315	193	5.47	5.21	1.588	Mar. 4	0830	*459	13.0	5.93	1.807
Feb. 7	1345	22	.62	4.16	1.268	Mar. 22	0445	17	.48	4.02	1.225
Feb. 10	0245	172	4.87	5.13	1.564	Apr. 15	1545	34	.96	4.33	1.320

Minimum daily discharge, 0.01 ft<sup>3</sup>/s (<0.001 m<sup>3</sup>/s) Oct. 1-22, 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.03	.10	.44	.50	.68	.94	.84	.87	.32	.08	.11
2	.01	.02	.03	.40	.53	5.8	.77	.90	.87	.31	.09	.11
3	.01	.02	.07	.41	.52	8.2	.70	1.0	1.0	.31	.09	.13
4	.01	.02	.08	.40	.53	110	2.2	1.1	1.0	.31	.08	.85
5	.01	.02	.11	.80	.58	33	1.1	1.1	.73	.29	.09	1.3
6	.01	.02	.24	.40	.50	9.1	2.2	1.1	.61	.30	.13	1.0
7	.01	.03	.22	.75	3.3	5.5	1.5	1.1	.61	.35	.10	.95
8	.01	.03	.27	1.0	10	4.8	1.5	1.3	.87	.45	.10	.80
9	.01	.04	.38	2.5	47	5.2	1.0	1.2	1.0	.30	.10	1.0
10	.01	.04	.46	.65	56	3.7	.88	1.3	1.2	.25	.09	.80
11	.01	.04	.55	.41	2.0	3.6	1.0	1.3	1.2	.30	.09	.60
12	.01	.04	.61	.47	23	3.0	.66	1.3	1.2	.27	.10	.50
13	.01	.03	.63	.49	8.2	3.1	.60	1.3	1.0	.45	.12	.36
14	.01	.04	.77	9.1	1.8	2.1	.52	1.2	1.0	.50	.14	.35
15	.01	.07	.70	3.0	1.4	2.0	8.9	1.2	.87	.52	.13	.40
16	.01	.08	.59	30	1.0	1.7	1.4	1.2	.87	.40	.13	.38
17	.01	.07	.95	4.4	.93	1.6	.45	1.2	.87	.30	.11	.38
18	.01	.06	.47	.66	.86	1.6	.43	1.2	.87	.25	.12	.38
19	.01	.04	.33	.61	.80	1.0	.39	1.1	.81	.12	.12	.38
20	.01	.03	.33	.39	.79	.97	.22	1.1	.89	.20	.12	.38
21	.01	.02	.55	.47	.78	1.1	.30	1.1	.73	.25	.11	.38
22	.01	.02	.57	.46	.74	3.5	.26	1.1	.68	.25	.09	.38
23	.02	.02	.74	.43	.71	1.3	.29	1.1	.61	.31	.09	.40
24	.02	.05	.28	.45	.65	.95	.45	1.1	.57	.10	.06	.41
25	.02	.06	.37	.35	.65	.90	.80	1.0	.50	.08	.07	.42
26	.01	.04	.52	.46	.65	.82	.80	1.0	.66	.07	.07	.44
27	.01	.05	9.4	.48	.63	.69	.82	1.2	.74	.06	.07	.44
28	.02	.06	.42	.51	1.4	.66	.80	1.0	.52	.06	.10	.45
29	.02	.08	.42	.47	---	.67	.78	.87	.50	.06	.10	.45
30	.02	.13	.37	.50	---	1.9	.78	1.0	.35	.08	.10	.45
31	.02	---	.45	.50	---	2.3	---	1.2	---	.07	.12	---
TOTAL	.38	1.30	21.98	62.36	166.45	221.44	33.44	34.71	24.20	7.89	3.11	15.38
MEAN	.012	.043	.71	2.01	5.94	7.14	1.11	1.12	.81	.25	.10	.51
MAX	.02	.13	9.4	30	56	110	8.9	1.3	1.2	.52	.14	1.3
MIN	.01	.02	.03	.35	.50	.66	.22	.84	.35	.06	.06	.11
AC-FT	.8	2.6	44	124	330	439	66	69	48	16	6.2	31
CAL YR 1977	TOTAL	70.83	MEAN	.19	MAX	9.4	MIN	.01	AC-FT	140		
WTR YR 1978	TOTAL	592.64	MEAN	1.62	MAX	110	MIN	.01	AC-FT	1180		

## 11144200 SALSIPUEDES CREEK NEAR POZO, CA

LOCATION.--Lat 35°17'34", long 120°27'07", in NW¼SW¼ sec.23, T.30 S., R.14 E., San Luis Obispo County, Hydrologic Unit 18060005, on left bank 1.9 mi (3.1 km) upstream from mouth, and 4.4 mi (7.1 km) west of Pozo.

DRAINAGE AREA.--5.91 mi<sup>2</sup> (15.31 km<sup>2</sup>).

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

REVISED RECORDS.--WDR-72-1: 1971(P).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 1,480 ft (451 m), from topographic map.

REMARKS.--Records fair including those for period of no gage-height record, June 9 to July 18. No regulation or diversion above station.

AVERAGE DISCHARGE.--9 years, 2.06 ft<sup>3</sup>/s (0.058 m<sup>3</sup>/s), 1,490 acre-ft/yr (1.84 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,160 ft<sup>3</sup>/s (32.9 m<sup>3</sup>/s) Jan. 16, 1978, gage height, 5.88 ft (1.792 m), from rating curve extended above 67 ft<sup>3</sup>/s (1.90 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 4.58 ft (1.396 m) and 5.88 ft (1.792 m); no flow for long periods in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 80 ft<sup>3</sup>/s (2.3 m<sup>3</sup>/s) and maximum (\*) from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 27	1700	511 14.5	3.70 1.128	Feb. 8	2315	722 20.4	4.29 1.308
Jan. 6	0100	201 5.69	2.60 .792	Mar. 4	0730	1120 31.7	5.78 1.762
Jan. 9	1145	170 4.81	2.45 .747	Apr. 15	1530	268 7.59	2.88 .878
Jan. 16	1330	*1160 32.9	5.88 1.792				

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			1.3	.09	1.3	5.0	8.5	4.5	.32	.02		
2			0	.06	1.2	31	6.9	4.1	.34	.02		
3			0	.10	1.1	43	6.2	3.7	.32	.02		
4			0	.09	1.1	270	13	3.4	.29	.02		
5			0	21	1.5	119	7.6	3.1	.22	.02		
6			0	38	3.0	26	11	2.9	.17	.02		
7			0	5.1	40	23	10	2.6	.14	.02		
8			0	2.0	177	19	7.9	2.4	.12	.02		
9			0	43	270	19	6.9	2.2	.11	.02		
10			0	34	188	15	6.2	2.0	.11	.02		
11			0	9.0	61	13	5.6	1.8	.10	.02		
12			0	4.5	58	12	5.1	1.7	.09	.02		
13			0	2.5	43	9.9	4.8	1.6	.08	.01		
14			0	84	25	8.9	4.6	1.4	.08	.01		
15			0	54	15	8.1	51	1.3	.07	.01		
16			0	256	10	7.5	22	1.2	.07	.01		
17			0	130	7.5	7.0	14	1.1	.06	.01		
18			0	72	6.0	6.4	11	.98	.06	0		
19			0	31	5.1	6.0	9.0	.86	.05	0		
20			0	15	4.5	5.7	7.9	.79	.05	0		
21			0	8.9	4.2	5.6	7.1	.76	.04	0		
22			0	6.0	3.8	9.8	6.4	.76	.04	0		
23			.07	4.4	3.5	6.1	5.8	.68	.04	0		
24			.01	3.5	3.2	5.4	5.4	.66	.03	0		
25			0	2.6	3.0	5.1	12	.63	.03	0		
26			0	2.3	2.8	4.8	7.3	.60	.03	0		
27			64	2.1	2.7	4.5	6.1	.52	.03	0		
28			19	1.8	3.1	4.2	5.5	.46	.03	0		
29			2.3	1.6	---	4.1	5.1	.41	.03	0		
30			.60	1.5	---	5.4	4.8	.37	.03	0		
31		---	.22	1.4	---	14	---	.33	---	0		---
TOTAL	0	0	87.50	837.54	945.6	723.5	284.7	49.81	3.18	.29	0	0
MEAN	0	0	2.82	27.0	33.8	23.3	9.49	1.61	.11	.009	0	0
MAX	0	0	64	256	270	270	51	4.5	.34	.02	0	0
MIN	0	0	0	.06	1.1	4.1	4.6	.33	.03	0	0	0
AC-FT	0	0	174	1660	1880	1440	565	99	6.3	.6	0	0
CAL YR 1977	TOTAL	106.86	MEAN	.29	MAX	64	MIN	0	AC-FT	212		
WTR YR 1978	TOTAL	2932.12	MEAN	8.03	MAX	270	MIN	0	AC-FT	5820		

## SALINAS RIVER BASIN

11144500 SANTA MARGARITA LAKE NEAR POZO, CA

LOCATION.--Lat 35°20'14", long 120°30'08", in NW¼NW¼ sec.8, T.30 S., R.14 E., San Luis Obispo County, Hydrologic Unit 18060005 at left end of dam on Salinas River, 2 mi (3 km) upstream from Pilitas Creek, and 7.5 mi (12.1 km) northwest of Pozo.

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

PERIOD OF RECORD.--December 1941 to current year. Prior to October 1967, published as Salinas Reservoir near Pozo.

REVISED RECORDS.--WSP 1715: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Mar. 9, 1942, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by concrete-arch dam, outlet closed Dec. 6, 1941. Usable capacity, 23,000 acre-ft (28.4 hm<sup>3</sup>) between elevations 1,220.3 ft (371.95 m), bottom of outlet pipe and 1,300.7 ft (396.45 m) spillway crest, NGVD. Additional storage of 400 acre-ft (493,000 m<sup>3</sup>) is not available for release. Water diverted at dam into pipeline to small reservoir 10 mi (16 km) below, from which it is pumped to Camp San Luis Obispo and city of San Luis Obispo for water supply; water is also released down natural channel of river. Figures given herein represent usable contents.

COOPERATION.--Elevations furnished by County of San Luis Obispo.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 37,000 acre-ft (45.6 hm<sup>3</sup>) Jan. 25, 1969, elevation, 1,313.30 ft (400.294 m); minimum, 1,730 acre-ft (2.13 hm<sup>3</sup>) Nov. 6-10, 1943.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 28,700 acre-ft (35.4 hm<sup>3</sup>) Feb. 10, elevation, 1,307.76 ft (398.605 m); minimum, 7,270 acre-ft (8.96 hm<sup>3</sup>) Dec. 16.

Capacity table (elevation, in feet, and contents, in acre-feet)

1220.3	0	1245	2000	1270	7700	1295	19300
1225	198	1250	2800	1275	9500	1300	22400
1230	470	1255	3800	1280	11500	1310	30700
1235	840	1260	4900	1285	13800	1320	41000
1240	1350	1265	6200	1290	16400		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7620	7430	7320	7920	21100	22900	23100	23000	22700	21800	20700	19600
2	7620	7420	7300	7800	21100	22900	23100	23000	22700	21700	20700	19500
3	7620	7410	7300	7690	21100	23500	23100	23000	22700	21700	20600	19500
4	7610	7400	7300	7580	21100	25700	23000	23000	22600	21700	20600	19500
5	7600	7400	7300	7490	21100	27000	23100	23000	22600	21700	20500	19500
6	7590	7400	7300	7620	21200	25000	23000	23000	22600	21600	20500	19500
7	7570	7400	7290	8480	21200	24100	23100	23000	22600	21600	20500	19500
8	7550	7400	7290	8510	22700	23700	23000	23000	22500	21600	20400	19400
9	7540	7390	7290	8740	26000	23400	22900	23000	22500	21500	20400	19400
10	7540	7390	7290	9070	28700	22900	22900	23000	22500	21500	20400	19400
11	7530	7390	7290	9510	25300	23400	23000	23000	22400	21500	20300	19400
12	7530	7380	7290	9690	24000	23300	23000	23000	22400	21400	20300	19400
13	7520	7380	7290	9780	24700	23300	23000	23000	22400	21400	20300	19300
14	7510	7380	7290	9720	24100	23200	23000	23000	22300	21400	20200	19300
15	7510	7370	7280	11600	23700	23100	23000	23000	22300	21300	20200	19300
16	7510	7360	7270	12600	23400	22900	23600	23000	22300	21300	20100	19300
17	7500	7350	7280	18200	23100	23000	23400	23000	22200	21300	20100	19200
18	7490	7350	7320	19200	22900	23000	23200	23000	22200	21200	20100	19200
19	7470	7350	7320	19600	22900	23000	23000	22900	22200	21200	20000	19200
20	7470	7340	7320	20100	23000	23000	22900	22900	22100	21100	20000	19200
21	7460	7330	7320	20400	23000	23000	23000	22900	22100	21100	20000	19100
22	7460	7330	7330	20500	23000	23100	23100	22900	22100	21100	19900	19100
23	7460	7330	7350	20600	22900	23100	23100	22900	22000	21100	19900	19100
24	7460	7330	7360	20700	22900	23000	23100	22900	22000	21100	19900	19000
25	7450	7330	7360	20800	22900	23000	23100	22900	22000	21000	19800	19000
26	7450	7330	7360	20900	22800	23000	23100	22800	21900	21000	19800	19000
27	7450	7330	7390	20900	22800	22900	23100	22800	21900	21000	19700	18900
28	7450	7330	7930	20900	22800	22800	23000	22800	21900	20900	19700	18900
29	7440	7320	8130	21000	---	22700	23000	22800	21800	20900	19700	18900
30	7440	7320	8160	21000	---	22800	23000	22800	21800	20800	19600	18900
31	7430	---	8050	21000	---	23000	---	22700	---	20800	19600	---
MAX	7620	7430	8160	21000	28700	27000	23600	23000	22700	21800	20700	19600
MIN	7430	7320	7270	7490	21100	22700	22900	22700	21800	20800	19600	18900
(†)	1269.15	1268.80	1271.01	1297.77	1300.42	1300.67	1300.62	1300.32	1298.96	1297.35	1295.48	1294.26
(†)	-200	-110	+730	+12950	+1800	+200	0	-300	-900	-1000	-1200	-700
(††)	50	40	32	54	0	10	332	554	620	540	658	515

CAL YR 1977 ‡ -3550 †† 2700

WTR YR 1978 ‡ +11270 †† 3410

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

†† Diversion, in acre-feet, for municipal supply; furnished by county of San Luis Obispo.



11144600 SALINAS RIVER BELOW SALINAS DAM, NEAR POZO, CA

LOCATION.--Lat 35°20'07", long 120°30'10", in NW¼NW¼ sec.8, T.30 S., R.14 E., San Luis Obispo County, Hydrologic Unit 18060005, on left bank 900 ft (274 m) downstream from Salinas Dam, 2 mi (3 km) upstream from Pilitas Creek, and 7.5 mi (12.1 km) northwest of Pozo.

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

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 1,180 ft (360 m), from topographic map.

REMARKS.--Records good. Flow completely regulated by Santa Margarita Lake (station 11144500), 900 ft (274 m) upstream and water diverted to Camp San Luis Obispo and city of San Luis Obispo.

AVERAGE DISCHARGE.--5 years, 23.1 ft<sup>3</sup>/s (0.654 m<sup>3</sup>/s), 16,740 acre-ft/yr (20.6 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,160 ft<sup>3</sup>/s (203 m<sup>3</sup>/s) Feb. 10, 1978, gage height, 10.24 ft (3.121 m); no flow for many days in 1975-76.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,160 ft<sup>3</sup>/s (203 m<sup>3</sup>/s) Feb. 10, gage height, 10.24 ft (3.121 m); minimum daily, 0.03 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s Jan. 30, Feb. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	.27	.14	65	.04	59	62	26	.59	2.3	10	1.8
2	5.5	.79	.15	64	.04	67	59	42	.60	2.3	12	1.8
3	1.5	.21	.16	64	.04	350	60	39	.58	2.3	6.4	1.8
4	1.5	.18	.16	59	.03	4140	85	24	.55	2.4	2.4	1.9
5	1.4	.18	.16	20	.07	3590	89	24	.57	2.4	2.4	1.9
6	1.4	.16	.16	2.4	.07	1580	99	8.5	.56	2.4	2.4	1.9
7	1.4	.16	.16	29	.35	818	149	1.7	.78	2.4	2.3	1.9
8	1.4	.16	.16	84	42	517	146	1.7	.60	2.5	2.3	1.9
9	1.4	.36	.16	78	2840	267	97	2.1	1.1	2.5	2.4	1.9
10	1.4	.17	.16	.27	5310	385	38	1.7	1.5	2.5	2.4	1.9
11	1.4	.16	.16	.10	2770	316	23	1.7	2.8	2.6	2.4	1.9
12	1.4	.16	.16	6.2	1560	225	49	1.4	4.6	2.5	2.4	1.9
13	1.4	.15	.16	44	1550	203	44	1.4	4.6	2.3	2.4	1.9
14	.99	.51	.16	38	900	177	50	1.4	4.6	2.6	2.4	1.7
15	.16	.14	.17	.41	566	201	192	1.4	4.6	2.3	2.4	1.6
16	.14	.16	.18	1.4	395	94	468	2.2	4.6	2.5	2.4	1.6
17	.14	.18	.33	.45	300	31	327	2.3	4.7	2.3	2.5	1.5
18	.14	.17	.21	.23	196	32	239	1.3	4.4	2.3	2.5	1.5
19	.14	.15	.18	.19	71	32	168	.72	4.4	2.3	2.4	1.5
20	.14	.14	.34	.15	71	23	78	.70	4.6	2.3	2.3	1.5
21	.14	.14	.24	.12	107	24	23	.70	3.3	2.3	2.0	1.4
22	.14	.14	.25	.10	86	97	11	1.3	2.5	2.3	1.8	1.4
23	.14	.14	.32	.69	85	151	56	.67	2.5	2.3	1.8	1.4
24	.14	.14	.24	.12	67	46	86	.65	2.5	2.8	1.8	1.4
25	.33	.12	.23	.07	60	39	94	.65	2.6	2.4	1.8	1.4
26	.27	.13	.25	.05	60	114	98	.63	2.6	2.3	1.8	1.7
27	.40	.14	.77	.04	59	119	91	.62	2.9	7.0	1.8	1.4
28	.23	.14	.41	.04	60	68	86	.65	2.4	11	1.8	3.1
29	.14	.14	.26	.04	---	20	66	.61	2.3	12	1.8	4.1
30	.14	.14	43	.03	---	.07	25	.60	2.3	12	1.8	4.2
31	.18	---	65	.04	---	20	---	.59	---	12	1.8	---
TOTAL	37.20	5.93	114.59	558.14	17155.64	13805.07	3158	192.89	77.23	116.4	89.1	56.8
MEAN	1.20	.20	3.70	18.0	613	445	105	6.22	2.57	3.75	2.87	1.89
MAX	12	.79	65	84	5310	4140	468	42	4.7	12	12	4.2
MIN	.14	.12	.14	.03	.03	.07	11	.59	.55	2.3	1.8	1.4
AC-FT	74	12	227	1110	34030	27380	6260	383	153	231	177	113
CAL YR 1977	TOTAL	746.79	MEAN	2.05	MAX	65	MIN	.01	AC-FT	1480		
WTR YR 1978	TOTAL	35366.99	MEAN	96.9	MAX	5310	MIN	.03	AC-FT	70150		

11147000 JACK CREEK NEAR TEMPLETON, CA

LOCATION.--Lat 35°34'00", long 120°48'10", in Paso de Robles Grant, San Luis Obispo County, Hydrologic Unit 18060005, on left bank 1.4 mi (2.3 km) upstream from mouth, 1.8 mi (2.9 km) northwest of Oakdale School, and 5.6 mi (9.0 km) west of Templeton.

DRAINAGE AREA.--25.3 mi<sup>2</sup> (65.5 km<sup>2</sup>).

PERIOD OF RECORD.--October 1949 to September 1978 (discontinued).

REVISED RECORDS (WATER YEARS).--WSP 1395: 1950(M), 1952, 1953(M).

GAGE.--Water-stage recorder. Altitude of gage is 980 ft (299 m), from topographic map.

REMARKS.--Records good. No regulation; small diversions above station for irrigation.

AVERAGE DISCHARGE.--29 years, 14.2 ft<sup>3</sup>/s (0.402 m<sup>3</sup>/s), 10,290 acre-ft/yr (12.7 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,160 ft<sup>3</sup>/s (231 m<sup>3</sup>/s) Feb. 24, 1969, gage height, 11.28 ft (3.438 m), from rating curve extended above 1,200 ft<sup>3</sup>/s (34.0 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 6.50 ft (1.981 m) and 9.56 ft (2.914 m); no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft<sup>3</sup>/s (17 m<sup>3</sup>/s) and maximum (\*) from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 27	1600	710 20.1	5.21 1.588	Feb. 8	2215	*3100 87.8	8.16 2.487
Jan. 5	2230	1520 43.0	6.52 1.987	Feb. 12	1830	1230 34.8	6.10 1.859
Jan. 9	1045	651 18.4	5.09 1.551	Mar. 4	0430	1050 29.7	5.82 1.774
Jan. 16	1415	2710 76.7	7.82 2.384				

Minimum daily discharge, no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	10	9.5	26	17	15	3.4	1.7	.27	
2			0	8.7	8.9	162	15	14	3.4	1.8	.26	
3			0	25	8.5	201	14	13	3.0	1.7	.24	
4			0	64	8.1	568	24	13	2.8	1.6	.24	
5			0	350	22	385	22	11	2.6	1.5	.24	
6			0	241	28	179	22	11	2.4	1.3	.22	
7			0	49	397	115	26	9.7	2.2	1.4	.21	
8			0	27	604	84	22	9.3	2.0	1.3	.19	
9			0	212	1010	73	18	8.9	1.8	1.1	.16	
10			0	127	618	60	17	8.9	1.7	1.1	.15	
11			0	53	189	51	15	8.6	1.9	1.1	.13	
12			0	34	410	42	15	8.2	1.9	1.2	.11	
13			0	26	306	36	14	7.5	1.8	1.1	.09	
14			0	417	159	32	13	7.1	1.7	.86	.10	
15			0	308	105	29	88	6.8	1.7	.74	.08	
16			0	826	73	26	90	6.5	1.8	.68	.07	
17			0	217	56	25	46	6.0	1.7	.62	.07	
18			0	95	45	23	34	5.7	1.7	.62	.05	
19			0	129	38	22	28	5.4	1.6	.59	.04	
20			0	69	33	20	25	5.2	1.5	.55	.04	
21			0	47	29	20	22	5.1	1.5	.48	.03	
22			0	37	26	31	20	5.2	1.6	.48	.03	
23			94	29	24	23	19	4.7	1.6	.43	.02	
24			22	24	22	19	17	4.5	1.5	.40	.02	
25			8.1	20	20	18	36	4.3	1.4	.38	.02	
26			5.5	18	19	17	29	4.1	1.5	.35	.01	
27			242	16	18	16	23	4.0	1.9	.35	.01	
28			167	14	21	15	19	3.7	1.8	.33	.01	
29			54	13	---	15	18	3.5	1.8	.33	.01	
30			26	11	---	16	17	3.3	1.7	.29	0	
31		---	15	10	---	20	---	3.3	---	.27	0	---
TOTAL	0	0	633.6	3526.7	4307.0	2369	785	226.5	58.9	26.65	3.12	0
MEAN	0	0	20.4	114	154	76.4	26.2	7.31	1.96	.86	.10	0
MAX	0	0	242	826	1010	568	90	15	3.4	1.8	.27	0
MIN	0	0	0	8.7	8.1	15	13	3.3	1.4	.27	0	0
AC-FT	0	0	1260	7000	8540	4700	1560	449	117	53	6.2	0
CAL YR 1977	TOTAL	667.25	MEAN	1.83	MAX	242	MIN	0	AC-FT	1320		
WTR YR 1978	TOTAL	11936.47	MEAN	32.7	MAX	1010	MIN	0	AC-FT	23680		

## 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 (2.6 km) upstream from mouth, and 4 mi (6 km) west of Templeton.

DRAINAGE AREA.--18.2 mi<sup>2</sup> (47.1 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and rain gage. Altitude of gage is 860 ft (262 m), from topographic map.

REMARKS.--Records good. Some regulation and pumping above station.

AVERAGE DISCHARGE.--17 years, 14.0 ft<sup>3</sup>/s (0.396 m<sup>3</sup>/s), 10,140 acre-ft/yr (12.5 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,060 ft<sup>3</sup>/s (172 m<sup>3</sup>/s) Jan. 19, 1969, gage height, 11.12 ft (3.389 m) in gage well, 11.75 ft (3.581 m) from floodmarks, from rating curve extended above 1,300 ft<sup>3</sup>/s (36.8 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft<sup>3</sup>/s (17 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 27	1600	652 18.5	6.09 1.856	Feb. 8	2130	1950 55.2	7.99 2.435
Jan. 5	2300	1430 40.5	7.36 2.243	Feb. 12	1730	990 28.0	6.72 2.048
Jan. 16	1400	*2080 58.9	8.13 2.478	Mar. 5	0915	924 26.2	6.61 2.015

Minimum daily discharge, no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	14	20	28	10	18	3.3	.88	.01	
2			0	14	19	99	8.7	16	3.3	.86	0	
3			0	41	18	125	7.6	15	2.9	.79	0	
4			0	57	17	422	23	14	2.9	.51	0	
5			0	187	42	330	18	13	2.8	.33	0	
6			0	241	41	163	22	11	2.6	.23	0	
7			0	51	322	100	27	11	2.1	.22	0	
8			0	29	487	74	20	10	2.0	.17	0	
9			0	165	870	68	19	9.8	1.7	.16	0	
10			0	140	534	55	17	9.1	1.6	.13	0	
11			0	62	184	45	17	8.6	1.5	.12	0	
12			0	40	329	38	16	8.3	1.5	.11	0	
13			0	30	289	32	15	7.9	1.4	.11	0	
14			0	298	162	29	14	7.9	1.4	.09	0	
15			0	270	99	26	121	7.6	1.3	.07	0	
16			0	574	68	24	98	7.3	.93	.07	0	
17			6.0	217	52	22	59	7.2	.71	.05	0	
18		14	114	42	20	45	45	7.2	.63	.04	0	
19		.61	169	35	19	37	37	7.0	.57	.04	0	
20		.08	101	30	18	33	33	6.4	.52	.04	0	
21		.09	77	26	18	29	29	6.1	.46	.04	0	
22		1.4	64	24	36	25	25	5.9	.44	.04	0	
23		66	49	21	26	23	23	5.8	.42	.04	0	
24		12	42	19	20	21	21	5.2	.37	.04	0	
25		3.9	36	18	12	47	47	4.9	.46	.03	0	
26		3.0	32	17	11	30	30	4.4	.87	.03	0	
27		233	29	16	10	25	25	4.2	.93	.03	0	
28		215	26	20	9.6	22	22	3.8	.83	.03	0	
29		63	24	---	9.5	20	20	3.8	.63	.03	0	
30		32	23	---	11	19	19	3.4	.62	.02	0	
31		---	19	21	---	16	---	3.3	---	.02	0	---
TOTAL	0	0	669.08	3237	3821	1916.1	888.3	253.1	41.69	5.37	.01	0
MEAN	0	0	21.6	104	136	61.8	29.6	8.16	1.39	.17	.0003	0
MAX	0	0	233	574	870	422	121	18	3.3	.88	.01	0
MIN	0	0	0	14	16	9.5	7.6	3.3	.37	.02	0	0
AC-FT	0	0	1330	6420	7580	3800	1760	502	83	11	.02	0
(†)	.04	.44	11.92	10.43	9.96	7.52	4.72	0	0	0	0	.92
CAL YR 1977 TOTAL	726.44			MEAN 1.99	MAX 233	MIN 0	AC-FT 1440					
WTR YR 1978 TOTAL	10831.65			MEAN 29.7	MAX 870	MIN 0	AC-FT 21480					

† Precipitation, in inches.

## 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, 3.5 mi (5.6 km) upstream from Huerhuero Creek.

DRAINAGE AREA.--390 mi<sup>2</sup> (1,010 km<sup>2</sup>).

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

REVISED RECORDS.--WSP 981: 1942.

GAGE.--Water-stage recorder. Datum of gage is 670.61 ft (240.402 m) National Geodetic Vertical Datum of 1929. Prior to June 14, 1951, nonrecording gage, and June 14, 1951, to Sept. 30, 1965, water-stage recorder at same site and datum.

REMARKS.--Records fair. Flow regulated by Santa Margarita Lake (station 11144500) 32 mi (51 km) upstream beginning in 1941. Small diversions above station.

AVERAGE DISCHARGE.--35 years, 88.1 ft<sup>3</sup>/s (2.495 m<sup>3</sup>/s), 63,830 acre-ft/yr (78.7 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,600 ft<sup>3</sup>/s (413 m<sup>3</sup>/s) Jan. 18, 1973, gage height, 14.61 ft (4.453 m), from rating curve extended above 6,200 ft<sup>3</sup>/s (176 m<sup>3</sup>/s); maximum gage height, 17.24 ft (5.255 m), 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 (7.25 m) from floodmarks, discharge, 28,000 ft<sup>3</sup>/s (793 m<sup>3</sup>/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft<sup>3</sup>/s (31 m<sup>3</sup>/s) and maximum (\*) from rating extended above 6,200 ft<sup>3</sup>/s (176 m<sup>3</sup>/s):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Jan. 6	0430	2630	74.5	9.06	2.761	Feb. 10	0745	12700	360	13.87	4.228
Jan. 9	1715	1270	36.0	8.24	2.512	Mar. 4	1445	*14500	411	14.56	4.438
Jan. 16	1845	11600	329	13.45	4.100	Apr. 16	0330	2320	65.7	8.82	2.688

Minimum daily discharge, no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	235	350	149	154	8.6			
2				0	235	511	143	136	9.0			
3				0	235	981	131	130	7.0			
4				0	235	8630	169	120	6.1			
5				0	231	7870	264	112	5.0			
6				703	224	4560	207	104	3.7			
7				119	1330	2590	298	98	1.8			
8				32	1300	1650	324	96	.82			
9				403	8330	1290	317	92	.38			
10				607	10500	910	236	89	.03			
11				221	4860	927	189	75	0			
12				92	3740	739	174	67	0			
13				48	4730	557	182	67	0			
14				299	2920	476	134	62	.01			
15				3830	1780	400	450	54	.01			
16				3800	1160	409	1610	50	0			
17				2660	835	302	943	49	0			
18				841	658	260	655	45	0			
19				978	491	198	438	43	0			
20				854	369	182	331	42	0			
21				462	318	142	246	35	0			
22				311	294	201	196	33	0			
23				251	254	245	173	31	0			
24				240	232	272	218	28	0			
25				240	194	200	344	26	0			
26				240	169	158	388	23	0			
27				240	168	229	320	20	0			
28				240	192	176	247	17	0			
29				240	---	136	232	14	0			
30				238	---	125	197	11	0			
31		---		235	---	159	---	8.4	---			---
TOTAL	0	0	0	18424	46219	35835	9905	1931.4	42.45	0	0	0
MEAN	0	0	0	594	1651	1156	330	62.3	1.42	0	0	0
MAX	0	0	0	3830	10500	8630	1610	154	9.0	0	0	0
MIN	0	0	0	0	168	125	131	8.4	0	0	0	0
AC-FT	0	0	0	36540	91680	71080	19650	3830	84	0	0	0
CAL YR 1977 TOTAL		0.00	MEAN	.00	MAX	.00	MIN	0	AC-FT	0		
WTR YR 1978 TOTAL		112356.85	MEAN	308	MAX	10500	MIN	0	AC-FT	222900		

## 11148500 ESTRELLA RIVER NEAR ESTRELLA, CA

LOCATION.--Lat 35°43'02", long 120°38'21", in NW¼NW¼ sec.36, T.25 S., R.12 E., San Luis Obispo County, Hydrologic Unit 18060004, on right bank 0.2 mi (0.3 km) downstream from mouth of Ranchito Canyon, and 1.9 mi (3.1 km) northwest of Estrella.

DRAINAGE AREA.--922 mi<sup>2</sup> (2,388 km<sup>2</sup>), not including Carrizo Plains.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 671.59 ft (204.701 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records poor including those for period of no gage-height record, Feb. 9 to June 7. No regulation; pumpage from wells along river for irrigation above station.

AVERAGE DISCHARGE.--24 years, 30.9 ft<sup>3</sup>/s (0.875 m<sup>3</sup>/s), 22,390 acre-ft/yr (27.6 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft<sup>3</sup>/s (920 m<sup>3</sup>/s) Feb. 24, 1969, gage height, 10.4 ft (3.17 m) from floodmarks, by slope-area measurement of maximum flow; maximum gage height, 10.9 ft (3.32 m), Jan. 25, 1969, from floodmarks; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft<sup>3</sup>/s (5.7 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 940 ft<sup>3</sup>/s (26.6 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 10.4 ft (3.17 m):

Date	Time	Discharge (ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	Gage height (ft)	(m)	Date	Time	Discharge (ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	Gage height (ft)	(m)
Dec. 28	0830	1570	44.5	3.75	1.143	Jan. 17	0300	6930	196	6.00	1.829
Jan. 6	1345	1040	29.5	3.34	1.018	Feb. 10	unknown	*31900	903	a10.43	3.179
Jan. 10	0230	943	26.7	3.25	.991	Mar. 4	do	unknown		unknown	

a From floodmarks.

Minimum daily discharge, no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	24	19	500	34	19	1.0			
2			0	16	18	1200	27	14	.85			
3			0	22	17	4100	25	9.6	.45			
4			0	17	17	11000	36	7.5	.21			
5			0	92	16	7200	42	5.4	.12			
6			0	349	15	3500	38	4.2	.06			
7			0	123	558	1500	39	3.5	.02			
8			0	117	788	820	43	3.1	0			
9			0	329	4000	410	35	2.9	0			
10			0	345	18500	250	30	2.8	0			
11			0	144	8500	140	28	2.7	0			
12			0	89	2850	95	26	2.6	0			
13			0	67	6800	70	25	2.4	0			
14			0	126	600	62	23	2.3	0			
15			0	446	400	55	70	2.2	0			
16			0	711	340	50	155	2.1	0			
17			0	1790	280	45	115	1.9	0			
18			0	162	250	42	65	1.8	0			
19			0	66	225	38	53	1.7	0			
20			0	53	215	37	44	1.7	0			
21			0	47	200	35	40	1.6	0			
22			0	41	190	45	36	1.6	0			
23			47	36	180	54	32	1.5	0			
24			44	33	172	37	31	1.4	0			
25			25	29	165	33	45	1.4	0			
26			21	28	162	31	60	1.3	0			
27			100	26	158	29	45	1.3	0			
28			651	24	157	27	36	1.2	0			
29			163	22	---	26	29	1.1	0			
30			52	21	---	28	25	1.1	0			
31		---	25	20	---	31	---	1.0	---			---
TOTAL	0	0	1128	5415	45792	31490	1332	107.9	2.71	0	0	0
MEAN	0	0	36.4	175	1635	1016	44.4	3.48	.090	0	0	0
MAX	0	0	651	1790	18500	11000	155	19	1.0	0	0	0
MIN	0	0	0	16	15	26	23	1.0	0	0	0	0
AC-FT	0	0	2240	10740	90830	62460	2640	214	5.4	0	0	0
CAL YR 1977	TOTAL	1156.00	MEAN	3.17	MAX	651	MIN	0	AC-FT	2290		
WTR YR 1978	TOTAL	85267.61	MEAN	234	MAX	18500	MIN	0	AC-FT	169100		

## SALINAS RIVER BASIN

11148900 NACIMIENTO RIVER BELOW SAPAQUE CREEK, NEAR BRYSON, CA

LOCATION.--Lat 35°47'19", long 121°05'34", in SW¼NE¼ sec.3, T.25 S., R.8 E., San Luis Obispo County, Hydrologic Unit 18060005, on left bank just downstream from Sapaque Creek, 1.4 mi (2.3 km) south of Bryson.

DRAINAGE AREA.--156 mi<sup>2</sup> (404 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 800 ft (244 m), from topographic map.

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

AVERAGE DISCHARGE.--7 years, 211 ft<sup>3</sup>/s (5.976 m<sup>3</sup>/s), 152,900 acre-ft/yr (189 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,000 ft<sup>3</sup>/s (1,610 m<sup>3</sup>/s) Jan. 16, 1978, gage height, 32.00 ft (9.754 m), from rating curve extended above 4,100 ft<sup>3</sup>/s (116 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10,000 ft<sup>3</sup>/s (280 m<sup>3</sup>/s) and maximum (\*) from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Dec. 27	unknown	17600	498	21.16	6.450	Feb. 8	2400	22900	649	23.03	7.020
Jan. 5	2230	15000	425	20.11	6.130	Feb. 12	1730	14700	416	20.00	6.096
Jan. 9	1215	12100	343	18.90	5.761	Mar. 4	0730	11500	326	18.64	5.681
Jan. 16	1415	*57000	1610	32.00	9.754						

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	164	200	322	351	188	49	18	.93	.01
2			0	210	185	1310	294	173	48	17	.79	.01
3			0	400	175	2620	259	159	47	16	.66	0
4			0	1200	170	9470	584	147	45	15	.59	.13
5			0	6900	300	4380	385	136	42	14	.49	.12
6			0	5000	500	1950	463	128	38	13	.39	.13
7			.01	1200	7630	1500	530	123	36	12	.28	.24
8			.01	560	5870	1200	442	120	33	12	.21	1.0
9			.03	4090	15700	1000	375	117	32	11	.16	.97
10			.07	2000	5270	830	325	111	30	9.8	.12	.81
11			.14	1180	2280	680	288	106	30	8.9	.08	.66
12			.22	840	5210	580	259	102	30	9.0	.06	.52
13			.34	530	3970	519	236	99	29	8.9	.05	.39
14			.48	9920	2040	478	222	94	27	8.1	.04	.35
15			.80	7610	1430	420	874	90	27	7.1	.03	.34
16			.87	17400	1080	375	1030	87	26	6.4	.02	.32
17		1080		5210	861	339	667	84	26	5.8	.01	.30
18		1390		2170	703	308	518	82	25	5.1	.01	.24
19		204		2240	584	276	426	79	24	4.6	.01	.18
20		135		1570	489	254	369	76	23	4.2	.01	.17
21			110	1100	409	266	321	73	22	4.0	.01	.15
22			805	800	349	2510	282	72	21	3.6	.01	.14
23			1950	630	308	854	254	71	21	3.3	.01	.13
24			700	500	273	607	235	76	20	3.1	.01	.12
25			200	450	247	498	548	72	19	2.7	.01	.11
26			115	380	231	427	387	69	18	2.3	.01	.09
27			4500	340	214	373	292	66	18	2.1	.01	.08
28			2500	305	221	332	246	61	20	1.8	.01	.07
29			600	270	---	302	220	58	20	1.6	.01	.07
30			332	245	---	319	202	55	19	1.3	.01	.07
31		---	224	215	---	477	---	51	---	1.2	.01	---
TOTAL	0	0	14847.97	75629	56899	35776	11884	3025	865	232.9	5.05	7.92
MEAN	0	0	479	2440	2032	1154	396	97.6	28.8	7.51	.16	.26
MAX	0	0	4500	17400	15700	9470	1030	188	49	18	.93	1.0
MIN	0	0	0	164	170	254	202	51	18	1.2	.01	0
AC-FT	0	0	29450	150000	112900	70960	23570	6000	1720	462	10	16

CAL YR 1977 TOTAL 16750.35 MEAN 45.9 MAX 4500 MIN 0 AC-FT 33220  
WTR YR 1978 TOTAL 199171.84 MEAN 546 MAX 17400 MIN 0 AC-FT 395100

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

## WATER-QUALITY RECORDS

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

WATER TEMPERATURES: Water years 1972-74.

SEDIMENT RECORDS: Water years 1972 to current year.

Published as station 11148800 "near Bryson" in water years 1958-59, 1961-71.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1971 to September 1974.

SEDIMENT RECORDS: October 1971 to September 1974.

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
DEC 29...	1535	12.0	588	15	24
FEB 22...	1130	13.0	355	7	6.7
MAR 28...	1515	17.0	343	7	6.5
MAY 17...	1515	21.5	86	1	.23
JUN 06...	1600	27.0	39	1	.11
JUL 11...	1300	25.5	8.7	7	.16

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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
DEC 02...	1040	1	.00	6	24	54	87
02...	1045	1	.00	--	0	1	2
02...	1050	1	.00	0	1	6	18
02...	1055	1	.00	3	15	55	96

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
DEC 02...	98	100	--	--	--	--	--
02...	3	4	10	25	46	83	100
02...	29	46	65	85	96	100	--
02...	99	100	--	--	--	--	--

## RESERVOIRS IN SALINAS RIVER BASIN, CA

11149300 NACIMIENTO RESERVOIR.--Lat 35°45'29", long 120°53'01", in NW¼ sec.15, T.25 S., R.10 E., San Luis Obispo County, Hydrologic Unit 18060005, at right end of dam on Nacimiento River, 8.6 mi (13.8 km) southwest of Bradley, and 12.3 mi (19.8 km) upstream from mouth. DRAINAGE AREA, 319 mi<sup>2</sup> (826 km<sup>2</sup>). PERIOD OF RECORD, February 1957 to current year. Monthend contents prior to October 1970, published in WSP 2129. GAGE, nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Monterey County Flood Control and Water Conservation District).

Reservoir is formed by earthfill dam completed in 1957. Total capacity, 350,000 acre-ft (432 hm<sup>3</sup>); usable capacity, 340,000 acre-ft (419 hm<sup>3</sup>) between elevations 670.0 ft (204.22 m), outlet and 800.0 ft (243.84 m), crest of spillway. Dead storage, 10,000 acre-ft (12.3 hm<sup>3</sup>). Figures given herein represent total contents. Reservoir is used for flood control and water released down Nacimiento River for irrigation. Record of contents furnished by Monterey County Flood Control and Water Conservation District.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 374,500 acre-ft (462 hm<sup>3</sup>) Apr. 7, 1958, elevation, 804.7 ft (245.27 m); minimum observed since appreciable storage was attained, 10,910 acre-ft (13.5 hm<sup>3</sup>) Oct. 11, 1960, elevation, 670.8 ft (204.46 m).

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 346,400 acre-ft (427 hm<sup>3</sup>) May 18-24, elevation, 799.30 ft (243.627 m); minimum observed, 12,200 acre-ft (15.0 hm<sup>3</sup>) Dec. 10-15, elevation, 674.15 ft (205.481 m).

11150100 SAN ANTONIO RESERVOIR.--Lat 35°47'55", long 120°53'02", in SW¼ sec.34, T.24 S., R.10 E., Monterey County, Hydrologic Unit 18060005, at dam on San Antonio River, 0.7 mi (1.1 km) upstream from Sulphur Canyon, and 6.4 mi (10.3 km) southwest of Bradley. DRAINAGE AREA, 330 mi<sup>2</sup> (855 km<sup>2</sup>). PERIOD OF RECORD, December 1965 to current year. Monthend contents prior to October 1970, published in WSP 2129. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Monterey County Flood Control and Water Conservation District).

Reservoir is formed by earthfill dam completed in 1965. Total capacity, 350,000 acre-ft (432 hm<sup>3</sup>); usable capacity, 330,000 acre-ft (407 hm<sup>3</sup>) between elevations 662.0 ft (201.78 m), minimum pool and 780.0 ft (237.74 m), crest of spillway. Dead storage, 20,000 acre-ft (24.7 hm<sup>3</sup>). Records given herein represent total contents. Reservoir is used for flood control and water released down San Antonio River for irrigation. Record of contents furnished by Monterey County Flood Control and Water Conservation District.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 348,900 acre-ft (430 hm<sup>3</sup>) May 27, 1969, elevation, 779.8 ft (237.68 m); minimum since appreciable storage was attained, 22,000 acre-ft (27.1 hm<sup>3</sup>) Dec. 13-17, 1977, elevation, 664.50 ft (202.540 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 245,500 acre-ft (303 hm<sup>3</sup>) June 5-18, elevation, 760.00 ft (231.648 m); minimum, 22,000 acre-ft (27.1 hm<sup>3</sup>) Dec. 13-17, elevation, 664.50 ft (202.540 m).

## MONTHEND CONTENTS, IN ACRE-FEET, AT 2400, OCTOBER 1977 TO SEPTEMBER 1978

Date	Nacimiento Reservoir	San Antonio Reservoir
Sept. 30, 1977.	22780	51950
Oct. 31.....	12330	40900
Nov. 30.....	12260	25270
Dec. 31.....	46320	25680
Jan. 31, 1978..	213500	86050
Feb. 28.....	258500	157900
Mar. 31.....	307900	221700
Apr. 30.....	341500	240200
May 31.....	345100	245300
June 30.....	329200	244200
July 31.....	299500	241800
Aug. 31.....	263200	238300
Sept. 30.....	232700	236100



## 11149400 NACIMIENTO RIVER BELOW NACIMIENTO DAM, NEAR BRADLEY, CA

LOCATION.--Lat 35°45'41", long 120°51'16", in NE¼NE¼ 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 (3.5 km) downstream from Nacimiento Dam, and 7.6 mi (12.2 km) southwest of Bradley.

DRAINAGE AREA.--322 mi<sup>2</sup> (834 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 597 ft (182 m) Corps of Engineers datum.

REMARKS.--Records good. Flow regulated by Nacimiento Dam (station 11149300), 2.2 mi (3.5 km) upstream. No diversion above station.

AVERAGE DISCHARGE (unadjusted).--21 years, 272 ft<sup>3</sup>/s (7.703 m<sup>3</sup>/s), 197,100 acre-ft/yr (243 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,340 ft<sup>3</sup>/s (208 m<sup>3</sup>/s) Feb. 25, 1969, gage height, 10.92 ft (3.328 m); no flow for many days in each year except 1964, 1966-76, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,420 ft<sup>3</sup>/s (182 m<sup>3</sup>/s) Feb. 13, gage height, 10.35 ft (3.155 m); minimum daily, 0.93 ft<sup>3</sup>/s (0.026 m<sup>3</sup>/s) Oct. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	392	1.9	1.6	2.7	1.3	442	18	18	145	378	588	576
2	392	2.1	1.4	3.3	1.2	446	18	18	144	377	587	576
3	392	2.0	1.5	3.5	1.4	749	17	18	144	379	587	577
4	387	2.3	1.4	3.4	7.7	808	19	18	145	379	587	579
5	386	2.6	1.5	5.5	8.8	1270	18	18	144	378	587	578
6	382	2.5	1.8	5.3	8.8	5840	19	17	162	450	587	575
7	380	2.2	4.8	3.6	2140	5750	18	17	319	514	586	574
8	377	2.3	6.5	3.2	4450	5630	18	18	318	515	586	573
9	374	2.1	1.6	4.3	5530	5470	18	17	317	515	586	573
10	372	1.5	1.3	4.1	2580	2460	18	17	317	514	584	572
11	369	1.3	1.2	3.4	3430	23	17	17	316	515	585	572
12	365	1.4	1.1	3.0	5910	20	18	18	317	512	584	571
13	360	1.3	1.2	3.2	6330	18	17	19	317	514	584	571
14	200	1.1	1.5	5.8	6290	17	18	18	316	508	583	571
15	57	1.1	1.7	6.3	6170	16	20	18	315	507	582	568
16	56	.98	1.5	8.0	5990	17	18	18	315	506	582	568
17	55	1.7	3.0	3.4	5790	16	17	51	314	506	581	568
18	55	3.0	2.2	2.8	4440	17	17	68	314	504	582	567
19	55	2.7	1.8	2.5	674	17	17	67	313	503	581	566
20	54	2.8	1.7	1.8	677	17	18	65	314	503	582	566
21	54	2.8	2.3	1.9	681	17	17	64	314	503	582	565
22	54	3.0	2.6	1.9	684	17	17	65	345	524	582	564
23	54	2.9	5.0	1.9	573	17	18	65	385	593	582	561
24	42	2.7	2.7	1.8	394	16	17	85	384	593	581	558
25	5.9	2.9	2.3	1.5	418	17	19	153	384	591	581	560
26	2.4	2.9	2.4	1.5	416	17	18	153	381	590	581	559
27	1.9	2.9	6.0	1.3	415	17	18	152	381	592	578	458
28	1.2	2.7	4.8	1.4	383	17	18	151	380	590	578	324
29	.93	2.4	3.0	1.3	---	17	18	148	379	589	578	323
30	1.2	2.4	2.5	1.3	---	18	18	146	380	588	579	324
31	1.3	---	2.7	1.3	---	18	---	145	---	588	577	---
TOTAL	5678.83	66.48	76.6	96.2	64394.2	29231	536	1862	9019	15818	18070	16237
MEAN	183	2.22	2.47	3.10	2300	943	17.9	60.1	301	510	583	541
MAX	392	3.0	6.5	8.0	6330	5840	20	153	385	593	588	579
MIN	.93	.98	1.1	1.3	1.2	16	17	17	144	377	577	323
AC-FT	11260	132	152	191	127700	57980	1060	3690	17890	31370	35840	32210
CAL YR 1977	TOTAL	18321.42	MEAN	50.2	MAX	392	MIN	0	AC-FT	36340		
WTR YR 1978	TOTAL	161085.31	MEAN	441	MAX	6330	MIN	.93	AC-FT	319500		

## 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 (0.6 km) upstream from Tule Canyon, and 3.3 mi (5.3 km) south of Lockwood.

DRAINAGE AREA.--223 mi<sup>2</sup> (578 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 800.00 ft (243.840 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. No regulation; some pumping above station.

AVERAGE DISCHARGE.--13 years, 104 ft<sup>3</sup>/s (2.945 m<sup>3</sup>/s), 75,350 acre-ft/yr (92.9 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,000 ft<sup>3</sup>/s (396 m<sup>3</sup>/s) Jan. 26, 1969, gage height, 8.25 ft (2.515 m); maximum gage height, 9.2 ft (2.80 m), from floodmarks, Dec. 6, 1966; no flow for several months in each year.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Dec. 23	0845	1720	48.7	7.78	2.371	Feb. 9	1300	7120	202	10.96	3.341
Jan. 6	0030	2700	76.5	8.50	2.591	Mar. 4	0415	5030	142	9.89	3.014
Jan. 9	1445	1880	53.2	7.91	2.411	Mar. 22	0815	2230	63.2	8.49	2.588
Jan. 16	1700	*8790	249	11.80	3.597						

Minimum daily discharge, no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	104	164	321	285	239	73	30	.02	
2			0	94	161	448	255	237	73	28	0	
3			0	339	155	1110	232	206	73	27	0	
4			0	376	146	3870	325	168	67	26	0	
5			0	795	340	3520	263	166	62	23	0	
6			0	1160	1160	2420	287	170	57	22	0	
7			0	451	3070	1940	327	171	63	20	0	
8			0	289	2400	1670	285	170	72	19	0	
9			0	731	6010	1870	235	166	75	18	0	
10			0	592	3240	1490	234	157	73	16	0	
11			0	377	2030	1210	216	151	68	17	0	
12			0	278	2850	1060	207	144	62	22	0	
13			0	234	2880	958	205	136	59	17	0	
14			0	1600	2050	903	212	127	59	17	0	
15			0	2210	1610	851	371	119	63	19	0	
16			0	4370	1330	785	579	113	57	17	0	
17			0	3570	1080	739	432	112	51	16	0	
18			0	1460	841	672	411	108	42	14	0	
19			0	1310	664	612	442	106	41	13	0	
20			0	910	547	576	390	99	39	12	0	
21			0	653	430	542	331	94	39	11	0	
22			0	519	397	1270	296	95	33	11	0	
23			970	412	411	834	310	93	29	12	0	
24			264	350	425	539	327	90	34	9.3	0	
25			159	320	357	450	351	85	32	11	0	
26			117	276	343	449	329	84	32	15	0	
27			170	250	320	420	322	84	32	8.7	0	
28			291	227	321	363	272	82	35	6.3	0	
29			225	214	---	320	221	83	31	4.5	0	
30			169	205	---	301	216	77	30	1.8	0	
31		---	134	168	---	342	---	75	---	.19	0	---
TOTAL	0	0	2499	24844	35732	32855	9168	4007	1556	483.79	.02	0
MEAN	0	0	80.6	801	1276	1060	306	129	51.9	15.6	.0006	0
MAX	0	0	970	4370	6010	3870	579	239	75	30	.02	0
MIN	0	0	0	94	146	301	205	75	29	.19	0	0
AC-FT	0	0	4960	49280	70870	65170	18180	7950	3090	960	.04	0
CAL YR 1977	TOTAL	2500.96	MEAN	6.85	MAX	970	MIN	0	AC-FT	4960		
WTR YR 1978	TOTAL	111144.81	MEAN	305	MAX	6010	MIN	0	AC-FT	220500		

11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CA--Continued

## WATER-QUALITY RECORDS

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

WATER TEMPERATURES: Water years 1966-73.

SEDIMENT RECORDS: Water years 1966 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1965 to September 1973.

SEDIMENT RECORDS: October 1965 to September 1974.

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
JAN 18...	1330	12.5	1400	1030	3890	5	7	8
FEB 21...	1355	15.0	475	305	391	--	--	--
MAR 28...	1145	14.0	379	168	172	--	--	--
MAY 16...	1530	26.0	114	44	14	--	--	--
JUN 06...	1330	27.5	55	42	6.2	--	--	--
JUL 11...	1055	19.0	15	8	.32	--	--	--

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
JAN 18...	10	13	16	28	57	74	87	95
FEB 21...	--	--	11	16	46	89	97	100
MAR 28...	--	--	16	23	62	94	100	--
MAY 16...	--	--	--	--	--	--	--	--
JUN 06...	--	--	--	--	--	--	--	--
JUL 11...	--	--	--	--	--	--	--	--

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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
DEC 02...	0935	1	.00	13	25	38	48
02...	0940	1	.00	5	12	21	30
02...	0945	1	.00	0	1	7	21
02...	0950	1	.00	11	33	62	83

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
DEC 02...	63	75	83	90	95	100
02...	49	69	80	89	100	--
02...	36	50	64	79	97	100
02...	95	98	99	100	--	--

## SALINAS RIVER BASIN

11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SEDIMENT IN TRANSIT WITHIN 0.25 FOOT OF BED SURFACE,  
WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (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 .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
JAN 18...	1400	12.5	42	1400	220	1100	0	1
FEB 21...	1415	15.0	26	475	182	513	--	0
MAR 28...	1205	14.0	33	379	166	628	--	0
MAY 16...	1545	26.0	15	114	76	139	--	0
JUN 06...	1340	27.5	13	55	38	72	--	0
JUL 11...	1100	19.0	16	15	30	17	--	0

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	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
JAN 18...	11	29	56	75	85	91	97	100
FEB 21...	8	37	66	82	90	95	100	--
MAR 28...	6	36	71	87	93	98	100	--
MAY 16...	4	30	69	89	96	98	100	--
JUN 06...	2	26	66	87	94	97	99	100
JUL 11...	2	28	68	91	97	98	100	--

LOCATION.--Lat 35°55'49", long 120°52'04", in SW¼NW¼ sec.14, T.23 S., R.10 E., Monterey County, Hydrologic Unit 18060005, on left bank 6 mi (10 km) northwest of Bradley, and 7 mi (11 km) downstream from San Antonio River.

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

GAGE.--Water-stage recorder. Datum of gage is 442.69 ft (134.932 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 117,000 ft<sup>3</sup>/s (3,310 m<sup>3</sup>/s) Feb. 24, 1969, gage height, 20.34 ft (6.200 m), from floodmarks; no flow at times in 1951, 1954-55, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 70,600 ft<sup>3</sup>/s (2,000 m<sup>3</sup>/s) Feb. 10, gage height, 18.68 ft (5.694 m); minimum daily, 67 ft<sup>3</sup>/s (1.90 m<sup>3</sup>/s) Dec. 26.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	430	317	229	105	95	663	429	250	187	360	503	475
2	430	312	230	105	86	753	385	222	189	361	503	469
3	430	308	229	119	79	1080	358	210	190	358	505	471
4	430	305	218	117	78	12900	367	205	189	355	500	479
5	436	306	212	132	78	14100	434	202	191	351	503	493
6	433	273	216	405	91	8960	433	197	194	358	509	483
7	432	269	217	328	827	6260	443	191	232	433	504	478
8	430	271	219	139	7110	5170	484	182	287	444	501	473
9	430	269	218	236	16800	4550	448	137	293	450	505	477
10	430	267	214	759	39200	3700	401	133	295	455	507	479
11	420	264	210	362	9370	1040	343	129	298	457	506	475
12	415	262	208	160	8030	929	309	125	299	468	508	479
13	410	256	190	122	14500	752	300	122	302	474	500	480
14	380	249	107	148	7570	666	295	120	304	474	494	482
15	350	247	88	3120	5980	625	309	117	300	476	491	476
16	350	245	81	2590	5450	601	878	114	302	496	491	467
17	345	231	84	7690	4870	635	883	114	303	476	499	470
18	345	238	77	1550	4580	614	688	118	309	466	497	467
19	340	239	73	742	1560	505	575	127	313	473	497	459
20	340	240	72	681	1000	470	500	125	315	507	493	455
21	335	239	69	438	890	464	436	128	314	507	490	464
22	335	243	68	301	852	481	369	127	318	518	479	465
23	330	242	82	229	823	600	321	125	348	567	478	457
24	330	238	84	195	666	571	298	124	347	556	492	456
25	330	229	73	167	636	511	325	138	351	557	493	456
26	325	222	67	151	615	427	406	174	356	535	496	460
27	325	225	99	136	601	409	389	179	355	508	493	457
28	325	226	398	125	591	430	340	180	353	502	489	347
29	320	224	449	118	---	401	308	183	356	506	493	332
30	320	228	149	110	---	382	284	184	355	496	489	329
31	318	---	116	103	---	403	---	185	---	497	485	---
TOTAL	11599	7684	5046	21683	133028	70052	12738	4867	8745	14441	15393	13710
MEAN	374	256	163	699	4751	2260	425	157	292	466	497	457
MAX	436	317	449	7690	39200	14100	883	250	356	567	509	493
MIN	318	222	67	103	78	382	284	114	187	351	478	329
AC-FT	23010	15240	10010	43010	263900	138900	25270	9650	17350	28640	30530	27190
CAL YR 1977	TOTAL	123388	MEAN 338	MAX	681	MIN 24	AC-FT	244700				
WTR YR 1978	TOTAL											

## SALINAS RIVER BASIN

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

LOCATION.--Lat 36°16'05", long 121°03'55", in NE¼ sec.23, T.19 S., R.8 E., Monterey County, Hydrologic Unit 18060005, on right bank 1.3 mi (2.1 km) downstream from Bitterwater Creek, 5 mi (8 km) northeast of King City, and 10 mi (16 km) upstream from mouth.

DRAINAGE AREA.--233 mi<sup>2</sup> (603 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 431.64 ft (131.564 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 24, 1967, at site 500 ft (152 m) upstream at datum 5.00 ft (1.524 m) higher.

REMARKS.--Records fair except those for period of no gage-height record, Apr. 27 to June 2, which are poor. No regulation; small diversions above station.

AVERAGE DISCHARGE.--20 years, 14.0 ft<sup>3</sup>/s (0.396 m<sup>3</sup>/s), 10,140 acre-ft/yr (12.5 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft<sup>3</sup>/s (306 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 15.33 ft (4.673 m) in gage well, 16.2 ft (4.94 m), from floodmarks; no flow many days in 1961 and 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft<sup>3</sup>/s (7.1 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	(ft)	(m)			(ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	(ft)	(m)
Dec. 23	0600	901	25.5	7.61	2.320	Mar. 4	1000	2300	65.1	8.90	2.713
Dec. 27	2300	2420	68.5	9.02	2.749	Mar. 22	0745	510	14.4	7.10	2.164
Jan. 6	0330	2540	71.9	9.14	2.786	Mar. 31	2215	305	8.64	6.80	2.073
Jan. 9	1930	589	16.7	7.34	2.237	Apr. 4	1545	358	10.1	6.89	2.100
Jan. 16	1500	*8810	249	14.00	4.267	Apr. 7	0145	316	8.95	6.82	2.079
Feb. 7	1630	unknown		unknown		Apr. 15	2200	1520	43.0	8.15	2.484
Feb. 10	0215	do		do		Apr. 25	1415	866	24.5	7.51	2.289
Feb. 12	2030	3580	101	10.10	3.078						

Minimum daily discharge, 0.09 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Dec. 13, 14, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.18	.15	.24	30	47	137	28	7.3	2.2	1.6	1.1
2	.15	.18	.15	1.2	29	46	57	25	7.0	2.1	1.7	1.1
3	.15	.18	.15	21	29	46	40	23	6.3	2.1	1.6	1.1
4	.17	.18	.15	420	28	120	152	22	5.9	2.0	1.5	1.4
5	.18	.21	.15	220	45	345	87	21	5.2	2.1	1.4	2.8
6	.19	.21	.14	754	65	160	73	19	4.7	1.8	1.4	1.3
7	.19	.19	.13	5.8	100	140	178	18	4.0	1.7	1.4	.82
8	.19	.18	.12	1.4	350	125	90	18	3.8	1.6	1.4	.75
9	.20	.17	.11	129	3700	130	50	17	3.9	1.3	1.3	.67
10	.21	.16	.10	22	1100	155	32	16	3.7	1.2	1.3	.76
11	.21	.15	.10	5.1	360	135	27	16	4.0	1.3	1.4	.69
12	.22	.14	.10	1.3	841	110	25	15	3.9	1.4	1.4	.64
13	.20	.14	.09	3.0	697	95	25	15	3.7	1.4	1.3	.55
14	.19	.14	.09	142	250	80	25	14	3.4	1.3	1.4	.62
15	.20	.14	.10	904	180	65	195	13	3.3	1.2	1.4	.58
16	.21	.12	.09	2370	150	58	254	14	3.3	1.3	1.4	.60
17	.21	.12	.13	2160	130	55	58	13	2.9	1.3	1.2	.59
18	.22	.13	17	1030	118	49	32	13	2.7	1.5	1.2	.60
19	.23	.12	2.6	220	105	46	25	12	2.7	1.3	1.2	.54
20	.23	.13	.69	115	93	44	22	11	2.7	1.3	1.2	.52
21	.22	.13	.38	80	82	47	20	11	2.7	1.3	1.2	.51
22	.23	.15	.91	65	75	217	19	11	2.6	1.4	1.2	.51
23	.23	.15	346	58	68	67	17	10	2.6	1.6	1.2	.50
24	.22	.15	62	52	63	38	16	10	2.5	1.6	1.2	.48
25	.21	.15	2.9	46	58	37	243	9.8	2.5	1.6	1.2	.47
26	.21	.14	1.2	40	55	30	153	9.5	2.6	1.7	1.1	.46
27	.20	.15	237	38	51	26	73	9.2	2.8	1.7	1.1	.49
28	.21	.15	411	36	48	23	49	8.7	3.0	1.7	1.1	.51
29	.23	.15	5.1	34	---	21	40	8.5	2.7	1.6	1.1	.58
30	.21	.15	5.7	32	---	24	31	8.2	2.5	1.6	1.1	.54
31	.20	---	.68	31	---	145	---	7.8	---	1.6	1.0	---
TOTAL	6.28	4.64	1095.21	9037.04	8900	2726	2245	446.7	110.9	48.8	40.2	22.78
MEAN	.20	.15	35.3	292	318	87.9	74.8	14.4	3.70	1.57	1.30	.76
MAX	.23	.21	411	2370	3700	345	254	28	7.3	2.2	1.7	2.8
MIN	.15	.12	.09	.24	28	21	16	7.8	2.5	1.2	1.0	.46
AC-FT	12	9.2	2170	17920	17650	5410	4450	886	220	97	80	45
CAL YR 1977 TOTAL	1445.97	MEAN	3.96	MAX	411	MIN	.01	AC-FT	2870			
WTR YR 1978 TOTAL	24683.55	MEAN	67.6	MAX	3700	MIN	.09	AC-FT	48960			

## 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 (1.4 km) south of Soledad, and 1 mi (2 km) upstream from Arroyo Seco.

DRAINAGE AREA.--3,563 mi<sup>2</sup> (9,228 km<sup>2</sup>).

PERIOD OF RECORD.--October 1968 to September 1978 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 170 ft (52 m), from topographic map.

REMARKS.--Records fair. Flow partly regulated by Santa Margarita Lake (station 11144500), Nacimiento Reservoir (station 11149300), and San Antonio Reservoir (station 11150100). Several small diversions above station.

AVERAGE DISCHARGE (unadjusted).--10 years, 530 ft<sup>3</sup>/s (15.01 m<sup>3</sup>/s), 384,000 acre-ft/yr (473 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 106,000 ft<sup>3</sup>/s (3,000 m<sup>3</sup>/s) Feb. 25, 1969, gage height, 23.31 ft (7.105 m); maximum gage height, 23.39 ft (7.129 m) Jan. 26, 1969; no flow Mar. 9-16, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 51,800 ft<sup>3</sup>/s (1,470 m<sup>3</sup>/s) Feb. 11, gage-height, 22.59 ft (6.885 m); minimum daily, 29 ft<sup>3</sup>/s (0.82 m<sup>3</sup>/s) Dec. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	235	182	103	152	280	820	1290	1120	39	143	268	249
2	214	174	102	171	260	940	1200	1140	38	143	262	246
3	209	163	102	189	250	1250	1190	1100	38	165	256	246
4	204	162	102	406	234	9000	969	1100	41	185	256	313
5	201	163	102	1010	235	25000	1360	1090	43	189	255	435
6	202	163	103	1390	319	12500	1250	1080	40	143	267	493
7	203	156	102	822	1330	12100	1300	1060	42	106	229	433
8	206	141	102	495	4880	10200	1310	612	43	105	127	394
9	206	135	104	682	15600	9500	1270	273	43	134	153	439
10	210	132	97	601	31100	9150	1140	230	40	162	174	463
11	206	130	95	807	33900	5720	933	215	40	183	178	474
12	202	129	98	547	12300	3410	903	199	42	186	175	476
13	196	128	96	421	18900	2850	776	177	56	183	168	468
14	199	128	96	1420	13500	2510	751	156	166	179	162	493
15	194	124	83	2820	10900	1950	784	145	177	173	166	521
16	214	119	64	5180	9420	1900	1230	133	206	177	185	505
17	227	115	296	12300	8430	1950	1620	120	155	196	181	527
18	218	110	80	14500	7870	1840	1770	109	153	194	171	533
19	216	103	41	1160	5600	1600	1800	104	159	184	161	461
20	214	102	37	900	2450	1480	1830	100	154	172	154	499
21	212	104	31	780	1200	1450	1820	82	160	166	151	513
22	213	107	29	700	1150	1500	1360	77	131	159	154	514
23	216	103	1170	610	1080	1880	1120	73	127	160	174	503
24	220	104	156	540	920	1790	897	71	105	179	205	494
25	211	104	106	480	840	1550	805	62	117	216	209	503
26	204	107	63	440	810	1310	1070	48	140	222	211	504
27	207	110	51	410	780	1300	1120	45	152	224	215	499
28	199	114	404	370	760	1320	1150	43	156	228	213	500
29	191	110	263	340	---	1250	1140	42	153	226	219	380
30	185	106	470	320	---	1200	1130	41	149	231	244	260
31	186	---	236	300	---	1300	---	40	---	257	253	---
TOTAL	6420	3828	4984	51263	185298	131520	36288	10887	3105	5570	6196	13338
MEAN	207	128	161	1654	6618	4243	1210	351	104	180	200	445
MAX	235	182	1170	14500	33900	25000	1830	1140	206	257	268	533
MIN	185	102	29	152	234	820	751	40	38	105	127	246
AC-FT	12730	7590	9890	101700	367500	260900	71980	21590	6160	11050	12290	26460
CAL YR 1977	TOTAL	44460.01	MEAN	122	MAX	1170	MIN	.00	AC-FT	88190		
WTR YR 1978	TOTAL	458697.00	MEAN	1257	MAX	33900	MIN	29	AC-FT	909800		

## SALINAS RIVER BASIN

11151870 ARROYO SECO NEAR GREENFIELD, CA

LOCATION.--Lat 36°14'15", long 121°28'50", in NE¼SE¼ sec.36, T.19 S., R.4 E., Monterey County, Hydrologic Unit 18060005, on right bank 0.6 mi (1.0 km) downstream from Rocky Creek, and 14.5 mi (23.3 km) southwest of Greenfield.

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

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 780 ft (238 m), from topographic map. Prior to Aug. 27, 1970, at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records fair except those for periods of no gage-height record, Nov. 8 to Dec. 8, Feb. 7-28, which are poor. No regulation; small diversion for fishponds above station by pumping.

AVERAGE DISCHARGE.--17 years, 143 ft<sup>3</sup>/s (4,050 m<sup>3</sup>/s), 103,600 acre-ft/yr (128 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,800 ft<sup>3</sup>/s (617 m<sup>3</sup>/s) Dec. 6, 1966, gage height, 14.50 ft (4.420 m), present datum, from rating curve extended above 5,700 ft<sup>3</sup>/s (161 m<sup>3</sup>/s) on basis of slope-area measurement at gage-height 12.65 ft (3.856 m), present datum; maximum gage height, 16.34 ft (4.980 m) Feb. 7, 1978; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft<sup>3</sup>/s (42 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 3,800 ft<sup>3</sup>/s (108 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow:

Date	Time	Discharge (ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	Gage height (ft)	(m)	Date	Time	Discharge (ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	Gage height (ft)	(m)
Dec. 17	1115	4130	117	10.47	3.191	Feb. 12	1345	12400	351	15.73	4.795
Dec. 22	2215	6190	175	12.08	3.682	Mar. 4	0215	12300	348	15.69	4.782
Jan. 2	1745	3990	113	10.35	3.155	Mar. 22	0215	10100	286	14.91	4.545
Jan. 5	1700	6720	190	12.44	3.792	Apr. 4	0315	3450	97.7	12.72	3.877
Jan. 9	0815	6110	173	12.02	3.664	Apr. 6	0845	2260	64.0	12.23	3.728
Jan. 16	1230	9680	274	14.21	4.331	Apr. 15	1445	5660	160	13.52	4.121
Feb. 7	1045	*14100	399	16.34	4.980	Apr. 25	0630	3180	90.1	12.62	3.847

Minimum daily discharge, 0.19 ft<sup>3</sup>/s (0.005 m<sup>3</sup>/s) Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	5.4	5.6	157	315	381	252	263	135	83	51	31
2	.96	4.8	5.7	546	400	1130	229	251	135	80	50	30
3	.48	4.3	5.8	651	560	1730	217	239	132	78	49	28
4	.31	3.9	5.7	1250	740	5000	780	226	132	72	48	28
5	.19	4.0	5.6	2120	1810	2850	304	216	124	63	46	34
6	.70	5.4	5.8	1370	2920	1550	651	214	118	64	44	37
7	.71	4.3	5.7	768	4960	1150	437	210	111	53	41	34
8	.77	3.7	5.8	585	3330	960	358	207	106	59	40	33
9	1.2	3.6	5.8	1650	4660	550	326	202	102	58	42	32
10	1.5	3.5	5.7	1110	2900	740	304	196	98	58	46	38
11	1.7	3.6	5.9	894	2200	700	283	188	96	58	43	34
12	1.9	3.7	6.1	778	4400	625	268	187	91	57	41	32
13	3.7	3.7	6.2	1170	3200	585	254	192	89	55	41	30
14	3.0	3.8	6.2	4450	2150	565	242	186	86	52	41	29
15	6.0	3.8	12	1350	1950	535	1610	178	83	50	38	30
16	7.0	3.7	8.8	5400	1600	510	758	152	88	50	37	28
17	8.0	3.7	1620	1350	1380	495	569	167	99	48	36	27
18	7.9	3.7	314	700	1200	485	507	164	98	45	35	27
19	8.7	3.8	104	530	1050	475	450	159	94	42	34	28
20	10	4.0	60	380	930	470	418	158	92	44	33	27
21	9.7	4.1	59	315	770	485	359	153	89	42	33	26
22	9.1	22	1230	275	700	2100	329	150	85	42	34	26
23	8.4	16	2050	255	620	648	315	146	84	43	35	26
24	8.0	11	426	240	510	562	345	144	82	42	36	25
25	7.6	8.3	244	230	450	513	673	144	82	40	35	24
26	7.3	6.9	183	245	375	473	341	145	83	38	35	23
27	6.0	6.6	383	255	335	373	312	143	81	46	35	23
28	6.1	6.0	432	265	270	305	295	144	81	63	34	23
29	6.2	5.7	287	275	---	292	281	143	81	62	33	23
30	6.4	5.5	229	285	---	287	276	142	82	59	31	22
31	6.2	---	177	290	---	412	---	137	---	53	31	---
TOTAL	147.02	172.5	7900.4	30139	46685	27936	12743	5546	2939	1699	1208	858
MEAN	4.74	5.75	255	972	1667	901	425	179	98.0	54.8	39.0	28.6
MAX	10	22	2050	5400	4960	5000	1610	263	135	83	51	38
MIN	.19	3.5	5.6	157	270	287	217	137	81	38	31	22
AC-FT	292	342	15670	59780	92600	55410	25280	11000	5830	3370	2400	1700
CAL YR 1977 TOTAL	10405.13			MEAN 28.5	MAX 2050	MIN 0	AC-FT 20640					
WTR YR 1978 TOTAL	137972.92			MEAN 378	MAX 5400	MIN .19	AC-FT 273700					



## SALINAS RIVER BASIN

11151870 ARROYO SECO NEAR GREENFIELD, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

WATER TEMPERATURES: Water years 1963-75, 1978.

SEDIMENT RECORDS: Water years 1962 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1962 to September 1975, October 1977 to current year.

SEDIMENT RECORDS: October 1962 to September 1975, October 1977 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Minimum, 3.5°C Jan. 6, 9, 1972.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 23,100 mg/L Feb. 7, 1978; minimum daily mean, no flow many days in 1966, 1968, and 1972.

SEDIMENT DISCHARGE: Maximum daily, 451,000 tons (409,000 metric tons) Feb. 7, 1978; minimum daily, 0 ton (0 metric ton) on many days in 1966, 1968, 1970-73, 1977.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 23,100 mg/L, Feb. 7; minimum daily mean, 1 mg/L on many days during the period October to December.

SEDIMENT DISCHARGE: Maximum daily, 451,000 tons (409,000 metric tons) Feb. 7, minimum daily, 0 ton (0 metric ton) on several days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	10.0	13.5	14.0	16.0	---	23.0	---	23.0
2	---	---	---	---	---	10.5	---	---	20.0	---	22.0	---
3	---	---	---	10.5	---	---	---	---	---	---	---	---
4	---	---	---	10.0	11.0	---	14.0	18.0	---	---	---	23.0
5	---	---	---	10.0	11.0	---	---	---	18.5	25.0	---	20.0
6	---	---	---	11.0	10.5	11.0	11.0	---	22.0	---	27.0	---
7	---	12.0	---	10.0	11.0	12.0	12.0	---	---	21.0	---	---
8	---	---	10.0	11.0	12.0	---	---	18.0	---	27.0	28.0	19.0
9	---	---	7.5	12.0	10.0	12.0	---	---	---	---	---	---
10	---	---	---	11.0	---	---	---	---	24.0	---	---	22.0
11	---	---	---	---	10.0	12.0	12.0	16.0	---	20.0	25.0	---
12	---	---	10.0	12.0	---	---	---	---	24.0	---	---	---
13	16.0	---	---	11.0	11.0	---	---	---	---	---	---	---
14	---	---	---	11.0	---	13.0	---	---	---	---	23.0	---
15	---	---	10.0	10.0	---	---	11.0	16.0	25.0	26.0	---	22.0
16	---	---	---	12.0	---	---	10.5	14.0	---	27.0	---	---
17	---	---	8.0	---	---	---	11.0	---	---	---	23.0	---
18	---	---	9.5	11.0	---	14.0	---	---	---	---	---	18.0
19	---	---	9.0	---	---	---	---	15.0	23.0	---	---	---
20	---	---	---	11.0	---	---	12.5	---	---	---	---	17.0
21	---	---	8.0	---	---	14.0	---	---	---	---	22.0	---
22	---	---	9.0	10.0	---	15.0	---	15.0	24.0	25.0	---	23.0
23	---	---	11.0	---	---	---	---	---	---	---	---	---
24	---	---	12.0	---	---	---	14.0	---	---	27.0	23.0	---
25	---	---	13.0	---	---	---	14.0	16.0	---	---	---	23.0
26	---	---	---	---	---	13.5	14.5	---	---	---	---	---
27	---	---	---	10.0	---	---	---	---	24.0	27.0	---	22.0
28	---	---	12.0	---	---	---	---	---	---	---	22.0	---
29	---	---	12.0	---	---	14.5	---	17.0	---	---	---	22.0
30	---	---	---	---	---	---	---	---	---	27.0	---	---
31	---	---	10.0	---	---	---	---	---	---	---	---	---
MEAN	16.0	12.0	10.0	11.0	10.5	13.0	12.5	16.0	22.5	25.0	24.0	21.0

11151870 ARROYO SECO NEAR GREENFIELD, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1.3	2	.01	5.4	1	.01	5.6	4	.06
2	.96	2	.01	4.8	1	.01	5.7	4	.06
3	.48	2	0	4.3	1	.01	5.8	4	.06
4	.31	2	0	3.9	1	.01	5.7	4	.06
5	.19	2	0	4.0	1	.01	5.6	4	.06
6	.70	2	0	5.4	1	.01	5.8	4	.06
7	.71	2	0	4.3	1	.01	5.7	4	.06
8	.77	2	0	3.7	1	.01	5.8	4	.06
9	1.2	2	.01	3.6	1	.01	5.8	1	.02
10	1.5	2	.01	3.5	1	.01	5.7	1	.02
11	1.7	2	.01	3.6	1	.01	5.9	1	.02
12	1.9	2	.01	3.7	1	.01	6.1	1	.02
13	3.7	2	.02	3.7	1	.01	6.2	2	.03
14	3.0	2	.02	3.8	1	.01	6.2	4	.07
15	6.0	2	.03	3.8	2	.02	12	11	.51
16	7.0	2	.04	3.7	2	.02	8.8	7	.17
17	8.0	2	.04	3.7	2	.02	1620	9200	61400
18	7.9	2	.04	3.7	2	.02	314	620	729
19	8.7	2	.05	3.8	2	.02	104	198	56
20	10	2	.05	4.0	2	.02	60	118	19
21	9.7	2	.05	4.1	2	.02	59	70	11
22	9.1	2	.05	22	8	1.0	1230	15400	144000.0
23	8.4	2	.05	16	3	.13	2050	15300	142000.0
24	8.0	2	.04	11	3	.09	426	575	661
25	7.6	2	.04	8.3	3	.07	244	328	216
26	7.3	1	.02	6.9	3	.06	183	158	78
27	6.0	1	.02	6.6	3	.05	383	674	872
28	6.1	1	.02	6.0	3	.05	432	1010	1380
29	6.2	1	.02	5.7	3	.05	287	328	253
30	6.4	1	.02	5.5	3	.04	229	260	161
31	6.2	1	.02	---	---	---	177	225	108
TOTAL	147.02	---	.70	172.5	---	1.82	7900.4	---	351945.34

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	157	205	87	315	141	120	381	540	555
2	546	4330	23800	400	126	136	1130	3930	18100
3	651	914	1610	560	92	139	1730	1550	16600
4	1250	11400	75800	740	66	132	5000	11600	220000
5	2120	19900	151000	1810	4700	37000	2850	6360	72500
6	1370	5200	21800	2920	17100	241000	1550	1100	4600
7	768	2500	5180	4960	23100	451000	1150	600	1860
8	585	1300	2050	3330	8910	117000	960	600	1560
9	1650	12100	106000	4660	9810	134000	550	1360	2700
10	1110	3500	10500	2900	6000	47000	740	460	919
11	894	2600	6280	2200	5400	32100	700	360	680
12	778	2200	4620	4400	8300	138000	625	310	523
13	1170	4880	30500	3200	3490	30400	585	265	419
14	4450	16200	253000	2150	1440	8360	565	220	336
15	1350	7060	38600	1950	1330	7000	535	180	260
16	5400	14400	280000	1600	1220	5270	510	130	179
17	1350	7310	28200	1380	1110	4140	495	85	114
18	700	3500	6610	1200	1000	3240	485	40	52
19	530	4320	6300	1050	930	2640	475	60	77
20	380	1900	1950	930	860	2160	470	110	140
21	315	950	808	770	800	1660	485	328	640
22	275	840	624	700	740	1400	2100	3640	72400
23	255	750	516	620	680	1140	648	350	612
24	240	660	428	510	620	854	562	200	303
25	230	580	360	450	610	741	513	100	139
26	245	490	324	375	590	597	473	60	77
27	255	400	275	335	580	525	373	47	47
28	265	345	247	270	560	408	305	40	33
29	275	290	215	---	---	---	292	36	28
30	285	240	185	---	---	---	287	36	28
31	290	185	145	---	---	---	412	132	158
TOTAL	30139	---	1058014	46685	---	1268162	27936	---	416639

11151870 ARROYO SECO NEAR GREENFIELD, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	252	103	70	263	36	26	135	16	5.8
2	229	65	40	251	34	23	135	16	5.8
3	217	40	23	239	32	21	132	12	4.3
4	780	521	1540	226	30	18	132	6	2.1
5	304	290	238	216	30	17	124	2	.67
6	651	1590	4500	214	25	14	118	6	1.9
7	437	97	114	210	20	11	111	6	1.8
8	358	90	87	207	18	10	106	6	1.7
9	326	87	77	202	15	8.2	102	5	1.4
10	304	78	64	196	13	6.9	98	5	1.3
11	283	70	53	188	12	6.1	96	4	1.0
12	268	65	47	187	10	5.0	91	2	.49
13	254	60	41	192	8	4.1	89	2	.48
14	242	55	36	186	7	3.5	86	1	.23
15	1610	779	6790	178	6	2.9	83	1	.22
16	758	50	102	152	5	2.1	88	2	.48
17	569	23	36	167	5	2.3	99	3	.80
18	507	25	34	164	6	2.7	98	5	1.3
19	450	30	36	159	7	3.0	94	6	1.5
20	418	32	36	158	7	3.0	92	6	1.5
21	359	35	34	153	6	2.5	89	5	1.2
22	329	36	32	150	5	2.0	85	5	1.1
23	315	38	32	146	6	2.4	84	5	1.1
24	345	39	36	144	7	2.7	82	5	1.1
25	673	1080	3970	144	8	3.1	82	4	.89
26	341	200	184	145	10	3.9	83	4	.90
27	312	160	135	143	12	4.6	81	4	.87
28	295	140	112	144	14	5.4	81	4	.87
29	281	100	76	143	16	6.2	81	4	.87
30	276	70	52	142	16	6.1	82	4	.89
31	---	---	---	137	16	5.9	---	---	---
TOTAL	12743	---	18627	5546	---	234.6	2939	---	44.56
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	83	4	.90	51	11	1.5	31	72	6.0
2	80	5	1.1	50	12	1.6	30	66	5.3
3	78	5	1.1	49	12	1.6	28	59	4.5
4	72	5	.97	48	11	1.4	28	55	4.2
5	63	5	.85	46	10	1.2	34	59	5.4
6	64	3	.52	44	10	1.2	37	55	5.5
7	53	2	.29	41	9	1.0	34	47	4.3
8	59	2	.32	40	9	.97	33	41	3.7
9	58	3	.47	42	10	1.1	32	46	4.0
10	58	4	.63	46	10	1.2	38	51	5.2
11	58	5	.78	43	11	1.3	34	48	4.4
12	57	5	.77	41	30	3.3	32	45	3.9
13	55	4	.59	41	50	5.5	30	42	3.4
14	52	4	.56	41	77	8.5	29	40	3.1
15	50	4	.54	38	75	7.7	30	39	3.2
16	50	5	.68	37	72	7.2	28	42	3.2
17	48	6	.78	36	69	6.7	27	48	3.5
18	45	8	.97	35	69	6.5	27	52	3.8
19	42	8	.91	34	68	6.2	28	54	4.1
20	44	8	.95	33	67	6.0	27	56	4.1
21	42	9	1.0	33	67	6.0	26	53	3.7
22	42	9	1.0	34	67	6.2	26	49	3.4
23	43	9	1.0	35	67	6.3	26	45	3.2
24	42	9	1.0	36	67	6.5	25	37	2.5
25	40	7	.76	35	65	6.1	24	31	2.0
26	38	6	.62	35	63	6.0	23	30	1.9
27	46	5	.62	35	61	5.8	23	29	1.8
28	63	7	1.2	34	59	5.4	23	29	1.8
29	62	9	1.5	33	63	5.6	23	28	1.7
30	59	11	1.8	31	66	5.5	22	28	1.7
31	53	11	1.6	31	69	5.8	---	---	---
TOTAL	1699	---	26.78	1208	---	136.87	858	---	108.5

YEAR 137972.92

3113941.17

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
DEC											
17...	1000	12.5	2690	19500	142000	18	22	38	55	70	--
17...	1530	8.0	1460	8140	32100	--	23	37	52	69	--
18...	0950	10.0	312	557	469	35	51	70	86	93	--
24...	1335	12.0	396	573	613	29	41	55	70	80	--
JAN											
03...	1155	10.0	659	824	1470	21	31	43	55	67	--
06...	1125	11.0	1360	3780	13900	--	12	18	24	31	--
16...	1410	12.0	5380	19600	285000	--	6	9	13	18	--
FEB											
06...	1515	10.5	4040	27700	302000	--	12	18	26	35	--
MAR											
02...	1410	10.5	2120	5820	33300	--	17	26	37	49	60
APR											
06...	1300	11.0	680	2480	4550	9	11	18	26	35	--

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
DEC										
17...	80	--	91	--	99	--	100	--	--	--
17...	78	--	90	--	98	--	99	--	100	--
18...	96	--	98	--	99	--	100	--	--	--
24...	85	--	98	--	93	--	97	--	100	--
JAN										
03...	75	--	84	--	95	--	99	--	100	--
06...	37	--	49	--	71	--	89	--	98	100
16...	23	--	34	--	58	--	84	--	97	100
FEB										
06...	42	--	56	--	76	--	93	--	98	100
MAR										
02...	--	72	--	86	--	98	--	100	--	--
APR										
06...	43	--	53	--	71	--	88	--	98	100

## 11152000 ARROYO SECO NEAR SOLEDAD, CA

LOCATION.--Lat 36°16'50", long 121°19'20", in SW¼NE¼ sec.16, T.19 S., R.6 E., Monterey County, Hydrologic Unit 18060005, on right bank just downstream from bridge, 1.5 mi (2.4 km) downstream from Vaquero Creek, and 10 mi (16 km) south of Soledad.

DRAINAGE AREA.--244 mi<sup>2</sup> (632 km<sup>2</sup>).

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. Datum of gage is 342.20 ft (104.303 m) Corps of Engineers datum. Prior to June 16, 1929, nonrecording gage, and June 16, 1929, to Dec. 2, 1941, water-stage recorder at site 1 mi (1.6 km) upstream at different datum. Dec. 3, 1941, to Sept. 30, 1959, water-stage recorder at datum 2.00 ft (0.610 m) higher. Jan. 30 to Mar. 26, 1969, nonrecording gage at bridge at same datum.

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

AVERAGE DISCHARGE.--77 years, 162 ft<sup>3</sup>/s (4.588 m<sup>3</sup>/s), 117,400 acre-ft/yr (145 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,300 ft<sup>3</sup>/s (801 m<sup>3</sup>/s) Apr. 3, 1958, gage height, 16.40 ft (4.999 m), present datum, from rating curve extended above 12,000 ft<sup>3</sup>/s (340 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 16.30 ft (4.968 m); no flow at times during several years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft<sup>3</sup>/s (71 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 17	1415	7280 206	10.23 3.118	Jan. 16	1215	15900 450	13.38 4.078
Dec. 23	0315	14200 402	12.85 3.917	Feb. 7	1300	*20900 592	14.74 4.493
Jan. 5	1945	15500 439	13.26 4.042	Feb. 12	1600	14700 416	11.88 3.621
Jan. 9	1045	11800 334	12.04 3.670	Mar. 4	0415	10600 300	11.60 3.536
Jan. 14	2145	15300 433	13.19 4.020	Mar. 22	0400	4530 128	8.78 2.676

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	5.2	41	260	470	324	398	174	105	50	34
2		0	5.6	366	356	777	337	386	175	105	48	28
3		0	5.9	294	481	1550	344	378	173	105	52	24
4		0	6.2	1020	633	4430	485	366	171	101	49	26
5		0	6.5	2460	1410	2560	368	338	165	97	47	43
6		0	6.9	914	1900	1400	458	318	159	97	40	64
7		0	7.8	339	3270	1050	397	313	152	93	36	56
8		0	8.4	224	3140	860	386	306	151	90	32	49
9		0	9.1	1890	4860	878	386	299	151	88	29	50
10		0	9.9	697	2740	712	397	285	150	85	29	61
11		0	10	474	1840	622	400	277	152	85	29	67
12		0	11	380	4050	563	361	263	148	86	27	58
13		0	11	679	3180	532	353	257	144	84	30	50
14		0	10	3880	2380	503	364	251	140	80	36	48
15		0	10	1080	2130	474	663	243	142	78	35	47
16		0	32	4210	1510	454	492	240	134	76	36	48
17		0	1830	1340	1230	441	376	232	132	71	36	41
18		0	311	542	1200	434	368	226	128	66	37	41
19		0	110	459	998	426	348	216	128	69	34	40
20		0	78	293	884	415	339	215	124	66	32	36
21		0	75	236	781	420	334	213	125	64	34	36
22		0	693	209	702	836	341	210	121	61	37	35
23		39	4140	196	570	336	336	211	121	62	40	32
24		18	239	188	495	325	355	208	119	60	38	33
25		9.7	106	184	372	324	421	202	120	57	38	29
26		6.0	66	191	350	325	306	200	121	55	40	28
27		5.2	147	202	300	328	310	197	126	56	38	26
28		5.8	186	209	290	330	379	193	126	56	39	28
29		5.9	120	220	---	330	423	188	123	58	38	29
30		5.7	84	227	---	330	420	180	114	55	37	28
31		---	61	239	---	354	---	176	---	50	37	---
TOTAL	0	95.3	8401.5	23883	42312	23789	11571	7985	4209	2361	1160	1215
MEAN	0	3.18	271	770	1511	767	386	258	140	76.2	37.4	40.5
MAX	0	39	4140	4210	4860	4430	663	398	175	105	52	67
MIN	0	0	5.2	41	260	324	306	176	114	50	27	24
AC-FT	0	189	16660	47370	83930	47190	22950	15840	8350	4680	2300	2410

CAL YR 1977 TOTAL 10616.74 MEAN 29.1 MAX 4140 MIN 0 AC-FT 21060  
WTR YR 1978 TOTAL 126981.80 MEAN 348 MAX 4860 MIN 0 AC-FT 251900

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, 2 mi (3 km) southwest of Chualar.

WATER-DISCHARGE RECORDS

REMARKS.--Records poor. Daily discharge 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 partly regulated by Santa Margarita Lake (station 11144500), Nacimiento Reservoir (station 11149300), and San Antonio Reservoir (station 11150100). Large withdrawals from ground water and small surface-water diversions for municipal use and irrigation above station.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 37,000 ft<sup>3</sup>/s (1,050 m<sup>3</sup>/s) Feb. 11; minimum daily, 16 ft<sup>3</sup>/s (0.45 m<sup>3</sup>/s) June 25.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	66	31	500	450	1400	900	760	38	21	190	120
2	33	72	27	350	400	1600	680	680	35	21	200	119
3	33	70	25	600	370	2200	640	650	32	22	192	118
4	33	71	21	840	350	6000	700	620	30	25	192	130
5	33	76	20	2500	340	20500	770	600	29	27	190	160
6	33	78	21	4700	840	15000	800	570	27	28	190	200
7	33	64	19	3500	2100	9200	840	500	26	36	195	215
8	35	50	20	1500	4000	6900	850	400	28	45	170	190
9	40	50	20	900	8000	6000	800	350	28	50	98	190
10	50	50	21	3100	15000	5800	750	300	27	62	110	205
11	60	50	21	1500	37000	4300	650	270	26	72	130	212
12	68	52	21	980	18000	3400	600	240	26	80	132	219
13	72	51	20	780	12500	2600	550	230	25	82	133	219
14	70	50	23	1000	18500	2300	560	210	25	80	133	225
15	74	50	25	5000	9500	2200	640	185	25	79	127	235
16	78	49	24	3500	7000	2000	1200	165	28	78	110	232
17	79	47	38	11500	5400	1800	1250	150	27	80	96	238
18	78	51	70	8600	4700	1750	1150	140	23	86	86	243
19	76	50	1350	5600	3800	1630	1000	130	23	85	81	225
20	74	52	450	3700	2500	1550	880	123	23	81	77	215
21	76	51	170	2700	2100	1500	800	115	23	78	72	230
22	80	54	90	2200	2000	1400	720	100	19	73	72	238
23	84	54	600	1550	1800	1300	650	92	18	71	82	235
24	78	52	4400	1430	2000	1200	610	88	17	77	90	232
25	76	50	1200	1200	1950	1150	640	82	16	113	100	230
26	78	45	540	1000	1700	1230	1230	76	18	150	101	230
27	76	43	380	900	1280	1330	1100	62	21	165	102	230
28	74	40	280	760	1300	1250	1000	53	22	168	103	229
29	80	37	660	640	---	1100	940	49	22	171	105	203
30	72	35	660	540	---	1150	860	45	22	175	110	150
31	70	---	690	470	---	1150	---	40	---	178	118	---
TOTAL	1929	1610	11937	74040	164880	111890	24760	8075	749	2559	3887	6117
MEAN	62.2	53.7	385	2388	5889	3609	825	260	25.0	82.5	125	204
MAX	84	78	4400	11500	37000	20500	1250	760	38	178	200	243
MIN	33	35	19	350	340	1100	550	40	16	21	72	118
AC-FT	3830	3190	23680	146900	327000	221900	49110	16020	1490	5080	7710	12130
CAL YR 1977	TOTAL	19395.18	MEAN	53	MAX	4400	MIN	.00	AC-FT	38470		
WTR YR 1978	TOTAL	412433.00	MEAN	1130	MAX	37000	MIN	16	AC-FT	818100		

11152300 SALINAS RIVER NEAR CHUALAR, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1977 to current year.

BIOLOGICAL DATA: Water years 1977 to current year.

SPECIFIC CONDUCTANCE: Water years 1977 to current year.

WATER TEMPERATURE: Water years 1977 to current year.

SEDIMENT RECORDS: Water years 1977 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1977 to current year.

WATER TEMPERATURES: January 1977 to current year.

INSTRUMENTATION.--Water-quality monitor since January 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,150 micromhos Dec. 29, 1977; minimum recorded, 165 micromhos July 7, 1978.

WATER TEMPERATURES: Maximum recorded, 30.0°C May 18, 1978; minimum recorded, 5.0°C Nov. 20.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,150 micromhos Dec. 29; minimum recorded, 165 micromhos July 7.

WATER TEMPERATURES: Maximum recorded, 30.0°C May 18; minimum recorded, 5.0°C Nov. 20.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, UM-MF (COLS./ 100 ML)	STREP- TOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT											
12...	1400	68	68	590	7.8	19.0	3.0	--	K38	270	240
NOV											
08...	1100	50	51	610	8.0	12.0	2.0	11.7	K14	K71	240
DEC											
12...	1215	21	21	680	8.3	14.0	4.0	13.2	26	28	260
19...	1400	1350	269	440	7.6	10.0	230	9.4	--	--	170
JAN											
31...	1300	470	475	750	8.0	13.5	75	9.8	K67	730	270
FEB											
27...	1530	1280	1290	580	7.2	14.5	80	9.8	110	210	220
MAR											
15...	1330	2200	2200	630	8.0	16.5	180	9.7	K700	690	240
APR											
17...	1200	1250	1270	--	7.9	16.0	2900	10.3	>2000	3600	210
MAY											
22...	1215	100	103	--	--	--	--	--	--	--	--
22...	1230	100	103	940	8.3	18.5	3.4	10.2	K20	41	350
JUN											
19...	1300	23	23	836	7.6	24.0	1.2	10.2	2200	63	310
JUL											
24...	1330	77	77	410	7.7	25.0	180	9.1	K220	200	180
AUG											
14...	1400	133	134	325	7.9	23.0	50	9.6	K49	77	130
SEP											
22...	1200	238	217	300	7.9	16.5	33	10.2	K37	K38	130

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT											
12...	69	57	24	23	17	.6	2.7	210	0	170	100
NOV											
08...	78	59	23	28	20	.8	3.3	200	0	160	100
DEC											
12...	83	61	25	34	22	.9	3.6	210	0	170	120
19...	72	46	13	19	19	.6	5.7	120	0	98	86
JAN											
31...	100	65	25	45	26	1.2	8.7	200	--	164	100
FEB											
27...	82	54	21	30	23	.9	2.8	170	0	140	98
MAR											
15...	60	40	33	50	31	1.4	3.2	220	0	180	120
APR											
17...	73	47	23	55	36	1.6	3.3	170	0	140	160
MAY											
22...	--	--	--	--	--	--	--	--	--	--	--
22...	150	82	35	70	30	1.6	4.2	--	--	200	210
JUN											
19...	140	73	32	59	29	1.4	3.5	--	--	170	200
JUL											
24...	62	43	18	25	23	.8	2.4	--	--	120	74
AUG											
14...	30	34	11	16	21	.6	1.8	--	--	100	50
SEP											
22...	33	32	13	14	18	.5	1.5	--	--	100	43

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

## SALINAS RIVER BASIN

11152300 SALINAS RIVER NEAR CHUALAR, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CHLORIDE, DIS- SOLVED (MG/L AS CL)	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	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)
OCT 12...	19	.2	15	344	345	.47	.00	.00	--	--
NOV 08...	23	.4	18	365	353	.50	.23	.00	--	--
DEC 12...	29	.4	18	404	395	.55	.47	.08	--	--
19...	14	.1	14	262	257	.36	.85	.00	--	--
JAN 31...	25	.2	17	594	384	.81	1.2	.01	.64	.65
FEB 27...	31	.2	21	336	342	.46	1.1	.03	.31	.34
MAR 15...	30	.2	15	391	400	.53	1.3	.04	.76	.80
APR 17...	27	.3	17	424	416	.58	.82	.01	5.2	5.2
MAY 22...	--	--	--	--	--	--	--	--	--	--
22...	45	.2	21	583	586	.79	1.4	.01	--	--
JUN 19...	52	.2	18	516	540	.70	1.2	.03	.58	.61
JUL 24...	21	.2	16	282	272	.38	.53	.11	1.4	1.5
AUG 14...	15	.2	14	213	202	.29	.28	.10	.56	.66
SEP 22...	9.6	.1	16	201	189	.27	.19	.01	.58	.59

DATE	NITRO- GEN, NH4 + ORG. SUSP. 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)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT 12...	--	.08	--	.06	.05	3.0	--	--	--	--
NOV 08...	--	.70	--	.07	.06	3.4	--	--	--	--
DEC 12...	--	.32	--	.10	.10	3.4	--	--	ND	ND
19...	--	.88	--	.73	.21	19	--	--	--	--
JAN 31...	--	.53	1.8	.33	.12	--	3.1	1.2	--	--
FEB 27...	.03	.31	1.4	.36	.11	8.9	--	--	ND	--
MAR 15...	.39	.41	2.1	.38	.07	14	--	--	--	--
APR 17...	4.7	.48	6.0	2.4	.11	--	2.3	>5.0	--	--
MAY 22...	--	--	--	--	--	--	--	--	ND	ND
22...	--	.68	--	.06	.02	2.8	--	--	--	--
JUN 19...	.28	.33	1.8	.03	.02	4.1	--	--	--	--
JUL 24...	1.1	.43	2.0	.44	.08	--	5.1	7.6	--	--
AUG 14...	.19	.47	.94	.13	.02	4.2	--	--	ND	--
SEP 22...	.37	.22	.78	.12	.03	12	--	--	--	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS- PENDE TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)
OCT 12...	1400	2	0	2	200	200	0	<10	<10	0
APR 17...	1200	14	12	2	1000	1000	0	3	3	0
JUL 24...	1330	2	0	3	300	100	200	1	1	0

ND Material specifically analyzed for but not detected.



11152300 SALINAS RIVER NEAR CHUALAR, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUS- PENDED RECOV. (UG/L AS CR)	CHROMIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUS- PENDED RECOVERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUS- PENDED RECOVERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 12...	10	10	0	<50	<50	0	<10	<5	5	330
APR 17...	460	460	0	95	93	2	190	190	4	150000
JUL 24...	20	20	0	6	6	0	14	9	5	11000

DATE	IRON, SUS- PENDED RECOVERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUS- PENDED RECOVERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUS- PENDED RECOVERABLE (UG/L AS MN)	MANGANESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUS- PENDED RECOVERABLE (UG/L AS HG)
OCT 12...	--	110	<100	<99	1	8	8	0	.0	.0
APR 17...	--	20	46	34	12	2800	2800	10	.0	.0
JUL 24...	11000	20	10	9	1	330	330	0	.0	.0

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUS- PENDED TOTAL (UG/L AS SE)	SELENIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUS- PENDED RECOVERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUS- PENDED RECOVERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 12...	.0	0	0	0	<10	<10	0	10	0	10
APR 17...	.0	0	0	0	0	0	0	350	340	10
JUL 24...	.0	1	0	1	0	0	0	50	40	10

DATE	TIME	ALDRIN, TOTAL (UG/L)	ALDRIN, IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, IN BOT- TOM MA- TERIAL (UG/KG)	ATRAZINE, TOTAL (UG/L)	ATRAZINE, IN BOT- TOM MA- TERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL (UG/L)
DEC 12...	1215	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	ND
FEB 27...	1530	ND	--	ND	--	ND	--	ND	--	ND	--	ND
MAY 22...	1215	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	ND
AUG 14...	1400	ND	--	ND	--	ND	--	ND	--	ND	--	ND

ND Material specifically analyzed for but not detected.

## SALINAS RIVER BASIN

11152300 SALINAS RIVER NEAR CHUALAR, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	P,P' DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	P,P' DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DEC 12...	.4	ND	ND	--	ND	ND	ND	ND	ND	ND
FEB 27...	--	ND	--	--	ND	--	ND	--	ND	--
MAY 22...	.4	ND	--	.7	ND	ND	ND	ND	ND	ND
AUG 14...	--	ND	--	--	ND	--	ND	--	ND	--

DATE	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DEC 12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 27...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 14...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	METH- OXY- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	METH- OXY- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	METHYL PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	METHYL TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOX- APHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	TOX- APHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
DEC 12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 27...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 14...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SIMA- ZINE TOTAL IN BOT- TOM MA- TERIAL (UG/L)	SIMA- ZINE TOTAL IN BOT- TOM MA- TERIAL (UG/L)
DEC 12...	ND	ND	--	ND	--	ND	--	ND	--	ND
FEB 27...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 22...	ND	ND	--	--	--	--	--	--	ND	--
AUG 14...	ND	--	--	--	--	--	--	--	ND	--

ND Material specifically analyzed for but not detected.

11152300 SALINAS RIVER NEAR CHUALAR, CA--Continued

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PHYTOPLANKTON

DATE TIME	NOV 8,77 1100	MAR 15,78 1330	MAY 22,78 1230	JUN 19,78 1300	JUL 24,78 1330	AUG 14,78 1400
TOTAL CELLS/ML	320	6300	6400	15000	45000	23000
DIVERSITY: DIVISION	1.3	0.5	0.4	1.3	1.1	1.1
..CLASS	1.3	0.5	0.4	1.3	1.1	1.1
..ORDER	1.9	0.7	0.5	1.6	1.6	1.8
...FAMILY	2.8	0.8	1.7	2.2	2.4	2.7
....GENUS	3.2	1.0	1.7	2.4	2.5	2.9

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
..CHLOROPHYCEAE												
...CHLOROCOCCALES												
...CHARACIACEAE												
...SCHROEDERIA	--	-	--	-	--	-	--	-	*	0	--	-
...COELASTRACEAE												
...COELASTRUM	--	-	--	-	--	-	730	5	--	-	--	-
...HYDRODICTYACEAE												
...PEDIASTRUM	--	-	--	-	--	-	--	-	2800	6	--	-
...MICRACTINIACEAE												
...GOLENKINIA	--	-	230	4	--	-	--	-	--	-	170	1
...OOCYSTACEAE												
...ANKISTRODESMUS	11	3	570	9	--	-	730	5	1400	3	680	3
...CHODATELLA	--	-	--	-	--	-	180	1	350	1	--	-
...FRANCEIA	--	-	--	-	--	-	*	0	--	-	340	1
...KIRCHNERIELLA	17	5	--	-	--	-	600	4	*	0	170	1
...SELENASTRUM	--	-	--	-	--	-	410	3	--	-	--	-
...TETRAEDRON	22	7	--	-	--	-	--	-	--	-	--	-
...TREUBARIA	--	-	--	-	--	-	--	-	--	-	170	1
...SCENEDESMACEAE												
...CRUCIGENIA	22	7	--	-	--	-	--	-	--	-	--	-
...SCENEDESMUS	67#	21	--	-	--	-	3300#	21	25000#	56	4400#	19
...VOLVOCALES												
...CHLAMYDOMONADACEAE												
...CARTERIA	--	-	--	-	--	-	--	-	350	1	--	-
...CHLAMYDOMONAS	11	3	--	-	450	7	640	4	880	2	170	1
...VOLVOCAEAE												
...PANDORINA	--	-	--	-	--	-	--	-	1400	3	--	-
CHRYSTOPHYTA												
..BACILLARIOPHYCEAE												
...CENTRALES												
...COSCINODISCACEAE												
...CYCLOTELLA	39	12	5200#	82	110	2	960	6	3200	7	9100#	40
...MELOSIRA	--	-	230	4	--	-	--	-	--	-	--	-
...PENNALES												
...ACHNANTHACEAE												
...ACHNANTHES	--	-	--	-	--	-	--	-	1100	2	--	-
...COCCONEIS	56#	17	--	-	--	-	--	-	*	0	510	2
...CYMBELLACEAE												
...CYMBELLA	--	-	--	-	--	-	--	-	*	0	--	-
...DIATOMACEAE												
...DIATOMA	--	-	--	-	--	-	--	-	--	-	170	1
...FRAGILARIACEAE												
...FRAGILARIA	--	-	--	-	--	-	--	-	--	-	1500	7
...SYNEDRA	28	9	--	-	3700#	58	--	-	--	-	--	-
...GOMPHONEMATACEAE												
...GOMPHONEMA	--	-	--	-	--	-	*	0	*	0	510	2
...NAVICULACEAE												
...NAVICULA	22	7	--	-	1100#	18	140	1	710	2	1400	6
...PINNULARIA	--	-	--	-	--	-	--	-	--	-	340	1
...NITZSCHIACEAE												
...NITZSCHIA	--	-	110	2	1000#	16	92	1	2800	6	2400	10
CRYPTOPHYTA (CRYPTOMONADS)												
..CRYPTOPHYCEAE												
...CRYPTOMONIDALES												
...CRYPTOMONODACEAE												
...CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-	170	1
CYANOPHYTA (BLUE-GREEN ALGAE)												
..CYANOPHYCEAE												
...CHROCCOCCALES												
...CHROCCOCCAEAE												
...AGMENELLUM	--	-	--	-	--	-	--	-	2800	6	--	-
...ANACYSTIS	28	9	--	-	--	-	7500#	49	710	2	680	3
EUGLENOPHYTA (EUGLENOIDS)												
..EUGLENOPHYCEAE												
...EUGLENALES												
...EUGLENACEAE												
...EUGLENA	--	-	--	-	--	-	*	0	--	-	--	-
...TRACHELOMONAS	--	-	--	-	--	-	--	-	*	0	--	-

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

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

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll a (mg/m <sup>2</sup> )	Chlorophyll b (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
Nov. 8	28	31.1	20.4	2.97	0.500	3600	Polyethylene strip
July 26	38	18.0	15.7	51.0	10.8	45.1	do

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	601	590	596	601	591	593	664	649	659	822	798	810
2	603	595	598	603	592	595	678	656	666	804	795	801
3	597	585	593	600	593	596	677	659	670	806	790	800
4	588	585	586	611	600	603	681	665	672	804	741	778
5	590	585	586	613	602	607	691	669	680	738	663	714
6	592	586	588	616	609	613	694	674	685	665	647	654
7	594	586	589	618	606	613	694	672	684	691	667	678
8	599	586	590	627	604	614	700	664	683	715	693	704
9	597	586	591	632	618	625	703	681	692	736	718	727
10	601	588	593	638	621	628	703	677	688	758	736	747
11	603	595	598	635	623	630	702	672	684	788	761	775
12	611	595	600	633	623	629	708	680	695	804	783	793
13	601	586	596	632	623	629	703	671	688	840	806	824
14	603	590	593	632	622	628	685	667	679	840	830	836
15	607	594	596	634	624	631	694	676	683	---	---	---
16	600	596	598	638	625	634	709	673	685	---	---	---
17	601	598	599	640	628	636	713	608	647	---	---	---
18	600	585	591	641	627	636	692	353	435	---	---	---
19	587	580	582	646	632	639	470	390	429	---	---	---
20	591	578	582	660	641	647	594	475	530	---	---	---
21	591	579	580	662	647	654	741	599	697	---	---	---
22	591	579	583	666	642	653	763	734	745	---	---	---
23	593	581	588	651	634	645	747	316	531	---	---	---
24	591	581	586	651	633	645	768	362	586	---	---	---
25	595	583	586	650	633	645	825	773	805	---	---	---
26	599	585	588	652	639	648	870	825	841	---	---	---
27	590	586	588	656	627	648	971	873	920	---	---	---
28	587	583	586	657	641	652	1040	974	1000	---	---	---
29	597	585	588	657	648	654	1150	1040	1110	---	---	---
30	594	587	589	661	647	656	1130	959	1060	---	---	---
31	590	587	589	---	---	---	924	820	866	---	---	---
MONTH	611	578	590	666	591	631	1150	316	713	840	647	760
FEBRUARY			MARCH			APRIL			MAY			
1										---	---	---
2										---	---	---
3										---	---	---
4										808	798	804
5										818	803	810
6										831	816	825
7										839	831	835
8										850	834	841
9										851	832	842
10										856	843	850
11										862	835	853
12										880	852	864
13										892	870	880
14										902	878	889
15										908	884	897
16										926	899	912
17										924	903	912
18										924	909	914
19										927	874	913
20										903	573	694
21										590	182	475
22										937	558	924
23										978	941	959
24										973	952	960
25										981	950	967
26										985	960	977
27										987	958	978
28										998	972	986
29										1060	996	1020
30										1080	1050	1070
31										1060	1020	1040
MONTH										1080	182	889

11152300 SALINAS RIVER NEAR CHUALAR, CA--Continued

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	1030	831	1010	658	632	645	361	337	347	324	318	321
2	---	---	---	658	636	646	346	325	336	325	317	320
3	---	---	---	666	628	648	341	333	336	321	317	318
4	---	---	---	646	612	632	355	327	337	322	313	317
5	---	---	---	619	381	549	363	339	349	322	306	312
6	---	---	---	611	207	501	368	311	347	312	303	308
7	---	---	---	368	258	354	342	313	333	314	297	304
8	---	---	---	371	306	357	344	304	325	312	302	307
9	---	---	---	---	---	---	352	333	340	314	300	306
10	---	---	---	565	165	416	345	335	339	307	300	303
11	---	---	---	---	---	---	345	273	326	311	299	304
12	---	---	---	---	---	---	346	300	334	302	294	299
13	---	---	---	---	---	---	358	307	340	305	295	298
14	---	---	---	---	---	---	352	328	338	305	295	300
15	---	---	---	456	275	436	344	328	334	301	294	298
16	---	---	---	451	417	435	356	322	339	302	294	299
17	---	---	---	426	393	412	334	299	329	302	291	298
18	---	---	---	399	385	394	337	302	324	299	292	296
19	---	---	---	412	389	401	322	282	305	306	292	297
20	---	---	---	430	384	407	321	287	303	306	295	301
21	---	---	---	408	383	396	305	203	283	306	295	301
22	763	749	756	429	404	411	322	203	294	306	297	303
23	789	763	774	409	385	399	330	311	321	306	299	302
24	794	601	772	433	383	400	342	331	338	314	302	307
25	805	287	770	408	387	398	349	341	345	324	303	311
26	802	747	779	395	369	383	349	340	344	320	303	311
27	747	680	716	385	369	376	345	320	329	317	300	306
28	704	638	665	384	215	360	328	319	323	307	299	303
29	656	638	650	384	204	326	327	321	324	---	---	---
30	666	640	650	377	203	287	329	292	317	338	299	316
31	---	---	---	378	349	364	324	323	324	---	---	---
MONTH	1030	287	754	666	165	436	368	203	329	338	291	306

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.5	15.5	16.0	11.5	15.0	10.0	10.5	9.5	---	---	---	---
2	21.5	16.0	16.5	11.5	15.0	10.0	11.5	9.5	---	---	---	---
3	21.5	17.0	16.0	12.0	15.0	11.5	12.0	11.0	---	---	---	---
4	21.0	17.0	15.0	11.0	15.5	9.0	11.5	11.0	---	---	---	---
5	20.5	17.0	16.5	13.0	17.5	11.5	12.5	11.0	---	---	---	---
6	20.0	15.5	15.5	11.5	15.0	9.5	13.0	11.5	---	---	---	---
7	20.0	14.5	15.0	10.5	14.5	9.5	13.0	11.5	---	---	---	---
8	20.0	14.5	14.5	10.5	13.5	9.0	13.5	12.0	---	---	---	---
9	20.0	16.0	13.5	9.0	12.0	7.0	14.0	13.0	---	---	---	---
10	20.5	16.0	13.5	9.0	12.0	6.0	13.5	13.0	---	---	---	---
11	20.5	16.0	14.0	10.5	13.5	8.5	---	---	---	---	---	---
12	20.5	15.5	16.0	11.5	15.5	11.5	13.0	12.5	---	---	---	---
13	21.0	15.5	15.5	11.0	13.5	9.5	12.5	12.5	---	---	---	---
14	20.5	15.5	14.0	10.0	12.0	8.5	13.0	12.5	---	---	---	---
15	20.5	16.5	15.0	9.5	15.0	11.0	---	---	---	---	---	---
16	19.0	15.0	15.5	10.0	12.0	7.5	---	---	---	---	---	---
17	18.5	15.0	15.5	10.5	12.0	10.0	---	---	---	---	---	---
18	18.0	14.0	13.0	10.0	12.0	9.5	---	---	---	---	---	---
19	15.5	14.0	11.5	7.0	10.0	8.5	---	---	---	---	---	---
20	18.0	13.5	9.0	5.0	9.0	7.5	---	---	---	---	---	---
21	17.0	13.0	11.5	7.0	12.0	8.5	---	---	---	---	---	---
22	17.0	12.0	15.5	11.5	13.5	11.0	---	---	---	---	---	---
23	16.5	13.5	14.0	9.5	13.5	12.5	---	---	---	---	---	---
24	19.0	13.5	14.0	9.0	13.5	13.0	---	---	---	---	---	---
25	20.5	15.5	15.5	9.5	13.5	13.0	---	---	---	---	---	---
26	19.5	15.5	15.5	10.0	14.0	13.0	---	---	---	---	---	---
27	17.0	13.5	16.5	13.5	15.0	13.5	---	---	---	---	---	---
28	14.5	13.0	16.0	12.0	15.0	13.5	---	---	---	---	---	---
29	17.0	13.0	15.5	10.5	15.5	13.5	---	---	---	---	---	---
30	17.0	13.0	16.0	11.0	14.0	12.5	---	---	---	---	---	---
31	16.0	12.0	---	---	12.5	10.0	---	---	---	---	---	---
MONTH	21.5	12.0	16.5	5.0	17.5	6.0	14.0	9.5	---	---	---	---

## SALINAS RIVER BASIN

11152300 SALINAS RIVER NEAR CHUALAR, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	23.5	15.5	26.0	15.0	25.0	18.0	26.0	17.0
2			---	---	---	---	27.0	15.5	25.0	18.0	24.5	18.0
3			---	---	---	---	26.5	15.0	24.5	17.5	25.5	18.0
4			20.5	16.5	---	---	27.0	16.5	25.5	17.0	22.5	18.5
5			20.0	14.0	---	---	27.0	16.5	26.5	17.0	21.0	18.5
6			23.0	14.0	---	---	27.0	17.0	26.0	17.5	24.0	18.0
7			24.5	15.5	---	---	27.0	17.0	26.5	18.0	23.5	16.0
8			25.0	17.0	---	---	29.0	17.0	25.5	18.5	24.0	15.5
9			23.0	17.5	---	---	---	---	25.5	18.0	21.5	16.5
10			21.5	15.5	---	---	25.0	16.5	25.0	18.0	25.0	19.5
11			23.5	14.0	---	---	---	---	24.5	17.0	25.0	17.5
12			26.0	16.0	---	---	---	---	24.0	16.5	25.0	17.0
13			27.5	18.5	---	---	---	---	24.0	16.5	24.0	18.0
14			25.5	18.5	---	---	---	---	25.5	15.5	25.5	18.0
15			24.5	18.5	---	---	26.5	17.0	24.0	16.5	25.0	18.0
16			24.5	15.5	---	---	27.5	17.0	23.5	16.5	25.5	19.0
17			28.0	16.0	---	---	28.5	17.5	24.5	15.0	24.0	18.5
18			30.0	18.0	---	---	27.5	18.5	25.5	15.5	22.5	15.5
19			28.0	18.5	---	---	27.0	18.5	24.5	15.5	23.5	14.5
20			25.0	19.0	---	---	27.0	18.0	25.0	16.5	24.0	15.0
21			24.0	16.5	---	---	27.5	18.0	23.0	17.5	23.5	16.0
22			24.0	16.0	26.0	14.5	27.5	18.5	23.0	15.5	25.0	16.5
23			22.0	12.5	27.0	14.5	27.5	18.5	23.5	15.0	27.0	17.5
24			23.0	12.5	26.0	14.0	27.0	18.5	24.0	14.5	27.0	19.0
25			22.5	13.5	26.5	13.5	27.0	18.0	25.5	16.5	26.0	20.0
26			23.5	14.5	27.0	14.0	27.0	19.0	25.0	17.5	25.0	19.0
27			26.5	16.0	28.5	17.0	26.5	18.5	24.5	15.5	24.5	18.5
28			26.5	17.0	26.5	18.0	26.5	18.0	25.0	16.0	25.5	17.5
29			26.5	16.0	27.0	17.0	25.5	18.0	24.5	17.5	27.5	19.0
30			27.0	17.0	26.0	15.0	25.5	17.0	24.5	17.5	25.5	19.0
31			24.5	17.5	---	---	26.0	17.5	25.0	17.5	---	---
MONTH			30.0	12.5	28.5	13.5	29.0	15.0	26.5	14.5	27.5	14.5

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
OCT 12...	1400	19.0	68	68	5	.92	--	--
NOV 08...	1045	11.0	50	51	17	2.3	--	--
DEC 12...	1215	14.0	21	21	9	.51	--	--
19...	1335	10.0	1350	269	287	1050	63	87
JAN 31...	1200	13.5	470	475	187	237	48	59
FEB 27...	1500	14.5	1280	1280	657	2270	13	17
MAR 15...	1315	16.5	2200	2200	1580	9390	22	28
MAY 22...	1230	18.5	100	103	54	15	--	--
JUN 19...	1325	24.0	23	23	13	.81	--	--
JUL 24...	1300	25.0	77	78	231	48	70	86
AUG 14...	1345	24.0	133	134	107	38	--	--
SEP 22...	1145	16.5	238	217	72	46	--	--

11152300 SALINAS RIVER NEAR CHUALAR, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
OCT								
12...	--	--	--	73	--	--	--	--
NOV								
08...	--	--	--	48	--	--	--	--
DEC								
12...	--	--	--	80	--	--	--	--
19...	96	99	99	100	--	--	--	--
JAN								
31...	73	86	93	95	97	99	100	--
FEB								
27...	20	23	26	29	38	64	94	100
MAR								
15...	34	38	42	47	59	80	98	100
MAY								
22...	--	--	--	45	--	--	--	--
JUN								
19...	--	--	--	68	--	--	--	--
JUL								
24...	93	97	97	98	98	100	--	--
AUG								
14...	--	--	--	85	--	--	--	--
SEP								
22...	--	--	--	86	--	--	--	--

## 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 (1.3 km) upstream from El Toro Creek, 1.6 mi (2.6 km) northwest of Spreckels, and 2 mi (3 km) south of Salinas.

DRAINAGE AREA.--4,156 mi<sup>2</sup> (10,764 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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" 1900-1901.

REVISED RECORDS.--WSP 1565: 1930, 1935, 1945. WSP 1715: 1959.

GAGE--Water-stage recorder. Datum of gage is 20.56 ft (6.267 m) National Geodetic Vertical Datum of 1929. 1900-1901, May 10 to July 29, 1940, nonrecording gages at site 0.3 mi (0.5 km) downstream at different datum. July 29, 1940, to May 22, 1969, water-stage recorder at site 0.3 mi (0.5 km) downstream at datum 0.69 ft (0.210 m) 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. July 1, 1961, to May 22, 1969, auxiliary water-stage recorder at site 0.3 mi (0.5 km) downstream at datum 0.69 ft (0.210 m) lower.

REMARKS.--Records fair. Flow partly regulated by Santa Margarita Lake (station 11144500) beginning in 1941, Nacimiento Reservoir (station 11149300) beginning in February 1957, and San Antonio Reservoir (station 11150100) beginning in December 1965. Large withdrawals from ground water and small surface-water diversions from municipal use and irrigation of about 95,000 acres (384 km<sup>2</sup>) above station. Low flow represents waste water from Spreckels sugar refinery and Alisal sewage disposal plant.

AVERAGE DISCHARGE.--49 years (water years 1930-78), 412 ft<sup>3</sup>/s (11.67 m<sup>3</sup>/s), 298,500 acre-ft/yr (368 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 83,100 ft<sup>3</sup>/s (2,350 m<sup>3</sup>/s) Feb. 26, 1969, gage height, 26.51 ft (8.080 m), site and datum then in use; maximum gage height, 26.85 ft (8.184 m) Jan. 16, 1952, site and datum then in use, from floodmarks; no flow at times in 1929-40.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 57,400 ft<sup>3</sup>/s (1,630 m<sup>3</sup>/s) Feb. 11, gage height, 22.66 ft (6.907 m); minimum daily, 1.2 ft<sup>3</sup>/s (0.034 m<sup>3</sup>/s) several days in October and November.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.2	1.4	327	435	2600	1850	680	3.3	1.8	8.1	34
2	1.5	1.3	1.4	237	393	2720	1700	620	3.0	1.9	11	34
3	1.4	1.2	1.4	454	376	4010	1510	540	2.8	1.9	11	35
4	1.3	1.3	1.5	607	351	11100	1610	470	2.8	1.9	11	40
5	1.2	1.3	1.5	1740	340	28500	1640	445	2.6	1.8	11	57
6	1.2	1.3	1.5	3800	1210	21700	1010	431	2.4	1.8	11	66
7	1.3	1.3	1.4	1930	2710	12700	1340	408	2.4	1.8	12	60
8	1.3	1.3	1.5	875	4660	9130	1250	372	2.4	1.8	15	56
9	1.3	1.3	1.5	574	8990	8060	1110	344	2.3	1.8	16	59
10	1.2	1.2	1.5	2150	16500	7880	1040	317	2.4	1.8	13	70
11	1.2	1.2	1.5	866	39600	6520	939	291	2.4	1.8	11	88
12	1.3	1.3	1.5	710	21000	3870	859	266	2.2	1.8	12	110
13	1.3	1.3	1.5	484	18500	3250	788	238	2.2	1.8	10	135
14	1.3	1.2	1.6	1110	31000	2920	732	207	2.2	1.8	12	140
15	1.3	1.2	1.8	5140	16000	2730	750	185	2.2	1.8	17	135
16	1.4	1.2	1.7	3570	11200	2770	1840	164	2.1	1.7	20	169
17	1.4	1.2	4.4	12200	9000	2510	1600	145	2.1	1.7	17	153
18	1.3	1.3	6.8	8810	7150	2330	1730	128	2.1	1.7	13	151
19	1.4	1.2	903	5620	4800	2210	1630	99	2.1	1.7	9.8	159
20	1.4	1.3	267	3790	4100	2030	1420	74	2.0	1.7	9.8	155
21	1.4	1.2	102	2860	3530	1920	1270	54	1.9	1.6	9.7	147
22	1.4	1.3	51	2250	3120	3020	1120	47	2.1	1.7	15	143
23	1.5	1.3	614	1800	2920	2820	994	37	2.0	1.7	20	139
24	1.4	1.3	3300	1480	3150	2180	888	28	2.1	1.6	21	144
25	1.4	1.3	715	1230	3310	2160	842	20	2.0	1.5	21	133
26	1.4	1.4	381	1040	2980	2050	1160	13	2.0	1.6	22	137
27	1.3	1.2	234	892	2570	1890	980	9.8	1.9	1.6	21	137
28	1.3	1.2	175	765	2630	1730	850	7.9	1.8	1.6	24	131
29	1.4	1.2	438	630	---	1640	760	5.7	1.9	1.6	30	127
30	1.3	1.3	442	523	---	1670	730	4.6	1.9	3.1	34	102
31	1.2	---	463	476	---	1760	---	3.8	---	5.2	35	---
TOTAL	41.6	37.8	8120.4	68940	222525	162380	35942	6654.8	67.6	58.6	503.4	3246
MEAN	1.34	1.26	262	2224	7947	5238	1198	215	2.25	1.89	16.2	108
MAX	1.6	1.4	3300	12200	39600	28500	1850	680	3.3	5.2	35	169
MIN	1.2	1.2	1.4	237	340	1640	730	3.8	1.8	1.5	8.1	34
AC-FT	83	75	16110	136700	441400	322100	71290	13200	134	116	998	6440

CAL YR 1977 TOTAL 8715.91 MEAN 23 MAX 3300 MIN .84 AC-FT 17290  
WTR YR 1978 TOTAL 508517.20 MEAN 1393 MAX 39600 MIN 1.2 AC-FT 1009000



## 11152300 SALINAS RIVER NEAR SPRECKELS, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-54, 1958 to current year.

CHEMICAL ANALYSES: Water years 1952-54, 1958-70, 1972 to current year. Published incorrectly as station 11152300 "near Chualar" in 1967.

BIOLOGICAL DATA: Water years 1975-77.

SPECIFIC CONDUCTANCE: Water years 1975 to January 1977.

WATER TEMPERATURES: Water years 1967 to current year. Published incorrectly as station 11152300 "near Chualar" in 1967-69.

SEDIMENT RECORDS: Water years 1950-51, 1967 to current year. Published incorrectly as station 11152300 "near Chualar" in 1967-69.

TURBIDITY: Water year 1973.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to January 1977.

WATER TEMPERATURES: December 1966 to current year.

SEDIMENT RECORDS: December 1966 to current year.

REMARKS.--Low flow represents waste water from Spreckels sugar refinery and Alisal sewage disposal plant.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 24,000 mg/L Mar. 5, 1978; minimum daily mean, no flow for several days in 1968.

SEDIMENT DISCHARGE: Maximum daily, 2,940,000 tons (2,667,000 metric tons) Feb. 11, 1978; minimum daily, 0 ton (0 metric ton) on several days in 1968.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean 24,000 mg/L Mar. 5; minimum daily mean, 25 mg/L on many days during October to December.

SEDIMENT DISCHARGE: Maximum daily, 2,940,000 tons (2,667,000 metric tons) Feb. 11; minimum daily, 0.08 ton (0.07 metric ton) on several days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	13.5	---	---	---	---	---	---	---
2	---	---	---	---	11.5	---	---	14.0	---	---	---	---
3	---	---	---	---	---	14.0	---	---	---	---	---	---
4	22.0	---	---	---	---	13.0	16.0	---	---	---	---	---
5	---	---	---	---	---	13.0	14.0	19.0	26.5	---	---	---
6	---	---	---	---	---	12.5	12.5	---	---	---	---	---
7	---	---	---	---	---	13.0	14.0	---	---	---	---	---
8	---	---	---	---	12.0	14.0	---	---	---	---	---	---
9	---	---	---	---	---	14.0	---	---	---	---	---	---
10	---	18.0	---	12.5	---	14.0	---	18.5	---	---	---	---
11	---	---	---	13.5	10.5	13.0	---	---	---	---	---	---
12	---	---	15.5	12.5	9.5	12.0	---	---	---	---	---	---
13	---	---	---	13.0	10.0	---	16.0	---	---	---	---	---
14	---	---	---	13.0	11.0	16.0	---	---	---	23.0	---	---
15	---	---	---	11.5	11.0	---	---	---	---	---	---	17.5
16	---	---	---	13.0	10.0	---	---	---	---	---	---	---
17	---	---	15.0	13.0	11.0	---	12.0	---	---	---	---	---
18	---	---	---	12.0	---	---	13.0	19.0	---	---	---	---
19	---	---	---	14.0	---	16.0	19.0	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	12.5	13.0	---	---	---	---	---	---	---
22	---	---	13.0	13.5	16.0	16.0	---	---	---	---	---	---
23	---	---	12.0	12.0	---	16.0	---	---	---	---	---	---
24	---	---	---	11.0	15.0	---	---	---	---	---	---	---
25	---	---	---	8.5	---	---	---	---	---	---	---	---
26	---	---	---	12.0	---	---	20.0	---	---	---	---	---
27	---	---	---	---	13.0	---	---	---	---	---	---	---
28	---	---	14.5	12.5	13.0	---	---	---	25.0	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	15.5	---	17.0	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	22.0	18.0	14.0	12.5	12.0	14.0	15.0	17.5	26.0	23.0	---	17.5

## SALINAS RIVER BASIN

11152500 SALINAS RIVER NEAR SPRECKELS, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1.6	25	.11	1.2	25	.08	1.4	26	.10
2	1.5	25	.10	1.3	25	.09	1.4	26	.10
3	1.4	25	.09	1.2	25	.08	1.4	26	.10
4	1.3	25	.09	1.3	25	.09	1.5	26	.11
5	1.2	25	.08	1.3	25	.09	1.5	26	.11
6	1.2	25	.08	1.3	25	.09	1.5	26	.11
7	1.3	25	.09	1.3	26	.09	1.4	26	.10
8	1.3	25	.09	1.3	26	.09	1.5	26	.11
9	1.3	25	.09	1.3	26	.09	1.5	26	.11
10	1.2	25	.08	1.2	26	.08	1.5	26	.11
11	1.2	25	.08	1.2	26	.08	1.5	26	.11
12	1.3	25	.09	1.3	26	.09	1.5	26	.11
13	1.3	25	.09	1.3	26	.09	1.5	26	.11
14	1.3	25	.09	1.2	26	.08	1.6	26	.11
15	1.3	25	.09	1.2	26	.08	1.8	25	.12
16	1.4	25	.09	1.2	26	.08	1.7	25	.11
17	1.4	25	.09	1.2	26	.08	4.4	150	2.3
18	1.3	25	.09	1.3	26	.09	6.8	39	.72
19	1.4	25	.09	1.2	26	.08	903	1710	5070
20	1.4	25	.09	1.3	26	.09	267	400	288
21	1.4	25	.09	1.2	26	.08	102	190	52
22	1.4	25	.09	1.3	26	.09	51	75	10
23	1.5	25	.10	1.3	26	.09	614	496	7210
24	1.4	25	.09	1.3	26	.09	3300	3210	44500
25	1.4	25	.09	1.3	26	.09	715	1300	2510
26	1.4	25	.09	1.4	26	.10	381	1250	1290
27	1.3	25	.09	1.2	26	.08	234	1000	632
28	1.3	25	.09	1.2	26	.08	175	624	307
29	1.4	25	.09	1.2	26	.08	438	842	1210
30	1.3	25	.09	1.3	26	.09	442	850	1010
31	1.2	25	.08	---	---	---	463	920	1150
TOTAL	41.6	---	2.78	37.8	---	2.58	8120.4	---	65243.75

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	327	610	539	435	515	605	2600	825	5790
2	237	450	288	393	520	552	2720	820	6020
3	454	1900	5200	376	280	284	4010	3130	36600
4	607	2960	5300	351	220	208	11100	10300	365000
5	1740	4660	28000	340	220	202	28500	24000	2100000
6	3800	6410	71800	1210	3120	14000	21700	15600	914000
7	1930	4820	25100	2710	14400	134000	12700	10200	350000
8	875	3150	7440	4660	19500	260000	9130	8100	200000
9	574	2390	3760	8990	14100	342000	8060	6700	146000
10	2150	4960	34000	16500	10800	481000	7880	6400	136000
11	866	3480	8140	39600	23800	2940000	6520	5400	95100
12	710	3070	5890	21000	12900	919000	3870	3700	38700
13	484	2950	3860	18500	15100	758000	3250	2860	25100
14	1110	4260	17300	31000	23700	2120000	2920	2360	18600
15	5140	8810	142000	16000	10300	445000	2730	2110	15600
16	3570	10500	107000	11200	8000	242000	2770	1850	13800
17	12200	12000	389000	9000	5800	141000	2510	1550	10500
18	8810	10100	252000	7150	5500	106000	2330	1280	8050
19	5620	5700	86500	4800	5300	68700	2210	1040	6210
20	3790	3300	33800	4100	4800	53100	2030	1000	5480
21	2860	2200	17000	3530	2750	26200	1920	960	4980
22	2250	1300	7900	3120	1900	16000	3020	1920	20200
23	1800	1080	5250	2920	1650	13000	2820	2550	19400
24	1480	690	2760	3150	1450	12300	2180	2120	12500
25	1230	500	1660	3310	1300	11600	2160	1880	11000
26	1040	400	1120	2980	1200	9660	2050	1630	9020
27	892	350	843	2570	1100	7630	1890	1380	7040
28	765	315	651	2630	830	5890	1730	1140	5320
29	630	320	544	---	---	---	1640	900	3990
30	523	370	522	---	---	---	1670	650	2930
31	476	440	565	---	---	---	1760	700	3330
TOTAL	68940	---	1265732	222525	---	9127931	162380	---	4596260

11152500 SALINAS RIVER NEAR SPRECKELS, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1850	1330	6730	680	610	1120	3.3	50	.45
2	1700	990	4540	620	570	954	3.0	50	.41
3	1510	930	3790	540	530	773	2.8	50	.38
4	1610	880	3830	470	490	622	2.8	50	.38
5	1640	1500	6640	445	440	529	2.6	50	.35
6	1010	1580	4310	431	350	407	2.4	50	.32
7	1340	1870	6900	408	300	330	2.4	50	.32
8	1250	1240	4180	372	250	251	2.4	50	.32
9	1110	1100	3300	344	200	186	2.3	50	.31
10	1040	990	2780	317	130	111	2.4	50	.32
11	939	870	2210	291	99	78	2.4	50	.32
12	859	750	1740	266	96	69	2.2	50	.30
13	788	600	1280	238	94	60	2.2	50	.30
14	732	560	1110	207	91	51	2.2	50	.30
15	750	540	1090	185	88	44	2.2	50	.30
16	1840	1950	11700	164	85	38	2.1	50	.28
17	1600	2080	9270	145	82	32	2.1	50	.28
18	1730	2900	13800	128	78	27	2.1	50	.28
19	1630	2630	11600	99	76	20	2.1	50	.28
20	1420	1980	7590	74	74	15	2.0	50	.27
21	1270	1550	5310	54	71	10	1.9	50	.26
22	1120	1370	4140	47	68	8.6	2.1	50	.28
23	994	1220	3270	37	64	6.4	2.0	50	.27
24	888	1070	2570	28	63	4.8	2.1	50	.28
25	842	990	2250	20	63	3.4	2.0	50	.27
26	1160	1360	4580	13	63	2.2	2.0	50	.27
27	980	760	2010	9.8	61	1.6	1.9	50	.26
28	850	725	1660	7.9	59	1.3	1.8	50	.24
29	760	680	1400	5.7	57	.88	1.9	50	.26
30	730	650	1280	4.6	54	.67	1.9	50	.26
31	---	---	---	3.8	50	.51	---	---	---
TOTAL	35942	---	136860	6654.8	---	5757.36	67.6	---	9.12

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1.8	50	.24	8.1	51	1.1	34	61	5.6
2	1.9	50	.26	11	51	1.5	34	61	5.6
3	1.9	50	.26	11	51	1.5	35	62	5.9
4	1.9	50	.26	11	52	1.5	40	62	6.7
5	1.8	50	.24	11	52	1.5	57	62	9.5
6	1.8	50	.24	11	52	1.5	66	63	11
7	1.8	50	.24	12	53	1.7	60	63	10
8	1.8	50	.24	15	53	2.1	56	63	9.5
9	1.8	50	.24	16	53	2.3	59	64	10
10	1.8	50	.24	13	54	1.9	70	64	12
11	1.8	50	.24	11	54	1.6	88	65	15
12	1.8	50	.24	12	54	1.7	110	65	19
13	1.8	50	.24	10	55	1.5	135	66	24
14	1.8	50	.24	12	55	1.8	140	67	25
15	1.8	50	.24	17	55	2.5	135	68	25
16	1.7	50	.23	20	56	3.0	169	68	31
17	1.7	50	.23	17	56	2.6	153	68	28
18	1.7	50	.23	13	56	2.0	151	68	28
19	1.7	50	.23	9.8	57	1.5	159	68	29
20	1.7	50	.23	9.8	57	1.5	155	68	28
21	1.6	50	.22	9.7	57	1.5	147	68	27
22	1.7	50	.23	15	58	2.3	143	68	26
23	1.7	50	.23	20	58	3.1	139	68	26
24	1.6	50	.22	21	58	3.3	144	68	26
25	1.5	50	.20	21	59	3.3	133	68	24
26	1.6	50	.22	22	59	3.5	137	68	25
27	1.6	50	.22	21	59	3.3	137	68	25
28	1.6	50	.22	24	60	3.9	131	68	24
29	1.6	50	.22	30	60	4.9	127	68	23
30	3.1	50	.42	34	60	5.5	102	68	19
31	5.2	50	.70	35	61	5.8	---	---	---
TOTAL	58.6	---	7.91	503.4	---	76.7	3246	---	582.8

YEAR 508517.2

15198466

## SALINAS RIVER BASIN

11152500 SALINAS RIVER NEAR SPRECKELS, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM
JAN										
06...	1255	--	6160	8520	142000	--	56	76	93	99
10...	1330	12.5	1440	4460	17300	--	59	74	84	86
17...	1125	13.0	13400	6820	247000	--	59	72	81	86
FEB										
02...	1130	12.0	380	558	573	15	21	25	28	29
08...	1140	12.0	4180	9750	110000	--	53	64	82	92
09...	1200	--	10100	13300	363000	--	49	62	73	82
11...	1000	--	34400	14800	1370000	--	57	71	82	90
21...	1140	13.5	3570	2760	26600	--	--	--	--	--
MAR										
06...	0750	12.5	23700	15700	1000000	--	37	42	52	62
06...	1245	14.0	19300	14000	730000	--	32	41	50	61
APR										
19...	1415	19.0	1580	3880	16600	--	27	33	40	48

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
JAN										
06...	--	100	--	--	--	--	--	--	--	--
10...	86	--	86	--	92	--	100	--	--	--
17...	88	--	90	--	97	--	100	--	--	--
FEB										
02...	--	30	--	34	--	88	--	99	100	--
08...	96	--	97	--	100	--	--	--	--	--
09...	86	--	89	--	99	--	100	--	--	--
11...	93	--	96	--	100	--	--	--	--	--
21...	--	36	--	53	--	82	--	99	100	--
MAR										
06...	72	--	89	--	97	--	100	--	--	--
06...	71	--	88	--	98	--	100	--	--	--
APR										
19...	--	52	--	54	--	61	--	74	93	100

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 (0.5 km) downstream from San Benancio Gulch, and 4.7 mi (7.6 km) southwest of Spreckels.

DRAINAGE AREA.--31.9 mi<sup>2</sup> (82.6 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 210 ft (64 m), from topographic map.

REMARKS.--Records good. No regulation or diversion above station except for minor stock ponds.

AVERAGE DISCHARGE.--17 years, 1.55 ft<sup>3</sup>/s (0.044 m<sup>3</sup>/s), 1,120 acre-ft/yr (1.38 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 626 ft<sup>3</sup>/s (17.7 m<sup>3</sup>/s) Jan. 26, 1969, gage height, 5.99 ft (1.826 m), from rating curve extended above 93 ft<sup>3</sup>/s (2.63 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft<sup>3</sup>/s (0.6 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 17	0930	37 1.05	3.66 1.116	Mar. 5	0500	77 2.18	4.06 1.237
Jan. 5	1630	46 1.30	3.77 1.149	Mar. 9	1630	41 1.16	3.66 1.116
Jan. 16	1430	65 1.84	3.96 1.207	Apr. 4	0600	45 1.27	3.71 1.131
Jan. 19	0830	33 .93	3.61 1.100	Apr. 6	1530	74 2.10	4.03 1.228
Feb. 9	0745	95 2.69	4.19 1.277	Apr. 15	1815	*113 3.20	4.31 1.314
Feb. 12	1645	*113 3.20	4.31 1.314	Apr. 25	1015	29 .82	3.56 1.085

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.02	.13	.14	.23	1.8	1.6	.15	.10	.10	.06
2		0	.02	.91	.14	.83	1.8	1.2	.14	.11	.10	.07
3		0	.03	.19	.14	.47	1.7	.78	.17	.11	.09	.07
4		0	.03	1.0	.14	30	15	.63	.15	.11	.09	.08
5		0	.07	7.1	.79	45	3.4	.56	.17	.11	.09	.16
6		0	.03	.66	4.5	19	32	.50	.33	.11	.08	.09
7		0	.03	.18	18	13	25	.41	.24	.13	.09	.08
8		0	.03	.15	13	11	13	.38	.16	.12	.10	.07
9		0	.03	.60	64	27	9.4	.37	.17	.12	.10	.10
10		0	.03	.15	57	28	7.7	.34	.13	.14	.10	.11
11		0	.04	.14	35	21	5.8	.32	.13	.13	.10	.09
12		0	.05	.14	45	16	4.3	.30	.12	.12	.09	.07
13		0	.05	.41	60	11	3.8	.28	.12	.10	.09	.07
14		0	.06	3.9	32	9.9	3.2	.26	.13	.08	.08	.07
15		0	.10	5.6	19	7.7	37	.23	.12	.09	.08	.07
16		0	.10	22	11	5.0	32	.23	.11	.07	.09	.08
17		0	8.5	37	7.3	3.5	13	.22	.11	.07	.08	.08
18		0	.20	11	4.0	2.7	8.1	.20	.11	.08	.08	.09
19		0	.12	24	2.7	2.1	6.7	.20	.12	.09	.08	.07
20		0	.10	14	1.8	1.7	7.0	.19	.12	.07	.07	.06
21		0	.21	7.6	1.1	1.7	5.6	.18	.12	.07	.07	.06
22		.01	.34	4.0	.69	2.1	4.4	.17	.12	.07	.07	.06
23		.01	.85	1.8	.39	2.3	3.7	.23	.12	.07	.07	.05
24		.01	.13	.76	.28	2.3	3.2	.19	.12	.07	.06	.05
25		.01	.12	.27	.26	2.3	15	.17	.12	.08	.07	.05
26		.01	.12	.17	.24	2.2	4.9	.16	.15	.08	.07	.07
27		.02	.12	.16	.22	2.1	3.3	.15	.13	.09	.06	.07
28		.02	.13	.16	.23	2.1	2.5	.15	.14	.10	.06	.06
29		.02	.12	.15	---	1.9	1.9	.14	.12	.11	.07	.05
30		.02	.11	.14	---	1.9	1.6	.13	.11	.12	.06	.06
31		---	.12	.14	---	1.8	---	.14	---	.12	.08	---
TOTAL	0	.13	12.01	144.61	379.06	277.83	277.8	11.01	4.25	3.04	2.52	2.22
MEAN	0	.004	.39	4.66	13.5	8.96	9.26	.36	.14	.098	.081	.074
MAX	0	.02	8.5	37	64	45	37	1.6	.33	.14	.10	.16
MIN	0	0	.02	.13	.14	.23	1.6	.13	.11	.07	.06	.05
AC-FT	0	.3	24	287	752	551	551	22	8.4	6.0	5.0	4.4
CAL YR 1977	TOTAL	39.66	MEAN	.11	MAX	8.5	MIN	0	AC-FT	79		
WTR YR 1978	TOTAL	1114.48	MEAN	3.05	MAX	64	MIN	0	AC-FT	2210		

## TEMBLADERO 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 (0.5 km) downstream from small left-bank tributary, and 6.2 mi (10.0 km) northeast of Salinas.

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

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

GAGE.--Water-stage recorder. Concrete control since Oct. 9, 1975. Altitude of gage is 200 ft (61 m), from topographic map. Prior to Oct. 9, 1975, on right bank at same datum.

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

AVERAGE DISCHARGE.--8 years, 3.57 ft<sup>3</sup>/s (0.101 m<sup>3</sup>/s), 2,590 acre-ft/yr (3.19 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 800 ft<sup>3</sup>/s (22.7 m<sup>3</sup>/s) Apr. 1, 1974, gage height, 11.13 ft (3.392 m), from rating curve extended above 260 ft<sup>3</sup>/s (7.36 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 60 ft<sup>3</sup>/s (1.7 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 19	0445	99 2.80	2.75 .838	Mar. 4	0830	107 3.03	2.80 .853
Feb. 9	1045	*221 6.26	3.71 1.131	Mar. 9	1545	71 2.01	2.50 .762
Feb. 13	0930	167 4.73	3.29 1.003	Apr. 15	1615	63 1.78	2.46 .750

Minimum daily discharge, no flow many months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	0	0	.39	.49				
2				0	0	.32	0	.12				
3				0	0	.93	0	.01				
4				0	0	48	3.0	0				
5				0	0	67	1.1	0				
6				0	0	40	7.7	0				
7				0	17	29	6.7	0				
8				0	17	28	4.1	0				
9				0	138	36	2.6	0				
10				0	77	28	.67	0				
11				0	52	36	.04	0				
12				0	55	27	.44	0				
13				0	116	6.8	.51	0				
14				.16	73	3.8	.26	0				
15				0	52	2.0	17	0				
16				.02	40	.77	22	0				
17				.05	28	.09	8.3	0				
18				0	17	.04	4.1	0				
19				58	8.2	0	2.2	0				
20				.01	1.9	0	5.0	0				
21				0	.05	.37	4.7	0				
22				0	0	5.6	2.4	0				
23				0	0	2.0	1.7	0				
24				0	0	.90	.83	0				
25				0	0	.04	9.1	0				
26				0	0	0	4.6	0				
27				0	0	0	2.5	0				
28				0	0	0	1.1	0				
29				0	---	0	1.4	0				
30				0	---	0	.59	0				
31		---		0	---	1.5	---	0	---			---
TOTAL	0	0	0	58.24	692.15	364.16	115.03	.62	0	0	0	0
MEAN	0	0	0	1.88	24.7	11.7	3.83	.020	0	0	0	0
MAX	0	0	0	58	138	67	22	.49	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	116	1370	722	228	1.2	0	0	0	0
CAL YR 1977 TOTAL	0.00			MEAN .000	MAX	.00	MIN 0	AC-FT 0				
WTR YR 1978 TOTAL	1230.20			MEAN 3.37	MAX	138	MIN 0	AC-FT 2440				

## 11152650 RECLAMATION DITCH NEAR SALINAS, CA

LOCATION.--Lat 36°42'18", long 121°42'14", in Rincon Del Zanjon Grant, Monterey County, Hydrologic Unit 18060011, on right bank at upstream side of San Jon Road bridge, and 3.4 mi (5.5 km) northwest of Salinas.

PERIOD OF RECORD.--October 1970 to current year. March 1968 to September 1970 in reports of Monterey County Flood Control and Water Conservation District.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 30 ft (9.1 m), from topographic map.

REMARKS.--Records fair. Flow is mostly drainage from Carr Lake area for farming.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 473 ft<sup>3</sup>/s (13.4 m<sup>3</sup>/s) Apr. 2, 1974; minimum daily, 0.23 ft<sup>3</sup>/s (0.007 m<sup>3</sup>/s) July 5, 1977.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	6.6	6.2	.84	2.1	6.0	23	3.4	5.9	6.4	8.6	16
2	3.2	9.0	8.7	17	2.2	20	5.8	4.8	3.8	4.9	13	18
3	3.2	12	5.5	28	2.0	12	2.3	5.0	3.7	6.0	12	14
4	5.4	13	3.3	24	2.1	96	36	5.1	4.6	7.9	16	6.7
5	6.1	29	2.8	75	8.6	144	14	5.3	4.0	5.2	18	16
6	4.2	7.0	6.2	134	15	114	55	5.1	4.1	7.3	16	22
7	5.2	8.3	5.0	80	67	60	46	5.7	2.9	8.4	7.8	14
8	5.6	12	4.9	49	104	39	20	6.2	2.2	7.9	11	11
9	2.3	11	4.9	39	291	31	6.7	10	3.5	5.3	11	9.6
10	3.4	12	3.9	21	301	32	3.7	11	2.9	3.8	11	15
11	4.7	8.9	1.8	7.2	257	33	4.0	10	1.2	8.1	15	5.6
12	3.6	8.1	6.4	11	214	25	6.5	12	1.5	7.7	16	5.7
13	4.1	3.7	4.0	12	274	16	4.7	12	2.6	8.0	9.8	8.7
14	5.4	4.0	4.7	37	267	13	6.1	10	2.3	9.8	5.8	9.5
15	4.4	10	14	93	213	10	52	11	2.6	11	12	9.8
16	3.0	8.4	5.7	89	146	9.8	108	8.6	2.0	7.6	14	11
17	1.7	8.1	161	123	75	7.9	59	8.2	1.5	6.0	15	5.3
18	5.3	8.4	182	91	49	6.9	33	9.5	4.2	6.8	15	1.8
19	6.2	6.6	109	228	28	4.2	14	9.3	4.3	8.3	15	5.0
20	7.4	2.5	65	219	18	4.1	17	9.6	8.4	9.9	11	6.4
21	5.6	3.1	20	178	12	15	10	11	9.4	12	8.5	8.8
22	5.3	27	20	104	8.9	65	8.3	4.7	8.4	12	15	12
23	3.7	7.8	75	55	8.9	39	6.3	5.8	8.0	6.4	15	8.7
24	1.5	4.2	54	24	8.0	12	6.5	7.2	7.8	5.2	14	2.6
25	6.1	2.8	15	8.9	6.9	6.0	52	6.6	5.1	8.1	17	1.8
26	6.8	6.1	4.0	6.7	4.3	3.2	27	7.9	3.8	10	17	8.5
27	5.3	3.5	5.8	4.6	3.4	2.2	9.6	7.6	9.7	9.6	7.7	9.3
28	4.7	3.1	5.5	3.9	5.0	4.3	6.8	5.4	9.0	10	3.5	11
29	7.0	5.7	4.4	4.6	---	5.5	5.3	4.0	11	12	11	13
30	3.2	6.5	3.1	1.8	---	7.9	4.8	4.2	6.8	9.0	16	8.4
31	2.4	---	1.6	2.2	---	46	---	4.1	---	4.0	18	---
TOTAL	143.1	258.4	613.4	1771.74	2393.4	890.0	653.4	230.3	147.2	244.6	395.7	295.2
MEAN	4.62	8.61	26.2	57.2	85.5	28.7	21.8	7.43	4.91	7.89	12.8	9.84
MAX	7.4	29	182	228	301	144	108	12	11	12	18	22
MIN	1.5	2.5	1.6	.84	2.0	2.2	2.3	3.4	1.2	3.8	3.5	1.8
AC-FT	284	513	1610	3510	4750	1770	1300	457	292	485	785	586
CAL YR 1977	TOTAL	2767.03	MEAN	7.58	MAX	182	MIN	.23	AC-FT	5490		
WTR YR 1978	TOTAL	8236.44	MEAN	22.6	MAX	301	MIN	.84	AC-FT	16340		

## PAJARO RIVER BASIN

11152900 CEDAR CREEK NEAR BELL STATION, CA

LOCATION.--Lat 37°03'00", long 121°19'35", in San Luis Gonzaga Grant, Santa Clara County, Hydrologic Unit 18060002, on left bank 0.5 mi (0.8 km) upstream from Hagerman Canyon, and 1.3 mi (2.1 km) northwest of Bell Station.

DRAINAGE AREA.--12.8 mi<sup>2</sup> (33.2 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 390 ft (119 m), from topographic map.

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

AVERAGE DISCHARGE.--17 years, 4.18 ft<sup>3</sup>/s (0.118 m<sup>3</sup>/s), 3,030 acre-ft/yr (3.74 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,490 ft<sup>3</sup>/s (98.8 m<sup>3</sup>/s) Jan. 31, 1963, gage height, 6.85 ft (2.088 m), from rating curve extended above 560 ft<sup>3</sup>/s (15.9 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 4.66 ft (1.420 m); no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft<sup>3</sup>/s (4.2 m<sup>3</sup>/s) and maximum (\*) from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 23	0230	252 7.14	2.98 .908	Jan. 14	2045	555 15.7	3.75 1.143
Jan. 5	1730	431 12.2	3.47 1.058	Feb. 8	2100	1130 32.0	4.72 1.439
Jan. 9	0945	376 10.6	3.33 1.015	Mar. 4	0745	*1390 39.4	5.05 1.539

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.58	1.1	2.1	2.7	2.3	.51	.10	.01	0
2			0	.59	1.0	7.4	2.2	2.1	.51	.09	.01	0
3			0	.52	.98	27	1.9	2.1	.49	.09	.01	0
4			0	.67	.92	286	3.2	1.9	.45	.09	.01	0
5			0	68	2.8	238	2.3	1.9	.45	.08	.01	.01
6			.01	37	33	81	6.3	1.8	.43	.08	.01	.02
7			.01	7.4	187	43	7.5	1.7	.42	.08	.01	.01
8			.01	3.0	220	28	6.3	1.6	.39	.08	.01	.01
9			.02	87	365	23	4.1	1.5	.37	.07	.01	.02
10			.02	23	63	24	3.2	1.5	.36	.07	.01	.03
11			.02	6.5	32	16	2.7	1.4	.35	.07	.01	.04
12			.04	3.6	57	17	2.4	1.4	.33	.07	.01	.03
13			.04	5.8	65	12	2.2	1.3	.30	.06	.01	.04
14			.04	132	41	9.4	2.1	1.2	.25	.05	.01	.03
15			.14	115	25	7.4	3.5	1.2	.25	.04	.01	.03
16			.11	198	16	6.4	5.2	1.1	.24	.04	.01	.03
17			.81	132	11	5.7	4.4	1.0	.22	.04	.01	.03
18			.22	44	8.0	5.1	3.1	.98	.21	.03	0	.04
19			.15	33	6.2	4.4	2.6	.92	.21	.02	0	.03
20			.12	16	5.0	4.1	2.4	.92	.20	.02	0	.02
21			.11	8.5	4.2	4.3	2.3	.86	.19	.02	0	.02
22			.16	5.7	3.6	5.4	2.0	.83	.17	.02	0	.02
23			47	4.1	3.2	3.7	1.9	.79	.16	.01	0	.02
24			1.2	3.0	2.9	3.2	1.8	.74	.15	.01	.01	.02
25			.48	2.5	2.6	2.9	4.8	.74	.15	.01	.01	.02
26			.42	2.1	2.4	2.8	5.9	.70	.15	.01	.01	.01
27			.43	1.8	2.2	2.6	4.2	.63	.15	.01	.01	.02
28			.56	1.6	2.1	2.4	3.0	.58	.14	.01	.01	.01
29			.83	1.4	---	2.3	2.6	.58	.14	.01	.01	.01
30			.75	1.3	---	2.1	2.4	.58	.13	.01	.01	.01
31		---	.65	1.2	---	3.7	---	.55	---	.01	0	---
TOTAL	0	0	54.35	946.86	1164.20	882.4	101.2	37.40	8.47	1.40	.24	.58
MEAN	0	0	1.75	30.5	41.6	28.5	3.37	1.21	.28	.045	.008	.019
MAX	0	0	47	198	365	286	7.5	2.3	.51	.10	.01	.04
MIN	0	0	0	.52	.92	2.1	1.8	.55	.13	.01	0	0
AC-FT	0	0	108	1880	2310	1750	201	74	17	2.8	.5	1.2
CAL YR 1977	TOTAL	60.65	MEAN	.17	MAX	47	MIN	0	AC-FT	120		
WTR YR 1978	TOTAL	3197.10	MEAN	8.76	MAX	365	MIN	0	AC-FT	6340		



## 11153000 PACHECO CREEK NEAR DUNNEVILLE, CA

LOCATION.--Lat 36°58'48", long 121°22'45", in Ausaymas y San Felipe Grant, Santa Clara County, Hydrologic Unit 18060002, on right bank 350 ft (107 m) downstream from private road bridge, and 3.3 mi (5.3 km) northeast of Dunneville.

DRAINAGE AREA.--146 mi<sup>2</sup> (378 km<sup>2</sup>).

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only prior to January 1940, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 230.70 ft (70.317 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 17, 1950, nonrecording gage at site 350 ft (107 m) upstream at datum 6.00 ft (1.829 m) higher and Nov. 17, 1950, to Aug. 18, 1960, at datum 4.00 ft (1.219 m) higher.

REMARKS.--Records good. Flow regulated by Pacheco Lake 9 mi (14 km) upstream, capacity, 6,150 acre-ft (7.58 hm<sup>3</sup>). Small diversions above station for irrigation.

AVERAGE DISCHARGE.--39 years, 33.3 ft<sup>3</sup>/s (0.943 m<sup>3</sup>/s), 24,130 acre-ft/yr (29.8 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft<sup>3</sup>/s (357 m<sup>3</sup>/s) Dec. 23, 1955, gage height, 21.0 ft (6.40 m), present site and datum, from floodmarks, from rating curve extended above 5,400 ft<sup>3</sup>/s (153 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,260 ft<sup>3</sup>/s (206 m<sup>3</sup>/s) Feb. 9, gage height, 15.77 ft (4.807 m); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	5.7	12	72	15	18	14	9.9	12
2			0	0	3.9	66	46	13	16	14	9.3	11
3			0	0	2.2	270	34	11	18	13	9.9	11
4			0	0	.76	2000	36	8.8	17	13	10	11
5			0	83	3.7	1030	32	6.3	16	13	9.6	13
6			0	164	101	850	48	5.2	16	13	8.2	12
7			0	5.0	1970	450	83	3.3	15	13	8.0	11
8			0	0	1420	240	75	3.0	16	13	9.8	11
9			0	144	3510	200	52	3.3	15	12	11	11
10			0	57	838	170	40	3.7	14	12	9.5	12
11			0	7.2	450	140	32	3.4	15	12	10	11
12			0	0	456	125	28	3.2	14	13	12	11
13			0	0	902	105	26	3.1	15	12	13	11
14			0	211	494	95	24	2.8	15	12	13	11
15			0	553	298	85	25	2.6	15	11	12	11
16			0	1090	150	72	45	2.5	15	11	13	11
17			.02	1740	100	63	43	1.9	15	11	12	12
18			0	520	72	57	33	1.6	15	12	12	12
19			0	360	45	49	26	1.4	15	11	11	12
20			0	218	37	44	24	1.3	15	11	11	12
21			0	134	31	44	23	.89	14	10	11	12
22			0	91	23	68	20	.20	14	10	11	11
23			.25	65	19	52	17	.47	13	9.8	11	11
24			.15	42	16	41	15	.10	12	9.9	11	10
25			.10	32	15	34	31	4.4	13	9.8	11	9.5
26			.08	26	14	30	46	9.2	16	11	11	8.6
27			.05	20	13	26	42	21	18	11	12	8.0
28			0	16	12	23	28	19	17	12	12	7.8
29			0	13	---	22	22	20	16	10	12	7.6
30			0	10	---	22	19	20	14	11	12	7.0
31		---	0	7.7	---	48	---	18	---	10	12	---
TOTAL	0	0	.65	5608.9	11002.26	6533	1087	209.66	457	360.5	340.2	321.5
MEAN	0	0	.021	181	393	211	36.2	6.76	15.2	11.6	11.0	10.7
MAX	0	0	.25	1740	3510	2000	83	21	18	14	13	13
MIN	0	0	0	0	.76	12	15	.10	12	9.8	8.0	7.0
AC-FT	0	0	1.3	11130	21820	12960	2160	416	906	715	675	638
CAL YR 1977	TOTAL	0.95	MEAN	.003	MAX	.25	MIN	0	AC-FT	1		
WTR YR 1978	TOTAL	25920.67	MEAN	71.0	MAX	3510	MIN	0	AC-FT	51410		

## PAJARO RIVER BASIN

11153470 LLAGAS CREEK ABOVE CHESBRO RESERVOIR, NEAR MORGAN HILL, CA

LOCATION.--Lat 37°08'54", long 121°46'02", in Pueblo Lands of San Jose Grant, Santa Clara County, Hydrologic Unit 18060002, on left bank 200 ft (61 m) upstream from small left-bank tributary, 5.7 mi (9.2 km) upstream from Chesbro Dam, and 6.4 mi (10.3 km) west of Morgan Hill.

DRAINAGE AREA.--9.63 mi<sup>2</sup> (24.94 km<sup>2</sup>), revised.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 670 ft (204 m), from topographic map.

REMARKS.--Records good. Small diversion above station by pumping.

AVERAGE DISCHARGE.--7 years, 8.29 ft<sup>3</sup>/s (0.235 m<sup>3</sup>/s), 6,010 acre-ft/yr (7.41 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 969 ft<sup>3</sup>/s (27.4 m<sup>3</sup>/s) Jan. 16, 1978, gage height, 7.50 ft (2.286 m), from rating curve extended above 180 ft<sup>3</sup>/s (5.10 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 5.56 ft (1.695 m); no flow many days in each year.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Dec. 22	2330	214	6.06	3.86	1.177	Jan. 16	1330	*969	27.4	7.50	2.286
Jan. 5	1545	288	8.16	4.16	1.268	Feb. 9	unknown	unknown		unknown	
Jan. 9	0900	252	7.14	4.01	1.222	Mar. 5	0400	612	17.3	5.45	1.661
Jan. 14	1845	634	18.0	5.54	1.689						

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	3.5	17	14	15	11	4.5	1.7	.32	.05
2		0	0	3.6	16	63	14	11	4.4	1.5	.29	0
3		0	0	4.3	16	50	13	10	4.3	1.5	.28	0
4		0	0	16	19	196	26	9.5	4.0	1.4	.28	.05
5		0	0	103	45	339	17	9.1	3.7	1.3	.22	.14
6		0	0	61	70	150	36	8.5	3.4	1.3	.16	.26
7		0	0	29	245	97	24	8.3	3.1	1.3	.12	.21
8		0	0	18	230	77	20	7.9	3.1	1.2	.09	.11
9		0	0	82	300	70	18	7.7	3.0	1.0	.26	.12
10		0	0	37	96	57	17	7.5	2.9	1.1	.06	.29
11		0	0	23	69	52	16	7.1	2.9	1.1	.03	.19
12		0	0	18	195	45	15	7.4	2.9	1.1	.11	.15
13		0	0	51	130	39	14	6.9	2.9	.94	.16	.07
14		0	0	242	71	34	13	6.8	2.9	.78	.14	.07
15		0	.06	221	61	29	23	6.7	2.8	.74	.08	.07
16		0	.04	508	51	25	22	6.4	2.5	.79	.12	0
17		0	11	243	41	21	18	6.0	2.4	.65	.17	.03
18		0	4.1	130	36	21	16	5.9	2.4	.57	.11	0
19		0	1.6	99	32	21	15	5.5	2.4	.53	.02	0
20		0	1.0	70	29	21	15	5.4	2.3	.52	.04	0
21		0	.88	56	25	23	14	5.5	2.3	.49	.09	0
22		.29	22	49	22	25	14	5.6	2.3	.41	.14	0
23		.17	54	42	21	20	13	5.6	2.1	.38	.17	0
24		0	8.5	38	19	18	13	5.8	2.1	.36	.12	0
25		0	4.7	30	18	17	16	5.9	2.0	.33	.12	0
26		0	3.5	26	17	16	15	5.7	2.0	.35	.12	0
27		0	4.5	24	16	15	13	5.4	2.1	.43	.09	0
28		0	5.6	22	14	14	12	4.9	2.0	.42	.08	0
29		0	5.1	20	---	14	12	4.8	1.9	.42	.04	0
30		0	4.7	19	---	14	11	4.7	1.8	.41	.07	0
31		---	4.1	18	---	15	---	4.4	---	.36	.08	---
TOTAL	0	.46	135.38	2306.4	1921	1612	500	212.9	83.4	25.38	4.18	1.81
MEAN	0	.015	4.37	74.4	68.6	52.0	16.7	6.87	2.78	.82	.13	.060
MAX	0	.29	54	508	300	339	36	11	4.5	1.7	.32	.29
MIN	0	0	0	3.5	14	14	11	4.4	1.8	.33	.02	0
AC-FT	0	.9	269	4570	3810	3200	992	422	165	50	8.3	3.6
CAL YR 1977	TOTAL	193.86	MEAN	.53	MAX	54	MIN	0	AC-FT	385		
WTR YR 1978	TOTAL	6802.91	MEAN	18.6	MAX	508	MIN	0	AC-FT	13490		

11153470 LLAGAS CREEK ABOVE CHESBRO RESERVOIR, NEAR MORGAN HILL, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to September 1978 (discontinued).

WATER TEMPERATURES: Water years 1972 to September 1978 (discontinued).

SEDIMENT RECORDS: Water years 1972 to September 1978 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1971 to September 1978 (discontinued).

SEDIMENT RECORDS: October 1971 to September 1978 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Minimum recorded, 2.0°C Dec. 11, 14, 1972, Jan. 7, 1973.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,830 mg/L Jan. 16, 1978; minimum daily mean, no flow for many days each year.

SEDIMENT DISCHARGE: Maximum daily, 4,550 tons (4,130 metric tons) Jan. 16, 1978; minimum daily, 0 ton (0 metric ton) on many days each year.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,830 mg/L Jan. 16; minimum daily mean, no flow for many days.

SEDIMENT DISCHARGE: Maximum daily, 4,550 tons (4,130 metric tons) Jan. 16; minimum daily, 0 ton (0 metric ton) on many days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			---	10.0	11.0	11.0	11.0	11.0	---	---		
2			---	11.0	11.0	11.0	11.0	11.0	---	---		
3			---	11.0	11.0	11.0	11.0	11.0	14.0	16.0		
4			---	10.0	11.0	10.0	11.0	11.0	---	---		
5			---	11.0	11.0	10.0	11.0	11.0	---	---		
6			---	11.0	11.0	10.0	10.0	11.0	14.0	---		
7			---	11.0	11.0	10.0	10.0	11.0	---	---		
8			---	11.0	11.0	11.0	10.0	12.0	---	16.0		
9			---	10.0	10.5	11.0	10.0	12.0	14.0	---		
10			---	10.0	11.0	11.0	11.0	12.0	---	---		
11			---	11.0	10.0	11.0	11.0	12.0	---	---		
12			---	11.0	10.0	11.0	11.0	12.0	14.0	---		
13			---	11.0	10.0	11.0	---	12.0	---	16.0		
14			---	11.0	10.0	10.0	11.0	12.0	---	---		
15			---	11.0	10.0	10.0	11.0	12.0	14.0	---		
16			---	11.0	10.0	10.0	10.0	12.0	---	---		
17			---	11.0	10.0	11.0	10.0	12.0	---	16.0		
18			8.0	11.0	10.0	11.0	---	12.0	14.0	---		
19			6.0	11.0	10.0	11.0	10.0	12.0	---	---		
20			7.0	11.0	10.0	11.0	10.0	12.0	---	---		
21			10.0	11.0	10.0	11.0	10.0	12.0	14.0	16.0		
22			10.0	11.0	10.0	11.0	10.0	12.0	---	---		
23			11.0	11.0	10.0	11.0	10.0	12.0	---	---		
24			10.0	10.0	10.0	11.0	11.0	12.0	14.0	---		
25			10.0	10.0	10.0	10.0	11.0	12.0	---	16.0		
26			11.0	10.0	10.0	10.0	11.0	12.0	---	---		
27			11.0	10.0	11.0	10.0	11.0	---	14.0	---		
28			11.0	10.0	11.0	10.0	11.0	12.0	---	---		
29			10.0	10.0	---	11.0	11.0	---	16.0	---		
30			10.0	10.0	---	11.0	11.0	---	---	---		
31			11.0	11.0	---	11.0	---	12.0	---	---		
MEAN			9.5	10.5	10.5	10.5	10.5	12.0	14.0	16.0		

## PAJARO RIVER BASIN

11153470 LLAGAS CREEK ABOVE CHESBRO RESERVOIR, NEAR MORGAN HILL, CA--Continued

TOTAL-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1				0	0	0	0	0	0
2				0	0	0	0	0	0
3				0	0	0	0	0	0
4				0	0	0	0	0	0
5				0	0	0	0	0	0
6				0	0	0	0	0	0
7				0	0	0	0	0	0
8				0	0	0	0	0	0
9				0	0	0	0	0	0
10				0	0	0	0	0	0
11				0	0	0	0	0	0
12				0	0	0	0	0	0
13				0	0	0	0	0	0
14				0	0	0	0	0	0
15				0	0	0	.06	12	.01
16				0	0	0	.04	6	0
17				0	0	0	11	8	.44
18				0	0	0	4.1	2	.02
19				0	0	0	1.6	2	.01
20				0	0	0	1.0	1	0
21				0	0	0	.88	4	.01
22				.29	11	.02	22	67	20
23				.17	3	0	54	90	26
24				0	0	0	8.5	78	1.8
25				0	0	0	4.7	90	1.1
26				0	0	0	3.5	95	.90
27				0	0	0	4.5	124	1.5
28				0	0	0	5.6	110	1.7
29				0	0	0	5.1	109	1.5
30				0	0	0	4.7	85	1.1
31				---	---	---	4.1	68	.75
TOTAL	0	0	0	.46	---	.02	135.38	---	56.84
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	3.5	62	.59	17	12	.55	14	7	.26
2	3.6	70	.68	16	14	.60	63	336	85
3	4.3	64	.74	16	17	.73	50	107	16
4	16	102	6.5	19	10	.51	196	1000	578
5	103	467	217	45	77	11	339	1240	1240
6	61	73	14	70	121	25	150	502	203
7	29	26	2.0	245	791	700	97	138	36
8	18	21	1.0	230	918	570	77	60	12
9	82	398	167	300	978	804	70	45	8.4
10	37	33	3.5	96	104	27	57	21	3.2
11	23	10	.62	69	56	10	52	16	2.3
12	18	12	.58	195	764	402	45	13	1.5
13	51	149	59	130	265	93	39	6	.60
14	242	800	708	71	47	9.0	34	4	.37
15	221	525	336	61	40	6.5	29	4	.31
16	508	2830	4550	51	36	4.9	25	4	.27
17	243	1210	898	41	20	2.2	21	4	.23
18	130	305	112	36	19	1.8	21	4	.23
19	99	146	39	32	19	1.6	21	4	.23
20	70	94	18	29	20	1.6	21	5	.28
21	56	50	7.6	25	15	1.0	23	14	.96
22	49	39	5.2	22	15	.89	25	28	2.0
23	42	29	3.2	21	14	.79	20	12	.65
24	38	26	2.7	19	13	.67	18	7	.34
25	30	20	1.6	18	7	.34	17	11	.50
26	26	22	1.5	17	3	.14	16	11	.48
27	24	23	1.5	16	7	.30	15	6	.24
28	22	22	1.3	14	10	.38	14	5	.19
29	20	22	1.2	---	---	---	14	11	.42
30	19	22	1.1	---	---	---	14	9	.34
31	18	18	.87	---	---	---	15	13	.53
TOTAL	2306.4	---	7161.98	1921	---	2676.50	1612	---	2194.83

11153470 LLAGAS CREEK ABOVE CHESBRO RESERVOIR, NEAR MORGAN HILL, CA--Continued

TOTAL-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	15	14	.57	11	9	.27	4.5	15	.18
2	14	12	.45	11	17	.50	4.4	16	.19
3	13	15	.53	10	25	.68	4.3	16	.19
4	26	55	4.5	9.5	27	.69	4.0	15	.16
5	17	18	.83	9.1	28	.69	3.7	14	.14
6	36	265	40	8.5	28	.64	3.4	14	.13
7	24	22	1.5	8.3	26	.58	3.1	14	.12
8	20	13	.70	7.9	19	.41	3.1	15	.13
9	18	14	.68	7.7	24	.50	3.0	15	.12
10	17	14	.64	7.5	23	.47	2.9	15	.12
11	16	12	.52	7.1	15	.29	2.9	15	.12
12	15	12	.49	7.4	13	.26	2.9	15	.12
13	14	10	.38	6.9	14	.26	2.9	15	.12
14	13	8	.28	6.8	12	.22	2.9	16	.13
15	23	56	4.9	6.7	20	.36	2.8	16	.12
16	22	20	1.2	6.4	25	.43	2.5	16	.11
17	18	12	.58	6.0	30	.49	2.4	16	.10
18	16	10	.43	5.9	28	.45	2.4	17	.11
19	15	6	.24	5.5	24	.36	2.4	17	.11
20	15	7	.28	5.4	24	.35	2.3	17	.11
21	14	6	.23	5.5	18	.27	2.3	17	.11
22	14	9	.34	5.6	14	.21	2.3	15	.09
23	13	10	.35	5.6	14	.21	2.1	14	.08
24	13	7	.25	5.8	13	.20	2.1	13	.07
25	16	37	1.7	5.9	12	.19	2.0	12	.06
26	15	27	1.1	5.7	15	.23	2.0	11	.06
27	13	12	.42	5.4	14	.20	2.1	10	.06
28	12	10	.32	4.9	14	.19	2.0	9	.05
29	12	13	.42	4.8	14	.18	1.9	8	.04
30	11	12	.36	4.7	14	.18	1.8	6	.03
31	---	---	---	4.4	15	.18	---	---	---
TOTAL	500	---	65.19	212.9	---	11.14	83.4	---	3.28

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1.7	5	.02	.32	2		.05	1	
2	1.5	4	.02	.29	1		0	0	
3	1.5	3	.01	.28	1		0	0	
4	1.4	3	.01	.28	1		.05	1	
5	1.3	3	.01	.22	1		.14	1	
6	1.3	3	.01	.16	1		.26	1	
7	1.3	3	.01	.12	1		.21	1	
8	1.2	3	.01	.09	1		.11	1	
9	1.0	3	.01	.26	1		.12	1	
10	1.1	3	.01	.06	1		.29	1	
11	1.1	3	.01	.03	1		.19	1	
12	1.1	3	.01	.11	1		.15	1	
13	.94	3	.01	.16	1		.07	1	
14	.78	3	.01	.14	1		.07	1	
15	.74	4	.01	.08	1		.07	1	
16	.79	4	.01	.12	1		0	0	
17	.65	4	.01	.17	1		.03	1	
18	.57	5	.01	.11	1		0	0	
19	.53	6	.01	.02	1		0	0	
20	.52	7	.01	.04	1		0	0	
21	.49	8	.01	.09	1		0	0	
22	.41	8	.01	.14	1		0	0	
23	.38	8	.01	.17	1		0	0	
24	.36	9	.01	.12	1		0	0	
25	.33	9	.01	.12	1		0	0	
26	.35	8	.01	.12	1		0	0	
27	.43	7	.01	.09	1		0	0	
28	.42	6	.01	.08	1		0	0	
29	.42	5	.01	.04	1		0	0	
30	.41	4	0	.07	1		0	0	
31	.36	3	0	.08	1		---	---	
TOTAL	25.38	---	.31	4.18	---	0	1.81	---	0
YEAR	6802.91		12200						

## PAJARO RIVER BASIN

11153470 LLAGAS CREEK ABOVE CHESBRO RESERVOIR, NEAR MORGAN HILL, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
DEC 23...	1030	11.0	36	29	2.8	--	--	--	--	--	--
JAN 05...	1510	11.0	242	1790	1170	33	43	53	63	74	82
14...	1630	11.0	239	451	291	--	--	--	--	--	--
16...	0930	11.0	850	4710	10800	19	26	34	43	53	61
16...	1200	11.0	599	2500	4040	25	35	44	55	65	74
16...	1700	11.0	524	2920	4130	21	28	36	45	54	62
19...	0810	11.0	101	104	28	--	--	--	--	--	--
FEB 09...	1225	10.5	134	121	44	--	--	--	--	--	--
MAR 05...	0800	10.0	400	1120	1210	15	20	26	32	38	--

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
DEC 23...	95	--	97	--	99	--	100	--	--	--	--
JAN 05...	--	92	--	98	--	100	--	--	--	--	--
14...	50	--	61	--	75	--	86	--	92	--	100
16...	--	79	--	92	--	97	--	100	--	--	--
16...	--	85	--	94	--	99	--	100	--	--	--
16...	--	75	--	86	--	96	--	99	--	100	--
19...	88	--	93	--	96	--	98	--	100	--	--
FEB 09...	73	--	79	--	86	--	91	--	97	--	100
MAR 05...	43	--	52	--	70	--	89	--	97	--	100

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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
DEC 05...	1525	1	.00	0	1	3	16
05...	1530	1	.00	1	1	4	8
05...	1535	1	.00	--	0	2	5
05...	1540	1	.00	1	1	3	10
05...	1545	1	.00	0	1	3	8
05...	1550	1	.00	1	2	5	11

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
DEC 05...	32	52	77	91	95	100	--
05...	11	15	31	69	100	--	--
05...	10	15	21	32	38	85	100
05...	18	23	30	40	54	72	100
05...	12	16	23	36	52	75	100
05...	21	38	63	89	100	--	--

## 11153470 LLAGAS CREEK ABOVE CHESBRO RESERVOIR, NEAR MORGAN HILL, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SEDIMENT IN TRANSIT WITHIN 0.25 FOOT OF BED SURFACE,  
WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (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
FEB 09...	1220	10.5	14	134	26	8.9	0
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
FEB 09...	7	34	59	75	86	94	100

## RESERVOIRS IN PAJARO RIVER BASIN, CA

11153480 CHESBRO RESERVOIR.--Lat 37°07'00", long 121°41'34", near southwest boundary of Ojo de Agua de la Coche Grant, Santa Clara County, Hydrologic Unit 18060002, at left end of dam on Llagas Creek, and 2.5 mi (4.0 km) west of Morgan Hill. DRAINAGE AREA, 19.3 mi<sup>2</sup> (50.0 km<sup>2</sup>). PERIOD OF RECORD, December 1955 to current year. Monthly contents prior to October 1959 published in WSP 1735. GAGE, nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by South Santa Clara Valley Water Conservation District).

Reservoir is formed by earthfill and rockfill dam completed in 1955. Capacity, 8,090 acre-ft (9.97 hm<sup>3</sup>) between elevations 465 ft (141.7 m), elevation of outlet gates, and 525 ft (160.0 m), crest of spillway. Reservoir is used for flood control and water released down Llagas Creek for irrigation. Record of contents furnished by Santa Clara Valley Water District.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 8,430 acre-ft (10.4 hm<sup>3</sup>) Mar. 5, 1978, elevation, 526.3 ft (160.41 m); maximum elevation, 527.4 ft (160.75 m) Feb. 24, 1969; no contents at times in 1957, 1960-62, 1973, 1977.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 8,430 acre-ft (10.4 hm<sup>3</sup>) Mar. 5, elevation, 526.3 ft (160.41 m); no contents Oct. 1 to Nov. 21.

11154020 UVAS RESERVOIR.--Lat 37°04'02", long 121°41'25", in Las Uvas Grant, Santa Clara County, Hydrologic Unit 18060002, at center of dam on Uvas Creek, and 4.8 mi (7.7 km) southwest of Morgan Hill. DRAINAGE AREA, 30.4 mi<sup>2</sup> (78.7 km<sup>2</sup>). PERIOD OF RECORD, December 1957 to current year. Monthly contents prior to October 1959 published in WSP 1735. GAGE, nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by South Santa Clara Valley Water Conservation District).

Reservoir is formed by earthfill and rockfill dam completed in 1957. Capacity, 10,000 acre-ft (12.3 hm<sup>3</sup>) between elevations 410 ft (125.0 m), hydraulic gate valves, and 487.5 ft (148.59 m), crest of spillway. Water released down Uvas Creek for irrigation; at times diverted into Llagas Creek 3.6 mi (5.8 km) below Chesbro Reservoir for ground-water recharge by percolation. Record of contents furnished by Santa Clara Valley Water District.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 11,030 acre-ft (13.6 hm<sup>3</sup>) Mar. 16, 1967, elevation, 490.5 ft (149.50 m); no contents at times in 1961, 1976, and 1977.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 10,950 acre-ft (13.5 hm<sup>3</sup>) Apr. 28, elevation, 490.8 ft (149.60 m); no contents Oct. 1 to Dec. 13.

MONTHEND CONTENTS, IN ACRE-FEET (INCLUDING MOMENTARY  
STORAGE ABOVE SPILLWAY CREST), AT 2400, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

Date	Chesbro Reservoir	Uvas Reservoir
Sept. 30, 1977..	0	0
Oct. 31.....	0	0
Nov. 30.....	11	0
Dec. 31.....	204	1560
Jan. 31, 1978...	6320	9890
Feb. 28.....	7800	9810
Mar. 31.....	7950	9980
Apr. 30.....	8110	9980
May 31.....	8040	9810
June 30.....	7490	8350
July 31.....	6290	6330
Aug. 31.....	4650	4880
Sept. 30.....	3610	3930

## PAJARO RIVER BASIN

11153700 PAJARO RIVER NEAR GILROY, CA

LOCATION.--Lat 36°56'54", long 121°30'40", on boundary between Las Animas and Llano del Tequisquita Grants, Santa Clara County, Hydrologic Unit 18060002, on right bank 45 ft (14 m) upstream from bridge on State Highway 25, 0.9 mi (1.4 km) downstream from Llagas Creek, and 4.7 mi (7.6 km) southeast of Gilroy.

DRAINAGE AREA.--399 mi<sup>2</sup> (1,033 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Concrete control since Nov. 17, 1971. Datum of gage is 123.88 ft (37.759 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Nov. 17, 1971, at site 45 ft (14 m) downstream at same datum.

REMARKS.--Records good. Flow regulation by Pacheco Lake, capacity, 6,150 acre-ft (7.58 hm<sup>3</sup>), Chesbro Reservoir (station 11153480) 21 mi (34 km) upstream and San Felipe Lake. Many diversions above station for irrigation.

AVERAGE DISCHARGE.--19 years, 56.4 ft<sup>3</sup>/s (1.597 m<sup>3</sup>/s), 40,860 acre-ft/yr (50.4 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,900 ft<sup>3</sup>/s (365 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 14.63 ft (4.459 m), from rating curve extended above 4,800 ft<sup>3</sup>/s (136 m<sup>3</sup>/s); no flow many days in 1961-62, 1971, 1976-77.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,000 ft<sup>3</sup>/s (255 m<sup>3</sup>/s) Feb. 9, gage height, 13.71 ft (4.179 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	.08	.01	.17	36	28	36	25	6.3	8.2	2.8	5.5
2	.68	.09	.01	.23	33	49	53	19	9.2	8.4	4.8	4.4
3	.86	.12	0	.59	32	153	47	14	5.5	6.3	4.2	3.5
4	1.1	.12	0	.36	30	1100	41	11	7.4	7.6	4.1	5.2
5	1.5	.11	0	7.9	29	5800	36	7.8	6.8	6.7	3.3	7.4
6	2.0	.12	0	90	28	4410	74	6.1	6.4	10	3.1	6.9
7	2.1	.09	0	23	1450	2320	153	5.2	5.8	9.2	3.2	6.8
8	.89	.06	0	3.1	1440	1420	125	5.2	5.0	6.7	3.6	5.3
9	.49	.05	0	34	7480	993	107	4.7	4.9	7.3	4.6	4.0
10	.47	.03	0	74	6020	761	80	3.7	4.9	7.5	5.2	2.0
11	.40	.01	0	6.6	2170	631	58	3.9	4.6	6.1	5.2	3.1
12	.38	.01	0	1.9	1220	522	49	5.3	5.0	7.2	3.6	2.2
13	.33	0	0	1.5	1760	454	38	6.7	5.2	6.9	2.6	2.4
14	.32	0	0	.48	1350	329	29	5.2	4.2	7.4	2.6	2.5
15	.28	0	.03	384	996	264	30	3.7	3.6	6.0	2.6	2.3
16	.24	0	.05	1520	818	216	53	3.0	3.3	5.9	3.9	2.0
17	.27	0	15	1600	675	152	49	2.9	3.5	4.3	5.2	2.3
18	.27	0	20	988	483	115	41	3.0	6.1	4.4	4.3	1.7
19	.27	0	1.2	745	367	93	34	3.3	8.5	4.6	7.7	1.7
20	.24	0	.43	550	277	76	27	4.0	7.4	4.9	4.0	1.7
21	.15	0	.28	402	173	65	23	4.6	7.5	4.2	3.6	1.9
22	.13	.45	.32	304	120	116	18	5.0	6.0	5.0	3.5	1.4
23	.12	.81	26	221	85	78	15	4.9	4.0	6.9	4.0	2.6
24	.10	.17	9.4	155	63	60	13	4.7	2.9	6.8	3.0	2.5
25	.09	.08	.95	112	49	45	26	4.6	5.8	6.0	3.1	1.7
26	.08	.06	.44	92	38	34	40	4.7	4.6	5.1	3.6	1.6
27	.09	.04	.38	75	32	26	47	5.1	4.2	4.0	2.5	1.4
28	.08	.02	.34	60	31	19	42	4.7	6.8	3.3	1.4	1.0
29	.10	.02	.26	52	---	15	35	3.9	10	2.5	2.2	2.1
30	.12	.01	.22	47	---	13	30	4.2	7.5	2.2	4.1	2.1
31	.08	---	.17	41	---	15	---	5.7	---	2.9	7.2	---
TOTAL	14.73	2.55	75.49	7639.35	27285	20372	1449	194.8	172.9	184.5	118.8	91.2
MEAN	.48	.085	2.44	246	974	657	48.3	6.28	5.76	5.95	3.83	3.04
MAX	2.1	.81	26	1600	7480	5800	153	25	10	10	7.7	7.4
MIN	.08	0	0	.17	28	13	13	2.9	2.9	2.2	1.4	1.0
AC-FT	29	5.1	150	15150	54120	40410	2870	386	343	366	236	181

CAL YR 1977 TOTAL 169.36 MEAN .46 MAX 26 MIN 0 AC-FT 336  
WTR YR 1978 TOTAL 57600.32 MEAN 158 MAX 7480 MIN 0 AC-FT 114300



11153900 UVAS CREEK ABOVE UVAS RESERVOIR, NEAR MORGAN HILL, CA

LOCATION.--Lat 37°05'34", long 121°43'02", in Las Uvas Grant, Santa Clara County, Hydrologic Unit 18060002, on left bank 0.6 mi (1.0 km) downstream from Little Uvas Creek, 0.9 mi (1.4 km) upstream from Hay Canyon, and 4.4 mi (7.1 km) southwest of Morgan Hill.

DRAINAGE AREA.--21.0 mi<sup>2</sup> (54.4 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 486.47 ft (148.276 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Minor regulation and diversion above station affects low flows.

AVERAGE DISCHARGE.--17 years, 26.0 ft<sup>3</sup>/s (0.736 m<sup>3</sup>/s), 18,840 acre-ft/yr (23.2 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,580 ft<sup>3</sup>/s (186 m<sup>3</sup>/s) Oct. 13, 1962, gage height, 13.18 ft (4.017 m); no flow at times in 1961, 1964, 1976-77.

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

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 23	0100	2320 65.7	8.77 2.673	Feb. 9	unknown	unknown	unknown
Jan. 6	unknown	unknown	unknown	Feb. 12	do	do	do
Jan. 16	1015	*3510 99.4	10.01 3.051	Mar. 4	0430	1870 53.0	8.27 2.521
Feb. 7	1045	2820 79.9	9.31 2.838				

Minimum daily discharge, no flow Oct. 1-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.20	.44	14	30	34	34	32	11	5.8	1.6	.68
2	0	.19	.46	13	28	171	32	30	11	5.7	1.6	.56
3	0	.19	.50	14	27	294	30	28	11	5.6	1.5	.41
4	0	.21	.52	17	26	588	57	27	11	5.2	1.5	.48
5	.05	.59	.61	230	47	136	39	25	10	5.0	1.5	.85
6	.06	.59	.62	510	93	121	100	24	9.9	4.8	1.4	.98
7	.07	.39	.65	130	527	97	64	23	9.4	4.7	1.0	.76
8	.09	.31	.65	75	488	85	53	22	9.4	4.6	1.0	.67
9	.09	.25	.65	290	1100	74	47	22	9.0	4.2	.95	.79
10	.08	.26	.63	120	250	66	42	21	8.9	3.9	.86	2.1
11	.06	.28	.65	48	140	60	39	20	8.8	3.9	.88	.96
12	.06	.28	.68	37	300	54	37	20	8.7	4.2	.94	.88
13	.08	.24	.68	169	420	50	35	19	8.5	3.9	1.1	.79
14	.06	.31	.63	956	175	41	33	18	8.4	3.4	1.2	.77
15	.03	.32	6.1	454	125	36	67	18	8.3	3.2	.94	.79
16	.02	.31	2.9	1530	92	34	55	17	7.9	3.4	.98	.61
17	.02	.30	142	579	79	32	44	17	7.7	3.2	.95	.76
18	.03	.30	28	223	69	30	40	16	7.5	3.0	1.0	.73
19	.04	.29	9.0	183	61	33	37	15	7.2	2.8	.73	.68
20	.10	.29	5.0	126	55	35	36	15	7.3	2.9	.94	.55
21	.15	6.5	4.6	98	51	33	34	15	7.2	2.9	.80	.72
22	.15	44	81	82	47	30	32	15	7.1	2.6	.74	.61
23	.13	3.3	368	70	44	31	30	14	6.9	2.6	.70	.56
24	.16	1.3	29	61	42	32	30	14	6.5	2.3	.72	.57
25	.13	.77	16	55	40	33	38	14	6.5	2.2	.87	.53
26	.13	.69	11	50	38	34	61	13	6.4	1.9	.75	.58
27	.09	.62	33	45	36	33	43	13	6.7	1.9	.85	.60
28	.12	.54	39	41	35	32	38	12	6.5	1.9	.70	.63
29	.13	.52	27	38	---	31	36	12	6.1	1.6	.67	.58
30	.26	.49	23	35	---	31	34	12	5.9	1.8	.63	.49
31	.28	---	18	33	---	34	---	11	---	1.7	.65	---
TOTAL	2.67	64.83	850.97	6326	4465	2425	1297	574	246.7	106.8	30.65	21.67
MEAN	.086	2.16	27.5	204	159	78.2	43.2	18.5	8.22	3.45	.99	.72
MAX	.28	.44	368	1530	1100	588	100	32	11	5.8	1.6	2.1
MIN	0	.19	.44	13	26	30	30	11	5.9	1.6	.63	.41
AC-FT	5.3	129	1690	12550	8860	4810	2570	1140	489	212	61	43
CAL YR 1977 TOTAL	1140.16			3.12	368	0	AC-FT	2260				
WTR YR 1978 TOTAL	16411.29			45.0	1530	0	AC-FT	32550				

## PAJARO RIVER BASIN

11154100 BODFISH CREEK NEAR GILROY, CA

LOCATION.--Lat 37°00'15", long 121°39'58", in Las Animas Grant, Santa Clara County, Hydrologic Unit 18060002, on left bank just upstream from Whitehurst Creek, 2.7 mi (4.3 km) upstream from mouth, and 5.1 mi (8.2 km) west of west city limits of Gilroy.

DRAINAGE AREA.--7.40 mi<sup>2</sup> (19.17 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 360 ft (110 m), from topographic map.

REMARKS.--Records fair including those for period of no gage-height record, Feb. 20 to Mar. 27. No regulation or diversion above station.

AVERAGE DISCHARGE.--19 years, 3.52 ft<sup>3</sup>/s (0.100 m<sup>3</sup>/s), 2,550 acre-ft/yr (3.14 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,240 ft<sup>3</sup>/s (35.1 m<sup>3</sup>/s) Jan. 31, 1963, gage height, 8.25 ft (2.515 m), from rating curve extended above 580 ft<sup>3</sup>/s (16.4 m<sup>3</sup>/s); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft<sup>3</sup>/s (4.2 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Jan. 16	1100	349	9.88	5.88	1.792
Feb. 9	0330	*358	10.1	5.93	1.807
Mar. 5	unknown	215	6.09	5.07	1.545

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.05	1.6	2.6	4.4	5.5	4.6	1.2	1.2	.26	.09
2		0	.05	1.4	2.4	6.8	5.2	4.3	1.2	1.2	.30	.08
3		0	.05	1.2	2.3	11	5.0	3.9	1.2	1.2	.31	.09
4		0	.05	1.3	2.2	40	7.5	3.6	1.2	1.1	.32	.09
5		0	.05	20	3.9	60	6.1	3.5	1.1	1.0	.28	.11
6		0	.05	44	4.6	28	15	3.4	1.1	1.1	.26	.10
7		0	.05	10	43	17	13	3.2	1.0	1.1	.27	.07
8		0	.05	5.0	44	12	9.7	3.1	1.0	.95	.25	.07
9		0	.05	27	151	11	8.2	3.0	.95	.83	.28	.08
10		0	.05	12	34	10	7.3	3.0	.93	.63	.28	.14
11		0	.06	6.0	16	8.4	6.9	3.0	.96	.59	.29	.08
12		0	.07	4.5	38	7.3	6.5	2.9	1.0	.52	.26	.08
13		0	.08	7.0	47	6.5	6.2	2.8	1.1	.44	.29	.08
14		0	.21	71	24	6.1	5.8	2.6	1.1	.45	.13	.08
15		0	5.3	50	17	6.5	14	2.3	1.2	.43	.33	.07
16		0	.69	124	14	7.0	14	2.1	1.1	.38	.34	.06
17		0	38	44	12	6.8	9.5	1.9	1.1	.34	.33	.06
18		0	5.2	19	9.7	6.6	7.6	1.8	1.1	.34	.26	.06
19		0	1.7	23	8.8	6.4	6.0	1.7	1.2	.33	.23	.05
20		0	1.0	17	8.2	6.1	6.5	1.6	1.2	.29	.24	.05
21		.07	.85	12	7.0	6.5	6.7	1.5	1.2	.35	.20	.05
22		2.5	2.6	8.3	6.4	7.2	6.0	1.5	1.1	.28	.18	.05
23		.21	14	6.9	6.0	6.3	5.9	1.5	1.2	.24	.20	.04
24		.10	2.8	5.8	5.6	5.8	5.8	1.5	1.2	.25	.22	.04
25		.06	1.6	5.1	5.3	5.5	7.3	1.5	1.2	.23	.19	.04
26		.05	1.2	4.5	5.1	5.3	6.4	1.4	1.3	.23	.17	.03
27		.05	2.2	4.0	4.8	4.9	5.7	1.4	1.3	.26	.14	.04
28		.05	3.1	3.6	4.6	5.2	5.3	1.3	1.2	.29	.12	.04
29		.05	3.2	3.3	---	5.0	5.0	1.3	1.1	.30	.11	.03
30		.05	3.2	3.1	---	5.4	5.0	1.3	1.2	.29	.11	.03
31		---	2.1	2.9	---	6.2	---	1.2	---	.26	.10	---
TOTAL	0	3.19	89.66	548.5	529.5	331.2	224.6	73.7	33.94	17.40	7.25	1.98
MEAN	0	.11	2.89	17.7	18.9	10.7	7.49	2.38	1.13	.56	.23	.066
MAX	0	2.5	38	124	151	60	15	4.6	1.3	1.2	.34	.14
MIN	0	0	.05	1.2	2.2	4.4	5.0	1.2	.93	.23	.10	.03
AC-FT	0	6.3	178	1090	1050	657	445	146	67	35	14	3.9

CAL YR 1977 TOTAL 115.56 MEAN .32 MAX 38 MIN 0 AC-FT 229  
WTR YR 1978 TOTAL 1860.92 MEAN 5.10 MAX 151 MIN 0 AC-FT 3690

## 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 (122 m) upstream from county road bridge, 0.4 mi (0.6 km) southwest of Gilroy, and 3.9 mi (6.3 km) downstream from Bodfish Creek.

DRAINAGE AREA.--71.2 mi<sup>2</sup> (184.4 km<sup>2</sup>).

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

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

REMARKS.--Records fair. Flow regulated by Uvas Reservoir (station 11154020) 10 mi (16 km) upstream. Diversion above station for irrigation.

AVERAGE DISCHARGE.--19 years, 34.9 ft<sup>3</sup>/s (0.988 m<sup>3</sup>/s), 25,290 acre-ft/yr (31.2 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,490 ft<sup>3</sup>/s (269 m<sup>3</sup>/s) Feb. 1, 1963, gage height, 17.66 ft (5.383 m), from rating curve extended above 3,300 ft<sup>3</sup>/s (93.5 m<sup>3</sup>/s); no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,010 ft<sup>3</sup>/s (85.2 m<sup>3</sup>/s) Feb. 9, gage height, 10.07 ft (3.069 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	36	38	30	43		0		
2				0	33	88	27	37		0		
3				0	30	224	25	35		0		
4				0	21	607	42	21		0		
5				0	32	1470	40	15		0		
6				93	51	789	117	14		0		
7				45	794	360	154	9.9		0		
8				16	732	270	104	8.0		0		
9				130	2000	210	79	7.0		0		
10				98	746	165	66	5.5		0		
11				45	421	145	55	5.0		.59		
12				26	567	125	48	5.2		4.1		
13				21	675	108	41	5.1		4.6		
14				361	385	98	36	4.2		3.3		
15				590	268	90	72	2.8		2.4		
16				1080	214	78	124	2.6		3.0		
17				674	175	67	80	2.1		4.7		
18				648	142	58	63	1.1		2.5		
19				531	118	48	52	.41		.48		
20				344	99	42	47	0		.02		
21				236	82	49	43	0		0		
22				175	70	78	40	0		0		
23				131	59	60	37	0		0		
24				100	51	52	38	0		.27		
25				86	46	44	53	0		.01		
26				73	43	38	71	0		0		
27				62	41	34	77	0		0		
28				54	39	31	61	0		0		
29				48	---	29	51	0		0		
30				44	---	29	45	0		0		
31		---		39	---	34	---	0	---	0		---
TOTAL	0	0	0	5750	7970	5558	1818	223.91	0	25.97	0	0
MEAN	0	0	0	185	285	179	60.6	7.22	0	.84	0	0
MAX	0	0	0	1080	2000	1470	154	43	0	4.7	0	0
MIN	0	0	0	0	21	29	25	0	0	0	0	0
AC-FT	0	0	0	11410	15810	11020	3610	444	0	52	0	0

CAL YR 1977 TOTAL 0.00 MEAN .000 MAX .00 MIN 0 AC-FT 0  
WTR YR 1978 TOTAL 21345.88 MEAN 58.5 MAX 2000 MIN 0 AC-FT 42340

## PAJARO RIVER BASIN

11156500 SAN BENITO RIVER NEAR WILLOW CREEK SCHOOL, CA

LOCATION.--Lat 36°36'34", long 121°12'07", in SE¼SE¼ sec.21, T.15 S., R.7 E., San Benito County, Hydrologic Unit 18060002, on left bank 0.9 mi (1.4 km) northwest of Willow Creek School, 1.3 mi (2.1 km) downstream from Willow Creek, and 10 mi (16 km) northwest of San Benito.

DRAINAGE AREA.--249 mi<sup>2</sup> (645 km<sup>2</sup>).

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.

GAGE.--Water-stage recorder. Datum of gage is 925.52 ft (282.098 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 28, 1948, and Nov. 11, 1955, to Sept. 30, 1965, at site 0.9 mi (1.4 km) 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 (0.722 m) higher.

REMARKS.--Records fair. Flow regulated by Hernandez Reservoir 40 mi (64 km) upstream beginning in December 1961, capacity, 18,700 acre-ft (23.1 hm<sup>3</sup>). Small diversion above station for irrigation.

AVERAGE DISCHARGE.--39 years, 24.7 ft<sup>3</sup>/s (0.700 m<sup>3</sup>/s), 17,900 acre-ft/yr (22.1 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,210 ft<sup>3</sup>/s (232 m<sup>3</sup>/s) Apr. 3, 1958, gage height, 8.35 ft (2.545 m), site and datum then in use, from rating curve extended above 600 ft<sup>3</sup>/s (17.0 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of February 1938, reached a stage of about 9.0 ft (2.74 m) former datum, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,780 ft<sup>3</sup>/s (50.4 m<sup>3</sup>/s) Mar. 4, gage height, 8.71 ft (2.655 m); minimum daily, 0.08 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Oct. 11-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.11	.12	7.4	5.5	49	148	86	15	4.8	61	67
2	.09	.11	.11	7.7	5.1	59	141	76	16	3.9	61	65
3	.09	.11	.15	46	4.9	153	116	68	15	28	61	65
4	.09	.11	.15	28	5.2	1260	120	62	14	32	60	68
5	.09	.12	.13	87	7.2	1110	144	57	12	34	59	83
6	.09	.12	.13	209	78	613	144	55	10	34	58	78
7	.09	.13	.13	33	286	453	158	50	8.8	35	58	73
8	.09	.13	.13	33	170	321	159	48	12	35	58	72
9	.09	.13	.13	98	686	286	150	44	24	35	58	73
10	.09	.12	.13	63	730	286	130	40	38	35	59	75
11	.08	.11	.12	33	293	265	106	39	61	35	61	73
12	.08	.11	.11	33	456	249	90	38	64	36	62	72
13	.08	.11	.11	33	617	202	79	37	64	35	62	71
14	.08	.10	.11	67	530	176	81	34	65	39	64	72
15	.08	.10	.11	316	450	153	96	32	66	52	64	71
16	.09	.09	.11	515	360	136	442	30	66	55	64	69
17	.09	.09	6.6	358	275	124	284	27	63	58	64	69
18	.11	.09	4.8	120	205	114	197	24	63	61	64	69
19	.11	.10	4.0	125	155	101	148	22	65	60	64	69
20	.10	.11	3.1	100	135	95	121	21	64	61	64	69
21	.11	.11	1.4	58	115	95	101	20	64	61	64	69
22	.11	.12	1.9	32	105	327	85	18	63	59	65	68
23	.11	.11	110	26	94	234	75	17	60	60	66	62
24	.11	.11	35	21	84	167	71	15	60	60	66	58
25	.11	.11	7.8	18	74	135	151	16	60	59	66	57
26	.11	.12	4.0	15	66	111	234	16	62	60	66	56
27	.11	.13	3.5	12	61	93	175	16	68	61	66	56
28	.12	.13	85	10	56	94	133	15	47	60	66	57
29	.12	.13	21	8.2	---	94	105	16	13	61	65	56
30	.11	.13	14	7.0	---	97	94	16	7.1	63	66	55
31	.11	---	9.5	6.0	---	115	---	15	---	60	67	---
TOTAL	3.03	3.40	313.58	2525.3	6108.9	7767	4278	1070	1309.9	1432.7	1949	2017
MEAN	.098	.11	10.1	81.5	218	251	143	34.5	43.7	46.2	62.9	67.2
MAX	.12	.13	110	515	730	1260	442	86	68	63	67	83
MIN	.08	.09	.11	6.0	4.9	49	71	15	7.1	3.9	58	55
AC-FT	6.0	6.7	622	5010	12120	15410	8490	2120	2600	2840	3870	4000

CAL YR 1977 TOTAL 481.59 MEAN 1.32 MAX 110 MIN .05 AC-FT 955  
WTR YR 1978 TOTAL 28777.81 MEAN 78.8 MAX 1260 MIN .08 AC-FT 57080

## PAJARO RIVER BASIN

11157500 TRES PINOS CREEK NEAR TRES PINOS, CA

LOCATION.--Lat 36°45'13", long 121°17'03", in Santa Ana y Quien Sabe Grant, San Benito County, Hydrologic Unit 18060002, on right bank 3.5 mi (5.6 km) southeast of Tres Pinos, and 6.2 mi (10.0 km) upstream from mouth.

DRAINAGE AREA.--206 mi<sup>2</sup> (534 km<sup>2</sup>).

PERIOD OF RECORD.--October 1939 to current year. Yearly estimate only for 1940 and monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1715: Drainage area.

GAGE.--Water-stage recorder. Concrete control since June 3, 1954 (control ineffective since 1955 due to gravel fill). Altitude of gage is 570 ft (174 m), from topographic map.

REMARKS.--Records fair. No regulation; diversions above station for irrigation can divert total flow in summer months, and since 1962, diversions into basin above station from San Benito River for percolation and irrigation.

AVERAGE DISCHARGE (unadjusted).--39 years, 14.0 ft<sup>3</sup>/s (0.396 m<sup>3</sup>/s), 10,140 acre-ft/yr (12.5 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,060 ft<sup>3</sup>/s (228 m<sup>3</sup>/s) Apr. 4, 1941, gage height, 7.75 ft (2.362 m), from rating curve extended above 3,500 ft<sup>3</sup>/s (99.1 m<sup>3</sup>/s); maximum gage height, 9.88 ft (3.011 m) Feb. 11, 1973; no flow at times in 1952, 1957-61, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1938 reached a stage of about 9.0 ft (2.74 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft<sup>3</sup>/s (13 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 53 ft<sup>3</sup>/s (1.50 m<sup>3</sup>/s) on basis of slope-area measurement at gage-height 9.49 ft (2.893 m):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Jan. 5	2230	1290	36.5	6.99	2.131	Feb. 12	2115	*7060	200	10.01	3.051
Jan. 16	1530	5330	151	9.34	2.847	Mar. 4	1900	1400	39.6	7.09	2.161
Feb. 10	0315	6220	176	9.70	2.957	Mar. 9	2230	647	18.3	6.27	1.911

Minimum daily discharge, 0.42 ft<sup>3</sup>/s (0.012 m<sup>3</sup>/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.42	.56	.62	.63	.98	9.8	13	16	8.2	9.3	21	16
2	.43	.55	.62	.69	.97	16	12	15	8.6	9.2	20	16
3	.43	.56	.63	.63	.96	30	9.2	15	8.5	9.1	20	15
4	.44	.56	.63	.71	1.5	750	12	14	9.2	9.3	20	14
5	.50	.68	.63	91	2.6	291	15	14	8.8	9.0	20	12
6	.49	.61	.63	143	.64	196	17	14	9.0	8.8	20	9.3
7	.47	.61	.63	12	424	145	25	14	9.0	8.8	19	9.2
8	.48	.60	.62	6.0	261	115	29	14	9.6	8.4	18	9.2
9	.49	.61	.60	24	2980	142	28	14	9.3	8.5	19	9.3
10	.50	.61	.56	19	2140	201	25	14	8.7	8.7	21	9.0
11	.50	.62	.56	8.5	249	112	22	14	8.4	8.8	20	9.1
12	.48	.62	.56	6.0	1300	78	20	14	8.6	8.9	20	9.4
13	.47	.62	.54	5.8	1800	56	19	14	12	8.6	20	9.3
14	.47	.63	.57	48	340	41	18	13	11	8.8	21	9.4
15	.47	.63	.65	281	206	32	18	6.7	7.8	8.9	22	9.5
16	.50	.63	.63	1050	156	25	20	3.9	7.7	8.9	21	9.7
17	.53	.62	1.1	614	113	20	21	13	8.0	9.1	19	9.8
18	.54	.58	.63	238	79	17	21	21	7.8	9.1	21	9.7
19	.63	.54	.59	243	52	13	21	21	8.1	8.9	21	10
20	.61	.58	.54	207	34	11	21	21	8.0	8.4	20	10
21	.66	.60	.66	59	14	17	20	18	8.0	8.0	21	9.9
22	.64	.65	.70	13	7.6	124	19	16	8.0	7.7	21	10
23	.63	.63	.76	4.1	7.0	48	18	15	8.3	7.5	21	10
24	.62	.63	.63	3.1	6.7	24	18	4.8	8.8	7.3	22	10
25	.61	.63	.63	3.3	6.6	20	18	5.1	8.8	6.9	21	10
26	.60	.63	.70	2.8	6.6	18	18	5.8	9.4	6.6	21	10
27	.59	.63	.64	1.9	6.5	15	18	6.3	9.6	17	22	11
28	.58	.64	.67	1.5	6.6	14	18	6.6	9.4	22	22	11
29	.57	.63	.63	1.3	---	12	17	6.5	9.6	23	22	11
30	.56	.63	.63	1.1	---	12	16	7.0	9.4	21	22	10
31	.56	---	.63	1.0	---	12	---	8.1	---	21	22	---
TOTAL	16.47	18.32	19.82	3091.06	10266.61	2616.8	566.2	384.8	265.6	325.5	640	317.8
MEAN	.53	.61	.64	99.7	367	84.4	18.9	12.4	8.85	10.5	20.6	10.6
MAX	.66	.68	1.1	1050	2980	750	29	21	12	23	22	16
MIN	.42	.54	.54	.63	.96	9.8	9.2	3.9	7.7	6.6	18	9.0
AC-FT	33	36	39	6130	20360	5190	1120	763	527	646	1270	630
CAL YR 1977	TOTAL	280.47	MEAN	.77	MAX	1.5	MIN	.24	AC-FT	556		
WTR YR 1978	TOTAL	18528.98	MEAN	50.8	MAX	2980	MIN	.42	AC-FT	36750		

## PAJARO RIVER BASIN

11158500 SAN BENITO RIVER NEAR HOLLISTER, CA

LOCATION.--Lat 36°47'17", long 121°22'11", in SW¼ sec.24, T.13 S., R.5 E., San Benito County, Hydrologic Unit 18060002, on left bank 1,500 ft (457 m) downstream from Bird Creek, 0.9 mi (1.4 km) downstream from Tres Pinos Creek, 2.7 mi (4.3 km) west of Tres Pinos, and 4.8 mi (7.7 km) southeast of Hollister.

DRAINAGE AREA.--586 mi<sup>2</sup> (1,518 km<sup>2</sup>).

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 359.3 ft (109.51 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records fair including those for period of no gage-height record, Feb. 3-22. Flow regulated by Hernandez Reservoir 67 mi (108 km) upstream beginning in December 1961, capacity, 18,700 acre-ft (23.1 hm<sup>3</sup>). Several small diversions above station for irrigation.

AVERAGE DISCHARGE.--29 years, 30.0 ft<sup>3</sup>/s (0.850 m<sup>3</sup>/s), 21,740 acre-ft/yr (26.8 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft<sup>3</sup>/s (329 m<sup>3</sup>/s) Apr. 3, 1958, gage height, 16.30 ft (4.968 m), from rating curve extended above 1,200 ft<sup>3</sup>/s (34.0 m<sup>3</sup>/s) on basis of flood-routing study; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,190 ft<sup>3</sup>/s (175 m<sup>3</sup>/s) Feb. 12, gage height, 14.80 ft (4.511 m), from rating curve extended above 180 ft<sup>3</sup>/s (5.10 m<sup>3</sup>/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.12	1.3	7.4	95	43	3.0	6.3	28	31
2			0	.13	1.3	5.4	90	34	3.4	4.0	28	30
3			0	.12	1.4	30	67	31	4.2	2.3	29	30
4			0	.20	3.6	1680	56	21	3.8	16	29	30
5			0	160	15	1880	55	19	3.1	22	29	32
6			0	600	450	851	83	18	2.3	23	29	21
7			0	71	1090	467	166	16	1.1	24	29	16
8			0	42	680	323	123	15	.98	25	28	16
9			0	44	4000	369	74	13	.88	24	29	15
10			0	92	1500	540	55	13	9.4	24	30	16
11			0	43	620	342	52	14	22	25	30	15
12			0	40	2500	292	48	13	31	27	30	15
13			0	39	1500	211	44	12	34	28	30	15
14			0	52	1000	170	42	10	35	27	30	15
15			0	607	580	155	42	5.8	36	30	30	16
16			0	1050	390	122	372	5.5	37	34	32	16
17			.49	1540	300	80	283	5.6	37	35	32	16
18			.13	243	210	97	171	9.4	39	37	33	16
19			.11	330	150	88	126	9.2	39	37	32	16
20			.10	192	98	78	116	9.6	28	38	32	16
21			.12	61	72	56	103	8.8	27	37	32	17
22			.13	14	61	306	74	5.1	17	38	32	17
23			.14	5.2	40	275	52	5.9	15	37	22	16
24			.12	4.3	32	165	48	3.1	15	36	10	16
25			.12	3.4	19	96	64	1.9	15	35	26	29
26			.13	2.7	14	87	160	1.6	16	33	31	32
27			.12	2.2	13	81	173	1.5	29	32	31	32
28			.13	1.9	9.7	76	119	1.3	29	26	32	33
29			.12	1.6	---	71	79	1.6	23	26	32	32
30			.12	1.5	---	67	48	1.5	11	28	31	32
31		---	.12	1.4	---	64	---	1.5	---	29	33	---
TOTAL	0	0	2.20	5244.77	15351.3	9131.8	3080	350.9	567.16	845.6	911	649
MEAN	0	0	.071	169	548	295	103	11.3	18.9	27.3	29.4	21.6
MAX	0	0	.49	1540	4000	1880	372	43	39	38	33	33
MIN	0	0	0	.12	1.3	5.4	42	1.3	.88	2.3	10	15
AC-FT	0	0	4.4	10400	30450	18110	6110	696	1120	1680	1810	1290
CAL YR 1977 TOTAL		7.77	MEAN .021	MAX .81	MIN 0	AC-FT 15						
WTR YR 1978 TOTAL	36133.73		MEAN 99.0	MAX 4000	MIN 0	AC-FT 71670						

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 (2.6 km) west of Hollister.

DRAINAGE AREA.--607 mi<sup>2</sup> (1,572 km<sup>2</sup>).

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 260 ft (79 m), from topographic map.

REMARKS.--Records poor including those for periods of no gage-height record, Mar. 9 to Apr. 22, May 8 to June 11. Flow regulated by Hernandez Reservoir 73 mi (117 km) upstream, capacity, 18,700 acre-ft (23.1 hm<sup>3</sup>). Some small diversions above station for irrigation.

AVERAGE DISCHARGE.--8 years, 26.7 ft<sup>3</sup>/s (0.756 m<sup>3</sup>/s), 19,340 acre-ft/yr (23.8 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,030 ft<sup>3</sup>/s (227 m<sup>3</sup>/s) Feb. 11, 1973, gage height, 9.18 ft (2.798 m), from rating curve extended above 2,400 ft<sup>3</sup>/s (68.0 m<sup>3</sup>/s); no flow many days in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,460 ft<sup>3</sup>/s (155 m<sup>3</sup>/s) Feb. 9, gage height, 10.23 ft (3.118 m), from rating curve extended above 2,400 ft<sup>3</sup>/s (68.0 m<sup>3</sup>/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	2.9	0	5.8	63	57	0	2.0	13	23
2			0	2.6	0	4.7	73	40	0	.65	14	20
3			0	2.0	0	22	56	31	0	.13	11	20
4			0	1.9	.10	1120	46	18	0	0	15	20
5			0	9.5	15	1260	42	10	.10	0	21	21
6			0	744	1200	632	44	8.0	.20	0	16	18
7			0	99	880	312	125	6.0	.35	0	18	7.2
8			0	7.6	1330	258	105	4.0	.65	.10	17	4.9
9			0	4.8	4000	350	74	2.2	1.3	.25	15	4.5
10			0	59	2810	670	45	1.3	2.5	.45	18	4.4
11			0	8.7	1240	380	39	.80	4.3	.85	18	4.4
12			0	5.4	971	275	37	.45	10	1.7	17	4.3
13			0	4.1	2240	215	33	.30	19	3.0	17	4.3
14			0	3.8	1000	185	32	.20	28	5.4	17	4.4
15			0	1480	410	145	32	.10	34	8.1	17	4.6
16			0	2500	300	125	275	0	36	11	19	5.2
17			.37	3400	220	86	215	0	38	17	22	6.3
18			0	600	160	95	140	0	39	14	26	6.1
19			0	780	120	86	105	0	39	16	28	7.2
20			0	80	80	74	87	0	28	18	28	7.1
21			0	13	53	58	77	0	19	19	23	7.0
22			.01	1.0	43	300	60	0	9.2	19	19	7.0
23			.10	.15	32	260	38	0	5.1	19	23	7.0
24			22	.05	22	160	33	0	3.5	17	5.9	6.7
25			16	0	15	105	44	0	2.6	16	6.4	13
26			4.1	0	13	70	156	0	5.0	16	18	22
27			2.3	0	10	61	183	0	7.7	16	22	23
28			.58	0	8.2	57	137	0	12	15	22	24
29			15	0	---	55	110	0	9.6	9.4	25	24
30			5.8	0	---	51	61	0	4.8	9.0	22	24
31		---	3.7	0	---	47	---	0	---	11	22	---
TOTAL	0	0	69.96	9809.50	17172.30	7524.5	2567	179.35	358.90	265.03	575.3	354.6
MEAN	0	0	2.26	316	613	243	85.6	5.79	12.0	8.55	18.6	11.8
MAX	0	0	22	3400	4000	1260	275	57	39	19	28	24
MIN	0	0	0	0	0	4.7	32	0	0	0	5.9	4.3
AC-FT	0	0	139	19460	34060	14920	5090	356	712	526	1140	703
CAL YR 1977	TOTAL	69.96	MEAN	.19	MAX	22	MIN	0	AC-FT	139		
WTR YR 1978	TOTAL	38876.44	MEAN	107	MAX	4000	MIN	0	AC-FT	77110		

## PAJARO RIVER BASIN

11158900 PESCADERO CREEK NEAR CHITTENDEN, CA

LOCATION.--Lat 36°54'28", long 121°35'04", on west boundary of Juristac Grant, Santa Clara County, Hydrologic Unit 18060002, on left bank 0.2 mi (0.3 km) downstream from small left-bank tributary, 0.6 mi (1.0 km) upstream from mouth, and 1.2 mi (1.9 km) northwest of Chittenden.

DRAINAGE AREA.--10.2 mi<sup>2</sup> (26.4 km<sup>2</sup>).

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder and rain gage. Datum of gage is 124.13 ft (37.835 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--8 years, 3.02 ft<sup>3</sup>/s (0.086 m<sup>3</sup>/s), 2,190 acre-ft/yr (2.70 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 326 ft<sup>3</sup>/s (9.23 m<sup>3</sup>/s) Nov. 14, 1972, gage height, 7.08 ft (2.158 m), from rating curve extended above 150 ft<sup>3</sup>/s (4.25 m<sup>3</sup>/s); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 70 ft<sup>3</sup>/s (2.0 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 5	1915	137 3.88	5.20 1.585	Feb. 9	0445	*265 7.50	6.35 1.935
Jan. 9	1130	88 2.49	4.89 1.490	Feb. 12	2300	99 2.80	4.96 1.512
Jan. 14	2130	202 5.72	5.69 1.734	Mar. 5	0645	119 3.37	5.08 1.548
Jan. 17	0045	145 4.11	5.26 1.603				

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.93	4.2	3.4	3.1	1.3	1.4	.17	.25	.03
2			0	1.0	4.0	6.4	2.7	1.1	1.2	.17	.22	.02
3			0	.98	3.8	8.8	2.3	1.1	1.2	.24	.20	.03
4			0	1.2	3.8	38	6.6	1.1	1.2	.25	.12	.02
5			0	23	5.7	57	3.8	1.0	1.4	.27	.09	.07
6			0	14	6.9	29	12	.94	1.4	.28	.07	.11
7			0	6.7	47	18	9.2	.79	1.3	.32	.05	.05
8			0	4.9	53	14	5.4	1.1	1.3	.25	.05	.02
9			0	18	142	13	4.2	1.4	1.1	.23	.08	.02
10			0	8.9	35	10	3.7	1.2	.98	.31	.10	.07
11			0	5.7	17	8.4	3.7	.69	.83	.35	.11	.05
12			0	4.3	35	6.9	3.7	.64	.52	.35	.09	.02
13			0	4.1	65	5.5	2.8	.60	.36	.27	.07	.01
14			0	35	30	4.7	2.3	.61	.36	.20	.06	.01
15			0	30	18	5.0	8.2	.61	.47	.20	.06	.01
16			0	50	14	5.8	9.0	.44	.44	.25	.07	.01
17			5.9	49	11	5.9	4.7	.37	.48	.23	.07	.01
18			4.0	20	8.3	5.8	3.7	.34	.42	.24	.04	.01
19			.64	27	7.1	5.4	3.4	.27	.41	.25	.03	0
20			.36	18	5.9	4.4	3.2	.29	.37	.26	.03	0
21			.45	13	5.8	5.4	2.0	.55	.31	.29	.03	0
22			1.0	11	5.1	6.5	1.8	.55	.23	.34	.02	0
23			13	8.4	5.0	5.0	1.5	.55	.20	.31	.02	0
24			4.2	6.5	4.4	4.2	1.6	.54	.22	.30	.02	0
25			2.4	6.1	4.4	3.7	3.7	.51	.22	.28	.02	0
26			1.6	5.7	3.8	3.7	2.2	.58	.28	.27	.02	0
27			1.8	5.3	3.7	3.4	1.5	.55	.28	.24	.01	0
28			1.8	5.1	3.7	2.9	1.4	.49	.27	.22	.01	0
29			1.5	4.8	---	3.0	1.1	.49	.23	.22	.01	0
30			1.7	4.6	---	3.1	1.1	.47	.19	.27	.02	0
31		---	1.2	4.4	---	4.1	---	1.1	---	.31	.03	---
TOTAL	0	0	41.55	397.61	552.6	300.4	115.6	22.27	19.57	8.14	2.07	.57
MEAN	0	0	1.34	12.8	19.7	9.69	3.85	.72	.65	.26	.067	.019
MAX	0	0	13	50	142	57	12	1.4	1.4	.35	.25	.11
MIN	0	0	0	.93	3.7	2.9	1.1	.27	.19	.17	.01	0
AC-FT	0	0	82	789	1100	596	229	44	39	16	4.1	1.1
(+)	0	1.69	5.13	6.27	5.38	3.99	4.08	.09	0	0	0	.34

CAL YR 1977 TOTAL 70.75 MEAN .19 MAX 13 MIN 0 AC-FT 140  
WTR YR 1978 TOTAL 1460.38 MEAN 4.00 MAX 142 MIN 0 AC-FT 2900

\* Precipitation, in inches.



## PAJARO RIVER BASIN

101

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 (1.0 km) downstream from Pescadero Creek, 0.6 mi (1.0 km) southeast of Chittenden, and 2.3 mi (3.7 km) downstream from San Benito River.

DRAINAGE AREA.--1,186 mi<sup>2</sup> (3,072 km<sup>2</sup>).

## 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. Datum of gage is 82.28 ft (25.079 m) National Geodetic Vertical Datum of 1929. Prior to May 13, 1949, nonrecording gage on former bridge 100 ft (30 m) downstream at same datum except that water-stage recorder, also 100 ft (30 m) downstream and at same datum, was used Dec. 20, 1946, to June 11, 1947, June 21 to Sept. 23, 1947, and Dec. 19, 1947, to May 6, 1948. May 7, 1948, to Aug. 19, 1975, at downstream side of right bank pier of bridge at same datum.

REMARKS.--Records fair. Flow regulated by Hernandez Reservoir, capacity, 18,700 acre-ft (23.1 hm<sup>3</sup>), Pacheco Lake, capacity, 6,150 acre-ft (7.58 hm<sup>3</sup>), Chesbro Reservoir (station 11153480), Uvas Reservoir (station 11154020), and San Felipe Lake. Many diversions above station for irrigation.

AVERAGE DISCHARGE.--39 years, 142 ft<sup>3</sup>/s (4.021 m), 102,900 acre-ft/yr (127 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,000 ft<sup>3</sup>/s (680 m<sup>3</sup>/s) Dec. 24, 1955, gage height, 32.46 ft (9.894 m), from rating curve extended above 8,300 ft<sup>3</sup>/s (235 m<sup>3</sup>/s) on basis of slope-conveyance study; maximum gage height, 33.11 ft (10.092 m) Apr. 3, 1958; no flow at times in July, August 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1938, reached a stage of 31.3 ft (9.54 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,420 ft<sup>3</sup>/s (267 m<sup>3</sup>/s) Feb. 9, gage height, 21.06 ft (6.419 m); minimum daily, 0.03 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) Oct. 2, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.34	.26	3.4	40	73	104	83	9.4	8.0	4.2	8.1
2	.03	.20	.42	3.1	36	84	132	72	8.9	7.4	4.9	6.1
3	.04	.17	.43	2.7	26	296	118	58	11	8.2	6.3	6.5
4	.07	.30	.43	2.4	20	1710	113	51	8.9	8.3	5.4	7.8
5	.07	.52	.41	2.3	15	5500	108	39	11	8.0	4.2	2.2
6	.06	.52	.42	490	24	5140	160	32	9.1	8.3	4.7	2.0
7	.04	.45	.44	150	905	3000	378	28	8.6	9.2	4.8	2.0
8	.03	.44	.42	50	2800	1990	352	25	9.0	8.7	4.7	2.0
9	.30	.35	.40	18	7000	1630	240	19	8.7	8.2	3.6	2.1
10	1.1	.32	.39	400	7660	1490	200	15	8.7	8.2	4.0	2.1
11	1.0	.33	.39	70	3640	1200	160	15	8.5	7.8	3.9	1.8
12	.98	.30	.43	20	2270	1000	135	14	8.1	8.4	3.9	1.8
13	.70	.27	.41	9.0	5580	837	105	14	7.1	8.5	4.0	1.6
14	.54	.31	.42	40	3190	616	80	14	6.8	7.9	3.2	1.5
15	.46	.30	.74	300	2060	501	190	14	6.9	8.0	3.8	1.9
16	.42	.29	.50	1640	1500	410	400	12	5.8	7.8	5.2	1.9
17	.43	.28	21	3960	1140	303	340	11	4.6	6.9	7.1	1.8
18	.48	.28	27	1990	819	247	307	9.7	3.3	5.9	7.2	1.7
19	.57	.26	26	1420	581	214	212	10	3.4	5.4	7.1	1.7
20	.56	.29	9.1	1210	433	179	164	10	4.2	5.6	6.3	2.0
21	.49	.35	5.0	748	293	150	155	9.1	5.8	5.3	5.7	2.4
22	.47	1.0	3.7	477	212	267	142	7.5	9.1	4.9	5.3	2.4
23	.39	.51	36	326	157	389	112	7.7	7.3	5.4	4.9	2.0
24	.34	.47	50	214	124	277	95	7.7	6.9	6.2	4.4	2.2
25	.30	.39	23	152	100	188	125	8.0	7.6	8.1	4.0	2.6
26	.26	.37	11	116	84	150	151	7.9	9.2	9.6	4.1	3.2
27	.23	.26	7.5	92	73	124	250	8.3	9.4	8.7	4.7	2.1
28	.35	.41	6.1	70	73	100	213	7.0	9.5	8.7	4.5	1.5
29	.34	.39	5.1	61	---	83	163	7.9	8.8	7.9	3.9	1.4
30	.41	.45	4.7	54	---	76	105	8.6	8.7	6.3	3.6	1.4
31	.50	---	3.9	47	---	83	---	8.0	---	5.0	4.9	---
TOTAL	12.01	11.12	246.01	14137.9	40855	28307	5509	633.4	234.3	230.8	148.5	79.8
MEAN	.39	.37	7.94	456	1459	913	184	20.4	7.81	7.45	4.79	2.66
MAX	1.1	1.0	50	3960	7660	5500	400	83	11	9.6	7.2	8.1
MIN	.03	.17	.26	2.3	15	73	80	7.0	3.3	4.9	3.2	1.4
AC-FT	24	22	488	28040	81040	56150	10930	1260	465	458	295	158
CAL YR 1977 TOTAL	527.49	MEAN	1.45	MAX	50	MIN	.03	AC-FT	1050			
WTR YR 1978 TOTAL	90404.84	MEAN	248	MAX	7660	MIN	.03	AC-FT	179300			

## PAJARO RIVER BASIN

11159000 PAJARO RIVER AT CHITTENDEN, CA--Continued

## WATER-QUALITY RECORDS

## PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1952 to current year.

BIOLOGICAL DATA: Water year 1978.

SPECIFIC CONDUCTANCE: Water year 1978.

WATER TEMPERATURES: Water year 1978.

SEDIMENT RECORDS: Water year 1978.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May to September 1978.

WATER TEMPERATURES: May to September 1978.

INSTRUMENTATION.--Water-quality monitor since May 1978.

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

## EXTREMES FOR CURRENT PERIOD.--

SPECIFIC CONDUCTANCE: Maximum, 2,570 micromhos Sept 30; minimum, 1,500 micromhos Sept. 1.

WATER TEMPERATURES: Maximum, 30°C May 30; minimum, 10°C Sept. 20.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
JAN 25...A	1500	152	143	552	7.6	10.0	--	9.7	--	--	
FEB 01...	1100	40	41	1100	--	10.5	20	9.8	120	280	
28...	1130	73	70	1050	--	13.5	25	9.8	K500	--	
MAR 16...	1300	410	410	660	8.2	17.0	330	8.8	K260	350	
APR 18...	1115	307	307	925	7.2	14.5	600	9.6	>1200	620	
MAY 23...	1200	7.7	7.4	2000	7.3	15.5	2.0	10.0	K250	K91	
24...A	1330	7.7	8.5	--	8.3	22.5	--	10.8	--	--	
JUN 20...	1100	4.2	3.8	1950	8.1	17.5	1.4	9.3	>6000	--	
JUL 25...	1345	8.1	7.2	1670	7.9	20.5	2.5	10.7	170	280	
AUG 15...	1100	3.8	3.4	1820	7.9	17.0	3.7	10.1	100	260	
SEP 21...	1400	2.4	1.7	2260	8.1	16.5	1.4	12.2	>1200	490	
DATE		HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)
JAN 25...	200	64	38	25	45	--	1.4	--	--	--	--
FEB 01...	330	120	53	47	99	40	2.4	2.9	250	0	0
28...	330	120	58	44	89	37	2.1	2.9	250	0	0
MAR 16...	230	87	56	21	37	26	1.1	3.2	170	0	0
APR 18...	310	71	46	47	65	31	1.6	3.0	290	0	0
MAY 23...	620	230	100	91	250	46	4.4	4.1	--	--	--
24...	570	220	80	89	230	47	4.2	4.4	--	--	0
JUN 20...	630	160	110	86	240	45	4.2	5.2	--	--	--
JUL 25...	510	120	82	74	190	45	3.7	4.6	--	--	--
AUG 15...	500	74	80	74	220	48	4.3	4.9	--	--	--
SEP 21...	610	190	100	88	300	51	5.3	4.7	--	--	--

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

11159000 PAJARO RIVER AT CHITTENDEN, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
JAN 25...	130	90	41	--	--	360	300	.49	--	--
FEB 01...	210	180	93	.2	18	642	617	.87	3.2	.07
FEB 28...	210	170	98	.2	17	614	602	.84	2.6	.02
MAR 16...	140	110	28	.2	21	379	360	.52	1.1	.01
APR 18...	240	140	41	.2	12	490	497	.67	.91	.04
MAY 23...	390	450	220	.4	17	1250	1370	1.70	3.4	.03
MAY 24...	350	380	230	--	--	1230	1190	1.67	--	--
JUN 20...	470	270	260	.4	15	1270	1270	1.73	3.0	.13
JUL 25...	390	210	170	.4	19	1070	985	1.46	4.9	.01
AUG 15...	430	240	220	.4	20	1150	1120	1.56	4.7	.14
SEP 21...	420	390	300	.3	19	1520	1450	2.07	2.1	.12
	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. TOTAL (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)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)
JAN 25...	--	--	--	--	--	--	--	--	--	--
FEB 01...	1.2	1.3	.79	.51	4.5	.15	.10	--	6.6	.7
FEB 28...	.69	.71	.05	.66	3.3	.17	.07	6.6	--	--
MAR 16...	1.1	1.1	.78	.32	2.2	.84	.11	9.6	--	--
APR 18...	1.4	1.4	.89	.51	2.3	1.1	.06	--	2.2	>5.0
MAY 23...	--	--	--	1.8	--	.12	.03	7.0	--	--
MAY 24...	--	--	--	--	--	--	--	--	--	--
JUN 20...	.87	1.0	.22	.78	4.0	.14	.12	6.3	--	--
JUL 25...	1.4	1.4	.49	.91	6.3	.17	.13	--	5.7	.8
AUG 15...	1.1	1.2	.20	1.0	5.9	.17	.13	6.3	--	--
SEP 21...	.98	1.1	.25	.85	3.2	.13	.08	5.5	--	--
	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS- PENDE TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)
JAN 25...A	1500	--	--	--	--	--	300	--	--	--
FEB 01...	1100	2	1	1	100	100	0	--	1	1
APR 18...	1115	9	7	2	600	500	100	--	1	1
MAY 24...A	1330	--	--	--	--	--	1600	--	--	--
JUL 25...	1345	5	1	4	300	100	200	--	0	0

## PAJARO RIVER BASIN

11159000 PAJARO RIVER AT CHITTENDEN, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUS- PENDED RECOV. (UG/L AS CR)	CHROMIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUS- PENDED RECOVERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUS- PENDED RECOVERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
JAN 25...	--	--	--	--	--	--	--	--	--	--
FEB 01...	10	10	0	1	1	0	16	14	2	1500
APR 18...	90	90	0	16	14	2	47	39	8	43000
MAY 24...	--	--	--	--	--	--	--	--	--	--
JUL 25...	0	0	0	0	0	0	9	8	1	500

DATE	IRON, SUS- PENDED RECOVERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUS- PENDED RECOVERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUS- PENDED RECOVERABLE (UG/L AS MN)	MANGANESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUS- PENDED RECOVERABLE (UG/L AS HG)
JAN 25...	--	--	--	--	--	--	--	--	--	--
FEB 01...	--	60	15	13	2	200	40	160	.0	.0
APR 18...	--	20	13	8	5	930	920	10	.0	.0
MAY 24...	--	--	--	--	--	--	--	--	--	--
JUL 25...	450	50	3	0	3	100	60	40	.0	.0

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUS- PENDED TOTAL (UG/L AS SE)	SELENIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUS- PENDED RECOVERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUS- PENDED RECOVERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
JAN 25...	--	--	--	--	--	--	--	--	--	--
FEB 01...	.0	1	0	2	1	1	0	20	10	10
APR 18...	.0	0	0	0	--	--	0	110	110	0
MAY 24...	--	--	--	--	--	--	--	--	--	--
JUL 25...	.0	2	0	2	0	0	0	20	0	20

11159000 PAJARO RIVER AT CHITTENDEN, CA--Continued

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PHYTOPLANKTON

DATE TIME	MAR 16,78 1300	MAY 23,78 1200	JUN 20,78 1100	AUG 15,78 1100				
TOTAL CELLS/ML	110	16000	2400	9600				
DIVERSITY: DIVISION	0.0	1.9	1.4	1.5				
..CLASS	0.0	1.9	1.4	1.5				
...ORDER	0.0	2.4	1.9	2.3				
...FAMILY	0.0	2.8	2.2	2.9				
....GENUS	0.0	2.8	2.6	3.0				
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
...COELASTRACEAE								
....COELASTRUM	--	-	2300	14	--	-	--	-
....OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	220	9	82	1
....KIRCHNERIELLA	--	-	--	-	45	2	--	-
....SELENASTRUM	--	-	570	4	--	-	--	-
....SCENEDESMACEAE								
....SCENEDESMUS	--	-	910	6	220	9	1300	14
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CARTERIA	--	-	--	-	--	-	82	1
....CHLAMYDOMONAS	--	-	1000	6	290	12	650	7
...VOLVOCAEAE								
....PANDORINA	--	-	1100	7	--	-	--	-
CHRYSOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCAEAE								
...CYCLOTELLA	--	-	3500#	22	1100#	46	2700#	28
....STEPHANODISCUS	--	-	--	-	180	7	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	45	2	240	3
...CYMBELLACEAE								
....AMPHORA	--	-	--	-	22	1	--	-
....CYMBELLA	--	-	--	-	--	-	82	1
...FRAGILARIACEAE								
....HANNAEA	110#	100	--	-	--	-	--	-
....SYNEDRA	--	-	110	1	--	-	--	-
...NAVICULACEAE								
....NAVICULA	--	-	450	3	67	3	1200	13
....PINNULARIA	--	-	--	-	--	-	82	1
...NITZSCHIAEAE								
....NITZSCHIA	--	-	--	-	--	-	2000#	21
CRYPTOPHYTA (CRYPTOMONADS)								
..CRYPTOPHYCEAE								
...CRYPTOMONIDALES								
...CRYPTOMONODACEAE								
....CRYPTOMONAS	--	-	5000#	32	--	-	330	3
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROCOCCALES								
...CHROCOCCAEAE								
....ANACYSTIS	--	-	340	2	180	7	330	3
EUGLENOPHYTA (EUGLENIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
....EUGLENACEAE								
....EUGLENA	--	-	--	-	45	2	330	3
....PHACUS	--	-	230	1	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	82	1
PYRRHOPHYTA (FIRE ALGAE)								
..DINOPHYCEAE								
...PERIDINIALES								
....GLENODINIACEAE								
....GLENODINIUM	--	-	--	-	--	-	82	1
...PERIDINIACEAE								
....PERIDINIUM	--	-	230	1	--	-	--	-

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

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

## PAJARO RIVER BASIN

11159000 PAJARO RIVER AT CHITTENDEN, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll a (mg/m <sup>2</sup> )	Chlorophyll b (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
June 20	21	4.25	3.31	6.15	2.92	153	Polyethylene strip do
July 25	36	--	--	20.5	.930	--	

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), MAY TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1										---	---	---
2										---	---	---
3										---	---	---
4										---	---	---
5										---	---	---
6										---	---	---
7										---	---	---
8										---	---	---
9										---	---	---
10										---	---	---
11										---	---	---
12										---	---	---
13										---	---	---
14										---	---	---
15										---	---	---
16										---	---	---
17										---	---	---
18										---	---	---
19										---	---	---
20										---	---	---
21										---	---	---
22										---	---	---
23										2090	2000	2040
24										2130	2010	2060
25										2300	2170	2200
26										2340	2260	2300
27										2350	2050	2210
28										2130	1990	2070
29										2100	1880	2020
30										2160	1930	2040
31										2300	2170	2240
MONTH										2350	1880	2130
	JUNE			JULY			AUGUST			SEPTEMBER		
1	2340	2210	2280	2030	1880	1960	1900	1720	1800	1780	1500	1570
2	2500	2300	2410	2040	1880	1960	1770	1630	1680	1840	1610	1680
3	2440	2160	2260	1990	1860	1940	1790	1590	1660	1630	1530	1590
4	2330	2200	2260	1990	1910	1960	1960	1750	1840	1600	1510	1560
5	2500	2290	2380	1970	1860	1930	1960	1810	1890	1660	1560	1610
6	2430	2250	2330	1950	1850	1890	1910	1790	1860	1680	1610	1660
7	2390	2220	2300	1870	1770	1810	1910	1750	1840	1610	1530	1580
8	2430	2330	2380	1830	1770	1810	1870	1730	1800	1720	1580	1630
9	2440	2340	2410	1840	1720	1790	1840	1690	1770	1720	1640	1680
10	2460	2330	2380	1720	1660	1700	1760	1650	1710	1640	1510	1570
11	2370	2270	2340	1700	1650	1670	1800	1670	1720	1760	1590	1660
12	2510	2300	2400	1690	1580	1630	1880	1780	1830	1860	1680	1770
13	2500	2370	2440	1690	1550	1610	1880	1780	1840	1930	1790	1860
14	2410	2310	2350	1690	1610	1660	1880	1720	1810	1980	1830	1900
15	2250	2200	2230	1730	1630	1680	1860	1760	1810	2060	1850	1970
16	2290	2160	2220	1740	1600	1660	1810	1710	1760	2110	1920	2020
17	2230	2100	2180	1760	1580	1670	1710	1610	1670	2160	1950	2080
18	2040	1970	2000	1800	1650	1730	1660	1520	1600	2230	2080	2160
19	2040	1880	1960	1790	1620	1710	1710	1640	1680	2300	2030	2210
20	2030	1900	1980	1730	1560	1640	1670	1560	1610	2360	2200	2280
21	2060	1870	1960	1730	1610	1670	1610	1510	1570	2430	2230	2320
22	2030	1900	1980	1740	1660	1710	1640	1520	1570	2460	2300	2400
23	2090	1960	2020	1720	1620	1680	1670	1600	1640	2510	2300	2410
24	2090	1990	2050	1720	1640	1690	1670	1600	1650	2470	2170	2340
25	2070	1960	2020	1730	1670	1700	1750	1640	1680	2370	2170	2260
26	1970	1860	1900	1670	1620	1650	1750	1650	1720	2280	2090	2190
27	1890	1840	1870	1710	1620	1670	1750	1620	1700	2350	2150	2250
28	1900	1800	1840	1670	1600	1640	1750	1630	1710	2350	2120	2230
29	1950	1850	1900	1740	1600	1640	1850	1710	1770	2450	2190	2310
30	1980	1880	1930	1820	1670	1720	1820	1680	1750	2570	2390	2460
31	---	---	---	1920	1740	1820	1700	1560	1620	---	---	---
MONTH	2510	1800	2170	2040	1550	1740	1960	1510	1730	2570	1500	1970

11159000 PAJARO RIVER AT CHITTENDEN, CA--Continued

TEMPERATURE (DEG. C) OF WATER, MAY TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	24.5	16.5	27.0	14.5	25.5	16.0	26.0	15.5
2			---	---	25.5	16.5	25.5	14.5	25.5	16.5	23.0	16.5
3			---	---	26.5	16.5	27.0	14.5	26.0	16.5	25.5	16.5
4			---	---	28.0	16.5	27.0	16.0	26.5	16.5	22.5	17.5
5			---	---	28.5	16.5	27.5	15.5	27.5	16.5	20.5	18.0
6			---	---	30.0	16.0	26.5	16.5	27.0	16.5	24.0	17.5
7			---	---	30.0	15.0	25.5	17.0	27.5	17.0	23.5	14.0
8			---	---	28.5	16.5	28.0	17.0	26.5	17.0	24.0	12.5
9			---	---	28.5	15.5	27.0	16.5	26.0	17.0	19.5	13.5
10			---	---	27.5	14.5	20.5	17.0	26.0	17.0	23.5	17.0
11			---	---	28.0	14.5	21.5	16.0	26.0	17.0	24.0	14.0
12			---	---	28.5	15.0	26.0	15.0	26.5	17.0	24.0	13.5
13			---	---	28.5	15.5	29.0	16.0	26.5	17.0	22.0	13.0
14			---	---	27.0	14.5	29.0	16.5	26.5	14.5	23.5	16.5
15			---	---	26.5	15.5	28.5	16.5	25.5	15.5	23.0	13.5
16			---	---	27.5	13.5	29.0	17.0	25.0	17.0	23.0	15.0
17			---	---	26.5	14.5	29.0	16.5	26.5	16.0	22.5	15.0
18			---	---	27.5	16.5	27.0	16.5	27.0	14.5	21.5	11.0
19			---	---	27.0	14.5	26.5	17.0	26.0	14.5	21.5	10.5
20			---	---	26.0	14.0	27.0	16.5	26.5	16.5	21.5	10.0
21			---	---	28.0	15.0	27.5	16.5	26.5	15.0	21.5	10.5
22			---	---	26.5	14.5	26.5	16.5	25.5	14.5	23.0	12.0
23			23.5	13.0	27.5	13.5	27.0	17.0	25.5	14.0	25.0	13.0
24			23.0	10.5	27.5	14.0	27.0	16.5	25.5	13.5	25.0	14.0
25			24.5	10.5	27.0	14.0	27.0	17.0	26.5	15.0	23.5	14.0
26			25.0	12.0	19.0	16.0	28.0	17.5	26.0	17.0	22.5	15.0
27			27.0	12.5	23.0	16.5	28.0	16.5	26.0	14.5	23.0	14.5
28			28.0	14.0	25.0	17.0	27.5	16.0	26.0	14.5	24.0	13.5
29			29.0	14.0	26.5	17.0	26.5	17.0	25.5	16.5	25.0	14.5
30			30.0	14.5	27.5	15.0	26.0	16.5	25.0	16.5	22.5	14.5
31			26.5	15.5	---	---	26.5	16.0	25.0	16.0	---	---
MONTH			30.0	10.5	30.0	13.5	29.0	14.5	27.5	13.5	26.0	10.0

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
FEB						
01...	1035	10.5	40	41	36	3.9
28...	1115	13.5	73	70	49	9.7
JUN						
20...	1115	20.0	4.2	3.9	92	1.0
JUL						
25...	1345	20.5	8.1	7.2	34	.74
AUG						
15...	1045	17.0	3.8	3.5	55	.56
SEP						
21...	1400	16.5	2.4	1.7	18	.12

## 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 (0.3 km) north of Freedom, and 2.3 mi (3.7 km) north of Watsonville.

DRAINAGE AREA.--27.8 mi<sup>2</sup> (72.0 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 80 ft (24 m), from topographic map.

REMARKS.--Records fair. No regulation; Watsonville Water Works can divert up to 8.0 ft<sup>3</sup>/s (0.23 m<sup>3</sup>/s) daily above station for municipal supply, domestic use, and irrigation.

AVERAGE DISCHARGE.--22 years, 14.1 ft<sup>3</sup>/s (0.399 m<sup>3</sup>/s), 10,220 acre-ft/yr (12.6 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,680 (75.9 m<sup>3</sup>/s) Apr. 2, 1958, gage height, 12.59 ft (3.837 m); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached a stage of 15.6 ft (4.75 m), from floodmarks, discharge, 3,620 ft<sup>3</sup>/s (103 m<sup>3</sup>/s) on basis of contracted-opening measurement of maximum flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft<sup>3</sup>/s (17 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)				
Jan. 14	2100	1050	29.7	7.38	2.249	Feb. 9	0330	809	22.9	6:43	1.960
Jan. 16	1045	*1320	37.4	8.39	2.557	Feb. 12	1615	804	22.8	6.40	1.951

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	52	.07	2.1	19	18	2.1	0	0	0
2		0	0	49	.04	71	15	14	2.5	0	0	0
3		0	0	54	.02	39	12	12	1.8	0	0	0
4		0	0	54	.01	216	39	10	2.4	0	0	0
5		.13	0	133	.60	414	24	8.1	1.6	0	0	0
6		0	0	192	5.1	234	84	6.1	1.3	0	.51	0
7		0	0	121	219	150	59	4.8	.32	.01	0	0
8		0	0	86	196	117	43	4.3	.09	0	0	0
9		0	0	180	429	123	34	4.2	.19	0	0	.01
10		0	0	142	158	90	25	4.1	.13	0	.07	0
11		0	.03	98	83	78	19	3.3	.01	0	.28	0
12		0	0	78	290	64	16	2.8	0	0	0	0
13		0	0	104	248	49	14	2.9	0	0	0	0
14		0	.05	449	141	40	12	2.8	0	0	0	0
15		0	21	309	92	32	62	2.8	0	0	0	0
16		0	5.3	596	58	27	52	2.7	0	0	0	0
17		0	185	280	39	22	31	2.6	0	0	0	0
18		0	105	137	28	18	22	2.3	0	0	0	0
19		0	57	102	21	15	17	1.7	0	0	0	0
20		0	42	50	16	13	18	1.4	0	0	0	0
21		.21	37	28	12	25	16	6.7	0	0	0	0
22		30	63	17	8.2	40	12	15	0	0	0	0
23		1.6	188	9.5	7.0	26	9.9	15	0	0	0	0
24		0	79	4.9	6.1	23	8.7	17	0	0	0	0
25		0	56	2.3	4.8	17	25	17	0	0	0	0
26		0	45	1.3	3.4	14	86	16	.20	0	0	0
27		0	57	1.1	2.1	11	46	15	.01	0	0	0
28		0	67	1.1	2.1	9.3	33	16	0	0	0	0
29		0	71	.96	---	8.1	27	15	0	0	0	0
30		0	75	.52	---	8.7	23	7.3	0	0	0	0
31		---	62	.17	---	23	---	1.8	---	0	0	---
TOTAL	0	31.94	1215.38	3332.85	2069.54	2019.2	903.6	252.7	12.65	.01	.86	.01
MEAN	0	1.06	39.2	108	73.9	65.1	30.1	8.15	.42	.0003	.028	.0003
MAX	0	30	188	596	429	414	86	18	2.5	.01	.51	.01
MIN	0	0	0	.17	.01	2.1	8.7	1.4	0	0	0	0
AC-FT	0	63	2410	6610	4100	4010	1790	501	25	.02	1.7	.02
CAL YR 1977	TOTAL	1293.80	MEAN	3.54	MAX	188	MIN	0	AC-FT	2570		
WTR YR 1978	TOTAL	9838.74	MEAN	27.0	MAX	596	MIN	0	AC-FT	19520		



11159690 APTOS CREEK NEAR APTOS, CA

LOCATION.--Lat 37°00'06", long 121°54'18", in Aptos Grant, Santa Cruz County, Hydrologic Unit 18060001, on right bank under county road bridge, 0.4 mi (0.6 km) downstream from small right-bank tributary, and 1.7 mi (2.7 km) north of Aptos.

DRAINAGE AREA.--10.2 mi<sup>2</sup> (26.4 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 160 ft (49 m), from topographic map.

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

AVERAGE DISCHARGE.--7 years, 7.24 ft<sup>3</sup>/s (0.205 m<sup>3</sup>/s), 5,250 acre-ft/yr (6.47 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,200 ft<sup>3</sup>/s (34.0 m<sup>3</sup>/s) Jan. 16, 1973, gage height, 5.65 ft (1.722 m), from rating curve extended above 340 ft<sup>3</sup>/s (9.63 m<sup>3</sup>/s); minimum daily, 0.36 ft<sup>3</sup>/s (0.010 m<sup>3</sup>/s) July 30 to Aug. 2, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft<sup>3</sup>/s (2.8 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 340 ft<sup>3</sup>/s (9.63 m<sup>3</sup>/s):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 9	1115	176 4.98	2.51 0.765	Feb. 8	2230	338 9.57	3.11 0.948
Jan. 14	2015	529 15.0	3.80 1.158	Feb. 12	1630	267 7.56	2.85 .869
Jan. 16	0930	*1090 30.9	5.37 1.637	Mar. 5	1300	301 8.52	2.97 .905

Minimum daily discharge, 0.61 ft<sup>3</sup>/s (0.017 m<sup>3</sup>/s) Oct. 14-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.85	.78	.99	3.9	5.6	7.7	18	11	4.1	2.6	1.5	.88
2	.80	.78	.99	3.5	5.4	22	15	11	4.1	2.6	1.5	.88
3	.85	.74	.99	4.3	5.1	20	13	10	4.1	2.6	1.5	.88
4	.85	.70	.99	4.1	4.6	63	31	9.7	4.1	2.6	1.5	.88
5	.90	1.9	.99	25	5.1	176	19	9.0	3.9	2.4	1.4	.93
6	.75	1.0	.93	38	5.6	76	31	8.7	3.9	2.4	1.2	.99
7	.69	.88	.88	16	82	41	27	8.4	3.7	2.3	1.1	.99
8	.70	.82	.88	9.1	93	31	20	8.0	3.7	2.3	1.1	.99
9	.70	.78	.88	61	171	32	18	7.8	3.6	2.3	1.1	1.6
10	.70	.70	.88	23	49	27	16	7.5	3.5	2.1	1.1	3.2
11	.70	.70	.88	11	29	23	15	7.2	3.5	2.0	1.1	1.5
12	.70	.70	.88	8.1	102	21	14	7.2	3.5	2.0	1.1	1.3
13	.68	.70	.88	22	68	18	13	7.1	3.4	2.0	1.1	1.2
14	.61	.70	1.2	210	36	17	13	6.7	3.2	2.0	1.1	1.2
15	.61	.70	7.8	94	27	16	23	6.5	3.2	1.8	1.1	1.2
16	.61	.70	2.8	311	315	14	24	6.4	3.2	1.8	1.1	1.2
17	.61	.70	20	102	19	13	18	6.2	3.0	1.8	1.1	1.2
18	.61	.70	8.1	40	16	12	16	5.9	3.0	1.8	1.1	1.2
19	.61	.70	3.8	37	15	11	14	5.6	3.0	1.8	1.1	1.2
20	.61	.70	2.7	27	13	11	13	5.6	3.0	1.8	1.1	1.1
21	.61	1.3	2.1	20	12	12	12	5.5	2.8	1.8	1.1	1.1
22	.61	8.7	3.5	17	11	16	12	5.4	2.8	1.7	1.1	1.1
23	.61	2.3	19	14	10	15	11	5.3	2.8	1.7	1.1	1.1
24	.61	1.5	6.3	12	9.7	16	11	5.1	2.8	1.7	1.1	1.1
25	.61	1.3	4.0	11	9.2	14	14	5.0	2.6	1.7	1.1	1.1
26	.61	1.2	3.2	9.6	8.7	13	17	4.8	2.6	1.7	1.1	1.2
27	.61	1.1	3.5	8.7	8.3	12	15	4.8	2.8	1.7	1.1	1.2
28	.63	1.1	4.2	7.7	7.9	11	13	4.8	2.8	1.7	.99	1.2
29	1.1	1.1	6.2	7.1	---	11	13	4.6	2.8	1.5	.99	1.2
30	.89	1.0	6.4	6.5	---	11	12	4.4	2.8	1.5	.99	1.1
31	.78	---	4.8	6.0	---	22	---	4.1	---	1.5	.99	---
TOTAL	21.81	36.68	121.64	1169.6	1143.2	804.7	501	209.3	98.3	61.2	35.66	35.92
MEAN	.70	1.22	3.92	37.7	40.8	26.0	16.7	6.75	3.28	1.97	1.15	1.20
MAX	1.1	8.7	20	311	315	176	31	11	4.1	2.6	1.5	3.2
MIN	.61	.70	.88	3.5	4.6	7.7	11	4.1	2.6	1.5	.99	.88
AC-FT	43	73	241	2320	2270	1600	994	415	195	121	71	71
CAL YR 1977	TOTAL	437.68	MEAN	1.20	MAX	20	MIN	.45	AC-FT	868		
WTR YR 1978	TOTAL	4239.01	MEAN	11.6	MAX	315	MIN	.61	AC-FT	8410		

## SOQUEL CREEK BASIN

11160000 SOQUEL CREEK AT SOQUEL, CA

LOCATION.--Lat 36°59'29", long 121°57'17", in NE¼ sec.10, T.11 S., R.1 W., Santa Cruz County, Hydrologic Unit 18060001, on left bank 0.2 mi (0.3 km) upstream from highway bridge in town of Soquel, and 0.4 mi (0.6 km) downstream from Bates Creek.

DRAINAGE AREA.--40.2 mi<sup>2</sup> (104.1 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 21.38 ft (6.517 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. No regulation; small diversion above station for irrigation.

AVERAGE DISCHARGE.--27 years, 41.7 ft<sup>3</sup>/s (1.181 m<sup>3</sup>/s), 30,210 acre-ft/yr (37.2 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft<sup>3</sup>/s (447 m<sup>3</sup>/s) Dec. 23, 1955, gage height, 22.33 ft (6.806 m), from rating curve extended above 2,900 ft<sup>3</sup>/s (82.1 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow July 30 to Aug. 2, Aug. 28-30, Sept. 8, 1977.

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

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 5	1745	1030 29.2	6.48 1.975	Jan. 16	1030	*4010 114	11.77 3.587
Jan. 9	1115	1040 29.5	6.50 1.981	Feb. 8	2130	1490 42.2	7.56 2.304
Jan. 14	2045	3680 104	11.31 3.447	Mar. 5	1215	1130 32.0	6.72 2.048

Minimum daily discharge, 0.85 ft<sup>3</sup>/s (0.024 m<sup>3</sup>/s) Oct. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.95	1.1	2.3	22	44	39	77	54	17	9.1	3.6	2.1
2	.91	1.0	2.2	27	42	178	60	49	18	8.5	3.6	2.3
3	.96	1.1	2.3	63	41	149	52	45	17	8.2	3.4	2.2
4	.98	1.1	2.2	43	39	428	144	42	17	8.3	3.3	2.1
5	1.1	6.5	2.2	351	55	670	82	40	17	8.2	3.4	2.1
6	.89	2.9	2.1	287	63	300	152	39	16	7.8	3.0	2.2
7	.94	1.9	2.1	101	353	203	114	36	16	7.6	2.6	1.9
8	.87	1.6	2.1	60	384	178	93	34	15	7.8	2.9	1.7
9	.86	1.3	2.1	428	494	195	81	32	15	7.3	2.9	3.1
10	.96	1.3	2.2	146	225	133	69	31	14	7.1	2.8	1.1
11	1.0	1.3	2.4	78	194	118	62	27	14	7.0	2.7	4.7
12	1.0	1.3	2.6	53	411	103	57	26	14	6.9	2.9	2.9
13	.94	1.3	2.5	44	269	90	54	25	13	6.7	2.6	2.4
14	.85	1.2	3.7	1130	208	81	50	23	13	6.2	2.8	2.3
15	.88	1.3	40	401	190	73	152	23	13	5.6	2.8	2.1
16	1.0	1.3	19	1370	161	67	129	22	13	5.3	2.9	2.1
17	.95	1.2	195	462	136	63	92	21	13	5.1	2.7	1.9
18	1.1	1.2	56	261	120	60	79	20	12	5.1	2.6	1.8
19	1.2	1.2	23	266	109	57	71	18	12	5.3	2.3	1.6
20	1.2	1.3	15	170	101	56	67	21	12	5.1	2.4	1.5
21	1.1	4.3	13	126	94	68	63	24	12	5.1	2.0	2.2
22	1.0	98	38	105	70	89	61	24	11	5.0	2.0	3.7
23	.96	16	260	90	52	80	56	24	11	4.7	2.2	3.5
24	.99	7.3	47	79	49	78	58	23	10	4.5	2.3	3.3
25	.95	4.9	28	71	46	66	95	21	9.8	4.2	2.4	2.8
26	.95	3.8	21	64	44	61	161	20	9.9	4.1	2.4	2.9
27	.92	3.2	28	59	42	57	90	20	12	3.9	2.4	2.7
28	1.1	2.9	39	55	40	55	74	18	12	3.6	2.2	2.5
29	2.4	2.6	46	52	---	53	65	18	11	3.7	2.3	2.3
30	1.6	2.3	40	49	---	53	59	17	9.8	3.7	2.2	2.4
31	1.2	---	29	47	---	121	---	17	---	3.8	2.2	---
TOTAL	32.71	177.7	970.0	6560	4076	4022	2519	854	399.5	184.5	82.8	82.3
MEAN	1.06	5.92	31.3	212	146	130	84.0	27.5	13.3	5.95	2.67	2.74
MAX	2.4	98	260	1370	494	670	161	54	18	9.1	3.6	11
MIN	.85	1.0	2.1	22	39	39	50	17	9.8	3.6	2.0	1.5
AC-FT	65	352	1920	13010	8080	7980	5000	1690	792	366	164	163
CAL YR 1977 TOTAL	1889.79			MEAN 5.18	MAX 260	MIN 0	AC-FT 3750					
WTR YR 1978 TOTAL	19960.51			MEAN 54.7	MAX 1370	MIN .85	AC-FT 39590					

11160000 SOQUEL CREEK AT SOQUEL, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1952-66, 1977.

WATER TEMPERATURES: Water years 1966 to current year.

SEDIMENT RECORDS: Water year 1976-77.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: January 1966 to current year.

INSTRUMENTATION.--Temperature recorder since January 1966.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 30.5°C Aug. 29, 1968; minimum recorded, 2.0°C Jan. 30, 1975.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 21.0°C Sept. 25; minimum recorded, 10.0°C on several days during November, December, and February.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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

## SOQUEL CREEK BASIN

11160000 SOQUEL CREEK AT SOQUEL, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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

LOCATION.--Lat 37°12'24", long 122°08'38", in NE¼SW¼ sec.25, T.8 S., R.3 W., Santa-Cruz County, Hydrologic Unit 18060001, on right bank 22 ft (7 m) upstream from culvert on State Highway 9, 100 ft (30 m) upstream from small right-bank tributary, and 5.8 mi (9.3 km) north of town of Boulder Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 672 ft<sup>3</sup>/s (19.0 m<sup>3</sup>/s) Jan. 16, 1973, gage height, 9.10 ft (2.774 m), from rating curve extended above 230 ft<sup>3</sup>/s (6.51 m<sup>3</sup>/s) on basis of computation of flow through culvert at gage height 8.48 ft (2.585 m); minimum daily, 0.08 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Aug. 2, 1977.

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)		Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Dec. 22	2330	86	2.44	3.34	1.018	Feb. 7	1030	252	7.14	5.21	1.588
Jan. 5	1645	126	3.57	3.81	1.161	Feb. 12	1630	103	2.92	3.53	1.076
Jan. 9	0800	99	2.80	3.50	1.067	Mar. 2	1845	79	2.24	3.26	.994
Jan. 14	1830	*651	18.4	8.92	2.719	Mar. 5	0415	231	6.54	4.99	1.521
Jan. 16	0900	512	14.5	7.69	2.344						

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.25	.36	1.8	7.8	11	22	9.5	4.0	2.3	1.1	.90
2	.24	.23	.47	2.5	7.1	30	19	8.6	4.0	2.2	1.2	.87
3	.24	.28	.53	4.7	6.5	38	16	8.0	3.9	2.3	1.2	.89
4	.23	.33	.53	8.2	6.1	99	22	7.4	3.8	2.2	1.2	.89
5	.23	.82	.53	44	21	115	18	6.9	3.8	2.5	1.1	.92
6	.18	.47	.53	25	38	61	25	6.4	3.7	2.8	1.0	.95
7	.14	.36	.53	11	92	41	21	6.0	3.6	2.6	1.0	.95
8	.14	.32	.53	6.7	66	39	19	5.8	3.5	2.4	1.0	.95
9	.14	.27	.53	36	99	44	17	5.5	3.5	2.2	1.0	1.3
10	.14	.32	.53	15	48	38	16	5.4	3.5	2.2	1.0	1.4
11	.14	.33	.56	8.8	35	35	15	5.1	3.4	2.1	1.0	.95
12	.14	.36	.62	6.2	62	32	14	4.8	3.3	2.1	1.0	.92
13	.14	.36	.53	31	55	28	13	4.6	3.2	1.8	1.0	.89
14	.13	.36	.67	272	42	25	12	4.5	3.2	1.7	1.0	.88
15	.12	.36	2.2	89	34	23	23	4.6	3.2	1.7	1.0	.88
16	.14	.36	.93	265	29	21	22	4.4	3.1	1.7	.99	.88
17	.21	.36	13	128	26	20	18	4.2	2.9	1.6	1.0	.91
18	.23	.36	2.7	53	23	19	16	4.1	3.0	1.5	.95	.95
19	.23	.36	1.1	53	21	18	15	3.9	3.0	1.5	.88	.95
20	.23	.36	.74	37	19	17	15	3.9	3.1	1.5	.89	.92
21	.23	2.3	.99	30	18	17	14	4.0	3.1	1.4	.90	.90
22	.19	5.2	15	24	16	19	12	3.9	3.0	1.3	.93	.90
23	.14	.81	22	22	15	17	11	4.0	3.0	1.4	.95	.88
24	.17	.57	3.9	19	14	16	11	4.2	2.9	1.3	.95	.87
25	.21	.53	2.4	16	13	15	13	4.2	2.9	1.3	.95	.87
26	.23	.53	2.0	15	12	14	14	4.1	2.9	1.3	.91	.87
27	.29	.53	2.3	13	11	13	12	3.9	3.0	1.3	.91	.91
28	.29	.53	2.0	11	11	13	11	3.8	3.0	1.3	.89	.90
29	.43	.36	2.0	10	---	12	10	3.8	2.7	1.2	.90	.88
30	.36	.37	2.0	9.3	---	12	10	3.6	2.5	1.2	.92	.86
31	.36	---	1.9	8.4	---	17	---	3.6	---	1.2	.92	---
TOTAL	6.53	18.95	84.61	1275.6	847.5	919	476	156.7	97.7	55.1	30.64	27.99
MEAN	.21	.63	2.73	41.1	30.3	29.6	15.9	5.05	3.26	1.78	.99	.93
MAX	.43	5.2	22	272	99	115	25	9.5	4.0	2.8	1.2	1.4
MIN	.12	.23	.36	1.8	6.1	11	10	3.6	2.5	1.2	.88	.86
AC-FT	13	38	168	2530	1680	1820	944	311	194	109	61	55

CAL YR 1977	TOTAL	225.89	MEAN	.62	MAX	22	MIN	.08	AC-FT	448
WTR YR 1978	TOTAL	3996.32	MEAN	10.9	MAX	272	MIN	.12	AC-FT	7930

## SAN LORENZO RIVER BASIN

11160060 BEAR CREEK AT BOULDER CREEK, CA

LOCATION.--Lat 37°07'40", long 122°06'57", in NW¼NW¼ 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 (0.5 km) upstream from mouth.

DRAINAGE AREA.--16.0 mi<sup>2</sup> (41.4 km<sup>2</sup>).

PERIOD OF RECORD.--October 1977 to September 1978.

GAGE.--Water-stage recorder. Altitude of gage is 460 ft (140 m), from topographic map.

REMARKS.--Records good except those for periods of no gage-height record, Oct. 1 to Jan. 3, Apr. 5 to May 19, Aug. 3 to Sept. 30, which are fair. No regulation or diversion above station.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft<sup>3</sup>/s (4.2 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 600 ft<sup>3</sup>/s (49.9 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 22	2345	498 14.1	4.28 1.305	Jan. 16	0930	1880 53.2	9.91 3.021
Jan. 5	1745	588 16.7	4.73 1.442	Feb. 7	1115	641 18.2	4.98 1.518
Jan. 9	0830	613 17.4	4.85 1.478	Feb. 12	1230	439 12.4	3.97 1.210
Jan. 14	1915	*2060 58.3	10.50 3.200	Mar. 5	0415	544 15.4	4.52 1.378

Minimum daily discharge, 0.13 ft<sup>3</sup>/s (0.004 m<sup>3</sup>/s) Oct. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.19	.62	3.0	22	32	44	21	7.0	4.8	2.0	.90
2	.16	.18	.59	7.8	21	69	36	19	7.0	4.8	2.0	.81
3	.15	.18	.62	21	20	87	33	18	6.7	4.5	2.0	.80
4	.15	.19	.69	54	20	347	54	17	6.3	4.5	2.1	.80
5	.15	.94	.64	209	59	373	38	16	6.1	4.6	2.1	.80
6	.18	.25	.61	65	98	168	61	16	5.9	4.5	2.0	.80
7	.18	.20	.62	17	278	109	47	15	5.6	4.1	1.7	.80
8	.18	.20	.62	9.5	245	111	41	14	5.7	4.2	1.5	.68
9	.18	.19	.62	224	289	130	36	13	5.5	4.6	1.5	1.5
10	.19	.19	.62	26	145	94	35	12	5.6	4.4	1.5	2.5
11	.19	.20	.72	11	99	80	33	13	5.7	4.3	1.5	1.3
12	.17	.21	.87	7.9	222	69	30	12	5.6	3.9	1.4	.86
13	.15	.21	.76	157	172	60	29	11	5.4	3.8	1.4	.73
14	.14	.21	2.0	850	119	54	27	11	5.3	3.7	1.4	.61
15	.14	.23	6.0	283	94	49	78	11	5.4	3.6	1.4	.59
16	.13	.23	2.7	849	79	45	55	11	5.1	3.3	1.3	.56
17	.13	.23	14	330	68	42	43	11	5.3	3.2	1.3	.55
18	.14	.22	13	155	60	39	31	10	5.3	3.2	1.3	.55
19	.16	.22	3.5	171	53	36	27	10	5.4	3.2	1.3	.56
20	.17	.23	2.0	95	49	35	27	9.0	5.4	3.1	1.3	.59
21	.18	15	3.8	67	46	37	26	8.6	5.4	2.9	1.3	.60
22	.18	17	16	53	42	38	23	8.8	5.4	2.9	1.3	.61
23	.21	3.5	57	44	40	32	22	8.7	5.2	2.9	1.2	.60
24	.20	1.2	39	39	38	30	22	8.8	5.2	2.6	1.2	.59
25	.19	1.0	10	36	36	29	25	8.5	5.0	2.5	1.1	.59
26	.19	.82	5.0	33	35	27	31	8.5	4.8	2.4	1.1	.62
27	.28	.70	7.0	30	34	26	30	8.5	5.0	2.3	1.1	.59
28	.26	.68	7.5	28	32	25	25	8.0	5.2	2.3	1.1	.54
29	.35	.62	5.8	26	---	25	23	7.9	5.2	2.1	.97	.52
30	.22	.62	4.4	24	---	25	22	7.2	5.0	2.1	1.0	.50
31	.20	---	3.7	23	---	38	---	7.0	---	2.0	1.0	---
TOTAL	5.68	46.04	211.00	3948.2	2515	2361	1054	360.5	166.7	107.3	44.37	23.05
MEAN	.18	1.53	6.81	127	89.8	76.2	35.1	11.6	5.56	3.46	1.43	.77
MAX	.35	17	57	850	289	373	78	21	7.0	4.8	2.1	2.5
MIN	.13	.18	.59	3.0	20	25	22	7.0	4.8	2.0	.97	.50
AC-FT	11	91	419	7830	4990	4680	2090	715	331	213	88	46

WTR YR 1978 TOTAL 10842.84 MEAN 29.7 MAX 850 MIN .13 AC-FT 21510

## 11160070 BOULDER CREEK AT BOULDER CREEK, CA

LOCATION.--Lat 37°07'36", long 122°07'18", in NW¼NE¼ 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, 750 ft (229 m) upstream from mouth.

DRAINAGE AREA.--11.3 mi<sup>2</sup> (29.3 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 470 ft (143 m), from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,630 ft<sup>3</sup>/s (46.2 m<sup>3</sup>/s) Jan. 14, 1978, gage-height, 8.03 ft (2.448 m), from rating curve extended above 330 ft<sup>3</sup>/s (9.35 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; minimum daily, 0.35 ft<sup>3</sup>/s (0.010 m<sup>3</sup>/s) Oct. 16, 17, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft<sup>3</sup>/s (8.5 m<sup>3</sup>/s) and maximum (\*) from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 22	0015	457 12.9	3.54 1.079	Jan. 14	1930	*1630 46.2	8.03 2.448
Dec. 17	1200	407 11.5	3.38 1.030	Feb. 7	1030	474 13.4	3.36 1.024
Dec. 22	2345	500 14.2	3.67 1.119	Feb. 12	1400	366 10.4	3.02 .920
Jan. 5	1515	581 16.5	3.94 1.201	Mar. 4	0600	405 11.5	3.14 .957
Jan. 9	0645	684 19.4	4.27 1.301				

Minimum daily discharge, 0.35 ft<sup>3</sup>/s (0.010 m<sup>3</sup>/s) Oct. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.47	.49	1.0	8.2	19	21	57	25	8.9	4.9	2.9	1.3
2	.45	.49	.96	25	19	57	43	24	9.0	4.8	2.9	1.1
3	.40	.48	1.0	80	18	47	42	21	8.5	4.5	2.9	1.2
4	.43	.49	1.1	165	16	269	87	20	8.0	4.6	2.9	1.2
5	.40	2.7	1.0	253	65	156	52	20	7.7	4.6	2.5	1.2
6	.49	.63	.97	169	59	90	81	19	7.5	4.2	2.4	1.2
7	.49	.53	1.0	75	194	71	62	18	6.9	4.2	2.4	1.2
8	.49	.53	.99	38	193	88	51	17	6.9	4.2	2.3	.91
9	.49	.52	.99	274	252	124	46	16	6.8	4.2	2.3	3.1
10	.52	.52	.99	67	126	86	42	15	6.6	4.2	2.3	3.8
11	.52	.53	1.2	32	75	73	40	16	6.6	4.2	2.2	1.4
12	.49	.57	1.4	23	188	63	37	15	6.6	3.8	2.2	1.2
13	.42	.57	1.2	146	160	55	35	14	6.6	3.8	2.1	.91
14	.38	.57	3.6	720	97	52	34	14	6.6	3.6	2.2	.91
15	.38	.61	27	230	97	48	89	14	6.5	3.2	2.1	.86
16	.35	.63	5.1	580	81	45	62	14	6.0	3.2	2.0	.83
17	.35	.61	136	280	59	43	44	13	5.9	3.2	2.0	.83
18	.38	.61	19	220	54	40	37	13	5.5	3.2	2.0	.83
19	.42	.61	7.4	250	44	37	33	12	5.5	3.2	2.0	.87
20	.45	.62	5.1	98	39	36	34	11	5.5	3.2	1.9	.89
21	.49	51	11	66	34	40	31	11	5.5	3.2	1.9	.91
22	.49	45	88	53	31	47	28	11	5.3	3.2	1.9	.91
23	.57	3.2	160	44	30	39	27	11	5.3	3.2	1.8	.91
24	.53	1.9	80	38	27	35	27	11	5.3	3.2	1.7	.86
25	.52	1.5	23	35	26	34	35	10	4.8	3.2	1.7	.94
26	.50	1.3	11	32	25	32	41	11	4.8	3.1	1.7	.91
27	.79	1.1	23	28	23	31	34	9.9	5.2	3.1	1.7	.83
28	.66	1.1	19	26	22	30	30	9.9	5.5	3.1	1.6	.81
29	.97	1.0	14	25	---	28	28	10	5.1	3.1	1.3	.76
30	.59	1.0	12	22	---	28	27	9.5	4.8	2.9	1.5	.76
31	.54	---	9.6	20	---	46	---	8.1	---	2.9	1.4	---
TOTAL	15.42	121.41	667.60	4122.2	2073	1891	1316	443.4	189.7	113.2	64.7	34.34
MEAN	.50	4.05	21.5	133	74.0	61.0	43.9	14.3	6.32	3.65	2.09	1.14
MAX	.97	51	160	720	252	269	89	25	9.0	4.9	2.9	3.8
MIN	.35	.48	.96	8.2	16	21	27	8.1	4.8	2.9	1.3	.76
AC-FT	31	241	1320	8180	4110	3750	2610	879	376	225	128	68

CAL YR 1977 TOTAL 1145.36 MEAN 3.14 MAX 160 MIN .35 AC-FT 2270  
WTR YR 1978 TOTAL 11051.97 MEAN 30.3 MAX 720 MIN .35 AC-FT 21920

## 11160300 ZAYANTE CREEK AT ZAYANTE, CA

LOCATION.--Lat 37°05'10", long 122°02'45", in SE¼ 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 (0.6 km) upstream from Lompico Creek, 2.0 mi (3.2 km) east of Ben Lomond, and 3.2 mi (5.1 km) upstream from mouth.

DRAINAGE AREA.--11.1 mi<sup>2</sup> (28.7 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 390 ft (119 m), from topographic map. Prior to Jan. 14, 1978, at datum 0.12 ft (0.037 m) higher.

REMARKS.--Records good except those for period of no gage-height record, Mar. 15 to Apr. 25, which are fair. No known regulation; only small diversion above station for individual use.

AVERAGE DISCHARGE.--21 years, 11.1 ft<sup>3</sup>/s (0.314 m<sup>3</sup>/s), 8,040 acre-ft/yr (9.91 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,620 ft<sup>3</sup>/s (131 m<sup>3</sup>/s) Jan. 14, 1978, gage height, 8.52 ft (2.597 m), from rating curve extended above 1,200 ft<sup>3</sup>/s (34.0 m<sup>3</sup>/s) on basis of slope-area measurement at gage-height 7.70 ft (2.347 m); no flow at times, caused by filling of pools upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft<sup>3</sup>/s (13 m<sup>3</sup>/s) and maximum (\*) from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 5	1600	581 16.5	4.15 1.265	Feb. 8	1945	1010 28.6	4.75 1.448
Jan. 9	0915	776 22.0	4.51 1.375	Mar. 4	0245	621 17.6	4.11 1.253
Jan. 14	1845	*4620 131	8.52 2.597				

Minimum daily discharge, 0.13 ft<sup>3</sup>/s (0.004 m<sup>3</sup>/s) Oct. 15-17.

DISCHARGE, IN CURIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	.35	.57	4.4	11	17	24	16	6.1	2.7	1.4	.87
2	.16	.33	.57	13	10	47	21	15	5.1	2.6	1.4	.85
3	.17	.31	.55	25	9.8	47	20	14	5.0	2.6	1.3	.84
4	.16	.31	.55	25	9.5	308	33	13	4.8	2.6	1.3	.83
5	.16	2.3	.57	161	26	262	21	13	4.6	2.5	1.3	.86
6	.15	1.0	.57	63	29	118	35	12	4.3	2.4	1.2	.88
7	.14	.69	.57	21	182	72	24	11	4.2	2.4	1.2	.81
8	.14	.60	.59	13	230	79	22	11	3.9	2.4	1.2	.78
9	.16	.56	.64	207	249	87	20	10	4.0	2.4	1.2	1.5
10	.20	.60	.64	38	90	57	18	10	3.9	2.4	1.1	3.0
11	.21	.61	.71	20	53	50	17	9.6	3.9	2.4	1.1	1.3
12	.21	.46	.86	16	170	42	17	9.3	3.8	2.4	1.1	1.1
13	.19	.35	.69	137	107	35	16	8.9	3.8	2.3	1.1	1.0
14	.16	.34	.79	1040	69	31	18	8.6	3.7	2.1	1.1	.99
15	.13	.36	4.6	248	52	28	36	8.3	3.6	2.0	.99	.98
16	.13	.35	1.5	990	42	25	25	8.1	3.5	2.0	.99	.99
17	.13	.35	22	211	36	23	19	7.8	3.4	1.9	.97	.97
18	.17	.34	7.2	130	31	22	19	7.4	3.3	1.9	.91	.91
19	.19	.31	3.5	70	28	20	18	7.1	3.3	1.8	.89	.88
20	.24	.28	2.1	54	25	21	17	7.0	3.2	1.8	.77	.86
21	.21	8.7	2.8	44	23	24	16	6.8	3.2	1.8	.89	.86
22	.21	15	40	34	20	28	15	6.7	3.1	1.7	.78	.87
23	.20	2.2	45	28	19	23	15	6.6	3.0	1.7	.92	.85
24	.20	1.2	8.2	23	18	20	16	6.5	2.9	1.6	.93	.83
25	.21	.91	5.3	20	17	19	18	6.4	2.9	1.6	.93	.80
26	.21	.77	4.5	18	17	18	42	6.1	2.9	1.6	.93	.79
27	.26	.70	8.9	16	17	17	25	5.9	3.2	1.5	.90	.76
28	.41	.64	11	15	17	16	21	5.7	3.3	1.5	.89	.79
29	.62	.59	8.7	14	---	16	19	5.5	3.1	1.4	.88	.78
30	.49	.57	6.4	13	---	21	17	5.3	2.9	1.5	.87	.75
31	.38	---	5.1	12	---	29	---	5.9	---	1.4	.89	---
TOTAL	6.75	42.08	195.67	3723.4	1607.3	1622	644	274.5	111.9	62.9	32.33	29.28
MEAN	.22	1.40	6.31	120	57.4	52.3	21.5	8.85	3.73	2.03	1.04	.98
MAX	.62	15	45	1040	249	308	42	16	6.1	2.7	1.4	3.0
MIN	.13	.28	.55	4.4	9.5	16	15	5.3	2.9	1.4	.77	.75
AC-FT	13	83	388	7390	3190	3220	1280	544	222	125	64	58
CAL YR 1977	TOTAL	402.15	MEAN	1.10	MAX	45	MIN	0	AC-FT	798		
WTR YR 1978	TOTAL	8352.11	MEAN	22.9	MAX	1040	MIN	.13	AC-FT	16570		



## 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 (6 m) upstream from bridge on Henry Cowell State Park Road, 200 ft (61 m) upstream from Shingle Mill Creek, 0.3 mi (0.5 km) downstream from Zayante Creek, 0.9 mi (1.4 km) northwest of Big Trees station on Southern Pacific Railroad, and 5.3 mi (8.5 km) northwest of Santa Cruz.

DRAINAGE AREA.--106 mi<sup>2</sup> (275 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 227.00 ft (69.190 m) Santa Cruz County datum. Prior to Oct. 6, 1972, at site 1.3 mi (2.1 km) downstream at different datum.

REMARKS.--Records good. Flow regulated by Loch Lomond Reservoir since 1961, capacity, 8,400 acre-ft (10.4 hm<sup>3</sup>). Many small diversions above station for domestic supply.

AVERAGE DISCHARGE.--42 years, 133 ft<sup>3</sup>/s (3.767 m<sup>3</sup>/s), 96,360 acre-ft/yr (119 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,400 ft<sup>3</sup>/s (861 m<sup>3</sup>/s) Dec. 23, 1955, gage height, 22.55 ft (6.873 m) site and datum then in use, from rating curve extended above 11,000 ft<sup>3</sup>/s (312 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; minimum, 0.8 ft<sup>3</sup>/s (0.023 m<sup>3</sup>/s), regulated, June 25, 1939; minimum daily, 5.6 ft<sup>3</sup>/s (0.16 m<sup>3</sup>/s) July 27, 28, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,400 ft<sup>3</sup>/s (40 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 23	0145	1950 55.2	8.08 2.463	Jan. 16	1045	10300 292	20.56 6.267
Jan. 5	1830	2810 79.6	9.55 2.911	Feb. 8	2045	4290 121	11.94 3.639
Jan. 9	1000	4060 115	11.57 3.527	Feb. 12	1445	2840 80.4	9.60 2.926
Jan. 14	2000	*11300 320	21.85 6.660	Mar. 4	0600	2830 80.1	9.56 2.914

Minimum daily discharge, 7.4 ft<sup>3</sup>/s (0.21 m<sup>3</sup>/s) Oct. 8, 13, 15, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	9.1	12	30	103	150	312	180	68	42	26	19
2	8.4	8.8	12	99	102	391	245	167	68	42	25	19
3	8.4	8.6	11	243	101	442	216	157	67	41	25	18
4	8.1	8.8	10	280	99	2050	441	152	65	41	24	20
5	8.9	24	9.2	1070	328	1860	278	147	63	40	25	24
6	8.1	16	11	680	394	933	446	143	59	39	24	19
7	7.6	11	11	265	1510	639	353	134	56	38	23	19
8	7.4	10	11	162	1530	651	296	126	55	38	22	18
9	7.8	9.1	11	1580	1980	843	264	121	54	38	22	34
10	7.7	8.9	11	470	914	628	250	116	54	37	21	51
11	7.5	8.9	12	235	608	539	225	114	52	37	22	30
12	7.5	9.1	14	174	1460	465	209	110	51	36	22	29
13	7.4	8.9	13	748	1190	391	199	107	51	35	21	21
14	7.6	9.3	16	5990	771	354	186	103	51	34	21	22
15	7.4	9.1	86	2140	588	319	520	100	50	33	21	20
16	7.7	9.1	32	5300	474	290	429	98	49	33	21	20
17	7.6	9.1	377	1900	406	269	306	95	47	31	21	21
18	7.4	9.2	100	972	349	253	265	92	47	31	20	20
19	7.8	9.1	39	1170	307	232	240	88	47	30	20	19
20	8.8	9.2	26	652	273	220	234	86	46	30	20	18
21	7.8	81	34	464	246	238	219	84	45	29	19	18
22	7.7	250	176	361	223	283	198	84	45	29	19	18
23	8.1	29	656	287	205	227	196	80	45	29	19	17
24	8.0	20	90	237	190	204	204	79	44	29	19	17
25	7.6	16	51	204	178	189	271	73	44	28	20	17
26	7.6	15	41	164	169	178	348	77	44	28	19	16
27	7.9	14	83	157	161	168	248	76	45	27	19	16
28	10	14	75	142	152	162	219	74	47	27	19	16
29	13	13	59	133	---	157	206	71	46	27	19	16
30	11	13	45	118	---	156	193	68	43	27	19	16
31	10	---	37	110	---	271	---	66	---	27	19	---
TOTAL	256.2	670.3	2171.2	26537	15011	14152	8216	3268	1548	1033	656	628
MEAN	8.26	22.3	70.0	856	536	457	274	105	51.6	33.3	21.2	20.9
MAX	13	250	656	5990	1980	2050	520	180	68	42	26	51
MIN	7.4	8.6	9.2	30	99	150	186	66	43	27	19	16
AC-FT	508	1330	4310	52640	29770	28070	16300	6480	3070	2050	1300	1250

CAL YR 1977	TOTAL	6621.7	MEAN	18.1	MAX	656	MIN	5.6	AC-FT	13130
WTR YR 1978	TOTAL	74146.7	MEAN	203	MAX	5990	MIN	7.4	AC-FT	147100

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1906-7, 1952 to current year.

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

WATER TEMPERATURES: Water years 1966 to current year.

SEDIMENT RECORDS: Water years 1973 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: May 1966 to current year.

SEDIMENT RECORDS: October 1972 to current year.

INSTRUMENTATION.--Temperature recorder since May 1966.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 25.5°C July 14, 1972; minimum recorded, 1.5°C Dec. 15, 1967.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 6,170 mg/L Jan. 16, 1973; minimum daily mean, 1 mg/L on several days in 1972-74, 1975.

SEDIMENT DISCHARGE: Maximum daily, 125,000 tons (113,000 metric tons) Jan. 16, 1973; minimum daily, 0.06 ton (0.05 metric ton) on several days in 1974-77.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, recorded 21.0°C Aug. 8, 9; minimum 7.0°C Nov. 21.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 5,360 mg/L Jan. 16; minimum daily mean, 2 mg/L Sept. 17.

SEDIMENT DISCHARGE: Maximum daily, 89,600 tons (81,300 metric tons) Jan. 16; minimum daily, 0.06 ton (0.05 metric ton) Oct. 18, 19, 25.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	14.0	11.5	10.5	11.0	10.0	12.0	10.5	10.5	9.0	12.5	11.0
2	15.0	13.5	12.0	10.5	11.0	10.0	10.5	10.0	11.0	9.5	12.5	11.5
3	15.5	14.0	12.0	11.0	10.0	9.0	10.5	10.0	10.5	9.5	12.0	11.0
4	15.0	14.5	---	---	10.0	9.0	11.5	10.5	10.5	9.5	12.0	11.5
5	15.0	14.0	---	---	11.0	9.0	11.0	11.0	11.5	10.5	12.0	11.0
6	14.0	13.0	11.5	11.0	11.0	9.5	12.0	11.5	11.5	11.0	12.0	11.0
7	14.0	12.5	11.0	10.0	11.0	9.5	11.5	11.0	12.0	11.0	12.0	11.0
8	14.5	12.5	11.5	10.0	10.5	9.5	11.5	10.5	11.0	10.5	12.0	11.5
9	14.5	13.0	11.0	9.0	10.0	8.5	12.0	11.5	11.5	11.0	12.5	11.5
10	14.5	13.0	10.0	8.0	9.0	7.5	12.0	11.5	11.0	10.0	12.0	11.0
11	14.0	12.5	9.5	8.0	8.5	7.5	11.5	11.0	10.0	9.0	11.5	10.5
12	13.5	12.0	10.5	8.5	9.0	7.5	11.5	11.0	10.5	9.0	11.5	10.0
13	14.0	12.5	11.5	10.0	9.5	8.5	12.0	11.5	10.5	10.0	11.5	9.5
14	14.5	13.0	12.0	10.0	9.5	8.5	12.0	11.5	10.5	10.0	12.5	11.0
15	14.5	13.0	11.0	9.5	11.5	9.0	12.0	11.5	10.5	9.5	12.0	10.0
16	14.0	12.5	10.5	9.5	12.0	10.0	12.5	11.5	10.0	9.0	13.0	10.5
17	14.0	12.5	11.0	9.5	11.0	10.0	12.0	11.5	11.5	10.0	13.5	11.0
18	13.5	12.5	10.5	9.5	11.0	10.0	12.0	11.5	11.5	10.5	13.5	12.0
19	12.5	12.0	10.5	9.0	10.5	9.5	12.0	11.5	11.5	10.0	13.5	12.0
20	14.5	12.5	9.5	7.5	9.5	8.0	11.5	11.0	11.5	10.0	13.0	11.5
21	13.0	12.0	8.0	7.0	8.0	7.5	11.5	10.5	11.5	10.0	13.0	12.0
22	12.5	11.5	10.5	7.5	10.0	8.0	11.0	10.0	12.0	10.0	14.0	12.5
23	12.5	11.5	11.5	10.5	11.5	10.0	10.0	9.0	12.0	10.0	13.0	12.0
24	13.5	12.0	11.0	9.5	12.0	11.5	9.0	8.0	12.0	11.0	13.0	11.0
25	15.0	13.0	10.0	9.5	11.5	10.5	9.0	7.5	12.0	11.0	13.5	10.5
26	15.0	13.0	10.0	9.5	11.5	10.5	9.5	8.0	11.5	11.0	14.0	11.5
27	13.0	12.5	10.5	9.5	12.0	11.5	10.0	8.5	11.5	10.5	14.0	11.5
28	13.0	12.5	11.0	10.0	12.5	12.0	10.5	9.5	11.0	9.5	14.5	12.5
29	13.5	12.5	11.0	10.5	13.0	12.5	10.0	9.0	---	---	13.0	12.5
30	13.5	12.5	10.5	9.5	13.0	12.5	10.0	8.5	---	---	13.0	12.0
31	12.5	11.5	---	---	12.5	12.0	10.5	9.5	---	---	13.0	12.5
MONTH	15.5	11.5	12.0	7.0	13.0	7.5	12.5	7.5	12.0	9.0	14.5	9.5

11160500 SAN LORENZO RIVER AT BIG TREES, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.5	12.0	15.0	11.5	16.5	15.0			---	---	19.5	15.0
2	13.0	11.0	15.5	12.0	17.0	14.0			---	---	19.0	15.5
3	12.0	11.0	16.0	13.0	18.0	14.5			---	---	19.5	15.5
4	12.0	10.5	15.0	12.5	18.5	15.0			---	---	18.5	16.0
5	11.5	10.0	14.5	12.0	19.5	15.5			---	---	17.5	15.5
6	11.5	10.5	15.0	11.5	20.0	15.5			---	---	18.5	15.5
7	11.0	10.0	15.5	12.0	20.0	15.5			---	---	17.5	14.0
8	12.0	9.5	16.0	12.5	19.5	15.5			21.0	18.5	17.5	13.0
9	13.5	10.5	16.0	13.0	18.0	15.5			21.0	17.0	16.0	14.5
10	14.5	12.0	16.0	13.5	---	---			20.0	17.0	17.5	15.5
11	14.5	13.0	15.5	12.0	---	---			20.0	16.5	18.0	15.0
12	13.5	13.0	16.5	12.5	---	---			20.0	16.0	18.0	14.5
13	14.0	12.5	17.5	14.0	---	---			19.5	16.0	17.0	14.0
14	12.5	11.5	17.0	14.5	---	---			19.5	15.0	18.0	15.0
15	12.0	11.0	17.0	14.5	---	---			19.5	15.5	18.0	14.0
16	12.0	10.5	16.0	13.5	---	---			19.5	16.0	18.0	14.5
17	12.5	9.5	17.0	13.0	---	---			19.5	15.0	17.5	15.0
18	13.0	10.5	17.5	13.5	---	---			19.5	14.5	16.5	12.5
19	13.0	11.0	18.0	14.5	---	---			19.5	15.0	16.0	12.0
20	13.0	11.5	17.5	15.0	---	---			19.5	15.5	16.0	12.0
21	13.0	10.5	17.0	14.5	---	---			20.0	15.0	16.5	12.0
22	13.0	10.0	16.5	14.0	---	---			19.0	15.0	16.5	12.5
23	13.5	10.5	15.5	13.0	---	---			18.5	14.0	18.0	13.5
24	13.5	12.5	15.0	12.0	---	---			18.5	14.0	18.5	14.5
25	14.0	12.5	15.0	12.0	---	---			18.5	15.0	18.5	15.0
26	14.0	12.5	16.0	12.5	---	---			19.0	15.0	18.5	15.0
27	14.5	12.0	17.5	13.5	---	---			19.0	14.5	18.5	15.0
28	14.5	12.0	18.5	14.5	---	---			19.5	14.5	18.0	14.0
29	15.0	12.5	19.0	14.5	---	---			19.5	15.5	18.5	14.5
30	14.0	12.5	19.5	15.5	---	---			19.5	15.5	18.5	15.0
31	---	---	18.5	15.5	---	---			19.5	15.5	---	---
MONTH	15.0	9.5	19.5	11.5	20.0	14.0			21.0	14.0	19.5	12.0

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	8.4	10	.23	9.1	4	.10	12	9	.29
2	8.4	10	.23	8.8	4	.10	12	12	.39
3	8.4	10	.23	8.6	4	.09	11	10	.30
4	8.1	15	.33	8.8	5	.12	10	8	.22
5	8.9	7	.17	24	38	2.6	9.2	7	.17
6	8.1	7	.15	16	15	.65	11	6	.18
7	7.6	6	.12	11	8	.24	11	5	.15
8	7.4	6	.12	10	6	.16	11	5	.15
9	7.8	6	.13	9.1	6	.15	11	5	.15
10	7.7	6	.12	8.9	5	.12	11	4	.12
11	7.5	6	.12	8.9	5	.12	12	5	.16
12	7.5	6	.12	9.1	5	.12	14	6	.23
13	7.4	6	.12	8.9	6	.14	13	5	.18
14	7.6	6	.12	9.3	6	.15	16	6	.31
15	7.4	5	.10	9.1	6	.15	86	31	7.5
16	7.7	5	.10	9.1	6	.15	32	16	1.4
17	7.6	4	.08	9.1	6	.15	377	161	223
18	7.4	3	.06	9.2	6	.15	100	110	30
19	7.8	3	.06	9.1	5	.12	39	93	9.8
20	8.8	5	.12	9.2	6	.15	26	97	6.8
21	7.8	4	.08	81	76	91	34	108	9.9
22	7.7	4	.08	250	312	378	176	171	195
23	8.1	4	.09	29	93	7.3	656	649	2260
24	8.0	4	.09	20	55	3.0	90	43	10
25	7.6	3	.06	16	31	1.3	51	28	3.9
26	7.6	4	.08	15	22	.89	41	20	2.2
27	7.9	4	.09	14	14	.53	83	19	4.3
28	10	6	.16	14	12	.45	75	19	3.8
29	13	4	.14	13	10	.35	59	18	2.9
30	11	4	.12	13	10	.35	45	11	1.3
31	10	4	.11	---	---	---	37	9	.90
TOTAL	256.2	---	3.93	670.3	---	488.90	2171.2	---	2775.70

## SAN LORENZO RIVER BASIN

11160500 SAN LORENZO RIVER AT BIG TREES, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	30	8	.65	103	6	1.7	150	57	23
2	99	64	42	102	6	1.7	391	196	242
3	243	112	76	101	7	1.9	442	171	207
4	280	164	153	99	8	2.1	2050	2630	16000
5	1070	993	5330	328	200	224	1860	2200	12100
6	680	309	854	394	214	289	933	412	1040
7	265	30	21	1510	1850	11600	639	178	307
8	162	17	7.4	1530	2370	16600	651	190	373
9	1580	1040	7990	1980	3410	20300	843	332	771
10	470	65	82	914	1640	4140	628	182	309
11	235	28	18	608	1010	1660	539	120	175
12	174	20	9.4	1460	2120	11200	465	74	93
13	748	175	1120	1190	1990	6510	391	54	57
14	5990	3690	65200	771	1300	2710	354	46	44
15	2140	1320	10100	588	600	953	319	43	37
16	5300	5360	89600	474	250	320	290	35	27
17	1900	3570	20400	406	185	203	269	24	17
18	972	2060	6000	349	160	151	253	16	11
19	1170	2250	7370	307	142	118	232	11	6.9
20	652	1500	2640	273	125	92	220	9	5.3
21	464	1100	1380	246	116	77	238	15	11
22	361	800	780	223	109	66	283	43	35
23	287	600	465	205	102	56	227	24	15
24	237	360	230	190	95	49	204	19	10
25	204	160	88	178	87	42	189	16	8.2
26	164	40	18	169	80	37	178	14	6.7
27	157	15	6.4	161	72	31	168	14	6.4
28	142	14	5.4	152	65	27	162	14	6.1
29	133	13	4.7	---	---	---	157	14	5.9
30	118	9	2.9	---	---	---	156	14	5.9
31	110	5	1.5	---	---	---	271	145	114
TOTAL	26537	---	219995.35	15011	---	77462.4	14152	---	32069.4
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	312	326	285	180	9	4.4	68	5	.92
2	245	219	145	167	9	4.1	68	5	.92
3	216	171	103	157	8	3.4	67	5	.90
4	441	309	416	152	7	2.9	65	4	.70
5	278	161	121	147	7	2.8	63	5	.85
6	446	420	546	143	7	2.7	59	5	.80
7	353	104	104	134	6	2.2	56	5	.76
8	296	15	12	126	6	2.0	55	5	.74
9	264	12	8.6	121	6	2.0	54	4	.58
10	250	14	9.5	116	5	1.6	54	4	.58
11	225	11	6.7	114	5	1.5	52	4	.56
12	209	10	5.6	110	5	1.5	51	4	.55
13	199	8	4.3	107	5	1.4	51	4	.55
14	186	7	3.5	103	5	1.4	51	3	.41
15	520	300	638	100	5	1.4	50	4	.54
16	429	96	123	98	6	1.6	49	3	.40
17	306	25	21	95	6	1.5	47	3	.38
18	265	14	10	92	6	1.5	47	3	.38
19	240	8	5.2	88	5	1.2	47	3	.38
20	234	7	4.4	86	5	1.2	46	3	.37
21	219	7	4.1	84	5	1.1	45	3	.36
22	198	7	3.7	84	6	1.4	45	3	.36
23	196	8	4.2	80	6	1.3	45	3	.36
24	204	10	5.7	79	6	1.3	44	3	.36
25	271	45	33	73	5	.99	44	3	.36
26	348	31	31	77	8	1.7	44	4	.48
27	248	17	11	76	8	1.6	45	4	.49
28	219	12	7.1	74	8	1.6	47	4	.51
29	206	11	6.1	71	8	1.5	46	4	.50
30	193	10	5.2	68	7	1.3	43	4	.46
31	---	---	---	66	5	.89	---	---	---
TOTAL	8216	---	2682.9	3268	---	56.98	1548	---	16.51

11160500 SAN LORENZO RIVER AT BIG TREES, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	42	4	.45	26	4	.28	19	3	.15
2	42	4	.45	25	3	.20	19	3	.15
3	41	4	.44	25	4	.27	18	3	.15
4	41	3	.33	24	5	.32	20	3	.16
5	40	3	.32	25	6	.41	24	4	.26
6	39	3	.32	24	5	.32	19	3	.15
7	38	3	.31	23	5	.31	19	3	.15
8	38	3	.31	22	4	.24	18	3	.15
9	38	4	.41	22	4	.24	34	15	1.8
10	37	4	.40	21	3	.17	51	27	3.6
11	37	4	.40	22	4	.24	30	5	.41
12	36	4	.39	22	3	.18	29	4	.31
13	35	5	.47	21	3	.17	21	3	.17
14	34	6	.55	21	3	.17	22	3	.18
15	33	5	.45	21	3	.17	20	3	.16
16	33	4	.36	21	3	.17	20	3	.16
17	31	4	.33	21	3	.17	21	2	.11
18	31	4	.33	20	3	.16	20	3	.16
19	30	3	.24	20	3	.16	19	4	.21
20	30	3	.24	20	3	.16	18	7	.34
21	29	3	.23	19	3	.15	18	7	.34
22	29	3	.23	19	3	.15	18	7	.34
23	29	4	.31	19	3	.15	17	7	.32
24	29	4	.31	19	3	.15	17	7	.32
25	28	4	.30	20	3	.16	17	8	.37
26	28	4	.30	19	3	.15	16	9	.39
27	27	4	.29	19	3	.15	16	9	.39
28	27	4	.29	19	3	.15	16	9	.39
29	27	5	.36	19	3	.15	16	8	.35
30	27	5	.36	19	3	.15	16	7	.30
31	27	5	.36	19	3	.15	---	---	---
TOTAL	1033	---	10.84	656	---	6.17	628	---	12.44
YEAR	74146.7		335581.52						

## SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1977	256.20	3.93	0	4
NOVEMBER ...	670.30	488.90	70	559
DECEMBER ...	2171.20	2775.70	322	3100
JANUARY 1978	26537.00	219995.35	4240	224000
FEBRUARY ...	15011.00	77462.40	3280	80700
MARCH .....	14152.00	32069.40	3320	35400
APRIL .....	8216.00	2682.90	2210	4900
MAY .....	3268.00	56.98	182	239
JUNE .....	1548.00	16.51	0	17
JULY .....	1033.00	10.84	0	11
AUGUST .....	656.00	6.17	0	6
SEPTEMBER ..	628.00	12.44	0	12
TOTAL .....	74146.70	335581.52	13624	348948

## SAN LORENZO RIVER BASIN

11160500 SAN LORENZO RIVER AT BIG TREES, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM
NOV 05...	1145	12.0	25	45	3.0	--	--	--	--	--
DEC 17...	1545	10.5	701	228	432	--	--	--	--	--
JAN 04...	1515	11.0	430	106	123	53	69	80	90	95
09...	0845	12.0	3140	1270	10800	19	26	33	42	56
15...	0745	11.5	2220	1630	9770	--	31	38	50	64
16...	0745	12.0	6410	5580	96600	--	19	26	35	49
16...	1130	12.0	9940	7630	205000	--	28	35	48	64
16...	1600	12.5	4900	6200	82000	--	20	24	32	42
FEB 08...	1145	10.5	644	839	1460	8	10	13	16	20
APR 25...	1115	12.5	276	46	34	--	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
NOV 05...	--	99	--	100	--	--	--	--	--	--
DEC 17...	--	86	--	89	--	92	--	98	100	--
JAN 04...	--	96	--	98	--	100	--	--	--	--
09...	--	72	--	89	--	94	--	96	98	100
15...	--	77	--	92	--	99	--	100	--	--
16...	--	64	--	88	--	99	--	100	--	--
16...	81	--	96	--	100	--	--	--	--	--
16...	52	--	76	--	94	--	100	--	--	--
FEB 08...	--	26	--	41	--	74	--	98	100	--
APR 25...	--	82	--	86	--	92	--	100	--	--

PARTICLE-SIZE DISTRIBUTION OF SEDIMENT IN TRANSIT WITHIN 0.25 FOOT OF BED SURFACE,  
WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (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 .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
JAN 04...	1615	11.0	13	488	51	4.2	1	1	7
06...	1330	11.5	12	540	55	6.0	0	1	1
16...	1715	12.5	6	5740	80	337	2	6	24
FEB 08...	1230	10.5	20	706	50	61	1	3	42
MAR 10...	1515	11.5	9	616	50	456	--	0	1
APR 25...	1130	12.5	11	268	33	33	--	0	4

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
JAN 04...	28	74	92	99	100	--	--	--
06...	8	70	91	98	100	--	--	--
16...	49	59	63	65	68	76	89	100
FEB 08...	94	98	99	99	100	--	--	--
MAR 10...	18	58	81	91	98	100	--	--
APR 25...	45	90	98	99	99	100	--	--

11161800 SAN VICENTE CREEK NEAR DAVENPORT, CA

LOCATION.--Lat 37°03'19", long 122°10'52", on east boundary of San Vicente Grant, Santa Cruz County, Hydrologic Unit 18060001, on right bank, 0.6 mi (1.0 km) downstream from small right-bank tributary, 1.2 mi (1.9 km) upstream from Mill Creek, and 3.1 mi (5.0 km) north of Davenport.

DRAINAGE AREA.--6.07 mi<sup>2</sup> (15.72 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete dam. Altitude of gage is 740 ft (226 m), from topographic map.

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

AVERAGE DISCHARGE.--9 years, 7.74 ft<sup>3</sup>/s (0.219 m<sup>3</sup>/s), 5,610 acre-ft/yr (6.92 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 937 ft<sup>3</sup>/s (26.5 m<sup>3</sup>/s) Apr. 1, 1974, gage height, 5.83 ft (1.777 m), from rating curve extended above 210 ft<sup>3</sup>/s (5.95 m<sup>3</sup>/s); no flow Sept. 9-18, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft<sup>3</sup>/s (2.8 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Jan. 14	2030	*218	6.17	4.58	1.400
Jan. 16	1000	142	4.02	4.29	1.308

Minimum daily discharge, 0.42 ft<sup>3</sup>/s (0.019 m<sup>3</sup>/s) Oct 2-16, Nov. 7-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	1.0	.60	3.0	7.7	11	19	14	7.7	4.8	2.9	2.5
2	.42	1.0	.60	3.3	7.5	18	18	14	7.3	4.6	2.9	2.5
3	.42	1.0	.60	9.3	7.1	15	15	13	7.1	4.6	2.9	2.5
4	.42	1.1	.60	8.8	7.1	51	23	13	6.9	4.4	2.9	2.5
5	.42	2.1	.60	29	11	38	17	12	6.7	4.4	2.9	2.5
6	.42	.60	.60	27	12	28	23	12	6.5	4.4	2.7	2.6
7	.42	.42	.60	14	27	23	21	12	6.3	4.4	2.6	2.5
8	.42	.42	.60	11	31	29	18	11	6.1	4.4	2.6	2.5
9	.42	.42	.60	37	47	37	16	11	6.1	4.3	2.6	4.2
10	.42	.42	.60	23	29	29	15	11	6.1	4.1	2.5	5.3
11	.42	.42	.69	15	22	26	15	11	5.9	4.3	2.5	3.6
12	.42	.51	.69	13	45	23	14	11	5.9	4.3	2.5	3.2
13	.42	.51	.60	15	42	21	14	10	5.9	4.3	2.5	3.0
14	.42	.51	1.2	100	31	19	14	10	5.7	3.9	2.5	2.9
15	.42	.51	5.7	51	26	17	29	10	5.7	3.8	2.4	2.9
16	.42	.51	1.1	80	23	16	31	9.8	5.5	3.8	2.4	2.9
17	.51	.51	11	46	21	16	26	9.6	5.3	3.8	2.4	2.9
18	.51	.51	3.9	40	18	15	24	9.4	5.3	3.6	2.2	2.6
19	.51	.51	2.2	49	16	14	21	9.2	5.3	3.6	2.2	2.6
20	.60	.60	1.2	30	15	14	21	8.8	5.1	3.6	2.2	2.6
21	.51	2.8	1.6	21	14	15	19	8.8	5.1	3.5	2.2	2.6
22	.51	7.7	3.2	17	14	16	17	8.8	5.0	3.5	2.2	2.4
23	.51	1.9	9.5	15	13	15	16	8.6	5.0	3.5	2.2	2.4
24	.51	1.1	3.5	14	12	14	17	8.4	4.8	3.3	2.2	2.4
25	.51	.90	2.2	12	12	14	21	8.4	4.8	3.0	2.2	2.4
26	.60	.79	2.0	11	12	13	21	8.2	4.8	2.9	2.2	2.2
27	.51	.79	3.3	11	12	13	17	7.9	5.0	2.9	2.2	2.2
28	.90	.79	3.2	9.6	11	13	16	7.9	5.1	2.9	2.4	2.1
29	1.3	.69	3.5	9.0	---	12	15	7.7	5.1	2.9	2.4	2.1
30	1.1	.69	3.0	8.6	---	12	15	7.5	5.0	2.9	2.4	1.8
31	1.0	---	2.5	8.2	---	15	---	7.5	---	2.9	2.5	---
TOTAL	16.90	31.73	71.78	740.8	545.4	612	568	311.5	172.1	117.6	76.4	81.4
MEAN	.55	1.06	2.32	23.9	19.5	19.7	18.9	10.0	5.74	3.79	2.46	2.71
MAX	1.3	7.7	11	100	47	51	31	14	7.7	4.8	2.9	5.3
MIN	.42	.42	.60	3.0	7.1	11	14	7.5	4.8	2.9	2.2	1.8
AC-FT	34	63	142	1470	1080	1210	1130	618	341	233	152	161
CAL YR 1977	TOTAL	340.37	MEAN	.93	MAX	11	MIN	0	AC-FT	675		
WTR YR 1978	TOTAL	3345.61	MEAN	9.17	MAX	100	MIN	.42	AC-FT	6640		

## PESCADERO CREEK BASIN

11162500 PESCADERO CREEK NEAR PESCADERO, CA

LOCATION---Lat 37°15'39", long 122°19'40", in SW¼ 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 (4.8 km) east of Pescadero, and 5.3 mi (8.5 km) upstream from mouth.

DRAINAGE AREA---45.9 mi<sup>2</sup> (118.9 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

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

GAGE---Water-stage recorder. Datum of gage is 62.3 ft (18.99 m) National Geodetic Vertical Datum of 1929.

REMARKS---Records good. Minor regulation from swimming pools in San Mateo County Memorial Park and Portola State Park during summer months. Small diversions above station by pumping.

AVERAGE DISCHARGE---27 years, 40.3 ft<sup>3</sup>/s (1.141 m<sup>3</sup>/s), 29,200 acre-ft/yr (36.0 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD---Maximum discharge, 9,420 ft<sup>3</sup>/s (267 m<sup>3</sup>/s) Dec. 23, 1955, gage height, 21.27 ft (6.483 m), from rating curve extended above 2,700 ft<sup>3</sup>/s (76.5 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow at times.

EXTREMES FOR CURRENT YEAR---Peak discharges above base of 700 ft<sup>3</sup>/s (20 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 5	2000	846 24.0	6.25 1.905	Jan. 16	1215	3050 86.4	10.32 3.146
Jan. 9	1115	1030 29.2	6.79 2.070	Feb. 7	1415	923 26.1	6.49 1.978
Jan. 14	2200	*4060 115	12.78 3.895				

Minimum daily discharge, 0.28 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Oct. 16, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.33	1.2	.93	18	92	55	78	58	15	9.3	4.1	2.7
2	.36	1.1	1.1	17	89	89	72	54	15	9.3	4.1	2.7
3	.38	.94	1.2	28	86	139	62	51	15	9.1	4.0	2.7
4	.40	.87	1.2	50	84	360	103	48	15	9.0	4.0	2.6
5	.40	1.4	1.3	317	114	480	84	45	14	8.7	4.0	2.7
6	.41	1.4	1.3	259	213	276	155	42	14	8.1	3.8	2.6
7	.42	1.8	1.3	102	417	191	133	40	13	8.1	3.7	2.7
8	.41	1.5	1.4	66	294	199	106	38	13	8.0	3.5	2.6
9	.38	1.4	1.4	423	621	271	91	37	13	7.7	3.5	2.9
10	.46	1.2	1.4	176	294	199	80	36	13	7.4	3.4	5.9
11	.38	1.1	1.3	94	198	161	74	34	13	7.2	3.4	4.5
12	.35	1.1	1.3	68	317	138	69	33	13	7.2	3.4	3.1
13	.32	1.0	1.4	133	328	118	64	31	12	6.8	3.2	2.9
14	.34	1.1	1.5	1810	235	105	60	29	12	6.5	3.3	2.7
15	.36	1.2	1.0	821	184	94	135	29	12	6.1	3.1	2.7
16	.28	1.2	1.5	1340	149	85	161	27	12	6.0	3.1	2.7
17	.30	1.3	84	762	129	78	110	26	12	6.0	3.1	2.7
18	.28	1.2	75	416	112	72	93	25	12	5.7	2.9	2.7
19	.33	1.2	27	463	99	66	83	24	11	5.4	3.0	2.6
20	.36	1.4	15	323	90	62	79	23	11	5.3	2.9	2.7
21	.36	5.2	13	248	82	62	74	22	12	5.2	2.9	2.7
22	.35	61	32	205	76	74	68	22	12	5.1	2.9	2.5
23	.33	14	269	170	70	64	64	21	11	4.9	2.9	2.6
24	.39	4.3	63	150	65	59	63	21	11	5.0	3.0	2.5
25	.45	2.2	35	143	62	55	73	20	11	4.8	3.0	2.5
26	.47	1.5	26	131	59	52	81	20	11	4.6	2.9	2.4
27	.57	1.3	26	122	56	49	75	19	11	4.5	2.9	2.4
28	.86	1.1	25	114	54	48	68	18	11	4.5	2.9	2.3
29	1.4	.92	23	108	---	44	64	17	10	4.4	2.7	2.4
30	1.3	.87	23	102	---	44	60	17	9.7	4.3	2.6	2.4
31	1.4	---	21	97	---	55	---	16	---	4.3	2.7	---
TOTAL	15.13	117.00	800.03	9276	4669	3844	2582	943	369.7	198.5	100.9	84.1
MEAN	.49	3.90	25.8	299	167	124	86.1	30.4	12.3	6.40	3.25	2.80
MAX	1.4	61	269	1810	621	480	161	58	15	9.3	4.1	5.9
MIN	.28	.87	.93	17	54	44	60	16	9.7	4.3	2.6	2.3
AC-FT	30	232	1590	18400	9260	7620	5120	1870	733	394	200	167
CAL YR 1977	TOTAL	1408.06	MEAN	3.86	MAX	269	MIN	0	AC-FT	2790		
WTR YR 1978	TOTAL	22999.36	MEAN	63.0	MAX	1810	MIN	.28	AC-FT	45620		



11162500 PESCADERO CREEK NEAR PESCADERO, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

CHEMICAL ANALYSES: Water year 1977.

WATER TEMPERATURES: Water years 1965 to current year.

SEDIMENT RECORDS: Water years 1971, 1973.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: April 1965 to current year.

INSTRUMENTATION.--Temperature recorder since April 1965.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 22.5°C June 27, 1973; minimum recorded, 2.0°C Dec. 19, 1965.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 17.5°C on several days during August.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	13.5	13.5	11.0	10.5	8.5	---	---	---	---	---	---
2	17.0	13.0	13.5	11.0	10.0	8.5	---	---	---	---	---	---
3	16.5	13.0	13.0	11.5	10.5	9.0	---	---	---	---	---	---
4	16.0	14.5	12.0	10.0	10.5	9.0	---	---	---	---	---	---
5	16.5	14.0	11.5	10.0	11.0	9.5	---	---	---	---	---	---
6	16.5	13.0	12.0	10.0	11.5	10.5	---	---	---	---	---	---
7	16.0	12.5	11.5	9.5	11.0	9.5	---	---	---	---	---	---
8	16.0	12.5	11.0	9.0	---	---	---	---	---	---	---	---
9	16.0	14.0	10.5	8.5	---	---	---	---	---	---	---	---
10	16.0	13.0	10.5	9.0	---	---	---	---	---	---	---	---
11	16.0	12.5	11.5	10.0	---	---	---	---	---	---	---	---
12	15.5	12.5	12.0	11.0	---	---	---	---	---	---	---	---
13	16.0	12.0	11.5	9.5	---	---	---	---	---	---	---	---
14	15.0	11.5	11.0	9.0	---	---	---	---	---	---	---	---
15	15.0	12.0	11.0	9.0	---	---	---	---	---	---	---	---
16	15.0	12.5	11.0	9.0	---	---	---	---	---	---	---	---
17	15.5	13.5	11.0	9.0	---	---	---	---	---	---	---	---
18	15.0	13.0	10.5	9.0	---	---	---	---	---	---	---	---
19	15.0	13.5	9.5	7.5	---	---	12.5	12.0	---	---	---	---
20	15.0	14.0	8.5	6.5	---	---	12.5	11.5	---	---	---	---
21	15.0	12.0	10.5	8.5	---	---	12.0	11.5	---	---	---	---
22	14.0	11.0	10.5	10.0	---	---	12.0	11.5	---	---	---	---
23	14.5	12.0	10.5	9.5	---	---	11.5	10.5	---	---	---	---
24	16.0	12.5	10.0	9.0	---	---	10.5	9.5	---	---	13.0	12.0
25	17.0	14.5	10.5	9.0	---	---	---	---	---	---	13.0	11.5
26	17.0	13.5	11.0	9.5	---	---	---	---	---	---	12.5	12.0
27	15.0	13.5	11.5	10.5	---	---	---	---	---	---	12.5	12.0
28	15.0	13.0	11.5	10.0	---	---	---	---	---	---	12.5	12.0
29	15.0	13.0	11.0	9.5	---	---	---	---	---	---	13.0	12.5
30	15.0	13.0	10.5	9.0	---	---	---	---	---	---	13.0	12.5
31	14.0	11.5	---	---	---	---	---	---	---	---	12.5	12.5
MONTH	17.0	11.0	13.5	6.5	11.5	8.5	12.5	9.5	---	---	13.0	11.5

## PESCADERO CREEK BASIN

11162500 PESCADERO CREEK NEAR PESCADERO, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.5	12.0			---	---	15.5	14.5	16.5	15.5		
2	12.5	11.5			---	---	15.5	14.5	16.5	15.5		
3	12.5	11.5			16.0	15.0	15.5	14.5	16.5	15.5		
4	12.0	11.5			16.0	15.0	15.5	14.5	16.5	15.5		
5	12.0	11.5			16.0	15.0	15.5	15.0	16.5	15.5		
6	12.0	11.5			16.5	15.5	15.5	15.0	16.5	15.0		
7	12.0	11.0			16.5	15.5	16.0	15.5	16.5	15.5		
8	12.0	10.5			16.5	15.5	15.5	14.5	16.5	15.5		
9	12.0	10.5			16.5	15.5	16.0	15.0	17.0	16.0		
10	12.5	11.0			16.5	16.0	16.0	15.0	17.0	16.0		
11	13.0	12.0			16.5	15.5	16.0	15.5	17.0	16.0		
12	13.5	13.0			16.0	15.0	15.5	14.5	17.0	16.0		
13	13.5	13.0			16.5	15.5	15.5	14.5	17.5	16.0		
14	13.5	12.5			16.0	16.0	16.0	15.0	17.5	16.5		
15	13.5	13.0			16.5	15.0	16.0	15.0	17.5	16.0		
16	13.0	12.0			15.5	14.5	16.0	15.0	17.5	16.5		
17	13.0	11.5			16.0	15.0	16.5	15.0	17.5	16.0		
18	12.5	11.5			15.5	15.0	16.5	15.0	17.5	16.0		
19	12.5	11.0			16.0	15.0	16.0	15.0	17.0	16.0		
20	13.0	12.0			16.0	15.5	16.0	15.0	17.0	16.5		
21	13.0	12.0			16.0	15.0	16.0	14.5	17.0	16.0		
22	13.0	11.5			16.0	15.0	16.0	15.0	17.0	16.5		
23	12.5	11.5			16.0	15.0	16.0	14.5	17.0	16.5		
24	12.5	12.0			16.0	15.0	16.0	14.5	17.0	16.5		
25	13.0	11.5			16.0	15.0	15.5	14.5	17.0	16.5		
26	---	---			16.0	15.5	16.0	15.0	17.0	16.5		
27	---	---			16.0	15.0	17.0	15.5	17.5	16.5		
28	---	---			15.5	15.0	17.0	15.5	17.5	16.5		
29	---	---			15.0	14.0	16.5	16.0	---	---		
30	---	---			15.5	14.5	16.5	16.0	---	---		
31	---	---			---	---	16.5	15.5	---	---		
MONTH	13.5	10.5			16.5	14.0	17.0	14.5	17.5	15.0		

## 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 (0.2 km) south of town of San Gregorio, and 1.4 mi (2.3 km) upstream from mouth.

DRAINAGE AREA.--50.9 mi<sup>2</sup> (131.8 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 11.40 ft (3.475 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--9 years, 35.7 ft<sup>3</sup>/s (1.011 m<sup>3</sup>/s), 25,860 acre-ft/yr (31.9 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,730 ft<sup>3</sup>/s (106 m<sup>3</sup>/s) Jan. 16, 1973, gage height, 17.5 ft (5.33 m) from outside high-water marks; no flow many days in 1972 and 1977.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Jan. 9	1200	1170	33.1	9.60	2.926	Feb. 7	1100	1060	30.0	9.20	2.804
Jan. 14	2000	*2910	82.4	15.25	4.648	Feb. 12	1400	1320	37.4	10.15	3.094

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.91	24	52	38	91	41	9.9	9.6	1.7	.28
2		0	.92	23	50	69	67	37	10	9.4	1.5	.12
3		0	.96	32	49	61	56	34	9.8	9.6	1.3	.07
4		0	.89	54	47	142	106	31	10	9.7	.98	.08
5		0	.87	269	90	155	64	29	10	8.1	.91	.11
6		0	.87	154	174	114	286	26	10	8.1	.65	.17
7		0	.83	76	433	87	129	23	10	7.8	.40	.18
8		0	.83	53	310	278	91	21	11	7.1	.30	.27
9		0	.78	480	465	271	79	23	11	6.1	.29	.38
10		0	.78	139	198	145	71	22	11	4.6	.22	2.3
11		0	.78	71	128	111	64	21	13	3.8	.28	2.1
12		0	.78	54	510	89	59	20	12	4.7	.22	1.2
13		0	.81	134	392	75	55	18	13	5.8	.23	.93
14		0	1.0	1070	222	68	51	19	13	5.5	.21	.58
15		0	6.3	553	162	60	220	20	14	3.8	.13	.58
16		0	6.8	861	128	54	147	19	15	4.2	.12	.47
17		0	65	528	103	50	83	18	14	4.1	.25	.38
18		0	50	333	89	47	68	17	13	2.6	.30	.32
19		0	26	425	80	43	59	16	13	2.5	.35	.15
20		0	17	230	71	42	58	15	12	2.6	.22	.17
21		.02	17	149	60	46	54	15	13	3.1	.27	.40
22		22	26	108	49	62	48	15	12	2.6	.17	.48
23		5.2	143	86	48	51	45	15	12	2.4	.11	.41
24		2.6	42	71	45	46	44	14	13	2.3	.02	.21
25		1.7	25	74	42	42	69	13	13	2.2	.10	.15
26		1.3	22	68	40	39	68	13	13	1.9	.04	.25
27		1.2	22	64	38	38	55	12	13	1.5	.09	.17
28		1.1	23	60	36	36	50	11	12	1.5	.10	.23
29		.96	28	58	---	35	46	11	12	1.7	.10	.23
30		.96	34	55	---	34	43	11	11	2.1	.15	.44
31		---	29	54	---	52	---	10	---	2.0	.17	---
TOTAL	0	37.04	594.11	6410	4111	2480	2426	610	358.7	143.0	11.88	13.81
MEAN	0	1.23	19.2	207	147	80.0	80.9	19.7	12.0	4.61	.38	.46
MAX	0	22	143	1070	510	278	286	41	15	9.7	1.7	2.3
MIN	0	0	.78	23	36	34	43	10	9.8	1.5	.02	.07
AC-FT	0	73	1180	12710	8150	4920	4810	1210	711	284	24	27
CAL YR 1977	TOTAL	966.32	MEAN	2.65	MAX	143	MIN	0	AC-FT	1920		
WTR YR 1978	TOTAL	17195.54	MEAN	47.1	MAX	1070	MIN	0	AC-FT	34110		

## PILARCITOS CREEK BASIN

11162630 PILARCITOS CREEK AT HALF MOON BAY, CA

LOCATION.--Lat 37°28'07", long 122°26'08", on north boundary of Miramontes Grant, San Mateo County, Hydrologic Unit 18050006, on left bank 0.2 mi (0.3 km) downstream from State Highway 1, 0.5 mi (0.8 km) northwest of town of Half Moon Bay, and 1.0 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--27.2 mi<sup>2</sup> (70.4 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 23.59 ft (7.190 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair including those for period of no gage-height record, Feb. 6-9, Aug. 15 to Sept. 30. Flow partly regulated by storage in Pilarcitos Lake 10 mi (16 km) upstream, capacity, 3,100 acre-ft (3.82 hm<sup>3</sup>). Water is diverted to City of San Francisco Water System; small diversions for irrigation above station by pumping.

AVERAGE DISCHARGE (unadjusted).--12 years, 12.9 ft<sup>3</sup>/s (0.365 m<sup>3</sup>/s), 9,350 acre-ft/yr (11.5 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,290 ft<sup>3</sup>/s (36.5 m<sup>3</sup>/s) Jan. 30, 1968, gage height, 11.20 ft (3.414 m); no flow at times in most years.

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

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 16	1100	511 14.5	6.89 2.100	Feb. 12	1300	303 8.58	5.71 1.740
Feb. 7	unknown	*580 16.4	7.25 2.210	Mar. 8	1845	395 11.2	6.25 1.905

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	5.1	11	11	27	16	3.2	.62	.26	.22
2		0	0	5.2	9.9	12	36	14	3.0	.81	.55	.15
3		0	0	6.3	8.9	11	24	12	3.0	.81	.55	.10
4		0	0	9.6	9.9	16	39	9.1	3.6	.67	.55	.09
5		0	0	14	12	23	26	8.4	3.3	.76	.23	.09
6		0	0	14	25	18	110	7.8	2.1	.16	.33	.09
7		0	0	10	67	17	60	15	1.8	.27	.39	.09
8		0	0	8.9	52	109	43	6.8	1.8	.46	.18	.10
9		0	0	26	72	96	35	7.1	1.5	.32	.54	.12
10		0	0	14	54	53	30	7.1	1.4	.63	.39	.20
11		0	0	11	41	44	26	6.9	2.0	.68	.27	.17
12		0	0	9.6	83	37	24	6.9	1.4	.67	.16	.13
13		0	0	17	68	31	23	6.9	1.2	.47	.32	.11
14		0	0	105	48	29	22	6.6	1.1	.14	.21	.09
15		0	0	195	43	26	95	6.7	1.0	.37	.18	.08
16		0	0	284	36	23	60	7.2	.95	.72	.17	.07
17		0	1.6	147	29	22	43	6.7	1.0	.40	.27	.06
18		0	2.3	80	26	20	33	6.2	1.2	.35	.35	.04
19		0	.54	103	22	18	29	5.7	1.3	.50	.37	.04
20		0	.17	61	19	17	27	6.1	1.1	2.2	.34	.03
21		1.2	4.5	42	15	22	25	6.5	1.4	.92	.31	.03
22		.05	7.9	32	14	26	23	6.3	1.4	.58	.25	.02
23		0	6.9	28	13	18	21	5.2	1.5	.67	.20	.02
24		0	4.0	24	13	15	20	4.7	1.0	.84	.12	.02
25		0	2.1	21	12	14	26	5.1	1.1	.62	.10	.01
26		0	5.4	18	11	13	27	4.2	1.4	.46	.11	.01
27		0	4.7	17	11	13	23	3.7	1.2	.68	.08	0
28		0	5.0	15	11	12	21	3.6	1.1	.56	.08	0
29		0	5.2	13	---	12	19	3.9	.92	.50	.09	0
30		0	7.5	12	---	12	17	3.7	.77	.91	.16	0
31		---	5.8	11	---	13	---	3.5	---	.67	.21	---
TOTAL	0	1.25	63.61	1358.7	836.7	803	1034	219.6	48.74	19.42	8.32	2.18
MEAN	0	.042	2.05	43.8	29.9	25.9	34.5	7.08	1.62	.63	.27	.073
MAX	0	1.2	7.9	284	83	109	110	16	3.6	2.2	.55	.22
MIN	0	0	0	5.1	8.9	11	17	3.5	.77	.14	.08	0
AC-FT	0	2.5	126	2690	1660	1590	2050	436	97	39	17	4.3
(+)	54	48	238	986	1020	1120	894	21	39	109	71	527
CAL YR 1977 TOTAL	230.33			MEAN .63	MAX 27	MIN 0	AC-FT 457	† 746				
WTR YR 1978 TOTAL	4395.52			MEAN 12.0	MAX 284	MIN 0	AC-FT 8720	† 5130				

† Diversion, in acre-feet, to City of San Francisco Water System, furnished by city and county of San Francisco.

## 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 (1.6 km) southwest of South San Francisco Post Office.

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

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

GAGE.--Water-stage recorder. Datum of gage is 12.53 ft (3.819 m) National Geodetic Vertical Datum of 1929. Recording rain gages at Skyline College, altitude, 700 ft (213 m) at site 2.9 mi (4.7 km) southwest of gaging station and on San Bruno Mt., altitude, 930 ft (283 m) at site 2.7 mi (4.3 km) northwest of gaging station.

REMARKS.--Records fair. Low flow affected by return flow from urban irrigation.

AVERAGE DISCHARGE.--15 years, 6.90 ft<sup>3</sup>/s (0.195 m<sup>3</sup>/s), 5,000 acre-ft/yr (6.17 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,880 ft<sup>3</sup>/s (81.6 m<sup>3</sup>/s) Jan. 16, 1973, gage height, 11.80 ft (3.597 m); no flow Oct. 5, 26, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft<sup>3</sup>/s (17 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 21	2245	646 18.3	6.61 2.015	Feb. 5	1125	1350 38.2	8.63 2.630
Dec. 17	0945	676 19.1	6.71 2.045	Feb. 7	0815	1040 29.5	7.82 2.384
Jan. 4	1635	649 18.4	6.62 2.018	Mar. 2	1700	707 20.0	6.81 2.076
Jan. 9	0445	802 22.7	7.11 2.167	Mar. 8	2100	989 28.0	7.67 2.338
Jan. 14	1655	*1360 38.5	8.64 2.633	Apr. 3	2205	701 19.9	6.79 2.070
Jan. 16	0945	1020 28.9	7.77 2.368	Apr. 6	0040	729 20.6	6.88 2.097

Minimum daily discharge, 0.30 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Oct. 1-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	.31	.45	3.2	.43	24	20	1.6	.84	1.3	2.9	2.1
2	.30	.31	.43	17	.43	72	1.2	1.2	.84	1.2	2.2	2.1
3	.30	.31	.43	11	.31	21	44	1.2	.84	1.4	1.7	1.6
4	.31	12	.43	50	4.3	47	15	.93	.84	1.2	2.1	2.5
5	.31	14	.43	59	68	43	1.2	.98	1.0	1.3	1.3	2.9
6	.31	.59	.33	6.0	70	5.9	70	1.1	.86	1.6	1.9	2.9
7	.31	.59	1.3	3.3	130	3.2	3.4	1.6	.84	1.6	2.5	2.6
8	.31	.59	.43	20	92	275	2.7	1.2	.84	1.6	2.4	3.0
9	.31	.59	.43	97	20	50	2.3	1.2	.90	1.3	2.2	17
10	.31	.59	.32	3.1	4.9	13	1.6	.91	1.3	1.2	2.0	2.1
11	.31	.54	9.1	1.6	2.1	9.1	1.4	1.0	1.3	1.3	2.5	1.2
12	.31	.43	.59	25	54	4.3	1.4	.67	1.3	1.3	2.6	.66
13	.34	.43	.59	62	27	2.1	1.6	.84	1.3	1.5	2.6	.69
14	.35	.43	37	189	3.3	2.1	1.8	2.1	.84	1.6	2.5	.69
15	.41	.55	5.0	55	6.1	1.2	130	1.2	.84	1.1	2.5	1.3
16	.31	.59	11	135	1.6	1.2	13	.64	.84	1.9	3.0	1.1
17	.31	.59	78	36	1.2	.59	3.2	.84	.69	2.3	3.1	1.3
18	.37	.44	2.5	50	.84	.43	2.7	.61	.84	1.8	3.0	1.6
19	.41	.52	.63	43	.59	.43	2.1	.59	.59	1.7	2.5	1.8
20	.38	1.2	.69	8.3	.59	.43	3.3	.53	1.1	1.3	2.7	2.0
21	.32	152	27	4.3	.31	20	1.2	.55	.43	1.7	2.9	1.3
22	.41	4.8	53	3.2	1.2	12	.59	.51	.84	1.7	2.9	1.0
23	.44	.59	12	1.6	.59	3.7	.43	.58	.59	1.8	3.0	.77
24	.38	.59	.63	1.6	.59	.43	24	.84	.74	1.8	3.0	.98
25	.31	.59	9.8	.84	.59	.43	12	.84	.93	1.8	3.9	1.8
26	.38	.59	12	.59	2.1	.43	15	.67	1.0	1.7	2.7	1.5
27	1.8	.59	15	.59	.31	.59	2.1	.57	.95	1.6	2.4	1.7
28	4.9	.46	11	.59	.31	.59	2.1	.43	1.0	1.8	2.2	1.5
29	.50	.43	28	.42	---	.84	1.9	.51	1.3	1.7	1.7	2.2
30	.85	.31	6.8	.59	---	.43	1.3	.84	1.2	1.8	1.9	1.5
31	.31	---	.66	.59	---	32	---	.84	---	1.8	1.6	---
TOTAL	17.17	196.55	325.97	889.41	493.69	647.42	382.52	28.12	27.72	48.7	76.4	65.39
MEAN	.55	6.55	10.5	28.7	17.6	20.9	12.8	.91	.92	1.57	2.46	2.18
MAX	4.9	152	78	189	130	275	130	2.1	1.3	2.3	3.9	17
MIN	.30	.31	.32	.42	.31	.43	.43	.43	.43	1.1	1.3	.66
AC-FT	34	390	647	1760	979	1280	759	56	55	97	152	130
(†)	.17	1.48	1.88	3.61	1.70	3.72	2.86	0	.01	.10	.07	.01
(‡)	.42	3.31	4.94	7.50	3.68	5.58	5.19	.07	0	0	.12	.02

CAL YR 1977 TOTAL 1190.97 MEAN 3.26 MAX 152 MIN .14 AC-FT 2360  
WTR YR 1978 TOTAL 3199.06 MEAN 8.76 MAX 275 MIN .30 AC-FT 6350

† Precipitation, in inches, at San Bruno Mt. gage.  
‡ Precipitation, in inches, at Skyline College gage.

## 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 (61 m) upstream from Alameda de las Pulgas bridge, and 2.5 mi (4.0 km) south of Redwood City Old Post Office.

DRAINAGE AREA.--1.82 mi<sup>2</sup> (4.71 km<sup>2</sup>).

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 (25.579 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Low flow at times affected by return flow from urban irrigation.

AVERAGE DISCHARGE.--19 years, 1.03 ft<sup>3</sup>/s (0.029 m<sup>3</sup>/s), 746 acre-ft/yr (920,000 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 644 ft<sup>3</sup>/s (18.2 m<sup>3</sup>/s) Jan. 31, 1963, gage height, 9.36 ft (2.853 m), from rating curve extended above 180 ft<sup>3</sup>/s (5.10 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow and computation of maximum flow through culvert; maximum gage height, 11.55 ft (3.520 m) Nov. 29, 1970 (backwater from culvert trash racks); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft<sup>3</sup>/s (2.8 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 9	0700	121 3.43	3.99 1.216	Feb. 7	0915	209 5.92	5.16 1.573
Jan. 14	1745	200 5.66	5.06 1.542	Feb. 12	1230	136 3.85	4.22 1.286
Jan. 16	1015	*266 7.53	5.80 1.768				

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.03	.01	.46	.50	.92	.95	.36	.10	.02	.08	.01
2	0	.03	.01	1.4	.49	3.8	.61	.33	.11	.02	.02	.01
3	0	.03	.02	1.2	.47	1.5	1.7	.31	.11	.02	.02	.01
4	0	.03	.02	7.4	.52	4.7	4.0	.30	.10	.02	.02	.01
5	0	.43	.02	20	3.5	6.6	.85	.29	.09	.02	.02	.17
6	0	.01	.02	3.0	14	1.7	5.8	.29	.09	.02	.02	.01
7	0	.01	.02	1.2	33	1.3	1.3	.29	.07	.02	.02	.01
8	0	.01	.02	1.0	18	22	.91	.27	.08	.02	.02	.09
9	0	.01	.02	20	14	13	.68	.36	.07	.02	.11	.62
10	0	.01	.03	2.0	2.9	2.2	.52	.25	.10	.03	.06	.20
11	0	.01	.03	1.1	1.9	1.5	.49	.24	.09	.02	.02	.01
12	0	.01	.01	1.9	27	1.2	.48	.25	.07	.03	.02	.01
13	0	.01	.01	19	11	1.0	.44	.24	.06	.02	.02	.01
14	0	.01	2.5	47	3.2	.91	.42	.24	.06	.01	.20	.02
15	0	.01	3.1	32	2.3	.83	7.2	.24	.06	.01	.02	.02
16	0	.04	.39	53	1.8	.77	2.2	.22	.09	.01	.02	.04
17	.05	.01	25	12	1.6	.73	.80	.20	.08	.01	.01	.05
18	0	.01	1.2	9.5	1.4	.71	.61	.19	.04	.01	.01	.06
19	0	.01	.50	7.8	1.2	.64	.64	.18	.04	0	.01	.04
20	0	.01	.43	2.4	1.1	.63	.81	.17	.04	0	.01	.02
21	0	9.0	1.1	1.7	1.0	1.9	.51	.17	.05	.02	.01	.01
22	0	1.9	9.9	1.3	.98	1.7	.47	.17	.04	.01	.01	.01
23	0	.07	5.3	1.1	.96	.78	.45	.14	.03	.01	.01	.03
24	0	.01	.64	.94	.90	.66	.74	.15	.03	.01	.01	.09
25	.01	.01	.48	.82	.85	.62	.73	.16	.03	.01	.01	.09
26	.01	.01	.97	.74	.85	.58	.94	.16	.03	.01	.01	.10
27	.02	.02	1.2	.67	.80	.56	.46	.16	.04	.01	.03	.12
28	.07	.02	1.8	.63	.78	.56	.41	.14	.03	.01	.01	.11
29	.02	.02	.78	.59	---	.53	.40	.13	.04	.01	.01	.06
30	.02	.02	.67	.58	---	.54	.38	.11	.04	.01	.01	.01
31	.02	---	.48	.53	---	1.8	---	.10	---	.11	.01	---
TOTAL	.22	11.81	56.68	252.96	147.00	76.87	36.90	6.81	1.91	.55	.86	2.05
MEAN	.007	.39	1.83	8.16	5.25	2.48	1.23	.22	.064	.018	.028	.068
MAX	.07	9.0	25	53	33	22	7.2	.36	.11	.11	.20	.62
MIN	0	.01	.01	.46	.47	.53	.38	.10	.03	0	.01	.01
AC-FT	.4	23	112	502	292	152	73	14	3.8	1.1	1.7	4.1

CAL YR 1977 TOTAL 94.04 MEAN .26 MAX 25 MIN 0 AC-FT 187  
WTR YR 1978 TOTAL 594.62 MEAN 1.63 MAX 53 MIN 0 AC-FT 1180

## 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 (1.8 km) downstream from Los Trancos Creek, and 1.1 mi (1.8 km) west of Stanford University Post Office.

DRAINAGE AREA.--37.4 mi<sup>2</sup> (96.9 km<sup>2</sup>).

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. Datum of gage is 115.75 ft (35.281 m) National Geodetic Vertical Datum of 1929. Recording rain gage at Oak Grove Avenue in Menlo Park 1.9 mi (3.1 km) north of gage.

REMARKS.--Records good. Flow regulated by Searsville Lake 5 mi (8 km) upstream, capacity, 952 acre-ft (1.17 hm<sup>3</sup>). Diversions of about 800 acre-ft (986,000 m<sup>3</sup>) each year above station to Los Trancos and Lagunita Canals for irrigation on Stanford University campus below station. Low flow affected by waste water from Stanford Linear Accelerator.

AVERAGE DISCHARGE.--39 years, 18.1 ft<sup>3</sup>/s (0.513 m<sup>3</sup>/s), 13,110 acre-ft/yr (16.2 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,560 ft<sup>3</sup>/s (157 m<sup>3</sup>/s) Dec. 22, 1955, gage height, 13.60 ft (4.145 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft<sup>3</sup>/s (20 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)				
Jan. 14	1945	2100	59.5	6.04	1.841	Feb. 7	1045	1140	32.3	4.62	1.408
Jan. 16	1230	*2470	70.0	6.56	1.999	Feb. 12	1430	861	24.4	4.13	1.259

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.10	.80	4.7	20	33	7.8	.59	.47	.37	.10
2		0	.03	1.5	5.8	51	26	7.7	.47	.48	.22	.12
3		0	.05	4.5	4.9	50	20	8.0	.45	.54	.33	.20
4		0	.08	16	3.6	125	60	6.6	.47	.74	.22	.13
5		.72	.08	156	24	187	31	5.4	.43	.64	.21	.31
6		.15	.08	76	125	78	110	4.5	.43	.47	.30	.28
7		.07	.13	20	382	44	68	3.7	.71	.45	.32	.09
8		.02	.18	13	223	154	47	3.0	.63	.39	.20	.14
9		.01	.19	216	369	278	35	2.6	.52	.40	.15	.27
10		0	.18	55	122	98	24	2.2	.41	.36	.14	.76
11		.09	.20	11	71	75	18	1.9	.44	.40	.53	.15
12		.06	.33	15	333	62	19	1.7	.39	.38	.50	.18
13		.06	.45	91	294	49	19	1.5	.30	.42	.31	.28
14		.07	.67	842	126	39	17	1.4	.25	.34	.22	.36
15		.11	15	579	80	31	97	1.4	.38	.28	.14	.43
16		.13	1.5	882	62	24	104	1.3	.34	.37	.15	.59
17		.12	90	402	50	22	52	1.2	.31	.34	.14	.43
18		.12	10	181	41	20	34	1.2	.21	.40	.27	.69
19		.13	2.0	231	35	19	26	1.1	.46	.31	.21	.75
20		.11	.62	104	31	19	29	1.1	.54	.36	.20	.19
21		2.8	.72	55	24	33	24	1.0	.39	.52	.22	.10
22		13	14	32	19	53	18	.96	.38	.41	.15	.22
23		.88	62	18	11	31	15	.92	.30	.42	.12	.33
24		.21	3.5	4.2	5.9	22	16	.88	.29	.34	.09	.20
25		.07	1.6	3.2	9.2	14	26	.83	.22	.38	.13	.11
26		.06	1.9	3.8	19	11	26	.80	.65	.17	.11	.11
27		.11	4.0	5.5	19	11	21	.76	.70	.19	.10	.14
28		.10	4.3	5.6	19	9.8	15	.72	.60	.20	.17	.43
29		.09	4.3	5.2	---	12	9.2	.69	.54	.36	.17	.40
30		.10	1.9	4.7	---	12	8.5	.66	.46	.41	.16	.69
31		---	1.2	4.2	---	26	---	.63	---	.30	.13	---
TOTAL	0	19.39	221.29	4038.20	2513.1	1679.8	1047.7	74.15	13.26	12.24	6.68	9.18
MEAN	0	.65	7.14	130	89.8	54.2	34.9	2.39	.44	.39	.22	.31
MAX	0	13	90	882	382	278	110	8.0	.71	.74	.53	.76
MIN	0	0	.03	.80	3.6	9.8	8.5	.63	.21	.17	.09	.09
AC-FT	0	38	439	8010	4980	3330	2080	147	26	24	13	18
(†)	.15	1.44	3.95	7.19	3.99	3.16	2.50	0	0	0	0	.14

CAL YR 1977 TOTAL 334.33 MEAN .92 MAX 90 MIN 0 AC-FT 663  
WTR YR 1978 TOTAL 9634.99 MEAN 26.4 MAX 882 MIN 0 AC-FT 19110

† 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 Francisquito Grant, Santa Clara County, Hydrologic Unit 18050003, on right bank on Ash Street 150 ft (46 m) upstream from Lambert Avenue Bridge, and 2.1 mi (3.4 km) southeast of Palo Alto Post Office.

DRAINAGE AREA.--7.24 mi<sup>2</sup> (18.75 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 22.07 ft (6.727 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 25, 1958, at site 150 ft (46 m) downstream at different datum.

REMARKS.--Records fair except those for period of no gage-height record, Aug. 2 to Sept. 30, which are poor. No regulation or diversion above station.

AVERAGE DISCHARGE.--26 years, 1.84 ft<sup>3</sup>/s (0.052 m<sup>3</sup>/s), 1,330 acre-ft/yr (1.64 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft<sup>3</sup>/s (31.2 m<sup>3</sup>/s) Feb. 27, 1973, gage height, 5.57 ft (1.698 m), from rating curve extended above 150 ft<sup>3</sup>/s (4.25 m<sup>3</sup>/s) on basis of step-backwater computations at gage heights 3.68 ft (1.122 m) and 5.33 ft (1.625 m); maximum gage height, 9.88 ft (3.011 m) Dec. 23, 1955, site and datum then in use (backwater from culvert); no flow at times.

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

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 5	1455	209 5.92	2.27 0.692	Feb. 7	1000	294 8.33	2.73 0.832
Jan. 14	1800	516 14.6	3.75 1.143	Feb. 12	1330	270 7.65	2.60 .792
Jan. 16	1100	*543 15.4	3.86 1.177				

Minimum daily discharge, 0.03 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) Oct. 26, Nov. 11, 12, 14, 16, 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.08	.07	.45	.75	1.8	2.8	.60	.16	.10	.13	.06
2	.06	.06	.09	4.5	.59	13	1.8	.49	.18	.10	.11	.07
3	.08	.04	.09	3.9	.54	4.3	4.4	.45	.14	.10	.13	.08
4	.06	.06	.10	13	.96	42	13	.41	.14	.12	.18	.10
5	.05	1.7	.12	99	17	37	2.7	.39	.14	.12	.12	.08
6	.06	.08	.12	14	41	7.9	26	.37	.14	.13	.14	.16
7	.05	.08	.11	3.3	68	4.8	4.5	.31	.15	.14	.17	.06
8	.04	.08	.09	1.6	42	26	2.6	.38	.14	.15	.14	.05
9	.05	.08	.09	61	52	26	2.0	.34	.11	.19	.09	.09
10	.05	.08	.08	6.4	9.9	7.0	1.7	.30	.10	.17	.08	.25
11	.05	.03	.13	2.4	5.3	5.0	1.4	.31	.11	.13	.20	.41
12	.04	.03	.11	2.8	68	4.0	1.1	.27	.11	.13	.29	.09
13	.05	.04	.12	50	30	3.3	.93	.31	.11	.12	.23	.12
14	.04	.03	1.8	177	10	3.1	.77	.23	.09	.13	.13	.18
15	.04	.04	4.8	58	6.6	2.7	25	.17	.14	.17	.10	.21
16	.04	.03	.70	123	4.9	2.5	7.4	.24	.12	.14	.08	.26
17	.07	.04	35	38	4.0	2.3	2.7	.24	.14	.14	.08	.30
18	.07	.03	3.7	24	3.5	2.1	2.0	.29	.10	.09	.12	.26
19	.06	.03	.39	24	3.2	2.0	1.7	.26	.13	.13	.14	.40
20	.08	.04	.33	7.6	2.9	1.9	4.2	.31	.12	.10	.11	.15
21	.07	7.4	4.1	5.0	2.4	15	1.5	.31	.11	.10	.12	.07
22	.06	4.4	25	3.4	2.3	8.5	1.1	.24	.11	.11	.10	.06
23	.05	.12	15	2.8	2.0	2.7	1.1	.20	.12	.12	.08	.15
24	.06	.09	.67	2.1	1.9	2.1	2.6	.13	.12	.11	.06	.17
25	.05	.09	.47	1.9	1.7	1.9	1.6	.15	.10	.12	.05	.08
26	.03	.08	3.3	1.7	1.5	1.8	2.8	.15	.11	.11	.07	.06
27	.21	.08	1.0	1.2	1.6	1.7	1.2	.20	.10	.11	.06	.07
28	.06	.07	2.0	1.1	1.6	1.6	1.1	.20	.12	.16	.07	.15
29	.11	.06	.46	1.1	---	1.6	1.1	.18	.12	.12	.09	.23
30	.07	.08	1.7	1.0	---	1.7	.73	.15	.12	.12	.09	.27
31	.06	---	.26	.89	---	15	---	1.4	---	.11	.08	---
TOTAL	1.92	15.15	102.00	736.14	386.14	252.3	123.53	9.98	3.70	3.89	3.64	4.69
MEAN	.062	.51	3.29	23.7	13.8	8.14	4.12	.32	.12	.13	.12	.16
MAX	.21	7.4	35	177	68	42	26	1.4	.18	.19	.29	.41
MIN	.03	.03	.07	.45	.54	1.6	.73	.13	.09	.09	.05	.05
AC-FT	3.8	30	202	1460	766	500	245	20	7.3	7.7	7.2	9.3

CAL YR 1977 TOTAL 225.86 MEAN .62 MAX 35 MIN 0 AC-FT 448  
WTR YR 1978 TOTAL 1643.08 MEAN 4.50 MAX 177 MIN .03 AC-FT 3260



## STEVENS CREEK BASIN

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11166480 STEVENS CREEK RESERVOIR NEAR MONTE VISTA, CA

LOCATION.--Lat 37°17'55", long 122°04'34", in NW¼ sec.27, T.7 S., R.2 W., Santa Clara County, Hydrologic Unit 18050003, at center of dam on Stevens Creek, 2.0 mi (3.2 km) southwest of Monte Vista.

DRAINAGE AREA.--17.3 mi<sup>2</sup> (44.8 km<sup>2</sup>).

PERIOD OF RECORD.--December 1935 to current year. Monthly contents prior to October 1959 published in WSP 1735.

GAGE.--Nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Santa Clara Valley Water District).

REMARKS.--Reservoir is formed by earthfill dam completed in 1936. Capacity, 3,600 acre-ft (4.44 hm<sup>3</sup>) between elevations 444.9 ft (135.61 m), invert of outlet tunnel and 534.8 ft (163.01 m), crest of spillway. Water released down Stevens Creek for irrigation and ground-water recharge by percolation.

COOPERATION.--Record of contents furnished by Santa Clara Valley Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 4,100 acre-ft (5.06 hm<sup>3</sup>) Dec. 26, 1955, elevation, 538.61 ft (164.168 m); maximum elevation, 539.70 ft (164.501 m) Mar. 16, 1967; no contents at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 3,670 acre-ft (4.53 hm<sup>3</sup>) Mar.5, elevation, 535.6 ft (163.26 m); no contents Oct. 1 to Nov. 21.

MONTHEND CONTENTS, IN ACRE-FEET (INCLUDING MOMENTARY STORAGE ABOVE SPILLWAY CREST), AT 2400, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

Date	Contents
Sept. 30, 1977.....	0
Oct. 31.....	0
Nov. 30.....	58
Dec. 31.....	474
Jan. 31, 1978.....	3410
Feb. 28.....	3560
Mar. 31.....	3580
Apr. 30.....	3490
May 31.....	3180
June 30.....	2310
July 31.....	1210
Aug. 31.....	491
Sept. 30.....	418

## RESERVOIRS IN GUADALUPE RIVER BASIN, CA

- 11166670 ALMADEN RESERVOIR.--Lat 37°09'54", long 121°49'39", in San Vicente Grant, Santa Clara County, Hydrologic Unit 18050003, at center of dam on Alamitos Creek, 0.7 mi (1.1 km) southwest of New Almaden, and 7 mi (11 km) south of Edenvale. DRAINAGE AREA, 11.9 mi<sup>2</sup> (30.8 km<sup>2</sup>). PERIOD OF RECORD, January 1936 to current year. Monthly contents prior to October 1959, published in WSP 1735. GAGE, nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Santa Clara Valley Water District).
- Reservoir is formed by earthfill dam completed in 1936. Capacity, 1,780 acre-ft (2.19 hm<sup>3</sup>) between elevations 533.1 ft (162.49 m), invert of outlet tunnel and 606.9 ft (184.98 m), crest of spillway. Water released down Alamitos Creek for ground-water recharge by percolation and minor irrigation. Up to 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) diverted to Calero Reservoir at times. Record of contents furnished by Santa Clara Valley Water District.
- EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 2,150 acre-ft (2.65 hm<sup>3</sup>) Jan. 31, 1963, elevation, 610.24 ft (186.001 m), from floodmarks; no contents at times in each year except 1942-43, 1962-63, 1966, 1968-70, 1973-75.
- EXTREMES FOR CURRENT YEAR: Maximum contents observed, 1,830 acre-ft (2.26 hm<sup>3</sup>) Mar. 5, elevation, 607.7 ft (185.24 m); no contents Oct. 1 to Nov. 21.
- 11166740 CALERO RESERVOIR.--Lat 37°11'00", long 121°47'28", in San Vicente Grant, Santa Clara County, Hydrologic Unit 18050003, at center of dam on Arroyo Calero, 1.7 mi (2.7 km) northeast of New Almaden, and 6 mi (10 km) southeast of Edenvale. DRAINAGE AREA, 6.96 mi<sup>2</sup> (18.03 km<sup>2</sup>). PERIOD OF RECORD, January 1936 to current year. Monthly contents prior to October 1959, published in WSP 1735. GAGE, nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Santa Clara Valley Water District).
- Reservoir is formed by earthfill dam completed to crest elevation 482.55 ft (147.081 m) in 1936 and raised to 483.5 ft (147.37 m) in 1962. Capacity, 10,160 acre-ft (12.5 hm<sup>3</sup>) between elevations 393.7 ft (120.00 m), center of outlet tunnel and 483.5 ft (147.37 m), crest of spillway. Water released down Arroyo Calero for ground-water recharge by percolation and minor irrigation. Up to 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) diverted from Almaden Reservoir to Calero Reservoir at times. Record of contents furnished by Santa Clara Valley Water District.
- EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 10,520 acre-ft (13.0 hm<sup>3</sup>) Apr. 7, 1967, elevation, 485.21 ft (147.892 m); no contents at times in each year except 1942-45, 1963-78.
- EXTREMES FOR CURRENT YEAR: Maximum contents observed, 10,060 acre-ft (12.4 hm<sup>3</sup>) Mar. 5, 6, elevation, 483.4 ft (147.33 m); minimum observed, 176 acre-ft (217,000 m<sup>3</sup>) Oct. 31, elevation, 418.3 ft (127.50 m).
- 11167370 GUADALUPE RESERVOIR.--Lat 37°11'57", long 121°52'42", in Los Capitancillos Grant, Santa Clara County, Hydrologic Unit 18050003, at center of dam on Guadalupe Creek, 3.6 mi (5.8 km) northwest of New Almaden, and 5.0 mi (8.0 km) southeast of Los Gatos. DRAINAGE AREA, 5.97 mi<sup>2</sup> (15.5 km<sup>2</sup>). PERIOD OF RECORD, January 1936 to current year. Monthly contents prior to October 1959, published in WSP 1735. GAGE, nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Santa Clara Valley Water District).
- Reservoir is formed by earthfill dam completed in 1936. Capacity, 3,740 acre-ft (4.61 hm<sup>3</sup>) between elevations 506.8 ft (154.47 m), invert of outlet tunnel and 617.3 ft (188.15 m), crest of spillway. Water released down Guadalupe Creek for irrigation and ground-water recharge by percolation. Record of contents furnished by Santa Clara Valley Water District.
- EXTREMES FOR PERIOD OF RECORD: Maximum contents 3,770 acre-ft (4.65 hm<sup>3</sup>) Apr. 15, 1978, elevation, 617.6 ft (188.24 m); maximum elevation, 619.26 ft (188.750 m) Feb. 1, 1963, from floodmarks; no contents at times in each year except 1941-43, 1962-63, 1966-67, 1974-78.
- EXTREMES FOR CURRENT YEAR: Maximum contents observed, 3,770 acre-ft (4.65 hm<sup>3</sup>) Apr. 15, elevation, 617.6 ft (188.24 m); minimum observed, 176 acre-ft (217,000 m<sup>3</sup>) Nov. 20, 21, elevation, 536.7 ft (163.58 m).
- 11167950 LAKE ELSMAN.--Lat 37°07'51", long 121°55'47", in SE<sup>1</sup>/<sub>4</sub> sec.23, T.9 S., R.1 W., Santa Clara County, Hydrologic Unit 18050003, at center of Austrian Dam on Los Gatos Creek, and 7.3 mi (11.7 km) southeast of Los Gatos. DRAINAGE AREA, 9.79 mi<sup>2</sup> (25.4 km<sup>2</sup>). PERIOD OF RECORD, February 1951 to current year. Monthly contents prior to October 1959, published in WSP 1735. GAGE, nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by San Jose Water Works).
- Reservoir is formed by earthfill dam completed in 1951; topped by a 2-foot (0.6-m) inflatable surcharge dam since 1956. Usable capacity, 6,280 acre-ft (7.74 hm<sup>3</sup>) between elevations 944 ft (287.7 m), elevation of outlet gates and 1,112 ft (338.9 m), top of 2-foot (0.6-m) inflatable surcharge dam. Dead storage, 60 acre-ft (74,000 m<sup>3</sup>). Water released down Los Gatos Creek for domestic and industrial use. Record of contents furnished by San Jose Water Works.
- EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 6,640 acre-ft (8.19 hm<sup>3</sup>) Jan. 31, 1963, elevation, 1,115.1 ft (339.88 m); no contents Nov. 30, 1968, Nov. 5, 1969, Oct. 31, 1972, Nov. 30, 1974.
- EXTREMES FOR CURRENT YEAR: Maximum contents observed, 6,280 acre-ft (7.74 hm<sup>3</sup>) Apr. 30, elevation, 1,112.0 ft (338.94 m); minimum observed, 377 acre-ft (465,000 m<sup>3</sup>) Oct. 27, elevation, 1,012.4 ft (308.58 m).
- 11167980 LEXINGTON RESERVOIR.--Lat 37°12'06", long 121°59'17", in SE<sup>1</sup>/<sub>4</sub> 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 (2.7 km) south of Los Gatos. DRAINAGE AREA, 37.0 mi<sup>2</sup> (95.8 km<sup>2</sup>). PERIOD OF RECORD, December 1952 to current year. Monthly contents prior to October 1959, published in WSP 1735. GAGE, nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Santa Clara Valley Water District).
- Reservoir is formed by earthfill dam completed in 1952. Capacity, 20,210 acre-ft (24.9 hm<sup>3</sup>) between elevations 519 ft (158.2 m), invert at outlet tunnel and 649.9 ft (198.09 m), crest of spillway. Dead storage, 31 acre-ft (38,200 m<sup>3</sup>). Water released down Los Gatos Creek for irrigation and ground-water recharge by percolation. For WATER-QUALITY RECORDS, see following page. Record of contents furnished by Santa Clara Valley Water District.
- EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 23,190 acre-ft (28.6 hm<sup>3</sup>) Mar. 16, 1967, elevation, 654.00 ft (199.339 m); no contents at times in each year except 1963, 1966-74.
- EXTREMES FOR CURRENT YEAR: Maximum contents observed, 20,680 acre-ft (25.5 hm<sup>3</sup>) Mar. 5, elevation, 650.9 ft (198.40 m); no contents Oct. 1 to Nov. 21.

MONTHEND CONTENTS, IN ACRE-FEET (INCLUDING MOMENTARY  
STORAGE ABOVE SPILLWAY CREST) AT 2400, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

Date	Almaden Reservoir	Calero Reservoir	Guadalupe Reservoir	Lake Elsman	Lexington Reservoir
Sept. 30, 1977.....	0	201	188	414	0
Oct. 31.....	0	177	181	381	0
Nov. 30.....	84	220	187	430	312
Dec. 31.....	412	204	424	776	1190
Jan. 31, 1978.....	556	6290	3150	4910	15540
Feb. 28.....	1570	9000	3420	6090	18900
Mar. 31.....	1750	9730	3650	6110	20440
Apr. 30.....	1750	9890	3760	6280	20440
May 31.....	1700	9650	3280	6130	18170
June 30.....	1150	9250	2390	5320	14680
July 31.....	615	8350	1410	4120	11030
Aug. 31.....	439	6900	1050	2850	7660
Sept. 30.....	328	5370	737	1540	5940

11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water year 1978.

BIOLOGICAL DATA: Water 1978.

AT SOUTH END (Lat 37°10'24", long 121°59'33", in SW¼SW¼ sec.4, T.9 S., R.1 W., Santa Clara County, Hydrologic Unit 18050003)

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

WATER DATA FOR COLUMBIA RIVER											
		SAMPLING		SPECIFIC CONDUCTANCE	PH	TEMPERATURE	TRANSPARENCY	OXYGEN, DIS-SOLVED			
DATE		DEPTH (M) 1/		(MICRO-MHOS)	(UNITS)	(DEG C)	(SECCHI DISK) (M)	(MG/L)			
JUN											
16...	1059	--	--	--	--	--	1.70	--	--	--	--
16...	1100	1.0	313	8.5	23.4	--	--	--	8.0	--	--
16...	1102	1.0	313	8.5	23.4	--	--	--	7.9	--	--
16...	1103	2.0	312	8.5	23.4	--	--	--	7.9	--	--
16...	1104	3.0	315	8.5	23.2	--	--	--	7.9	--	--
16...	1106	4.0	317	8.3	21.5	--	--	--	6.9	--	--
16...	1108	5.0	320	8.2	20.7	--	--	--	6.5	--	--
16...	1110	6.0	328	7.8	18.9	--	--	--	4.8	--	--
16...	1113	7.0	327	7.7	18.0	--	--	--	4.4	--	--
16...	1115	8.0	326	7.6	16.8	--	--	--	3.0	--	--
16...	1118	9.0	326	7.6	15.3	--	--	--	2.3	--	--
16...	1120	10.0	324	7.5	14.8	--	--	--	1.9	--	--
16...	1122	11.0	321	7.5	13.8	--	--	--	1.9	--	--
		SAMPLING DEPTH (M) 1/	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI, FECAL, KF AGAR (COLS./PER 100 ML)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)
JUN											
16...	1058	.10	--	--	--	--	K1	K1	--	--	--
16...	1100	1.0	313	8.5	23.4	8.0	--	--	150	47	36
16...	1110	6.0	328	7.8	18.9	4.8	--	--	150	43	37
16...	1120	10.0	324	7.5	14.8	1.9	--	--	150	39	37
DATE	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)
JUN											
16...	--	--	--	--	--	--	--	--	--	--	--
16...	14	13	16	.5	1.7	120	1	100	54	9.6	.1
16...	14	13	16	.5	1.7	130	0	110	53	9.5	.1
16...	13	12	15	.4	1.7	130	0	110	50	9.0	.1
DATE	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N)
JUN											
16...	--	--	--	--	--	--	--	--	--	--	--
16...	1.4	190	.26	.01	.00	.01	.01	.33	.04	.34	.34
16...	6.2	199	.27	.01	.00	.01	.01	.31	.29	.32	.32
16...	14	202	.27	.20	.22	.06	.01	.44	.01	.50	.50
DATE	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DIS-SOLVED (MG/L AS P)	PHOSPHATE, ORTHOPHOSPHATE, DIS-SOLVED (MG/L AS PO4)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	CHLOROPHYTOPLANKTON CHROMOFLUOROM (UG/L)	CHLOROPHYTOPLANKTON CHROMOFLUOROM (UG/L)	
JUN											
16...	--	--	--	--	--	--	--	--	--	--	--
16...	.29	.05	.35	.01	.00	.00	60	0	4.04	.000	.000
16...	.02	.30	.33	.00	.00	.00	70	20	.730	.000	.000
16...	.48	.02	.70	.00	.00	.00	70	20	.000	.000	.000

1/ To convert meters to feet, multiply by 3.281.

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

## GUADALUPE RIVER BASIN

11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA--Continued

AT SOUTH END--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PHYTOPLANKTON

DATE	JUN 16, 78		JUN 16, 78		JUN 16, 78	
TIME	1100		1110		1120	
DEPTH (M)	1.0		6.0		10.0	
TOTAL CELLS/ML	5700		3300		290	
DIVERSITY: DIVISION	0.6		1.0		--	
..CLASS	0.6		1.0		--	
..ORDER	0.6		1.4		--	
...FAMILY	1.6		1.7		0.5	
....GENUS	1.6		1.7		0.5	
ORGANISM	CELLS	PER-	CELLS	PER-	CELLS	PER-
	/ML	CENT	/ML	CENT	/ML	CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
...COELASTRACEAE						
....COELASTRUM	120	2	--	-	--	-
...OOCYSTACEAE						
....OOCYSTIS	220	4	--	-	--	-
CHRYSTOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	15	0	--	-	--	-
....MELOSIRA	--	-	440	13	--	-
...STEPHANODISCUS	15	0	--	-	--	-
...PENNALES						
...ACHNANTHACEAE						
....COCCONEIS	--	-	--	-	29	10
...FRAGILARIACEAE						
....FRAGILARIA	260	5	950#	29	260#	90
...NAVICULACEAE						
....NAVICULA	--	-	15	0	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	2900#	51	180	5	--	-
...OSCILLATORIACEAE						
....OSCILLATORIA	2200#	38	1700	52	--	-

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

11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA--Continued

NEAR SOUTH END (Lat 37°10'46", long 121°59'07", in SE¼NE¼ sec.5, T.9 S., R.1 W., Santa Clara County, Hydrologic Unit 18050003)

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

		SPECIFIC CONDUCTANCE (MICROMHOS)				PH	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	
DATE	TIME	SAMPLING DEPTH (M)1/				(UNITS)				
AUG										
22...	1410	1.0		392		8.5	24.1	--		10.8
22...	1455	.50		391		8.5	24.2	--		11.4
22...	1456	1.0		392		8.5	24.1	--		10.8
22...	1457	1.5		392		8.5	23.8	--		10.4
22...	1458	2.0		393		8.5	23.8	--		10.4
22...	1459	2.5		394		8.4	23.6	--		10.1
22...	1500	3.0		394		8.4	23.5	--		9.9
22...	1503	3.5		395		8.3	23.4	--		9.3
22...	1506	4.0		398		8.2	23.3	--		9.0
22...	1509	4.5		400		8.2	23.2	--		8.6
22...	1512	5.0		399		8.2	23.0	--		8.2
22...	1514	5.5		405		8.0	22.8	--		7.4
22...	1515	6.0		406		7.9	22.8	--		7.1
22...	1516	6.5		410		7.8	22.6	--		6.9
22...	1545	--		--		--	--	.80		--
DATE	TIME	SAMPLING DEPTH (M)1/	SPECIFIC CONDUCTANCE (MICROMHOS)	PH	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L CAC03)	HARDNESS, NONCARBONATE (MG/L CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)
AUG										
22...	1410	1.0	392	8.5	24.1	10.8	--	160	41	41
22...	1411	.10	--	--	--	--	K4	--	--	--
22...	1500	3.0	394	8.4	23.5	9.9	--	160	41	41
22...	1515	6.0	406	7.9	22.8	7.1	--	170	49	44
DATE	TIME	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	BICARBONATE (MG/L AS HC03)	CARBONATE (MG/L AS C03)	ALKALINITY (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS S04)	CHLORIDE, DIS-SOLVED (MG/L AS CL)
AUG										
22...	15	14	15	.5	2.0	150	0	120	57	10
22...	--	--	--	--	--	--	--	--	--	--
22...	15	14	15	.5	2.0	150	0	120	56	9.9
22...	15	14	15	.5	2.0	150	0	120	58	10
DATE	TIME	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS S102)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)
AUG										
22...	.2	2.9	216	.29	.00	.00	.00	.14	.00	.54
22...	--	--	--	--	--	--	--	--	--	--
22...	.2	2.9	215	.29	.00	.00	.00	.12	.00	.52
22...	.2	3.4	221	.30	.00	.01	.01	.01	.01	.44
DATE	TIME	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DIS-SOLVED (MG/L AS P04)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	
AUG										
22...		.68	.45	.23	.68	.05	.00	.00	70	20
22...		--	--	--	--	--	--	--	--	--
22...		.64	.16	.48	.64	.03	.00	.00	70	30
22...		.45	.25	.20	.45	.03	.00	.00	70	50

1/ To convert meters to feet, multiply by 3.281.

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

## GUADALUPE RIVER BASIN

11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA--Continued

NEAR SOUTH END--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PHYTOPLANKTON

DATE	AUG 22,78	AUG 22,78	AUG 22,78
TIME	1410	1500	1515
DEPTH (M)	1.0	3.0	6.0
TOTAL CELLS/ML	27000	31000	5800
DIVERSITY: DIVISION	0.1	0.2	0.4
..CLASS	0.1	0.3	0.4
..ORDER	0.2	0.3	0.5
...FAMILY	0.2	0.3	0.5
....GENUS	1.1	1.2	1.3

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
....CHARACIACEAE						
....SCHROEDERIA	* 0		* 0		41	1
....OOCYSTACEAE						
....ANKISTRODESMUS	--	-	* 0		--	-
....DICTYOSPHAERIUM	--	-	* 0		--	-
....OOCYSTIS	* 0		* 0		140	2
....SELENASTRUM	--	-	--	-	* 0	
..TETRASPORALES						
...PALMELLACEAE						
....SPHAEROCYSTIS	--	-	* 0		--	-
CHRYSTOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
...COSCINODISCEAE						
....CYCLOTELLA	* 0		--	-	--	-
....MELOSIRA	* 0		230	1	--	-
..CHRYSTOPHYCEAE						
...CHRYSOMONADALES						
...OCHROMONADACEAE						
....OCHROMONAS	--	-	* 0		--	-
..XANTHOPHYCEAE						
...HETEROCOCCALES						
...CHLOROTHECIACEAE						
....OPHIOCYTIUM	--	-	* 0		--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROCCOCCALES						
....CHROCCOCCAEAE						
....ANACYSTIS	* 0		--	-	83	1
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	15000# 56		20000# 65		4000# 70	
....APHANIZOMENON	11000# 42		9900# 32		1400# 24	
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
...EUGLENACEAE						
....TRACHELOMONAS	* 0		* 0		* 0	
PYRRHOPHYTA (FIRE ALGAE)						
..DINOPHYCEAE						
...PERIDINIALES						
....CERATIACEAE						
....CERATIUM	--	-	--	-	* 0	
...PERIDINIAEAE						
....PERIDINIUM	* 0		210	1	83	1

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

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

11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA--Continued

AT CENTER (Lat 37°11'08", long 121°59'17", in SE¼SE¼ sec/32. T.8 S., R.1 W., Santa Clara County, Hydrologic Unit 18050003)

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

		SAM- PLING DEPTH (M) 1/	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)				
JUN											
16...	0959	--	--	--	--	1.60	--				
16...	1000	1.0	309	8.6	23.0	--	8.0				
16...	1001	.00	309	8.6	23.0	--	7.9				
16...	1003	1.0	307	8.6	23.0	--	8.0				
16...	1005	2.0	308	8.6	22.9	--	8.0				
16...	1007	3.0	308	8.6	22.4	--	7.9				
16...	1010	4.0	308	8.6	21.6	--	7.7				
16...	1013	5.0	317	8.0	19.9	--	6.5				
16...	1015	6.0	319	7.8	18.5	--	5.4				
16...	1017	7.0	318	7.6	17.6	--	4.3				
16...	1018	8.0	319	7.6	16.5	--	3.7				
16...	1019	10.0	315	7.6	14.2	--	3.5				
16...	1021	12.0	307	7.6	13.0	--	3.7				
16...	1022	14.0	305	7.5	12.2	--	3.5				
16...	1023	16.0	302	7.5	11.7	--	3.9				
16...	1024	18.0	301	7.5	11.6	--	3.9				
16...	1025	20.0	298	7.4	11.4	--	4.0				
16...	1026	22.0	298	7.4	11.4	--	4.0				
16...	1027	24.0	--	7.2	11.4	--	3.9				
AUG											
22...	1130	--	--	--	--	1.30	--				
22...	1228	.00	388	8.5	23.8	--	9.0				
22...	1229	.50	390	8.4	23.7	--	9.0				
22...	1230	1.0	390	8.4	23.6	--	9.1				
22...	1231	1.5	391	8.4	23.5	--	9.2				
22...	1232	2.0	390	8.3	23.4	--	9.1				
22...	1234	2.5	389	8.4	23.3	--	8.9				
22...	1236	3.0	389	8.3	23.3	--	8.2				
22...	1238	3.5	390	8.3	23.2	--	7.8				
22...	1239	4.0	391	8.1	23.1	--	7.6				
22...	1240	4.5	390	8.0	22.9	--	7.4				
22...	1241	5.0	390	7.9	22.9	--	7.1				
22...	1242	5.5	390	7.9	22.9	--	7.0				
22...	1243	6.0	390	7.9	22.8	--	7.2				
22...	1244	6.5	389	7.9	22.8	--	6.6				
22...	1245	7.0	390	7.7	22.7	--	6.0				
22...	1246	7.5	390	7.7	22.7	--	5.4				
22...	1248	8.0	390	7.6	22.6	--	5.1				
22...	1250	8.5	390	7.6	22.5	--	4.9				
22...	1252	9.0	389	7.5	22.4	--	4.4				
22...	1254	9.5	389	7.5	22.4	--	4.1				
22...	1255	10.0	388	7.4	22.2	--	3.3				
22...	1256	10.5	390	7.3	22.0	--	2.7				
22...	1257	11.0	388	7.3	21.8	--	1.8				
22...	1258	11.5	384	7.2	21.5	--	.9				
22...	1259	12.0	382	7.2	21.3	--	.8				
22...	1300	13.0	377	7.1	20.2	--	.6				
22...	1301	14.0	374	7.0	19.8	--	.6				
22...	1302	15.0	381	6.6	19.3	--	.6				
22...	1303	16.0	382	6.5	19.2	--	.6				
22...	1304	17.0	380	6.5	19.2	--	.6				
22...	1305	18.0	379	6.5	19.2	--	.6				
DATE	TIME	SAM- PLING DEPTH (M) 1/	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOC- CI, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
JUN											
16...	0958	.10	--	--	--	--	<1	K2	--	--	--
16...	1000	1.0	309	8.6	23.0	8.0	--	--	150	35	35
16...	1015	6.0	319	7.8	18.5	5.4	--	--	150	41	36
16...	1025	20.0	298	7.4	11.4	4.0	--	--	140	45	36
AUG											
22...	1227	.10	--	--	--	--	<1	--	--	--	--
22...	1230	1.0	390	8.4	23.6	9.1	--	--	160	47	40
22...	1245	7.0	390	7.7	22.7	6.0	--	--	160	49	41
22...	1300	13.0	377	7.1	20.2	.6	--	--	160	44	39

1/ To convert meters to feet, multiply by 3.281.

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

## GUADALUPE RIVER BASIN

11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA--Continued

AT CENTER--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	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)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
JUN											
16...	--	--	--	--	--	--	--	--	--	--	--
16...	14	13	16	.5	1.7	130	2	110	54	9.6	.1
16...	14	13	16	.5	1.7	130	0	110	52	9.4	.1
16...	13	11	14	.4	1.6	120	0	98	48	8.6	.1
AUG											
22...	--	--	--	--	--	--	--	--	--	--	--
22...	15	14	16	.5	2.0	140	0	110	56	11	.2
22...	15	14	15	.5	2.0	140	0	110	55	10	.2
22...	15	13	15	.4	1.9	140	0	110	50	9.7	.2
DATE	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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	
JUN											
16...	--	--	--	--	--	--	--	--	--	--	
16...	1.3	195	.27	.02	.01	.01	.01	.48	.53	.49	
16...	8.3	199	.27	.01	.00	.01	.00	.38	.05	.39	
16...	15	195	.27	.43	.44	.01	.00	.71	.15	.72	
AUG											
22...	--	--	--	--	--	--	--	--	--	--	
22...	2.9	210	.29	.01	.01	.05	.01	.30	.25	.35	
22...	3.4	210	.29	.01	.01	.01	.00	.23	.15	.24	
22...	6.7	205	.28	.05	.03	.03	.03	.18	.14	.21	
DATE	NITRO- GEN,NH4 + ORG. SUSP. 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, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	
JUN											
16...	--	--	--	--	--	--	--	--	--	--	
16...	.00	.54	.51	.01	.00	.00	60	30	2.80	.000	
16...	.34	.05	.40	.00	.00	.00	60	10	.780	.000	
16...	.57	.15	1.2	.01	.00	.00	60	40	.470	.000	
AUG											
22...	--	--	--	--	--	--	--	--	--	--	
22...	.09	.26	.36	.03	.00	.00	70	20	--	--	
22...	.09	.15	.25	.02	.01	.03	70	20	--	--	
22...	.04	.17	.26	.02	.01	.03	60	90	--	--	



11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA--Continued

AT CENTER--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PHYTOPLANKTON

DATE	JUN 16,78		JUN 16,78		JUN 16,78	
TIME	1000		1015		1025	
DEPTH (M)	1.0		6.0		20.0	
TOTAL CELLS/ML	3800		1500		390	
DIVERSITY: DIVISION	0.8		1.1		1.0	
..CLASS	0.8		1.1		1.0	
..ORDER	0.8		1.3		1.7	
...FAMILY	1.6		1.3		1.7	
....GENUS	1.6		1.3		1.7	
ORGANISM	CELLS	PER-	CELLS	PER-	CELLS	PER-
	/ML	CENT	/ML	CENT	/ML	CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
....OOCYSTACEAE						
.....OOCYSTIS	--	-	59	4	140#	37
...SCENEDESMACEAE						
....SCENEDESMUS	59	2	--	-	--	-
..TETRASPORALES						
...PALMELLACEAE						
....SPHAEROCYSTIS	--	-	--	-	72#	19
CHRYSOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
....COSCINODISCACEAE						
.....CYCLOTELLA	--	-	--	-	14	4
...RHIZOSOLENIACEAE						
....RHIZOSOLENIA	--	-	44	3	--	-
..PENNALES						
...FRAGILARIACEAE						
....FRAGILARIA	660#	17	880#	61	160#	41
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...HORMOGONALES						
....NOSTOCACEAE						
.....ANABAENA	1800#	46	--	-	--	-
...OSCILLATORIACEAE						
....OSCILLATORIA	1300#	35	470#	32	--	-

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

## GUADALUPE RIVER BASIN

11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA--Continued

AT CENTER--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PHYTOPLANKTON--Continued

DATE	AUG 22,78		AUG 22,78		AUG 22,78	
TIME	1230		1245		1300	
DEPTH (M)	1.0		7.0		13.0	
TOTAL CELLS/ML	15000		1300		940	
DIVERSITY: DIVISION	0.2		0.9		1.5	
..CLASS	0.2		0.9		1.5	
...ORDER	0.2		0.9		1.7	
....FAMILY	0.2		1.0		1.7	
....GENUS	1.0		1.0		2.1	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
....CHARACIACEAE						
....SCHROEDERIA	110	1	14	1	14	1
...OOCYSTACEAE						
....ANKISTRODESMUS	*	0	--	-	--	-
....DICTYOSPHAERIUM	*	0	--	-	--	-
...OOCYSTIS	--	-	14	1	180#	19
..TETRASPORALES						
...PALMELLACEAE						
....SPHAEROCYSTIS	--	-	110	8	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	-	--	-	55	6
CHRYSOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	--	-	28	2	--	-
...MELOSIRA	*	0	--	-	83	9
..CHRYSOPHYCEAE						
...CHRYSONOMADALES						
...OCHROMONADACEAE						
....OCHROMONAS	*	0	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	11000#	75	1100#	83	69	7
....APHANIZOMENON	3500#	23	--	-	500#	53
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
...EUGLENACEAE						
....TRACHELOMONAS	--	-	--	-	41	4
PYRRHOPHYTA (FIRE ALGAE)						
..DINOPHYCEAE						
...PERIDINIALES						
...CERATIACEAE						
....CERATIUM	*	0	--	-	--	-
...PERIDINIACEAE						
....PERIDINIUM	*	0	55	4	--	-

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

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

11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA--Continued

AT DAM (Lat 37°11'57", long 121°59'12", in NE¼NE¼ sec.32, T.8 S., R.1 W., Santa Clara County, Hydrologic unit 18050003)

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SAM- PLING DEPTH (M)1/	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	LIGHT, ATTENU- ATION COEFFI- CIENT (ALPHA/ METER)
JUN								
15...	1158	--	--	--	--	2.10	--	--
15...	1159	.00	307	8.7	22.6	--	8.2	4.32
15...	1200	1.0	307	8.6	22.5	--	8.4	4.56
15...	1203	2.0	306	8.6	22.3	--	8.5	4.56
15...	1206	3.0	306	8.6	22.0	--	7.9	4.56
15...	1209	4.0	306	8.6	21.8	--	7.9	3.87
15...	1212	5.0	314	8.4	20.4	--	7.1	3.87
15...	1215	6.0	330	7.9	18.2	--	5.2	2.77
15...	1216	7.0	342	7.7	16.6	--	3.9	2.62
15...	1217	8.0	342	7.7	15.5	--	3.8	2.94
15...	1218	9.0	324	7.7	14.9	--	3.9	3.11
15...	1219	10.0	322	7.6	14.1	--	3.9	3.38
15...	1220	11.0	319	7.6	13.6	--	4.2	3.47
15...	1221	12.0	316	7.6	13.2	--	3.9	3.47
15...	1222	13.0	315	7.5	12.7	--	3.8	3.47
15...	1223	14.0	313	7.5	12.5	--	4.0	3.67
15...	1224	15.0	312	7.5	12.3	--	4.1	3.67
15...	1225	16.0	310	7.5	12.2	--	4.2	3.67
15...	1226	17.0	307	7.5	11.9	--	4.4	3.77
15...	1227	18.0	303	7.5	11.8	--	4.4	4.09
15...	1228	20.0	304	7.5	11.6	--	4.5	4.32
15...	1229	22.0	300	7.5	11.5	--	4.7	4.32
15...	1230	24.0	298	7.4	11.4	--	4.7	4.56
15...	1231	26.0	297	7.4	11.3	--	4.7	4.82
15...	1232	28.0	296	7.4	11.3	--	4.7	4.95
15...	1233	30.0	296	7.4	11.3	--	4.7	5.09
15...	1234	32.0	300	7.4	11.2	--	4.6	5.09
15...	1235	34.0	--	--	11.2	--	4.4	--
15...	1236	30.0	298	7.4	11.4	--	4.7	4.56
AUG								
23...	0910	--	--	--	--	1.40	--	--
23...	1005	1.0	364	8.4	22.9	--	8.6	--
23...	1009	.50	364	8.4	22.9	--	8.6	--
23...	1010	1.0	364	8.4	22.9	--	8.6	--
23...	1011	1.5	365	8.4	22.9	--	8.6	--
23...	1012	2.0	365	8.4	22.8	--	8.5	--
23...	1013	2.5	365	8.4	22.8	--	8.5	--
23...	1014	3.0	365	8.4	22.8	--	8.3	--
23...	1015	3.5	365	8.3	22.8	--	8.4	--
23...	1016	4.0	365	8.3	22.7	--	8.4	--
23...	1017	4.5	365	8.3	22.7	--	8.4	--
23...	1018	5.0	365	8.3	22.7	--	8.3	--
23...	1019	5.5	366	8.3	22.7	--	8.3	--
23...	1020	6.0	366	8.3	22.7	--	8.2	--
23...	1021	6.5	366	8.3	22.7	--	8.3	--
23...	1022	7.0	366	8.3	22.6	--	8.2	--
23...	1023	7.5	366	8.3	22.6	--	8.2	--
23...	1024	8.0	365	8.3	22.6	--	8.2	--
23...	1025	8.5	365	8.3	22.6	--	8.2	--
23...	1026	9.0	365	8.3	22.6	--	8.2	--
23...	1027	9.5	366	8.1	22.6	--	7.5	--
23...	1028	10.0	366	7.9	22.4	--	6.2	--
23...	1029	10.5	368	7.8	22.1	--	4.3	--
23...	1030	11.0	364	7.6	21.3	--	1.1	--
23...	1031	11.5	362	7.5	21.1	--	.9	--
23...	1032	12.0	361	7.4	20.8	--	.9	--
23...	1033	12.5	357	7.4	20.5	--	.8	--
23...	1034	13.0	355	7.4	20.4	--	.8	--
23...	1035	13.5	352	7.3	20.1	--	.8	--
23...	1036	14.0	351	7.3	20.0	--	.8	--
23...	1037	14.5	350	7.3	19.8	--	.8	--
23...	1038	15.0	349	7.2	19.6	--	.8	--
23...	1039	16.0	346	7.2	19.4	--	.7	--
23...	1040	17.0	345	7.2	19.2	--	.7	--
23...	1041	18.0	344	7.1	18.9	--	.7	--
23...	1042	19.0	345	7.1	18.4	--	.7	--
23...	1043	20.0	341	7.0	18.1	--	.7	--
23...	1044	21.0	339	7.0	18.0	--	.7	--
23...	1045	22.0	338	7.0	17.9	--	.7	--
23...	1046	23.0	336	7.0	17.8	--	.7	--
23...	1047	24.0	335	7.0	17.5	--	.7	--

1/ To convert meters to feet, multiply by 3.281.

## GUADALUPE RIVER BASIN

11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA--Continued

AT DAM--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SAM- PLING DEPTH (M)1/	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
JUN											
15...	1157	.10	--	--	--	--	<1	<1	--	--	--
15...	1200	1.0	307	8.6	22.5	8.4	--	--	150	42	34
15...	1215	6.0	330	7.9	18.2	5.2	--	--	150	41	36
15...	1236	30.0	298	7.4	11.4	4.7	--	--	130	36	34
AUG											
23...	1000	.10	--	--	--	--	<1	--	--	--	--
23...	1005	1.0	364	8.4	22.9	8.6	--	--	160	42	38
23...	1030	11.0	364	7.6	21.3	1.1	--	--	150	38	38
23...	1045	22.0	338	7.0	17.9	.7	--	--	150	41	36

DATE	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)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
JUN											
15...	--	--	--	--	--	--	--	--	--	--	--
15...	15	13	16	.5	1.7	120	4	110	53	14	.1
15...	14	13	16	.5	1.7	130	0	110	51	9.3	.1
15...	12	11	15	.4	1.6	120	0	98	47	8.6	.1
AUG											
23...	--	--	--	--	--	--	--	--	--	--	--
23...	15	14	16	.5	2.1	140	0	110	55	10	.2
23...	14	13	15	.5	2.1	140	0	110	52	9.8	.2
23...	14	12	15	.4	2.0	130	0	110	47	9.2	.1

DATE	SILICA, DIS- SOLVED (MG/L AS SI02)	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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
JUN										
15...	--	--	--	--	--	--	--	--	--	--
15...	.8	195	.27	.02	.01	.01	.00	.49	.37	.50
15...	8.9	198	.27	.01	.01	.01	.00	2.0	.35	2.0
15...	15	191	.26	.45	.44	.01	.00	1.2	.09	1.2
AUG										
23...	--	--	--	--	--	--	--	--	--	--
23...	2.5	206	.28	.02	.02	.03	.01	.59	.37	.62
23...	4.3	203	.28	.05	.06	.01	.02	.36	.22	.37
23...	10	195	.27	.08	.09	.06	.08	.94	.18	1.0

DATE	NITRO- GEN,NH4 + ORG. SUSP. 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, ORTH. DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTH. DIS- SOLVED (MG/L AS P04)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)
JUN										
15...	--	--	--	--	--	--	--	--	--	--
15...	.13	.37	.52	.00	.01	.03	60	0	4.00	.000
15...	1.7	.35	2.0	.00	.00	.00	60	10	.690	.000
15...	1.1	.09	1.7	.00	.01	.03	60	20	.640	.000
AUG										
23...	--	--	--	--	--	--	--	--	--	--
23...	.24	.38	.64	.03	.01	.03	70	<10	--	--
23...	.13	.24	.42	.02	.01	.03	70	<10	--	--
23...	.74	.26	1.1	.03	.02	.06	60	50	--	--

1/ To convert meters to feet, multiply by 3.281.

11167980 LEXINGTON RESERVOIR NEAR LOS GATOS, CA--Continued

AT DAM--Continued

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PHYTOPLANKTON

DATE TIME	JUN 15,78		JUN 15,78		JUN 15,78		AUG 23,78		AUG 23,78		AUG 23,78	
DEPTH (M)	1200		1215		1230		1015		1030		1045	
TOTAL CELLS/ML	2200		4200		4000		25000		11.0		22.0	
DIVERSITY: DIVISION	1.2		0.8		0.5		0.1		0.2		--	
..CLASS	1.2		0.8		0.5		0.1		0.2		--	
..ORDER	1.2		1.3		0.5		0.1		0.2		--	
...FAMILY	1.8		1.3		0.5		0.1		0.2		--	
....GENUS	1.8		1.4		0.5		1.1		0.4		--	
									0.4		--	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
..CHLOROPHYCEAE												
...CHLOROCOCCALES												
...OOCYSTACEAE												
...ANKISTRODESMUS												
...OOCYSTIS	180	8	--	-	14	0	5	0	--	-	--	-
...TETRASPORALES							21	0	--	-	--	-
...COCCOMYXACEAE												
...FLAKATOTHRIX	--	-	--	-	--	-	--	-	--	-	--	-
...PALMELLACEAE											3#	100
...SPHAEROCYSTIS	--	-	--	-	--	-			--	-		
...VOLVOCALES							230	1	140	2	--	-
...CHLAMYDOMONADACEAE												
...CHLAMYDOMONAS	--	-	--	-	14	0	--	-	--	-	--	-
...ZYGNEATALES												
...DESMIDIACEAE												
...COSMARIUM	--	-	21	1	--	-	--	-	--	-	--	-
CHRYSOPHYTA												
..BACILLARIOPHYCEAE												
...CENTRALES												
...COSCINODISCACEAE												
...CYCLOTELLA	--	-	250	6	--	-	--	-	--	-	--	-
...MELOSIRA	--	-	250	6	--	-	27	0	22	2	--	-
...PENNALES												
...ACHNANTHACEAE												
...COCCONEIS	--	-	--	-	14	0	--	-	--	-	--	-
...FRAGILARIACEAE												
...FRAGILARIA	510#	23	2800#	68	3600#	91	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
..CYANOPHYCEAE												
...CHROCCOCCALES												
...CHROCCOCCACEAE												
...DACTYLOCOCCOPSIS	--	-	--	-	--	-	21	0	--	-	--	-
...HORMOGONALES												
...NOSTOCACEAE												
...ANABAENA	1100#	48	--	-	--	-	14000#	57	5400#	95	--	-
...APHANIZOMENON	--	-	--	-	--	-	11000#	42	--	-	--	-
...OSCILLATORIACEAE												
...LYNGBYA	--	-	--	-	--	-	--	-	110	2	--	-
...OSCILLATORIA	440#	20	840#	20	330	8	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
..EUGLENOPHYCEAE												
...EUGLENALES												
...EUGLENACEAE												
...TRACHELOMONAS	--	-	--	-	--	-	27	0	22	0	--	-

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

## 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 at San Jose, 100 ft (30 km) downstream from Los Gatos Creek.

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

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).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 72.00 ft (21.946 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good. Flow regulated by Lexington Reservoir 12 mi (19 km) upstream and Calero, Almaden, Guadalupe Reservoirs, and Lake Elsan given elsewhere in this report, with water released during summer for percolation in spreading basins on tributaries. During current year, 13,030 acre-ft (16.1 hm<sup>3</sup>) was diverted by San Jose Water Works for urban use and 226 acre-ft (279,000 m<sup>3</sup>) was diverted by Santa Clara Valley Water District into Alamitos percolation ponds from Coyote Creek basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,150 ft<sup>3</sup>/s (259 m<sup>3</sup>/s) Apr. 2, 1958, gage height, 16.55 ft (5.044 m); no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,430 ft<sup>3</sup>/s (182 m<sup>3</sup>/s) Jan. 14, gage height, 11.05 ft (3.368 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	0	0	.30	.66	31	128	17	.13	.54		
2	0	0	0	9.0	1.3	409	52	14	.14	.52		
3	0	0	0	10	2.3	225	49	4.8	.07	.44		
4	0	0	0	141	1.5	1430	281	3.1	.10	.29		
5	0	41	0	1330	151	2820	62	.54	.05	3.0		
6	0	1.8	0	201	346	1400	478	.25	.38	.49		
7	0	.35	0	5.9	584	927	179	5.3	.19	.65		
8	0	.16	0	.61	370	818	127	11	.07	.71		
9	0	.12	.03	389	565	556	100	18	.05	1.2		
10	0	.07	.05	29	129	241	86	17	.08	.71		
11	0	0	0	8.5	66	276	75	17	0	.74		
12	0	.04	0	5.0	402	258	45	15	0	.95		
13	0	0	0	122	306	221	43	5.4	.13	1.2		
14	0	0	0	2060	108	201	11	.55	.03	1.1		
15	0	0	.47	1030	66	138	269	.26	0	1.7		
16	0	0	.23	2730	48	68	208	.22	.04	.55		
17	0	0	101	891	53	62	118	.20	0	.18		
18	0	.04	14	306	44	58	67	.42	0	.04		
19	0	.03	1.6	297	43	46	69	12	0	.01		
20	0	0	.36	153	46	44	43	12	.08	0		
21	0	0	7.2	59	46	217	15	11	.07	.14		
22	0	34	155	39	26	188	11	2.0	.31	.07		
23	0	2.4	133	30	19	74	6.5	.68	.22	.04		
24	0	.45	2.2	21	3.8	66	17	.37	.05	.09		
25	0	.20	.53	15	.83	57	80	.26	0	.02		
26	0	.13	1.4	11	.83	42	57	4.0	0	0		
27	.61	.03	4.4	1.7	2.5	36	29	1.2	.09	0		
28	.01	.08	39	.36	13	16	21	.25	.04	.02		
29	0	.04	4.8	.26	---	19	18	.16	.07	.01		
30	0	0	3.4	.24	---	28	17	.09	.12	0		
31	0	---	.75	1.2	---	181	---	.11	---	0		---
TOTAL	.85	80.94	469.42	9897.07	3444.72	11153	2761.5	174.16	2.51	15.41	0	0
MEAN	.027	2.70	15.1	319	123	360	92.1	5.62	.084	.50	0	0
MAX	.61	41	155	2730	584	2820	478	18	.38	3.0	0	0
MIN	0	0	0	.24	.66	16	6.5	.09	0	0	0	0
AC-FT	1.7	161	931	19630	6830	22120	5480	345	5.0	31	0	0
CAL YR 1977 TOTAL	1171.29			MEAN 3.21	MAX 155	MIN 0	AC-FT 2320					
WTR YR 1978 TOTAL	27999.58			MEAN 76.7	MAX 2820	MIN 0	AC-FT 55540					

## 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 (0.8 km) southwest of Saratoga, and 0.7 mi (1.1 km) downstream from diversion dam.

DRAINAGE AREA.--9.22 mi<sup>2</sup> (23.88 km<sup>2</sup>).

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 and concrete control. Altitude of gage is 500 ft (152 m), from topographic map. Prior to Dec. 6, 1968, at site 40 ft (12 m) downstream at different datum.

REMARKS.--Records fair. Water is diverted for municipal use by San Jose Water Works at diversion dam above station.

AVERAGE DISCHARGE (adjusted for diversion).--45 years, 9.90 ft<sup>3</sup>/s (0.280 m<sup>3</sup>/s), 7,170 acre-ft/yr (8.84 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,730 ft<sup>3</sup>/s (77.3 m<sup>3</sup>/s) Dec. 22, 1955, gage height, 6.40 ft (1.951 m) site and datum then in use, from rating curve extended above 510 ft<sup>3</sup>/s (14.4 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 110 ft<sup>3</sup>/s (3.1 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 330 ft<sup>3</sup>/s (9.35 m<sup>3</sup>/s):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 22	2245	215 6.09	4.18 1.274	Feb. 7	unknown	unknown	unknown
Jan. 5	1545	432 12.2	4.70 1.433	Feb. 12	1045	123 3.48	3.79 1.155
Jan. 9	0815	141 3.99	4.01 1.222	Mar. 5	0315	529 15.0	4.86 1.481
Jan. 14	1830	*2580 73.1	6.69 2.039	Apr. 4	0045	163 4.62	3.90 1.189

Minimum daily discharge, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Oct. 14, 17, 18, 26, Nov. 11-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.12	.45	1.5	11	11	33	7.5	3.1	.40	.14	.15
2	.14	.11	.45	5.8	14	50	22	7.4	3.5	.43	.19	.14
3	.13	.10	.45	8.6	12	53	19	7.1	3.0	.54	.19	.24
4	.13	.10	.45	25	9.5	174	49	7.2	2.2	.37	.17	.21
5	.14	.26	.45	159	28	275	28	7.0	3.0	.38	.20	.36
6	.15	.12	.44	53	70	121	60	6.5	.74	.33	.18	.51
7	.13	.10	.41	25	200	84	34	5.0	.74	.35	.18	.30
8	.11	.09	.44	15	104	75	28	5.0	.71	.37	.25	.59
9	.11	.08	.45	65	134	85	22	5.2	.68	.39	.25	.84
10	.11	.07	.45	35	78	60	19	4.8	.64	.38	.24	1.2
11	.09	.06	.45	23	53	55	17	4.8	.67	.34	.19	.77
12	.07	.06	.45	16	79	48	15	4.6	.72	.28	.21	.62
13	.07	.06	.53	48	67	44	11	4.5	2.9	.30	.17	.63
14	.06	.07	.53	549	55	38	8.9	6.2	3.0	.30	.19	.46
15	.07	.07	2.6	150	46	37	43	5.7	2.9	.30	.19	.12
16	.07	.08	.86	560	37	34	28	4.0	2.8	.33	.21	.13
17	.06	.08	21	243	31	33	22	3.9	2.6	.26	.24	.15
18	.06	.08	4.4	104	27	29	18	3.8	2.6	.27	.23	.18
19	.07	.08	1.5	87	27	27	12	3.7	2.6	.31	.18	.10
20	.07	.08	.87	64	26	25	10	3.5	2.5	.24	.17	.14
21	.07	5.7	1.8	45	22	28	8.4	3.6	2.5	.22	.15	.18
22	.07	9.8	37	35	17	27	7.0	3.4	2.4	.26	.18	.18
23	.07	1.3	45	29	15	21	6.1	3.4	1.8	.28	.17	.18
24	.07	.80	7.8	25	14	19	12	3.3	.79	.24	.22	.18
25	.07	.65	3.4	21	12	18	24	2.9	.63	.23	.25	.17
26	.06	.55	2.5	19	11	17	20	2.9	.54	.20	.28	.29
27	.07	.53	2.6	17	10	16	14	2.8	.51	.23	.28	.66
28	.08	.53	2.3	16	10	15	11	2.4	.46	.23	.20	.75
29	.15	.45	2.2	14	---	13	9.0	2.0	.46	.22	.12	.73
30	.15	.45	2.0	13	---	11	8.1	2.0	.38	.25	.14	.71
31	.13	---	1.7	12	---	23	---	2.3	---	.19	.16	---
TOTAL	2.99	22.63	145.93	2482.9	1219.5	1566	618.5	138.4	52.07	9.42	6.12	11.87
MEAN	.097	.75	4.71	80.1	43.6	50.5	20.6	4.46	1.74	.30	.20	.40
MAX	.16	9.8	45	560	200	275	60	7.5	3.5	.54	.28	1.2
MIN	.06	.06	.41	1.5	9.5	11	6.1	2.0	.38	.19	.12	.10
AC-FT	5.9	45	289	4920	2420	3110	1230	275	103	19	12	24
(†)	0	0	0	0	139	157	257	331	156	136	65	27

CAL YR 1977 TOTAL 326.09 MEAN .89 MAX 45 MIN 0 AC-FT 647 † 93  
WTR YR 1978 TOTAL 6276.33 MEAN 17.2 MAX 560 MIN .06 AC-FT 12450 † 1270

† Diversion, in acre-feet, furnished by San Jose Water Works.

## CALABAZAS CREEK BASIN

11169580 CALABAZAS CREEK TRIBUTARY AT MT. EDEN ROAD, NEAR SARATOGA, CA

LOCATION.--Lat 37°16'09", long 122°03'36", in NE¼NE¼ sec.3, T.8 S., R.2 W., Santa Clara County, Hydrologic Unit 18050003, on right bank at upstream side of culvert on Mt. Eden Road, 750 ft (229 m) upstream from mouth, and 1.8 mi (2.9 km) northwest of Saratoga Post Office.

DRAINAGE AREA.--0.37 mi<sup>2</sup> (0.96 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to September 1978 (discontinued).

REVISED RECORDS.--WDR CA-75-2: 1973(P), 1974(M).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 600 ft (183 m), from topographic map. Recording rain gage at Garrod Ranch 0.5 mi (0.8 km) north of gage. Altitude of gage is 950 ft (290 m), from topographic map.

REMARKS.--Records fair including those for period of no gage-height record, May 4 to June 15. No regulation or diversion above station.

AVERAGE DISCHARGE.--6 years, 0.33 ft<sup>3</sup>/s (0.009 m<sup>3</sup>/s), 239 acre-ft (295,000 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120 ft<sup>3</sup>/s (3.40 m<sup>3</sup>/s) Jan. 14, 1978, gage height, 5.50 ft (1.676 m); no flow many days in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft<sup>3</sup>/s (0.6 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Jan. 5	1220	65	1.84	3.49	1.064	Jan. 18	1950	32	0.91	2.94	0.896
Jan. 9	0810	27	.76	2.91	.887	Feb. 6	0940	104	2.95	4.64	1.414
Jan. 14	1730	*120	3.40	5.50	1.676	Feb. 12	1045	30	.85	2.95	.899
Jan. 16	1025	102	2.89	4.54	1.384	Mar. 5	0220	30	.85	2.94	.896

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	.08	.04	.06	.11	.02			
2	0	0	0	.15	.06	4.0	.05	.09	.02			
3	0	0	0	.13	.05	1.7	.27	.06	.02			
4	0	0	0	3.4	.06	5.9	3.4	.06	.02			
5	0	0	0	19	3.1	5.0	.57	.06	.02			
6	0	0	0	1.2	10	1.2	3.5	.06	.02			
7	0	0	0	.72	12	.84	1.6	.06	.02			
8	0	0	0	.46	6.5	.81	.48	.06	.01			
9	0	0	0	5.0	7.7	1.5	.24	.06	.01			
10	0	0	0	1.4	1.8	.98	.17	.05	.01			
11	0	0	0	.86	1.1	.51	.15	.05	.01			
12	0	0	0	.34	7.0	.26	.13	.05	.01			
13	0	0	0	3.4	3.2	.18	.10	.05	.01			
14	0	0	0	31	1.7	.09	.06	.05	.01			
15	0	0	0	6.9	1.2	.06	3.2	.05	.01			
16	0	0	0	36	.54	.05	2.5	.05	0			
17	0	0	.39	5.7	.34	.04	1.2	.04	0			
18	0	0	.04	5.3	.23	.04	.60	.04	0			
19	0	0	.04	4.6	.13	.03	.36	.04	0			
20	0	0	.04	2.8	.09	.03	.30	.04	0			
21	0	0	.22	1.6	.08	.04	.18	.04	0			
22	.01	1.9	.97	.06	.06	.07	.15	.04	0			
23	0	1.2	.65	.05	.05	.03	.12	.04	0			
24	0	.05	.46	.04	.04	.02	.17	.03	0			
25	0	.02	.37	.04	.04	.02	.25	.03	0			
26	0	0	.01	.25	.03	.02	.24	.03	0			
27	0	0	.04	.20	.03	.02	.16	.03	0			
28	0	0	.03	.17	.03	.02	.14	.03	0			
29	0	0	.01	.14	---	.02	.11	.03	0			
30	0	0	.01	.12	---	.02	.14	.03	0			
31	---	0	.10	---	---	.06	---	.02	---			
TOTAL	0	.01	4.00	133.39	57.24	23.60	20.60	1.48	.22	0	0	0
MEAN	0	.0003	.13	4.30	2.04	.76	.69	.048	.007	0	0	0
MAX	0	.01	1.9	36	12	5.9	3.5	.11	.02	0	0	0
MIN	0	0	0	0	.03	.02	.05	.02	0	0	0	0
AC-FT	0	.02	7.9	265	114	47	41	2.9	.4	0	0	0
(†)	.29	2.48	6.34	16.72	6.85	5.91	4.12	0	0	0	0	.17
CAL YR 1977	TOTAL	4.74	MEAN	.013	MAX	1.9	MIN	0	AC-FT	9		
WTR YR 1978	TOTAL	240.54	MEAN	.66	MAX	36	MIN	0	AC-FT	477		

† Precipitation, in inches, at Garrod Ranch gage.



11169580 CALABAZAS CREEK TRIBUTARY AT MT. EDEN ROAD, NEAR SARATOGA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-78 (discontinued).

CHEMICAL ANALYSES: Water years 1972-78 (discontinued).

WATER TEMPERATURES: Water years 1973-77.

SEDIMENT RECORDS: Water years 1973-78 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1972 to September 1977.

SEDIMENT RECORDS: October 1972 to September 1977.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
JAN 04...	1255	9.2	377	7.1	11.0	850	160	--	--	1420	6.6	.33
04...	1520	5.8	--	--	--	340	91	--	--	454	6.8	.28
FEB 06...	1100	28	194	7.8	11.0	950	98	K8900	340000	1590	1.4	.21

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	PCB, TOTAL (UG/L)
JAN 04...	5.1	5.4	12	2.2	5	10	220	65	.2	.00	.0
04...	3.4	3.7	11	.68	3	10	80	44	.1	.00	.0
FEB 06...	14	14	15	.77	4	0	200	0	.6	.00	.0

DATE	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)
JAN 04...	.00	.0	.00	.02	.01	.00	.00	.00	.00	.00	.00
04...	.00	.0	.00	.01	.00	.00	.00	.00	.00	.00	.00
FEB 06...	.00	.0	.00	.02	.01	.00	.00	.00	.00	.00	.00

DATE	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JAN 04...	.00	.00	.00	.00	.00	.00	0	.00	.00	.00	.00
04...	.00	.00	.00	.00	.00	.00	0	.00	.36	.02	.02
FEB 06...	.00	.00	.00	.00	.00	.00	0	.00	.00	.00	.00

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

## CALABAZAS CREEK BASIN

11169580 CALABAZAS CREEK TRIBUTARY AT MT. EDEN ROAD, NEAR SARATOGA, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JAN						
04...	1230	12.0	12	2490	81	95
04...	1340	12.0	11	6100	181	73
04...	1515	12.0	5.2	1020	14	82
05...	0945	11.0	4.1	757	8.4	88
05...	0950	11.0	4.1	807	8.9	84
05...	1130	--	12	21100	684	86
05...	1215	--	60	8910	1440	81
05...	1410	--	60	6770	1100	82
FEB						
06...	1025	--	27	4880	356	75
06...	1045	--	27	5040	367	68
06...	1130	11.0	23	2140	133	85
06...	1230	--	22	1490	89	83
06...	1300	--	18	1300	63	81
06...	1330	--	15	1480	60	81
06...	1400	--	12	878	28	88

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. 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											
04...	1230	12.0	12	2490	81	95	98	99	100	--	--
05...	1215	--	60	8910	1440	81	86	90	91	92	93
FEB											
06...	1045	--	27	5040	367	68	78	86	93	98	100

## PARTICLE-SIZE DISTRIBUTION OF TOTAL SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, TOTAL (MG/L)	SEDI- MENT DISCH. TOTAL, SUSP.+ BEDLOAD (T/DAY)	SED. TOTAL, SIEVE DIAM. % FINER THAN .062 MM
JAN						
04...	1620	11.5	5.8	714	11	86

11169580 CALABAZAS CREEK TRIBUTARY AT MT. EDEN ROAD, NEAR SARATOGA, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SEDIMENT IN TRANSIT WITHIN 0.25 FOOT OF BED SURFACE,  
WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (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 .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
JAN								
04...	1210	12.0	8	14	6.0	.90	2	3
04...	1325	12.0	10	7.0	6.0	.46	1	2
04...	1400	12.0	10	7.7	6.0	.78	2	4
05...	1115	--	12	7.7	6.0	.54	4	9
05...	1245	--	10	53	6.0	.96	2	3
05...	1405	--	10	61	6.0	3.1	3	6
FEB								
06...	1035	11.0	7	24	6.0	8.3	1	2
06...	1050	11.0	10	29	6.0	4.5	2	4
06...	1130	11.0	5	23	6.0	1.7	2	5
06...	1405	11.0	5	12	6.0	2.0	1	2

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	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
JAN								
04...	21	55	68	76	85	93	100	--
04...	19	58	70	78	89	98	100	--
04...	19	39	50	59	70	84	100	--
05...	27	54	74	87	96	100	--	--
05...	12	36	60	82	96	100	--	--
05...	18	36	55	75	91	100	--	--
FEB								
06...	8	28	42	50	61	72	92	100
06...	17	45	64	74	81	89	100	--
06...	21	66	86	93	97	100	--	--
06...	9	36	60	78	90	97	100	--

## 11169600 PROSPECT CREEK AT SARATOGA GOLF COURSE, NEAR SARATOGA, CA

LOCATION.--Lat 37°17'09", long 122°03'14", in NE¼NW¼ sec.35, T.7 S., R.2 W., Santa Clara County, Hydrologic Unit 18050003, on left bank 60 ft (18 m) upstream from culvert at Saratoga Golf Course, 0.2 mi (0.3 km) downstream from small right-bank tributary, and 2.2 mi (3.5 km) northwest of Saratoga Post Office.

DRAINAGE AREA.--0.27 mi<sup>2</sup> (0.70 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to September 1978 (discontinued).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 600 ft (183 m), from topographic map.

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

AVERAGE DISCHARGE.--6 years, 0.12 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s), 87 acre-ft/yr (107,000 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63 ft<sup>3</sup>/s (1.78 m<sup>3</sup>/s) Jan. 14, 1978, gage height, 5.12 ft (1.561 m); no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10 ft<sup>3</sup>/s (0.3 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 5	1425	20 0.57	4.39 1.338	Feb. 6	0945	14 0.40	4.28 1.305
Jan. 14	1735	*63 1.78	5.12 1.561	Feb. 7	0915	21 .59	4.40 1.341
Jan. 16	0755	31 .88	4.59 1.399				

Minimum daily discharge, no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	.06	.03	.05	.03				
2			0	0	.06	1.3	.08	.03				
3			0	0	.06	.50	.20	.03				
4			0	.01	.05	2.1	.31	.02				
5			0	5.3	.15	1.5	.07	.02				
6			0	.56	2.7	.70	.41	.02				
7			0	.01	4.4	.50	.13	.02				
8			0	0	2.5	.47	.07	.02				
9			0	2.4	3.0	.42	.06	.02				
10			0	.04	.64	.24	.05	.02				
11			0	0	.17	.18	.05	.02				
12			0	0	2.6	.15	.05	.01				
13			0	.95	1.2	.13	.04	.01				
14			0	13	.47	.13	.04	0				
15			0	7.4	.22	.11	.39	0				
16			0	13	.02	.10	.17	0				
17			0	4.4	.05	.10	.08	0				
18			0	2.3	.04	.09	.06	0				
19			0	2.9	0	.08	.06	0				
20			0	.91	0	.07	.05	0				
21			0	.40	0	.08	.05	0				
22			.01	.23	0	.08	.05	0				
23			0	.16	0	.06	.04	0				
24			0	.13	0	.05	.05	0				
25			0	.11	0	.05	.04	0				
26			0	.10	0	.05	.04	0				
27			0	.10	0	.05	.04	0				
28			0	.08	0	.04	.03	0				
29			0	.08	---	.04	.03	0				
30			0	.08	---	.04	.03	0				
31		---	0	.06	---	.06	---	0	---			---
TOTAL	0	0	.01	54.71	18.39	9.50	2.82	.27	0	0	0	0
MEAN	0	0	.0003	1.76	.66	.31	.094	.009	0	0	0	0
MAX	0	0	.01	13	4.4	2.1	.41	.03	0	0	0	0
MIN	0	0	0	0	0	.03	.03	0	0	0	0	0
AC-FT	0	0	.02	109	36	19	5.6	.5	0	0	0	0

CAL YR 1977	TOTAL	0.01	MEAN .000	MAX	.01	MIN 0	AC-FT 0
WTR YR 1978	TOTAL 85.70		MEAN .23	MAX	13	MIN 0	AC-FT 170

11169600 PROSPECT CREEK AT SARATOGA GOLF COURSE, NEAR SARATOGA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-78 (discontinued).

CHEMICAL ANALYSES: Water years 1972, 1974-76, 1978 (discontinued).

WATER TEMPERATURES: Water years 1973-75.

SEDIMENT RECORDS: Water years 1973-78 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1972 to September 1975.

SEDIMENT RECORDS: October 1972 to September 1977.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
JAN 04...	1325	.02	588	7.5	11.0	400	75	--	--	298	.80	.08
FEB 06...	1015	11	173	7.8	11.0	1900	300	3900	310000	3680	1.4	.25

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	PCB, TOTAL (UG/L)
JAN 04...	1.7	1.8	2.6	.64	2	10	80	32	.1	.00	.0
FEB 06...	6.7	6.9	8.3	.84	3	0	500	0	.8	.00	.0

DATE	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)
JAN 04...	.00	.0	.00	.00	.00	.01	.00	.00	.00	.00	.00
FEB 06...	.00	.0	.00	.03	.04	.00	.00	.00	.00	.00	.00

DATE	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JAN 04...	.00	.00	.00	.00	.00	.00	0	.00	.00	.00	.00
FEB 06...	.00	.00	.00	.00	.00	.00	0	.00	.00	.00	.00

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
JAN 05...	1540	11.5	19	6680	343	72	--	--	--	--	--
05...	1550	11.5	18	5830	283	69	84	93	97	99	100

PARTICLE-SIZE DISTRIBUTION OF TOTAL SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPERATURE (DEG C)	STREAM-FLOW, INSTANTANEOUS (CFS)	SEDIMENT, TOTAL (MG/L)	SEDIMENT DISCH. TOTAL, SUSP.+ BEDLOAD (T/DAY)	SED. TOTAL, SIEVE DIAM.	SED. TOTAL, SIEVE DIAM.	SED. TOTAL, SIEVE DIAM.	SED. TOTAL, SIEVE DIAM.	SED. TOTAL, SIEVE DIAM.	SED. TOTAL, SIEVE DIAM.
						% FINER THAN .062 MM	% FINER THAN .125 MM	% FINER THAN .250 MM	% FINER THAN .500 MM	% FINER THAN 1.00 MM	% FINER THAN 2.00 MM
JAN											
04...	1230	10.5	.10	1260	.34	100	--	--	--	--	--
04...	1540	11.0	.01	73	.00	96	--	--	--	--	--
05...	1010	11.5	2.0	98	.53	87	--	--	--	--	--
05...	1015	11.5	1.1	90	.27	86	--	--	--	--	--
05...	1135	--	2.4	1420	9.2	78	82	90	96	98	100
05...	1200	--	9.2	8640	215	82	--	--	--	--	--
FER											
06...	1030	11.0	10	4160	112	66	78	89	97	99	100
06...	1330	11.5	5.1	4020	55	29	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SEDIMENT IN TRANSIT WITHIN 0.25 FOOT OF BED SURFACE,  
WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPERATURE (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 .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
JAN 05...	1545	11.5	15	20	8.0	3.6	5	12
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	
JAN 05...	29	53	70	81	88	92	100	

11169616 CALABAZAS CREEK AT RAINBOW DRIVE, NEAR CUPERTINO, CA

LOCATION.--Lat 37°18'03", long 122°01'32", Santa Clara County, Hydrologic Unit 18050003, on right bank 100 ft (30 m) upstream from Rainbow Drive, and 1.6 mi (2.6 km) south of Cupertino.

DRAINAGE AREA.--3.98 mi<sup>2</sup> (10.31 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1973 to September 1978 (discontinued). October 1966 to September 1973 in files of Santa Clara Valley Water District.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 265 ft (81 m), from topographic map.

REMARKS.--Records good. No diversion above station. During current year, 128 acre-ft (158,000 m<sup>3</sup>) imported from South Bay Aqueduct for percolation.

AVERAGE DISCHARGE.--5 years, 2.29 ft<sup>3</sup>/s (0.065 m<sup>3</sup>/s), 1,660 acre-ft/yr (2.05 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 998 ft<sup>3</sup>/s (28.3 m<sup>3</sup>/s) Jan. 14, 1978, gage height, 7.08 ft (2.158 m); no flow many days in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft<sup>3</sup>/s (2.8 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 5	1320	412 11.7	3.76 1.146	Feb. 6	1040	468 13.3	4.10 1.250
Jan. 9	0845	129 3.65	2.02 .616	Feb. 7	0945	559 15.8	4.64 1.414
Jan. 14	1830	*998 28.3	7.08 2.158	Feb. 12	1155	127 3.60	2.01 .613
Jan. 16	0845	660 18.7	5.22 1.591				

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.86	.04	0	0	3.0	0	.86					
2	.85	1.1	0	.90	1.4	18	.19					
3	.76	1.4	0	.50	.29	10	.57					
4	.76	1.4	0	14	.29	41	13					
5	.66	2.1	0	112	7.2	46	6.0					
6	.66	1.4	0	11	46	16	14					
7	.66	1.2	0	2.0	67	8.6	9.0					
8	.66	1.2	0	.54	36	7.9	5.3					
9	.66	1.2	0	35	36	9.2	2.5					
10	.57	.78	0	3.5	9.9	5.3	1.0					
11	.57	0	0	.62	5.7	4.4	.45					
12	.57	0	0	.01	36	3.8	.36					
13	.57	0	0	13	15	3.5	.22					
14	.49	0	0	204	7.2	2.8	.17					
15	.49	0	0	42	5.1	2.3	16					
16	.49	0	0	225	3.5	2.1	6.4					
17	.49	0	3.2	44	2.1	1.9	2.5					
18	.49	0	0	19	1.6	1.6	1.2					
19	.49	0	0	24	1.2	1.2	.76					
20	.41	0	0	7.9	.57	.98	.49					
21	.41	.20	.44	4.9	.29	3.0	.29					
22	.49	.37	17	3.2	.13	1.6	.20					
23	.41	0	8.2	2.0	.03	.47	.16					
24	.35	0	.01	1.3	0	.30	.29					
25	.35	0	0	.78	0	.24	.20					
26	.35	0	0	.51	0	.21	.29					
27	.29	0	0	.31	0	.17	0					
28	.35	0	0	.15	0	.27	0					
29	.29	0	0	.05	---	.16	0					
30	.29	0	0	0	---	.22	0					
31	.26	---	0	1.1	---	2.5	---					
TOTAL	16.00	12.39	28.85	773.27	285.50	195.72	82.40	0	0	0	0	0
MEAN	.52	.41	.93	24.9	10.2	6.31	2.75	0	0	0	0	0
MAX	.86	2.1	17	225	67	46	16	0	0	0	0	0
MIN	.26	0	0	0	0	0	0	0	0	0	0	0
AC-FT	32	25	57	1530	566	388	163	0	0	0	0	0
CAL YR 1977	TOTAL	80.03	MEAN	.22	MAX	17	MIN	0	AC-FT	159		
WTR YR 1978	TOTAL	1394.13	MEAN	3.82	MAX	225	MIN	0	AC-FT	2770		

## CALABAZAS CREEK BASIN

11169616 CALABAZAS CREEK AT RAINBOW DRIVE, NEAR CUPERTINO, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-78 (discontinued).

CHEMICAL ANALYSES: Water years 1974-78 (discontinued).

WATER TEMPERATURES: Water years 1974-77.

SEDIMENT RECORDS: Water years 1974-78 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1973 to September 1977.

SEDIMENT RECORDS: October 1973 to September 1977.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
JAN												
04...	1145	42	173	7.2	12.0	800	140	--	--	1630	.68	.07
04...	1215	54	290	7.3	12.0	1600	210	--	--	2920	1.2	.18
04...	1300	64	284	7.4	12.5	4600	390	--	--	7500	1.8	.18
04...	1445	30	321	7.6	12.0	1600	210	--	--	3490	3.1	.16
FEB												
06...	0955	285	160	8.0	11.0	5200	650	K750000	9000000	13300	.65	.40
06...	1010	329	152	8.1	11.0	8100	650	K63000	780000	14700	.75	.31
06...	1030	445	179	8.1	11.0	11000	960	39000	990000	21100	.85	.24
06...	1040	468	188	8.2	11.0	12000	970	55000	K1200000	24700	.87	.18
06...	1150	112	215	7.9	11.0	4600	330	K9700	300000	8520	1.4	.12

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN+AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	PCB, TOTAL (UG/L)
JAN											
04...	3.3	3.4	4.1	1.7	6	10	180	760	.4	.00	.0
04...	6.2	6.4	7.6	2.2	--	--	--	--	--	--	--
04...	15	15	17	3.2	--	--	--	--	--	--	--
04...	8.1	8.3	11	2.5	10	10	330	150	.6	.00	.0
FEB											
06...	20	20	21	2.8	--	--	--	--	--	.00	.0
06...	20	20	21	2.9	9	5	1000	0	1.7	--	--
06...	38	38	39	2.6	--	--	--	--	--	--	--
06...	32	32	33	2.8	--	--	--	--	--	--	--
06...	9.6	9.7	11	1.9	1	5	700	0	1.1	.00	.0

DATE	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)
JAN											
04...	.00	.0	.00	.00	.00	.00	.00	.00	.00	.00	.00
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	.00	.1	.00	.03	.03	.01	.00	.00	.00	.00	.00
FEB											
06...	.00	.4	.00	.06	.13	.15	.03	.00	.00	.00	.00
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	.00	.1	.00	.02	.02	--	.01	.00	--	.00	.00

DATE	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JAN											
04...	.00	.00	.00	.00	.00	.00	0	.00	.00	.01	.03
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
04...	.01	.00	.00	.00	.00	.00	0	.00	.00	.00	.00
FEB											
06...	.02	.00	.01	.00	.00	.00	0	.00	.08	.00	.02
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	.00	--	--	--	.00	--	0	--	.03	.00	.01

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



11169616 CALABAZAS CREEK AT RAINBOW DRIVE, NEAR CUPERTINO, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM
JAN									
04...	1310	12.0	62	8780	1470	--	--	--	--
04...	1455	12.0	28	3740	283	--	--	--	--
04...	1525	12.0	24	2780	180	--	--	--	--
05...	1040	12.5	38	1870	192	--	--	--	--
05...	1220	12.5	126	7200	2450	--	--	--	--
05...	1255	12.5	388	27400	28700	--	--	--	--
05...	1405	12.5	298	13600	10900	--	--	--	--
05...	1455	12.5	340	10600	9730	--	--	--	--
06...	1250	13.5	8.5	205	4.7	--	--	--	--
FEB									
06...	1020	11.0	415	22900	25700	36	42	52	64
06...	1245	12.0	71	6070	1160	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
JAN								
04...	--	96	--	--	--	--	--	--
04...	--	98	--	--	--	--	--	--
04...	--	97	--	--	--	--	--	--
05...	--	96	--	98	--	99	--	100
05...	--	79	--	--	--	--	--	--
05...	--	90	--	96	--	99	--	100
05...	--	86	--	--	--	--	--	--
05...	--	83	--	95	--	98	--	100
06...	--	96	--	--	--	--	--	--
FEB								
06...	76	--	88	--	97	--	100	--
06...	--	78	--	88	--	96	--	100

## PARTICLE-SIZE DISTRIBUTION OF TOTAL SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, TOTAL (MG/L)	SEDI- MENT DISCH. TOTAL, SUSP.+ BEDLOAD (T/DAY)	SED. TOTAL, SIEVE DIAM. % FINER THAN .062 MM
JAN						
06...	1300	13.5	8.5	381	8.7	85

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM
JAN							
06...	1330	13.5	12	8.0	0	1	4
DATE	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	
JAN							
06...	13	24	38	57	81	100	

## CALABAZAS CREEK BASIN

11169616 CALABAZAS CREEK AT RAINBOW DRIVE, NEAR CUPERTINO, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SEDIMENT IN TRANSIT WITHIN 0.25 FOOT OF BED SURFACE,  
WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (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 .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
JAN								
04...	1255	12.0	15	75	16	18	0	1
04...	1435	12.0	14	33	16	2.8	1	1
05...	1020	12.5	14	43	16	12	0	1
06...	1230	13.5	12	8.5	14	.64	--	0
FEB								
06...	1120	11.5	3	151	13	138	0	1
06...	1235	12.0	15	72	16	7.2	2	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	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
JAN								
04...	4	14	26	39	52	68	91	100
04...	11	34	44	54	65	81	100	--
05...	6	21	32	48	70	88	100	--
06...	2	39	83	98	100	--	--	--
FEB								
06...	5	18	33	49	63	77	90	100
06...	51	85	91	93	94	95	100	--

## 11169800 COYOTE CREEK NEAR GILROY, CA

LOCATION.--Lat 37°04'40", long 121°29'36", in NE¼SE¼ sec.11, T.10 S., R.4 E., Santa Clara County, Hydrologic Unit 18050003, on left bank 0.7 mi (1.1 km) downstream from Bear Creek, 5.0 mi (8.0 km) upstream from Coyote Creek Dam, and 6.4 mi (10.3 km) northeast of Gilroy.

DRAINAGE AREA.--109 mi<sup>2</sup> (282 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 790 ft (241 m), from topographic map. Prior to Nov. 14, 1963, at site 0.4 mi (0.6 km) downstream at different datum.

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

AVERAGE DISCHARGE.--18 years, 44.3 ft<sup>3</sup>/s (1.255 m<sup>3</sup>/s), 32,100 acre-ft/yr (39.6 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft<sup>3</sup>/s (286 m<sup>3</sup>/s) Jan. 31, 1963, gage height, 12.60 ft (3.840 m) site and datum then in use, from rating curve extended above 3,200 ft<sup>3</sup>/s (90.6 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow at times in each year.

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

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 5	1930	1720 48.7	7.62 2.323	Feb. 9	0400	5570 158	11.82 3.603
Jan. 14	2145	3040 86.1	9.24 2.816	Feb. 12	2115	1040 29.5	6.51 1.984
Jan. 16	2215	*6510 184	12.65 3.856	Mar. 5	0800	4620 131	10.91 3.325

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	4.9	14	31	45	31	22	2.1	.32	.15
2			0	4.4	13	129	41	26	21	2.0	.30	.15
3			0	5.4	13	478	35	23	21	1.9	.29	.15
4			0	6.0	12	1420	60	21	20	1.8	.29	.15
5			0	497	41	3060	49	18	19	1.7	.26	.15
6			0	344	204	1120	125	16	18	1.7	.23	.14
7			0	74	1030	506	149	15	16	1.5	.21	.14
8			0	33	1100	314	107	14	15	1.5	.21	.13
9			0	407	2640	273	78	13	14	1.4	.19	.13
10			0	203	654	217	62	12	13	1.4	.16	.12
11			0	73	312	168	53	11	12	1.3	.17	.12
12			0	44	486	180	48	10	11	1.2	.17	.11
13			0	42	695	131	44	10	10	1.1	.16	.10
14			0	1060	389	108	40	9.8	9.5	1.0	.14	.10
15			0	1240	257	90	79	9.8	8.8	1.0	.15	.10
16			0	2390	179	78	152	10	7.7	.98	.14	.08
17			0	1980	135	68	109	11	6.9	.89	.14	.09
18			0	499	106	62	80	12	6.0	.84	.13	.08
19			0	309	86	55	67	13	5.3	.77	.14	.08
20			0	188	71	50	60	14	4.6	.71	.14	.07
21			0	128	60	76	55	16	3.9	.67	.14	.07
22			0	93	52	85	47	18	3.4	.62	.13	.06
23			180	70	46	55	40	19	2.9	.59	.14	.05
24			28	54	41	46	38	20	2.5	.54	.14	.05
25			11	45	37	41	73	21	2.3	.53	.14	.03
26			6.3	38	35	38	77	23	2.4	.48	.14	.03
27			6.7	32	32	35	58	24	2.6	.47	.16	.02
28			14	27	30	33	43	25	2.4	.45	.16	.01
29			11	23	---	32	36	25	2.2	.41	.15	0
30			8.2	19	---	32	33	24	2.1	.39	.16	0
31		---	6.5	16	---	47	---	23	---	.36	.16	---
TOTAL	0	0	271.7	9948.7	8770	9058	1983	537.6	287.5	32.30	5.56	2.66
MEAN	0	0	8.76	321	313	292	66.1	17.3	9.58	1.04	.18	.089
MAX	0	0	180	2390	2640	3060	152	31	22	2.1	.32	.15
MIN	0	0	0	4.4	12	31	33	9.8	2.1	.36	.13	0
AC-FT	0	0	539	19730	17400	17970	3930	1070	570	64	11	5.3
CAL YR 1977	TOTAL	482.73	MEAN	1.32	MAX	180	MIN	0	AC-FT	957		
WTR YR 1978	TOTAL	30897.02	MEAN	84.6	MAX	3060	MIN	0	AC-FT	61280		

## COYOTE CREEK BASIN

## RESERVOIRS IN COYOTE CREEK BASIN, CA

11169850 COYOTE LAKE.--Lat 37°07'06", long 121°32'55", in SE¼ sec.29, T.9 S., R.4 E., Santa Clara County, Hydrologic Unit 18050003, at center of dam on Coyote Creek, 3.8 mi (6.1 km) northeast of San Martin. DRAINAGE AREA, 120 mi<sup>2</sup> (311 km<sup>2</sup>). PERIOD OF RECORD, February 1936 to current year. Monthly contents prior to October 1959, published in WSP 1735. GAGE, nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Santa Clara Valley Water District).

Reservoir is formed by rockfill and earthfill dam completed in 1936. Capacity, 23,700 acre-ft (29.2 hm<sup>3</sup>) between elevations 693.3 ft (211.32 m), invert of outlet tunnel and 777.2 ft (236.89 m), crest of spillway. Water released down Coyote Creek for storage in Anderson Lake. Record of contents furnished by Santa Clara Valley Water District.

EXTREMES FOR PERIOD OF RECORD: Maximum contents observed, 28,120 acre-ft (34.7 hm<sup>3</sup>) Dec. 8, 1950, elevation, 782.5 ft (238.51 m); no contents at times.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 24,170 acre-ft (29.8 hm<sup>3</sup>) Mar. 6, 7, elevation, 777.9 ft (237.10 m); no contents Oct. 1-31.

11169920 ANDERSON LAKE.--Lat 37°09'56", long 121°37'42", in southeast corner of La Laguna Seca Grant, Santa Clara County, Hydrologic Unit 18050003, at center of dam on Coyote Creek, 2.5 mi (4.0 km) northeast of Madrone. DRAINAGE AREA, 195 mi<sup>2</sup> (505 km<sup>2</sup>). PERIOD OF RECORD, December 1950 to current year. Monthly contents prior to October 1959, published in WSP 1735. GAGE, nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Santa Clara Valley Water District).

Reservoir is formed by earthfill and rockfill dam completed in 1950. Capacity, 91,280 acre-ft (113 hm<sup>3</sup>) between elevations 439 ft (133.8 m), invert of outlet tunnel and 625.0 ft (190.50 m), crest of spillway. Water released down Coyote Creek for irrigation and ground-water recharge by percolation. Record of contents furnished by Santa Clara Valley Water District.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 95,990 acre-ft (118 hm<sup>3</sup>) Apr. 3, 1958, elevation, 628.67 ft (191.619 m), from floodmarks; no contents at times in 1960-62.

EXTREMES FOR CURRENT YEAR: Maximum contents observed, 60,990 acre-ft (75.2 hm<sup>3</sup>) May 8, elevation, 596.9 ft (181.95 m); minimum observed, 12,410 acre-ft (15.3 hm<sup>3</sup>) Oct. 2-13, elevation, 518.4 ft (158.02 m).

MONTHEND CONTENTS, IN ACRE-FEET (INCLUDING MOMENTARY  
STORAGE ABOVE SPILLWAY CREST), AT 2400, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

Date	Coyote Lake	Anderson Lake
Sept. 30, 1977.....	0	12650
Oct. 31.....	0	12570
Nov. 30.....	42	12570
Dec. 31.....	271	12650
Jan. 31, 1978.....	12900	22220
Feb. 28.....	16140	38120
Mar. 31.....	20030	57500
Apr. 30.....	22140	59530
May 31.....	20110	57420
June 30.....	19300	52880
July 31.....	18330	48010
Aug. 31.....	17440	43310
Sept. 30.....	16630	39500

## 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 (1.9 km) downstream from Anderson Dam, and 1.8 mi (2.9 km) northeast of Madrone.

DRAINAGE AREA.--196 mi<sup>2</sup> (508 km<sup>2</sup>).

PERIOD OF RECORD.--October 1902 to September 1912, December 1916 to current year. 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).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 375 ft (114 m), from topographic map. Prior to Mar. 1, 1950, nonrecording gage and water-stage recorders at various sites within 1.4 mi (2.3 km) upstream at different datums.

REMARKS.--Records good. Flow regulated by Coyote (station 11169880) and Anderson (station 11169920) Lakes; water released during summer. Water is diverted to Main Avenue percolation ponds by Santa Clara Valley Water District.

AVERAGE DISCHARGE (unadjusted).--72 years, 63.6 ft<sup>3</sup>/s (1.801 m<sup>3</sup>/s), 46,080 acre-ft/yr (56.8 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft<sup>3</sup>/s (708 m<sup>3</sup>/s) probably Mar. 7, 1911 (record furnished by Duryea, Haehl, and Gilman); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 90 ft<sup>3</sup>/s (2.55 m<sup>3</sup>/s) May 28, gage height, 2.49 ft (0.759 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5			0	29	17	23	14	88	68	69	71
2	.05			0	30	.60	23	32	87	70	72	70
3	0			0	30	.11	23	47	88	70	70	68
4	0			0	30	.32	23	48	86	69	69	65
5	0			0	30	.91	23	48	86	70	70	65
6	0			0	31	6.0	25	53	85	69	70	64
7	0			0	20	10	25	57	84	70	72	65
8	0			0	2.6	.40	25	57	83	70	71	60
9	0			0	3.2	15	25	63	80	73	71	56
10	0			0	1.7	29	25	71	79	70	73	57
11	0			0	.33	30	25	71	80	70	73	58
12	0			0	.40	30	25	71	80	70	73	57
13	0			4.9	.28	30	25	71	80	70	74	56
14	0			13	8.8	31	25	71	78	70	75	56
15	0			.93	19	31	23	73	78	70	74	57
16	0			2.5	19	36	21	73	77	69	76	57
17	0			2.5	21	39	21	73	77	69	73	57
18	0			.11	25	36	22	73	73	70	74	58
19	0			.06	25	36	17	76	69	60	73	58
20	0			.03	25	36	12	81	70	53	74	58
21	0			1.2	27	33	12	81	71	59	74	57
22	0			11	32	30	12	84	71	64	74	59
23	0			13	32	30	12	84	70	62	74	59
24	0			17	32	31	13	83	70	62	74	58
25	0			18	32	31	15	84	71	65	73	58
26	0			18	32	31	15	84	71	64	73	43
27	0			17	33	28	15	84	69	63	73	31
28	0			18	29	26	15	87	66	64	73	31
29	0			18	---	26	15	87	66	64	73	47
30	0			18	---	26	15	87	68	66	72	58
31	0	---		22	---	25	---	89	---	68	71	---
TOTAL	3.55	0	0	195.23	600.31	731.34	595	2157	2301	2071	2250	1714
MEAN	.11	0	0	6.30	21.4	23.6	19.8	69.6	76.7	66.8	72.6	57.1
MAX	3.5	0	0	22	33	39	25	89	88	73	76	71
MIN	0	0	0	0	.28	.11	12	14	66	53	69	31
AC-FT	7.0	0	0	387	1190	1450	1180	4280	4560	4110	4460	3400
(+)	0	0	.70	35	252	226	472	610	769	1020	801	817

CAL YR 1977 TOTAL 7970.55 MEAN 21.8 MAX 41 MIN 0 AC-FT 15810 + 4790  
WTR YR 1978 TOTAL 12618.43 MEAN 34.6 MAX 89 MIN 0 AC-FT 25030 + 5000

+ Diversion, in acre-feet, to Main Avenue percolation ponds, furnished by Santa Clara Valley Water District.

## 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, 0.1 mi (0.2 km) upstream from Dutard Creek near northeast limits of San Jose.

DRAINAGE AREA.--21.5 mi<sup>2</sup> (55.7 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Concrete control since Sept. 12, 1963. Datum of gage is 265.30 ft (80.863 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 3, 1962, at site 0.4 mi (0.6 km) downstream at different datum.

REMARKS.--Records good. Flow partly regulated by Cherry Flat Reservoir 5 mi (8 km) upstream, capacity, 500 acre-ft (616,000 m<sup>3</sup>).

AVERAGE DISCHARGE.--17 years, 4.94 ft<sup>3</sup>/s (0.140 m<sup>3</sup>/s), 3,580 acre-ft/yr (4.41 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,500 ft<sup>3</sup>/s (42.5 m<sup>3</sup>/s) Jan. 21, 1967, gage height, 6.24 ft (1.902 m) in gage well, 7.8 ft (2.38 m) from outside gage, from rating curve extended above 360 ft<sup>3</sup>/s (10.2 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow at times in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known since at least 1935, 2,100 ft<sup>3</sup>/s (59.5 m<sup>3</sup>/s) Apr. 2, 1958, from information furnished by Santa Clara Valley Water District.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 90 ft<sup>3</sup>/s (2.5 m<sup>3</sup>/s) and maximum (\*) from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 5	1715	325 9.20	4.72 1.439	Feb. 9	0530	268 7.59	4.56 1.390
Jan. 14	2030	*851 24.1	5.59 1.704	Mar. 5	0715	376 10.6	4.84 1.475

Minimum daily discharge, 0.03 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) Oct. 1, 7-9, 13-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.12	.19	.43	1.8	3.6	11	5.4	1.3	.29	.10	.13
2	.11	.13	.20	.44	1.8	29	11	4.9	1.3	.26	.10	.12
3	.14	.13	.20	.46	1.8	34	8.1	4.5	1.1	.24	.09	.12
4	.08	.12	.20	.63	1.7	54	25	4.2	.98	.21	.09	.13
5	.04	.55	.20	62	2.0	205	16	3.8	.88	.20	.08	.10
6	.04	.19	.20	17	8.3	85	52	3.3	.78	.20	.07	.15
7	.03	.15	.20	6.4	15	40	36	3.1	.65	.22	.07	.11
8	.03	.12	.22	3.8	14	31	26	2.9	.59	.21	.07	.11
9	.03	.10	.22	10	93	29	20	2.8	.54	.18	.11	.13
10	.04	.10	.22	7.7	53	22	16	2.7	.52	.19	.13	.21
11	.05	.10	.23	4.3	29	18	13	2.6	.51	.19	.13	.15
12	.05	.11	.23	3.8	31	17	11	2.5	.48	.25	.13	.15
13	.03	.10	.18	4.6	62	14	9.6	2.5	.49	.15	.22	.14
14	.03	.11	.17	93	43	12	8.3	2.4	.49	.15	.25	.12
15	.03	.11	.44	136	30	10	20	2.3	.46	.15	.24	.13
16	.04	.10	.21	171	22	9.1	25	2.2	.43	.16	.25	.11
17	.04	.09	.94	183	18	8.3	17	1.9	.79	.14	.23	.11
18	.06	.08	.42	56	14	7.6	13	1.7	.82	.11	.16	.73
19	.07	.08	.42	46	11	6.9	11	1.7	.72	.11	.12	.12
20	.11	.09	.41	27	9.3	6.4	12	1.6	.66	.09	.12	.10
21	.32	.09	.39	17	7.7	16	11	1.6	.77	.09	.11	.09
22	.22	.39	.59	12	6.4	19	8.8	1.7	.87	.09	.11	.08
23	.16	.13	.62	8.9	5.5	11	7.6	1.7	.84	.12	.11	.08
24	.15	.09	.42	6.0	5.5	7.5	7.4	1.8	.61	.13	.11	.08
25	.13	.09	.39	4.4	4.8	6.4	13	1.8	.50	.12	.11	.08
26	.09	.12	.42	3.8	4.3	5.8	9.5	1.7	.47	.11	.11	.07
27	.33	.22	.39	3.4	4.1	5.5	7.4	1.7	.51	.11	.10	.09
28	.13	.22	.67	2.9	3.7	5.1	6.6	1.6	.37	.09	.11	.10
29	.13	.22	.52	2.5	---	4.9	6.0	1.5	.29	.09	.11	.08
30	.12	.20	.43	2.2	---	4.9	5.6	1.4	.29	.08	.13	.07
31	.12	---	.60	2.0	---	9.3	---	1.3	---	.10	.13	---
TOTAL	2.98	4.45	11.14	898.66	503.7	737.3	443.9	76.8	20.01	4.83	4.00	3.99
MEAN	.096	.15	.36	29.0	18.0	23.8	14.8	2.48	.67	.16	.13	.13
MAX	.33	.55	.94	183	93	205	52	5.4	1.3	.29	.25	.73
MIN	.03	.08	.17	.43	1.7	3.6	5.6	1.3	.29	.08	.07	.07
AC-FT	5.9	8.8	22	1780	999	1460	880	152	40	9.6	7.9	7.9
CAL YR 1977 TOTAL	82.26			MEAN .23	MAX 1.6	MIN 0	AC-FT 163					
WTR YR 1978 TOTAL	2711.76			MEAN 7.43	MAX 205	MIN .03	AC-FT 5380					

11173200 ARROYO HONDO NEAR SAN JOSE, CA

LOCATION.--Lat 37°27'42", long 121°46'06", in NE¼NE¼ sec.32, T.5 S., R.2 E., Santa Clara County, Hydrologic Unit 18050004, on right bank 150 ft (46 m) upstream from road bridge, 3.5 mi (5.6 km) southeast of Calaveras Dam, 3.5 mi (5.6 km) northeast of city limits of San Jose.

DRAINAGE AREA.--77.1 mi<sup>2</sup> (199.7 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 783.86 ft (238.921 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--10 years, 47.8 ft<sup>3</sup>/s (1.354 m<sup>3</sup>/s), 34,630 acre-ft/yr (42.7 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,620 ft<sup>3</sup>/s (131 m<sup>3</sup>/s) Jan. 26, 1969, gage height, 10.94 ft (3.335 m); minimum daily, 0.11 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) July 28-30, 1972.

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

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 5	2000	2360 66.8	9.01 2.746	Feb. 9	0715	2070 58.6	8.70 2.652
Jan. 14	2315	2740 77.6	9.40 2.865	Feb. 12	2015	1120 31.7	7.44 2.268
Jan. 17	0030	2910 82.4	9.56 2.914	Mar. 5	0730	*3260 92.3	9.87 3.008

Minimum daily discharge, 0.20 ft<sup>3</sup>/s (0.006 m<sup>3</sup>/s) Oct. 13-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	.29	1.5	19	24	35	63	41	10	5.4	1.7	1.3
2	.23	.28	1.4	14	23	223	62	36	10	5.2	1.6	1.3
3	.22	.30	1.4	12	21	475	52	33	10	4.7	1.6	1.3
4	.22	.30	1.3	11	20	810	101	31	9.8	4.4	1.6	1.3
5	.23	.45	1.3	961	25	1920	92	29	9.7	4.1	1.5	1.3
6	.23	.34	1.3	444	135	686	204	27	9.5	3.3	1.5	1.4
7	.22	.31	1.3	116	349	348	209	26	9.4	3.3	1.5	1.3
8	.22	.29	1.2	59	307	230	144	24	9.2	3.2	1.5	1.3
9	.22	.29	1.2	279	1170	220	108	24	8.8	3.3	1.5	1.4
10	.22	.31	1.1	193	424	186	86	23	8.8	3.1	1.4	1.4
11	.21	.30	1.2	87	225	142	73	22	8.9	2.7	1.4	1.4
12	.21	.31	1.2	55	415	136	63	22	8.8	2.6	1.4	1.4
13	.20	.33	1.1	70	590	109	56	21	8.8	2.6	1.4	1.4
14	.20	.36	1.2	1000	347	91	50	18	8.6	2.5	1.4	1.4
15	.20	.40	1.7	1100	229	79	91	19	8.1	2.5	1.3	1.4
16	.21	.43	1.6	1480	165	69	207	19	7.9	2.3	1.3	1.4
17	.22	.47	32	1490	128	62	133	17	7.6	2.2	1.2	1.4
18	.23	.51	60	442	101	56	101	16	7.4	2.2	1.2	1.4
19	.24	.55	16	354	84	53	87	16	7.5	2.1	1.2	1.3
20	.24	.63	7.9	232	72	48	83	15	7.4	2.1	1.2	1.3
21	.24	.83	4.8	157	62	51	78	15	7.0	2.0	1.3	1.3
22	.24	1.3	4.7	113	55	81	65	15	6.9	2.0	1.3	1.3
23	.24	.84	148	85	50	60	57	14	6.5	1.9	1.3	1.3
24	.24	.88	51	65	45	51	54	14	6.5	1.9	1.3	1.2
25	.24	1.1	22	53	42	44	66	14	6.4	1.9	1.3	1.2
26	.24	1.5	13	46	39	41	61	14	6.1	1.8	1.3	1.2
27	.39	1.7	9.3	40	37	38	54	13	6.3	1.8	1.3	1.2
28	.31	1.6	9.1	35	35	36	48	12	6.3	1.8	1.3	1.2
29	.29	1.5	12	32	---	35	44	11	5.8	1.7	1.3	1.2
30	.30	1.5	52	29	---	34	42	11	5.6	1.7	1.3	1.2
31	.29	---	32	26	---	46	---	10	---	1.7	1.3	---
TOTAL	7.42	20.20	494.8	9099	5219	6495	2634	622	239.6	84.0	42.7	39.4
MEAN	.24	.67	16.0	294	186	210	87.8	20.1	7.99	2.71	1.38	1.31
MAX	.39	1.7	148	1490	1170	1920	209	41	10	5.4	1.7	1.4
MIN	.20	.28	1.1	11	20	34	42	10	5.6	1.7	1.2	1.2
AC-FT	15	40	981	18050	10350	12880	5220	1230	475	167	85	78

CAL YR 1977 TOTAL 1173.44 MEAN 3.21 MAX 148 MIN .19 AC-FT 2330  
WTR YR 1978 TOTAL 24997.12 MEAN 68.5 MAX 1920 MIN .20 AC-FT 49580

## ALAMEDA CREEK BASIN

11176000 ARROYO MOCHO NEAR LIVERMORE, CA

LOCATION.--Lat 37°37'35", long 121°42'13", in NW¼SE¼ sec.36, T.3 S., R.2 E., Alameda County, Hydrologic Unit 18050004, on right bank 40 ft (12 m) downstream from Mines Road bridge, 2.4 mi (3.9 km) upstream from small right-bank tributary, and 5.2 mi (8.4 km) southeast of Livermore.

DRAINAGE AREA.--38.2 mi<sup>2</sup> (98.9 km<sup>2</sup>).

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. Concrete control since Aug. 5, 1964 (ineffective due to gravel fill). Datum of gage is 746.49 ft (227.530 m) National Geodetic Vertical Datum of 1929. 1912 to October 1914 at present site at different datum. November 1914 to Sept. 30, 1930, at site 1 mi (2 km) upstream at different datum.

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

AVERAGE DISCHARGE.--33 years, 4.35 ft<sup>3</sup>/s (0.123 m<sup>3</sup>/s), 3,150 acre-ft/yr (3.88 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 1,680 ft<sup>3</sup>/s (47.6 m<sup>3</sup>/s) Mar. 5, 1978, gage height, 7.66 ft (2.335 m), from rating curve extended above 270 ft<sup>3</sup>/s (7.65 m<sup>3</sup>/s); maximum daily discharge, 1,000 ft<sup>3</sup>/s (28.3 m<sup>3</sup>/s) Jan. 25, 1914 (estimated); no flow for parts of most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, discharge 1,880 ft<sup>3</sup>/s (53.2 m<sup>3</sup>/s), by slope-area measurement of maximum flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 90 ft<sup>3</sup>/s (2.5 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 270 ft<sup>3</sup>/s (7.65 m<sup>3</sup>/s):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Jan. 14	2230	1270	36.0	7.40	2.256	Feb. 12	2145	159	4.50	5.94	1.811
Jan. 16	2315	981	27.8	7.18	2.188	Mar. 5	0800	*1680	47.6	7.66	2.335
Feb. 9	0615	946	26.8	7.15	2.179						

Minimum daily discharge, no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	.33	2.6	12	1.6	.20	.04		
2			0	0	.28	14	5.9	1.5	.21	.03		
3			0	.05	.26	22	3.9	1.2	.19	.03		
4			0	.02	.23	111	5.3	1.0	.18	.02		
5			0	.02	.44	634	4.3	.91	.18	.01		
6			0	.03	7.1	142	16	.78	.18	0		
7			0	1.5	122	51	15	.70	.17	0		
8			0	.42	84	30	7.8	.64	.15	0		
9			0	.54	432	32	5.3	.62	.13	0		
10			0	4.3	74	29	4.2	.57	.10	0		
11			0	6.0	27	20	3.2	.60	.10	0		
12			0	2.5	45	3.1	3.0	.66	.10	0		
13			0	3.8	119	2.3	2.5	.63	.08	0		
14			0	172	47	2.1	2.5	.59	.08	0		
15			0	186	25	2.0	3.7	.71	.07	0		
16			0	359	16	2.1	18	.85	.07	0		
17			0	257	12	2.2	11	.77	.06	0		
18			0	40	8.9	2.3	6.8	.69	.05	0		
19			0	30	6.8	2.2	4.8	.60	.05	0		
20			0	14	6.0	2.5	4.7	.51	.05	0		
21			0	7.7	5.0	11	4.8	.46	.04	0		
22			0	4.9	4.3	7.0	3.0	.45	.04	0		
23			0	2.9	3.9	2.4	2.7	.44	.04	0		
24			0	1.8	3.5	2.3	2.7	.49	.04	0		
25			0	1.1	3.1	2.2	3.7	.47	.03	0		
26			0	.87	2.9	2.1	4.4	.49	.04	0		
27			0	.69	2.7	2.0	2.8	.48	.05	0		
28			.07	.56	2.6	1.8	2.3	.39	.04	0		
29			.07	.50	---	2.1	1.9	.34	.04	0		
30			.13	.43	---	5.0	1.7	.29	.04	0		
31		---	.06	.37	---	11	---	.23	---	0		---
TOTAL	0	0	.33	1099.00	1061.34	1157.3	169.9	20.66	2.80	.13	0	0
MEAN	0	0	.011	35.5	37.9	37.3	5.66	.67	.093	.004	0	0
MAX	0	0	.13	359	432	634	18	1.6	.21	.04	0	0
MIN	0	0	0	0	.23	1.8	1.7	.23	.03	0	0	0
AC-FT	0	0	.7	2180	2110	2300	337	41	5.6	.3	0	0
CAL YR 1977	TOTAL	35.46	MEAN .097	MAX	1.9	MIN 0	AC-FT	70				
WTR YR 1978	TOTAL	3511.46	MEAN 9.62	MAX	634	MIN 0	AC-FT	6960				



11176180 ARROYO LAS POSITAS AT EL CHARRO ROAD, NEAR PLEASANTON, CA

LOCATION.--Lat 37°41'49", long 121°50'54", in Santa Rita Grant, Alameda County, Hydrologic Unit 18050004, on left bank at Santa Rita Rehabilitation Center Annex, 400 ft (122 m) downstream from El Charro Road bridge, and 2.8 mi (4.5 km) northeast of Pleasanton.

DRAINAGE AREA.--75.0 mi<sup>2</sup> (194.2 km<sup>2</sup>).

PERIOD OF RECORD.--October 1977 to September 1978. Records prior to October 1977 in files of Alameda County Flood Control and Water Conservation District.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 350 ft (107 m), from topographic map.

REMARKS.--Records fair including those for periods of no gage-height record, Jan. 13-20, Feb. 13 to Mar. 22, Apr. 6 to May 12. Flow partly regulated by wastewater from Livermore sewage treatment plant 2.3 mi (3.7 km) upstream.

COOPERATION.--Gage-height record and 15 discharge measurements were furnished by Alameda County Flood Control and Water Conservation District.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft<sup>3</sup>/s (11 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)				
Jan. 5	1915	430	12.2	4.83	1.472	Feb. 7	1215	413	11.7	4.77	1.454
Jan. 17	0030	*860	24.4	unknown		Feb. 9	0530	766	21.7	5.83	1.777

Minimum daily discharge, no flow Aug. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	6.0	4.1	5.6	5.9	6.2	9.9	4.2	5.0	5.0	.16	4.7
2	16	3.6	4.0	6.4	7.1	47	6.9	5.2	4.5	3.5	0	7.1
3	11	.96	4.0	7.5	7.3	17	4.3	3.5	7.0	2.6	.06	3.8
4	8.9	1.9	4.5	5.1	7.7	40	13	2.9	5.8	3.7	.64	3.6
5	9.2	4.0	4.9	110	17	180	6.2	2.3	4.3	2.9	3.5	3.5
6	5.8	5.3	4.1	41	52	40	25	4.5	4.7	3.1	2.3	4.4
7	5.5	5.4	4.1	7.4	178	12	10	2.7	4.4	3.1	2.8	4.1
8	8.0	5.5	4.2	1.8	69	29	4.8	3.5	3.8	3.4	4.5	3.6
9	7.0	4.7	3.8	58	311	70	5.2	5.4	2.5	3.5	3.5	3.7
10	5.4	4.0	3.6	26	34	20	6.8	3.7	3.5	2.9	7.8	3.6
11	8.3	5.1	4.5	6.5	13	11	6.0	2.0	6.1	1.2	8.8	3.6
12	5.6	5.2	4.9	13	47	9.0	5.4	3.2	6.6	5.5	9.1	.56
13	6.7	4.5	4.4	18	170	7.0	5.8	5.9	6.3	3.6	7.5	.89
14	4.3	3.0	3.8	60	42	6.4	4.4	4.0	4.0	3.4	7.6	3.4
15	7.7	2.5	18	180	23	5.8	13	3.6	5.3	3.0	8.7	3.6
16	6.1	2.2	8.3	250	12	6.0	11	6.0	4.0	2.7	7.6	4.9
17	5.1	2.4	33	350	10	6.2	6.2	4.5	7.5	2.1	8.1	3.4
18	6.5	.57	13	60	8.5	7.0	3.5	1.6	5.7	2.7	6.9	5.0
19	5.3	1.1	3.1	150	6.5	6.2	3.8	4.2	5.1	2.7	8.1	3.6
20	3.5	4.4	4.6	35	7.0	5.8	6.2	.73	5.5	2.3	9.3	3.3
21	5.8	4.2	5.5	15	6.3	25	4.4	3.5	.80	3.4	6.3	3.6
22	5.7	14	6.5	12	5.2	15	4.1	5.9	2.6	3.5	9.1	3.3
23	6.1	2.7	64	7.4	5.0	6.0	3.6	4.0	4.7	3.6	7.8	4.0
24	6.0	4.0	11	6.7	6.2	5.9	6.0	3.8	6.9	3.3	6.4	1.9
25	5.5	4.4	5.6	4.0	5.8	6.0	15	5.0	6.1	3.0	9.3	2.4
26	4.9	4.2	2.4	4.9	6.2	5.7	7.0	3.5	4.8	3.6	7.9	3.0
27	.95	4.5	2.4	6.2	5.8	5.6	5.0	4.4	5.9	3.2	3.0	4.4
28	1.4	3.3	.80	7.0	5.5	4.5	3.8	3.0	5.4	2.2	2.3	4.2
29	4.6	3.6	3.9	7.0	---	4.1	5.0	3.5	4.9	2.8	4.5	3.5
30	5.4	4.0	5.9	5.2	---	5.4	4.0	5.0	3.9	1.7	3.8	1.3
31	5.4	---	5.6	5.7	---	15	---	5.4	---	1.3	4.9	---
TOTAL	204.65	121.23	252.50	1472.4	1074.0	629.8	215.3	120.63	147.60	94.5	172.26	105.95
MEAN	6.60	4.04	8.15	47.5	38.4	20.3	7.18	3.89	4.92	3.05	5.56	3.53
MAX	17	14	64	350	311	180	25	6.0	7.5	5.5	9.3	7.1
MIN	.95	.57	.80	1.8	5.0	4.1	3.5	.73	.80	1.2	0	.56
AC-FT	406	240	501	2920	2130	1250	427	239	293	187	342	210

WTR YR 1978 TOTAL 4610.82 MEAN 12.6 MAX 350 MIN 0 AC-FT 9150

11176200 ARROYO MOCHO NEAR PLEASANTON, CA

LOCATION.--Lat 37°41'26", long 121°52'20", in Santa Rita Grant, Alameda County, Hydrologic Unit 1805004, on right bank 0.3 mi (0.5 km) upstream from Santa Rita Road, 0.8 mi (1.3 km) downstream from Arroyo Las Positas, and 2 mi (3 km) north of Pleasanton.

DRAINAGE AREA. -- 143 mi<sup>2</sup> (370 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 319.51 ft (97.387 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 30, 1967, at site 0.4 mi (0.6 km) downstream at different datum. Dec. 8, 1967, to July 7, 1968, nonrecording gage at bridge 0.3 mi (0.5 km) downstream at different datum.

REMARKS.--Records fair. No regulation. Waste water from Livermore sewage disposal plant and gravel operations enters stream about 4 mi (6 km) upstream from gage.

AVERAGE DISCHARGE.--16 years, 13.7 ft<sup>3</sup>/s (0.388 m<sup>3</sup>/s), 9,930 acre-ft/yr (12.2 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,760 ft<sup>3</sup>/s (49.8 m<sup>3</sup>/s) Feb. 1, 1963, gage height, 8.60 ft (2.621 m) site and datum then in use, from rating curve extended above 58 ft<sup>3</sup>/s (1.64 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft<sup>3</sup>/s (7.1 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	(ft)	(m)			(ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	(ft)	(m)
Jan. 5	1815	292	8.27	9.50	2.896	Feb. 13	1100	394	11.2	9.77	2.978
Jan. 17	0045	*969	27.4	11.17	3.405	Mar. 5	1230	398	11.3	9.78	2.981
Feb. 9	0600	686	19.4	10.54	3.213						

Minimum daily discharge, 0.49 ft<sup>3</sup>/s (0.014 m<sup>3</sup>/s) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	4.3	4.7	5.4	6.1	6.9	12	5.6	6.4	6.1	1.6	4.4
2	2.8	3.8	5.4	5.8	6.7	73	8.1	7.2	3.7	5.4	.72	5.5
3	2.9	1.7	4.6	6.9	7.5	33	4.9	4.4	8.1	3.9	.49	3.5
4	3.3	1.3	4.7	7.1	7.5	70	23	3.6	7.8	5.5	.92	3.6
5	3.9	3.3	5.1	108	16	279	8.3	3.1	4.0	3.9	3.1	3.3
6	3.1	3.7	4.6	47	73	116	41	5.7	4.4	4.2	2.9	4.5
7	2.2	4.2	5.1	11	253	42	13	3.7	4.0	4.1	3.1	4.0
8	3.5	4.0	4.6	4.1	182	55	6.4	4.3	3.4	6.7	5.1	3.7
9	3.4	4.2	4.4	66	464	116	6.5	7.4	2.9	6.8	4.2	4.0
10	2.7	3.6	4.5	46	131	37	8.1	4.5	4.5	5.6	6.9	4.2
11	3.8	4.2	5.0	8.9	47	18	7.9	3.0	6.8	1.9	7.0	4.6
12	3.0	4.8	5.3	13	78	17	7.0	4.3	5.8	4.1	7.2	1.5
13	3.3	3.9	5.1	19	272	10	7.2	5.9	6.5	3.4	7.6	1.0
14	2.4	3.2	5.6	229	73	7.5	5.3	4.3	4.1	3.7	7.2	3.3
15	3.5	2.4	23	305	30	6.6	18	4.1	4.5	3.3	7.1	4.0
16	3.5	1.9	8.0	389	15	6.8	17	11	3.8	3.1	6.8	4.9
17	3.1	2.4	43	497	12	7.2	8.6	6.4	7.1	2.4	7.9	3.9
18	3.5	1.1	13	138	8.4	8.0	5.0	2.7	5.5	3.0	7.4	4.8
19	3.3	.91	3.5	253	6.7	7.5	5.1	7.7	5.2	3.5	6.8	4.5
20	2.4	3.3	4.8	60	7.2	7.0	8.0	6.7	4.7	3.0	7.9	4.1
21	3.2	7.2	5.3	24	6.5	35	5.5	12	1.0	4.7	6.5	3.9
22	3.5	22	8.6	15	5.6	26	5.2	6.8	2.4	3.9	8.5	4.2
23	3.7	4.4	69	7.4	4.9	7.5	4.9	3.6	3.6	4.4	7.6	4.5
24	4.0	4.1	9.4	6.8	7.1	7.3	7.0	5.9	7.0	3.4	6.5	3.0
25	3.5	4.9	5.4	5.4	6.4	7.8	26	5.3	5.6	3.6	7.9	3.3
26	4.0	4.7	3.3	5.2	6.8	6.7	10	4.6	5.1	4.7	7.3	3.2
27	2.0	4.9	3.0	5.8	6.4	6.3	6.1	4.7	5.2	4.0	4.5	4.7
28	1.1	4.4	1.5	7.8	5.8	5.8	5.4	3.6	5.4	3.4	2.7	4.5
29	3.8	3.8	3.9	7.0	---	4.8	6.1	4.1	5.7	4.7	4.4	4.2
30	4.2	4.6	5.6	5.2	---	7.8	5.5	4.2	4.9	2.5	5.3	1.8
31	4.2	---	6.4	5.6	---	21	---	4.5	---	2.1	5.3	---
TOTAL	99.8	127.21	285.4	2314.4	1745.6	1059.5	302.1	164.9	149.1	125.0	168.43	114.6
MEAN	3.22	4.24	9.21	74.7	62.3	34.2	10.1	5.32	4.97	4.03	5.43	3.82
MAX	4.2	22	69	497	464	279	41	12	8.1	6.8	8.5	5.5
MIN	1.1	.91	1.5	4.1	4.9	4.8	4.9	2.7	1.0	1.9	.49	1.0
AC-FT	198	252	566	4590	3460	2100	599	327	296	248	334	227
CAL YR 1977	TOTAL	1761.21		4.83	69	.91						
WTR YR 1978	TOTAL	6656.04		MEAN 18.2	MAX 497	MIN .49	AC-FT 13200					

11176350 ARROYO DE LA LAGUNA ABOVE ARROYO VALLE, NEAR PLEASANTON, CA

LOCATION.--Lat 37°39'46", long 121°54'19", in Santa Rita Grant, Alameda County, Hydrologic Unit 18050004, on right bank 250 ft (76 m) upstream from Arroyo Valle, 1.0 mi (1.6 km) downstream from Arroyo Mocho, and 1.8 mi (2.9 km) west of Pleasanton.

DRAINAGE AREA.--224 mi<sup>2</sup> (580 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 300 ft (91 m), from topographic map.

REMARKS.--Records fair. Flow partly regulated by South Bay Aqueduct and by waste water from Valley Community Services District (VCSD) sewage disposal plant which enters stream 1.7 mi (2.7 km) upstream from station. Records published for flows of 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s) or less for water-quality monitoring purposes.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined; minimum 2.8 ft<sup>3</sup>/s (0.079 m<sup>3</sup>/s) Apr. 16, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; minimum daily, 4.7 ft<sup>3</sup>/s (0.13 m<sup>3</sup>/s) Nov. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	10	12	9.9	32	16	36	16	18	12	7.5	11
2	7.1	10	12	12	30	---	23	18	15	14	7.0	12
3	8.0	7.4	13	19	34	---	18	16	17	15	6.5	12
4	6.4	4.7	11	35	33	---	---	15	18	14	6.0	10
5	7.8	25	13	---	---	---	23	13	14	15	6.0	12
6	8.2	11	11	---	---	---	---	15	13	13	9.0	12
7	5.2	11	12	30	---	---	---	14	11	14	8.5	11
8	7.2	9.4	11	20	---	---	28	14	11	15	9.5	13
9	8.0	9.7	11	---	---	---	23	17	11	18	9.0	12
10	6.1	8.7	11	---	---	---	23	14	9.9	16	11	20
11	7.4	9.0	16	27	40	---	23	13	14	13	13	17
12	7.8	9.8	22	33	---	---	21	13	13	11	13	11
13	7.1	11	12	---	---	---	20	15	13	12	16	8.2
14	7.3	9.4	16	---	---	---	18	16	12	12	13	6.9
15	6.9	7.1	---	---	40	---	---	17	11	11	12	9.3
16	9.6	6.7	20	---	35	49	46	24	11	11	14	11
17	7.4	6.7	---	---	32	49	27	18	13	11	15	11
18	7.8	5.9	38	---	30	48	19	16	12	10	13	9.5
19	8.0	5.0	12	---	28	45	18	19	13	10	13	10
20	6.4	7.8	11	---	27	41	43	19	13	9.5	14	9.6
21	6.8	---	12	---	26	---	24	24	9.3	12	13	9.4
22	8.6	---	35	---	25	---	14	21	12	10	15	10
23	10	11	---	---	21	36	13	16	11	11	15	9.3
24	11	9.4	26	50	21	30	17	17	14	11	14	9.6
25	10	11	16	43	20	28	36	18	13	10	14	9.3
26	10	12	15	39	19	27	28	16	13	10	14	8.5
27	12	13	18	38	17	25	20	15	13	11	14	11
28	5.5	13	11	36	15	22	18	14	13	10	10	9.5
29	8.9	10	18	39	---	22	18	14	14	11	10	10
30	12	12	13	37	---	23	17	16	12	9.5	12	7.9
31	11	---	11	30	---	---	---	16	---	7.5	14	---
TOTAL	252.6	---	---	---	---	---	---	509	387.2	369.5	361.0	323.0
MEAN	8.15	---	---	---	---	---	---	16.4	12.9	11.9	11.6	10.8
MAX	12	---	---	---	---	---	---	24	18	18	16	20
MIN	5.2	---	---	---	---	---	---	13	9.3	7.5	6.0	6.9
AC-FT	501	---	---	---	---	---	---	1010	768	733	716	641

## ALAMEDA CREEK BASIN

11176350 ARROYO DE LA LAGUNA ABOVE ARROYO VALLE, NEAR PLEASANTON, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1975 to current year.

SPECIFIC CONDUCTANCE: Water years 1975 to current year.

WATER TEMPERATURES: Water years 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1974 to current year.

WATER TEMPERATURES: December 1974 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1974.

COOPERATION.--Chemical-quality samples were collected by Alameda County Water District.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,830 micromhos Feb. 23, 1977; minimum, 208 micromhos Jan. 2, 1977.

WATER TEMPERATURES: Maximum, 33.5°C June 26, 1976; minimum, 4.5°C Jan. 2, 1975.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,710 micromhos Dec. 8; minimum, 212 micromhos Dec. 23.

WATER TEMPERATURES: Maximum, 31.5°C June 7, July 18, Aug. 5-7; minimum, 8.5°C Feb. 11.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 09...	1100	--	13	8.0	13.0	25	250	39	38
JAN 25...	1050	43	--	7.5	12.0	25	370	75	45
APR 26...	1100	--	29	7.8	18.0	22	330	69	39
AUG 02...	1045	7.0	--	8.2	22.5	5.9	220	41	29

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
NOV 09...	270	979	1.33	25	.04	25	.09	.30
JAN 25...	170	831	1.13	10	.04	10	.22	.20
APR 26...	190	792	1.08	8.1	.04	8.1	.05	.20
AUG 02...	120	572	.78	12	.05	12	.02	.30

11176350 ARROYO DE LA LAGUNA ABOVE ARROYO VALLE, NEAR PLEASANTON, CA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	1570	1540	1550	1640	1550	1600	1650	1620	1630	1480	1400	1450
2	1550	1510	1530	1670	1630	1650	1660	1630	1640	1500	1250	1450
3	1550	1470	1510	1660	1570	1620	1640	1530	1560	1270	1200	1240
4	1570	1530	1550	1600	1540	1570	1600	1580	1590	1270	586	987
5	1590	1560	1570	1540	651	1000	1610	1590	1600	636	230	439
6	1650	1550	1600	1550	1280	1450	1680	1420	1510	810	358	600
7	1620	1520	1560	1570	1520	1540	1680	1530	1610	1050	836	948
8	1580	1530	1560	1590	1560	1580	1710	1620	1660	---	---	---
9	1590	1520	1550	1610	1560	1590	1690	1580	1620	---	---	---
10	1580	1510	1550	1590	1570	1580	1650	1590	1620	---	---	---
11	1580	1530	1550	1590	1540	1570	1610	812	1450	---	---	---
12	1590	1540	1570	1560	1540	1550	1490	858	1180	1150	770	1010
13	1600	1550	1570	1570	1520	1540	1560	1490	1530	---	---	---
14	1600	1520	1560	1550	1540	1540	1570	486	1450	---	---	---
15	1600	1540	1560	1570	1530	1550	760	254	483	---	---	---
16	1630	1540	1580	1570	1550	1560	1570	770	1280	---	---	---
17	1600	1540	1570	1570	1550	1560	1250	302	556	---	---	---
18	1600	1560	1570	1570	1540	1560	1220	456	849	---	---	---
19	1610	1580	1590	1550	1500	1520	1380	1220	1330	---	---	---
20	1610	1590	1600	1530	1500	1520	1550	1380	1480	---	---	---
21	1640	1580	1610	1530	470	1030	1570	1340	1540	---	---	---
22	1650	1580	1610	828	442	619	1350	308	1010	---	---	---
23	1610	1580	1600	1160	845	991	872	212	472	---	---	---
24	1610	1570	1590	1460	1190	1350	1440	908	1170	---	---	---
25	1620	1520	1590	1540	1470	1500	1550	1440	1510	---	---	---
26	1610	1580	1600	1600	1550	1570	1580	896	1460	---	---	---
27	1600	1480	1550	1630	1600	1620	1400	842	1200	---	---	---
28	1490	1480	1480	1640	1610	1630	1460	1040	1370	1640	1540	1590
29	1570	1480	1510	1640	1610	1630	1080	886	977	1660	1550	1610
30	1580	1560	1570	1640	1620	1630	1330	1090	1210	1670	1610	1640
31	1580	1550	1570	---	---	---	1400	1340	1370	1680	1590	1630
MONTH	1650	1470	1570	1670	442	1470	1710	212	1320	1680	230	1220
FEBRUARY			MARCH			APRIL			MAY			
1	1680	1580	1630	1480	1430	1460	1230	1020	1140	1450	1330	1390
2	1660	1520	1610	1440	611	958	1410	1180	1310	1450	1350	1400
3	1630	1490	1580	920	756	857	1370	1230	1320	1480	1370	1440
4	1620	1510	1590	957	505	798	1130	736	895	1500	1430	1470
5	1570	676	1240	602	438	509	1280	1180	1250	1500	1400	1450
6	1250	492	791	644	518	594	1290	448	699	1460	1390	1420
7	772	374	511	757	651	698	1140	802	975	1470	1310	1360
8	580	372	504	844	564	764	1360	1140	1270	1480	1350	1410
9	438	330	405	649	573	614	1370	1260	1340	1490	1310	1380
10	674	448	591	746	658	702	1430	1360	1400	1470	1320	1400
11	884	672	775	892	758	822	1420	1320	1370	1530	1440	1480
12	928	390	661	1020	899	948	1460	1320	1400	1530	1370	1420
13	498	376	436	1120	1030	1080	1470	1350	1420	1420	1350	1380
14	702	498	609	1190	1110	1140	1470	1420	1450	1450	1340	1400
15	872	706	793	1240	1180	1210	1470	856	1190	1430	1330	1380
16	1040	876	942	1300	1240	1260	1170	931	1050	1400	1190	1280
17	1170	1050	1080	1320	1270	1300	1300	1130	1220	1370	1250	1290
18	1270	1140	1200	1350	1300	1320	1400	1300	1350	1400	1350	1380
19	1320	1220	1270	1380	1320	1360	1430	1340	1390	1420	1300	1380
20	1360	1270	1310	1390	1340	1370	1400	1010	1190	1300	1220	1240
21	1360	1320	1340	1400	684	1210	1280	1100	1190	1240	1100	1140
22	1380	1330	1360	1030	709	903	1340	1280	1310	1280	1140	1210
23	1440	1330	1410	1160	1040	1110	1400	1330	1370	1320	1280	1300
24	1470	1380	1410	1240	1160	1200	1420	1380	1400	1340	1270	1310
25	1430	1360	1400	1310	1250	1280	1390	1120	1220	1310	1270	1290
26	1440	1360	1400	1350	1310	1320	1310	1200	1250	1330	1300	1310
27	1430	1390	1410	1390	1350	1370	1430	1290	1350	1340	1300	1320
28	1450	1400	1420	1420	1320	1380	1440	1320	1390	1360	1320	1340
29	---	---	---	1450	1330	1400	1440	1330	1400	1380	1340	1360
30	---	---	---	1490	1340	1400	1450	1350	1390	1380	1330	1350
31	---	---	---	1340	547	874	---	---	---	1390	1350	1370
MONTH	1680	330	1100	1490	438	1070	1470	448	1260	1530	1100	1360

11176350 ARROYO DE LA LAGUNA ABOVE ARROYO VALLE, NEAR PLEASANTON, CA--Continued

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	1400	1350	1370	1300	1240	1270	1250	1220	1230	1270	1220	1250
2	1370	1320	1360	1320	1290	1300	1380	1220	1300	1270	1230	1250
3	1370	1320	1340	1290	1260	1270	1400	1310	1350	1280	1220	1250
4	1330	1250	1280	1280	1220	1240	1400	1350	1370	1280	1240	1250
5	---	---	---	1220	1190	1200	1370	1260	1310	1320	1220	1260
6	---	---	---	1240	1190	1220	1350	1240	1280	1310	1270	1290
7	1400	1260	1320	1240	1190	1210	1320	1240	1280	1300	1240	1270
8	1380	1230	1320	1280	1190	1240	1350	1250	1290	1290	1230	1260
9	1370	1250	1310	1260	1200	1230	1310	1250	1280	1290	1080	1250
10	1370	1210	1290	1260	1200	1220	1380	1270	1330	1280	1090	1200
11	1300	1190	1230	1240	1190	1220	1360	1270	1310	1300	1250	1280
12	1310	1210	1250	1310	1220	1260	1320	1240	1270	1320	1260	1290
13	1310	1190	1250	1340	1240	1300	1320	1220	1280	1370	1270	1310
14	1320	1230	1260	1330	1250	1290	1320	1190	1240	1410	1260	1320
15	1320	1250	1290	1320	1250	1280	1300	1170	1230	1320	1260	1290
16	1330	1230	1270	1310	1230	1270	1300	1170	1230	1340	1260	1290
17	1310	1170	1240	1320	1240	1270	1290	1130	1200	1330	1250	1270
18	1270	1180	1230	1320	1260	1290	1230	1130	1180	1300	1230	1270
19	1290	1210	1260	1340	1260	1280	1230	1100	1160	1330	1260	1290
20	1290	1230	1260	1330	1230	1270	1200	1100	1160	1330	1230	1290
21	1330	1240	1290	1330	1200	1260	1220	1130	1180	1310	1200	1280
22	1350	1300	1320	1290	1210	1240	1220	1110	1170	1310	1240	1270
23	1330	1260	1310	1300	1190	1240	1220	1110	1170	1300	1260	1270
24	1320	1250	1280	1280	1210	1250	1210	1100	1160	1300	1220	1260
25	1240	1210	1220	1290	1230	1260	1350	1180	1240	1280	1210	1250
26	1220	1170	1190	1290	1210	1240	1350	1150	1230	1330	1230	1280
27	1250	1200	1230	1250	1180	1210	1220	1130	1160	1320	1210	1280
28	1250	1220	1240	1250	1140	1210	1270	1210	1230	1310	1220	1270
29	1260	1230	1250	1240	1200	1220	1280	1220	1250	1290	1230	1250
30	1270	1220	1250	1240	1150	1200	1290	1230	1260	1320	1230	1260
31	---	---	---	1240	1160	1200	1290	1220	1240	---	---	---
MONTH	1400	1170	1280	1340	1140	1250	1400	1100	1240	1410	1080	1270

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	25.0	17.0	20.5	14.0	18.0	12.5	14.0	11.0	16.5	13.0	17.5	14.0
2	25.0	17.5	21.0	14.0	18.0	12.0	14.0	12.5	17.5	13.0	15.5	13.5
3	25.5	17.5	20.0	13.5	18.0	13.5	14.5	13.0	17.5	13.0	15.0	12.0
4	25.5	17.0	21.5	15.0	18.5	13.0	13.5	12.0	14.5	13.0	16.5	13.5
5	24.0	17.5	17.0	13.5	18.5	13.5	12.0	11.5	14.0	12.5	14.5	12.5
6	23.5	16.0	18.0	13.0	17.5	13.0	13.0	11.0	14.0	11.5	16.0	11.5
7	25.5	15.0	18.5	13.0	16.5	13.5	14.0	11.5	13.5	11.5	17.0	12.5
8	23.5	15.5	18.0	12.5	15.5	11.5	---	---	12.0	10.5	16.0	13.5
9	23.5	16.5	18.0	10.5	16.0	11.0	---	---	11.5	10.5	15.5	12.5
10	25.0	16.0	18.0	13.0	15.5	10.5	---	---	12.0	9.5	15.5	12.5
11	24.5	16.5	18.5	14.5	16.5	12.5	---	---	13.0	8.5	15.5	11.5
12	24.5	17.0	19.0	15.0	15.5	13.0	21.5	13.0	11.5	10.0	17.0	11.0
13	24.5	16.0	19.0	13.0	17.0	13.0	---	---	12.0	9.0	17.0	11.5
14	24.5	16.0	18.5	13.0	17.0	13.5	---	---	12.5	9.5	20.0	13.0
15	24.5	17.0	20.5	13.0	14.5	13.0	---	---	14.0	10.0	19.5	12.0
16	23.5	16.5	20.5	13.5	15.0	12.5	---	---	12.5	9.5	20.0	12.5
17	23.5	17.5	19.0	13.0	13.5	11.5	---	---	15.0	11.0	21.0	14.0
18	22.0	16.5	16.0	13.0	13.0	11.0	---	---	16.5	11.0	19.5	15.0
19	21.5	15.5	17.5	12.0	15.0	10.0	---	---	17.0	11.5	22.0	14.0
20	22.0	17.5	16.0	11.5	12.5	11.0	---	---	17.5	11.5	19.0	15.0
21	21.5	13.5	13.5	12.0	14.5	11.0	---	---	18.0	12.5	18.0	15.5
22	22.0	14.5	14.5	12.5	14.5	12.0	---	---	18.5	12.0	18.5	14.5
23	20.5	16.0	17.5	11.0	14.0	12.5	---	---	19.0	13.0	19.5	15.0
24	23.0	16.0	18.5	12.0	14.5	12.5	---	---	18.0	14.0	21.0	12.5
25	24.0	18.0	18.5	11.5	15.0	14.0	---	---	16.0	13.5	22.0	13.5
26	22.5	17.0	19.0	13.0	15.0	13.0	---	---	16.0	13.5	22.0	15.5
27	18.5	16.0	19.0	15.5	16.0	13.0	---	---	17.5	13.0	22.0	15.5
28	21.0	15.5	19.5	15.0	17.5	14.5	15.0	10.5	16.5	12.5	22.5	15.5
29	20.5	16.0	20.0	14.0	16.5	14.5	15.5	11.0	---	---	17.5	15.5
30	21.0	16.5	19.0	13.5	16.0	13.5	13.0	12.5	---	---	18.5	15.0
31	20.0	14.0	---	---	15.5	12.5	16.0	12.0	---	---	17.0	14.5
MONTH	25.5	13.5	21.5	10.5	18.5	10.0	21.5	10.5	19.0	8.5	22.5	11.0

11176350 ARROYO DE LA LAGUNA ABOVE ARROYO VALLE, NEAR PLEASANTON, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	18.0	14.0	25.5	15.0	27.5	19.0	27.5	20.0	30.5	22.0	28.0	20.5
2	21.5	13.5	27.0	17.0	27.5	18.5	26.5	19.5	30.5	21.0	27.5	21.0
3	20.0	14.5	27.0	18.0	28.0	18.5	29.0	19.5	30.5	20.5	28.0	21.0
4	19.5	12.5	25.5	17.5	29.5	19.5	28.5	19.0	30.5	22.0	27.0	22.0
5	18.5	13.0	23.0	16.5	---	---	29.5	19.5	31.5	22.0	24.5	21.0
6	15.0	12.0	25.5	14.5	---	---	30.0	20.0	31.5	22.5	26.0	21.0
7	18.0	11.0	27.5	16.0	31.0	20.5	30.0	20.0	31.5	23.0	26.0	19.5
8	20.5	12.0	27.5	17.0	31.5	19.5	30.5	20.0	31.0	23.0	26.0	18.5
9	23.0	13.5	26.0	17.5	29.5	19.5	31.0	21.5	31.0	23.0	22.0	19.5
10	24.5	15.0	26.0	17.5	29.0	18.5	29.0	20.0	30.0	22.5	25.0	19.0
11	24.0	16.5	26.5	16.5	29.0	19.0	29.0	19.0	29.0	21.5	26.0	19.5
12	23.5	16.5	28.5	16.5	27.5	19.5	28.5	19.5	27.5	20.5	27.0	18.5
13	22.5	17.0	28.5	18.5	29.0	19.0	30.5	20.5	28.0	21.0	27.5	19.5
14	19.0	15.0	27.5	19.0	28.5	18.5	30.5	21.0	28.0	20.0	28.0	18.0
15	15.0	13.0	26.0	18.5	28.5	18.0	29.5	21.0	27.5	20.5	28.0	19.0
16	18.5	12.5	23.5	16.5	29.5	18.0	30.0	20.0	27.5	21.0	27.5	19.5
17	20.5	12.5	27.0	16.5	29.0	18.5	31.0	21.0	27.0	20.0	25.5	20.0
18	22.0	13.5	29.0	17.5	28.5	19.0	31.5	21.5	27.5	19.5	24.0	18.5
19	22.0	14.5	28.0	18.5	29.5	18.5	31.0	21.5	28.0	19.5	24.0	17.0
20	19.0	14.5	28.5	19.0	27.5	19.0	30.0	21.0	27.5	20.0	25.0	16.5
21	22.0	12.0	26.0	18.0	30.0	19.0	30.5	21.0	27.0	20.0	25.5	17.0
22	23.0	13.5	26.0	17.5	29.5	19.0	31.0	21.5	26.0	19.5	26.0	17.5
23	23.5	15.0	25.5	17.0	29.0	18.5	30.0	21.5	26.0	19.0	27.0	18.0
24	19.0	17.0	24.0	16.0	28.0	18.5	31.0	21.5	26.5	19.5	27.5	19.5
25	20.0	15.5	25.0	16.0	29.5	18.5	30.0	21.5	27.0	21.0	27.5	20.0
26	22.5	16.0	26.5	17.0	29.5	19.5	29.5	21.0	26.5	20.5	26.5	20.0
27	24.0	16.0	29.0	18.0	26.0	20.0	29.0	20.5	28.0	19.5	27.0	19.5
28	24.0	16.5	31.0	19.0	28.5	20.0	29.0	20.0	29.0	20.0	26.5	18.0
29	25.0	16.0	31.0	19.0	28.5	20.0	28.5	19.5	28.5	21.0	26.5	19.0
30	21.5	16.0	30.5	20.0	28.0	20.0	29.5	19.5	27.0	20.5	28.0	20.0
31	---	---	29.5	19.5	---	---	30.5	21.0	27.5	20.5	---	---
MONTH	25.0	11.0	31.0	14.5	31.5	18.0	31.5	19.0	31.5	19.0	28.0	16.5

## ALAMEDA CREEK BASIN

11176400 ARROYO VALLE BELOW LANG CANYON, NEAR LIVERMORE, CA

LOCATION.--Lat 37°33'41", long 121°40'58", in NE¼NE¼ sec.30, T.4 S., R.3 E., Alameda County, Hydrologic Unit 18050004, on left bank 100 ft (30 m) upstream from small left-bank tributary, 1.2 mi (1.9 km) downstream from Lang Canyon, and 9.5 mi (15.3 km) southeast of Livermore.

DRAINAGE AREA.--130 mi<sup>2</sup> (337 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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. Altitude of gage is 750 ft (229 m), from topographic map. Prior to June 19, 1975, at site 1.4 mi (2.3 km) upstream at different datum.

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

AVERAGE DISCHARGE.--15 years, 29.0 ft<sup>3</sup>/s (0.821 m<sup>3</sup>/s), 21,010 acre-ft/yr (25.9 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,340 ft<sup>3</sup>/s (151 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 8.90 ft (2.713 m) site and datum then in use; no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft<sup>3</sup>/s (14 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 5	1900	562 15.9	2.15 0.655	Feb. 9	0545	2720 77.0	3.74 1.140
Jan. 9	1500	545 15.4	2.13 .649	Feb. 13	0145	794 22.5	2.40 .732
Jan. 16	1930	*3470 98.3	4.13 1.259	Mar. 5	1200	2700 76.5	3.73 1.137
Feb. 7	1930	1250 35.4	2.80 .853				

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.26	19	25	71	17	3.5	.85		
2			0	.13	16	70	50	15	3.5	.90		
3			0	.09	15	223	39	14	3.1	.85		
4			0	.25	14	605	49	14	2.9	.85		
5			0	176	17	1910	43	13	3.1	.80		
6			0	163	93	754	73	12	2.6	.63		
7			0	21	546	332	85	11	2.7	.60		
8			0	6.5	554	223	60	11	2.7	.60		
9			0	181	1740	229	47	11	2.3	.45		
10			0	192	568	252	40	11	2.1	.27		
11			0	60	268	196	35	10	2.1	.27		
12			0	29	298	176	33	9.4	1.7	.19		
13			0	40	675	143	29	9.1	1.4	.15		
14			0	935	380	121	27	9.1	1.2	.08		
15			0	1250	270	105	33	9.3	1.2	.04		
16			0	1830	213	89	70	8.8	1.2	.02		
17			5.3	1540	162	84	52	8.1	1.1	0		
18			2.9	385	126	76	40	7.4	1.0	0		
19			.79	259	101	69	34	7.1	.87	0		
20			.31	159	78	62	34	7.0	.92	0		
21			1.0	103	65	64	32	6.5	.89	0		
22			1.2	76	55	87	27	6.4	.88	0		
23			10	58	49	69	25	6.0	.93	0		
24			1.5	44	41	56	23	5.6	.90	0		
25			.53	36	36	49	30	5.7	.80	0		
26			.26	32	34	46	29	5.8	.85	0		
27			.17	29	30	43	24	5.6	.86	0		
28			.18	27	27	39	21	5.3	.87	0		
29			.29	25	---	38	19	5.3	.90	0		
30			1.1	22	---	36	17	4.0	.93	0		
31		---	.58	21	---	51	---	3.5	---	0		---
TOTAL	0	0	26.11	7700.23	6490	6322	1191	274.0	50.00	7.55	0	0
MEAN	0	0	.84	248	232	204	39.7	8.84	1.67	.24	0	0
MAX	0	0	10	1830	1740	1910	85	17	3.5	.90	0	0
MIN	0	0	0	.09	14	25	17	3.5	.80	0	0	0
AC-FT	0	0	52	15270	12870	12540	2360	543	99	15	0	0
CAL YR 1977 TOTAL		114.45	MEAN	.31	MAX	10	MIN	0	AC-FT	227		
WTR YR 1978 TOTAL		22060.89	MEAN	60.4	MAX	1910	MIN	0	AC-FT	43760		



11176400 ARROYO VALLE BELOW LANG CANYON, NEAR LIVERMORE, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER TEMPERATURES: Water years 1974 to current year.

SEDIMENT RECORDS: Water years 1974 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1973 to current year.

SEDIMENT RECORDS: October 1973 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,670 mg/L Jan. 16, 1978; minimum daily mean, no flow for many days each year.

SEDIMENT DISCHARGE: Maximum daily, 17,500 tons (15,900 metric tons) Jan. 16, 1978; minimum daily, 0 ton (0 metric ton) on many days each year.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,670 mg/L Jan. 16; minimum daily mean, no flow for many days.

SEDIMENT DISCHARGE: Maximum daily, 17,500 tons (15,900 metric tons) Jan. 16; minimum daily, 0 ton (0 metric ton) on many days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			---	10.0	---	15.0	---	---	---	---		
2			---	11.0	11.5	14.0	---	---	---	---		
3			---	10.0	---	15.0	---	23.5	---	---		
4			---	12.0	---	---	17.0	---	---	---		
5			---	10.0	---	---	15.5	19.5	---	---		
6			---	---	---	---	14.0	---	---	26.0		
7			---	---	11.5	15.5	15.0	---	28.0	26.0		
8			---	13.5	---	14.0	---	---	29.0	---		
9			---	11.0	---	14.0	---	---	---	---		
10			---	10.5	---	13.5	---	24.0	---	---		
11			---	10.5	---	---	---	---	---	26.5		
12			---	12.0	---	15.0	21.0	---	---	---		
13			---	11.5	---	---	21.5	---	---	---		
14			---	11.5	---	---	17.0	---	25.0	---		
15			---	---	---	17.5	---	---	26.0	---		
16			---	11.5	8.0	19.0	---	---	24.0	---		
17			---	12.0	13.0	19.5	17.0	---	---	---		
18			9.0	11.0	---	---	---	---	---	---		
19			7.0	---	---	---	18.0	---	---	---		
20			---	12.0	15.0	---	15.5	---	25.0	---		
21			7.0	---	---	17.0	18.5	---	---	---		
22			---	---	16.0	15.5	---	---	24.0	---		
23			10.0	---	---	16.0	---	---	25.0	---		
24			---	---	14.0	18.5	---	---	---	---		
25			---	---	---	---	17.5	---	---	---		
26			---	8.0	---	---	---	---	---	---		
27			---	---	---	---	20.0	---	23.0	---		
28			---	---	---	---	---	---	25.0	---		
29			---	---	---	15.5	---	---	25.0	---		
30			---	---	---	17.0	---	---	25.0	---		
31			---	---	---	14.5	---	---	---	---		
MEAN			8.5	11.0	12.5	16.0	17.5	22.5	25.5	26.0		

11176400 ARROYO VALLEY BELOW LANG CANYON, NEAR LIVERMORE, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1							0	0	0
2							0	0	0
3							0	0	0
4							0	0	0
5							0	0	0
6							0	0	0
7							0	0	0
8							0	0	0
9							0	0	0
10							0	0	0
11							0	0	0
12							0	0	0
13							0	0	0
14							0	0	0
15							0	0	0
16							0	0	0
17							5.3	25	.98
18							2.9	44	.34
19							.79	20	.04
20							.31	8	.01
21							1.0	26	.07
22							1.2	16	.05
23							10	54	1.8
24							1.5	29	.12
25							.53	16	.02
26							.26	8	.01
27							.17	4	0
28							.18	3	0
29							.29	3	0
30							1.1	20	.06
31							.58	5	.01
TOTAL	0	0	0	0	0	0	26.11	---	3.51

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.26	2	0	19	1	.05	25	2	.14
2	.13	6	0	16	1	.04	70	66	26
3	.09	8	0	15	1	.04	223	203	131
4	.25	5	0	14	1	.04	605	838	2100
5	176	352	381	17	4	.18	1910	2290	12600
6	163	112	83	93	128	47	754	603	1380
7	21	20	1.1	546	819	2050	332	130	117
8	6.5	4	.07	554	316	596	223	70	42
9	181	203	215	1740	2160	11900	229	67	42
10	192	96	67	568	405	688	252	92	64
11	60	12	1.9	268	130	94	196	57	30
12	29	10	.78	298	294	418	176	46	22
13	40	10	1.1	675	649	1280	143	36	14
14	935	1290	4970	380	140	144	121	28	9.1
15	1250	1600	6520	270	59	43	105	23	6.5
16	1830	2670	17500	213	35	20	89	20	4.8
17	1540	1430	7960	162	21	9.2	84	17	3.9
18	385	167	196	126	11	3.7	76	14	2.9
19	259	158	115	101	6	1.6	69	11	2.0
20	159	40	17	78	5	1.1	62	10	1.7
21	103	23	6.4	65	5	.88	64	13	2.2
22	76	15	3.1	55	6	.89	87	36	8.5
23	58	8	1.3	49	5	.66	69	17	3.2
24	44	5	.59	41	4	.44	56	11	1.7
25	36	4	.39	36	4	.39	49	8	1.1
26	32	3	.26	34	3	.28	46	7	.87
27	29	3	.23	30	3	.24	43	7	.81
28	27	2	.15	27	3	.22	39	6	.63
29	25	2	.14	---	---	---	38	6	.62
30	22	2	.12	---	---	---	36	6	.58
31	21	2	.11	---	---	---	51	25	4.1
TOTAL	7700.23	---	38041.74	6490	---	17299.95	6322	---	16623.35

11176400 ARROYO VALLEY BELOW LANG CANYON, NEAR LIVERMORE, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	71	26	5.1	17	7	.32	3.5	4	.04
2	50	9	1.2	15	5	.20	3.5	4	.04
3	39	6	.63	14	3	.11	3.1	4	.03
4	49	28	3.9	14	6	.23	2.9	4	.03
5	43	14	1.6	13	11	.39	3.1	4	.03
6	73	67	17	12	9	.29	2.6	4	.03
7	85	34	7.8	11	8	.24	2.7	4	.03
8	60	11	1.8	11	7	.21	2.7	10	.07
9	47	10	1.3	11	6	.18	2.3	20	.12
10	40	10	1.1	11	19	.56	2.1	25	.14
11	35	10	.94	10	9	.24	2.1	25	.14
12	33	10	.89	9.4	9	.23	1.7	30	.14
13	29	10	.78	9.1	8	.20	1.4	35	.13
14	27	14	1.0	9.1	7	.17	1.2	40	.13
15	33	16	1.4	9.3	7	.18	1.2	25	.08
16	70	40	7.6	8.8	6	.14	1.2	22	.07
17	52	22	3.1	8.1	6	.13	1.1	20	.06
18	40	20	2.2	7.4	8	.16	1.0	22	.06
19	34	18	1.7	7.1	7	.13	.87	23	.05
20	34	16	1.5	7.0	7	.13	.92	25	.06
21	32	14	1.2	6.5	6	.11	.89	15	.04
22	27	12	.87	6.4	6	.10	.88	14	.03
23	25	10	.68	6.0	5	.08	.93	15	.04
24	23	8	.50	5.6	5	.08	.90	15	.04
25	30	17	1.4	5.7	6	.09	.80	15	.03
26	29	16	1.3	5.8	8	.13	.85	15	.03
27	24	16	1.0	5.6	8	.12	.86	15	.03
28	21	14	.79	5.3	7	.10	.87	23	.05
29	19	12	.62	5.3	7	.10	.90	17	.04
30	17	10	.46	4.0	6	.06	.93	16	.04
31	---	---	---	3.5	6	.06	---	---	---
TOTAL	1191	---	71.36	274.0	---	5.47	50.00	---	1.85

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.85	18	.04						
2	.90	20	.05						
3	.85	22	.05						
4	.85	24	.06						
5	.80	25	.05						
6	.63	27	.05						
7	.60	18	.03						
8	.60	16	.03						
9	.45	16	.02						
10	.27	16	.01						
11	.27	15	.01						
12	.19	14	.01						
13	.15	13	.01						
14	.08	12	0						
15	.04	11	0						
16	.02	10	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	0	0	0						
29	0	0	0						
30	0	0	0						
31	0	0	0						
TOTAL	7.55	---	.42	0	0	0	0	0	0

YEAR 22060.89

72047.65

11176400 ARROYO VALLEY BELOW LANG CANYON, NEAR LIVERMORE, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM
JAN										
10...	1000	10.5	196	59	31	--	--	--	--	--
14...	1505	11.5	957	603	1560	32	45	58	72	85
17...	1700	12.0	936	684	1730	33	42	54	66	77
FEB										
07...	1330	11.5	554	1080	1620	35	44	56	70	83
MAR										
07...	1415	15.5	306	88	73	--	--	--	--	--
DATE										
		SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
JAN										
10...	--	99	--	100	--	--	--	--	--	--
14...	93	--	96	--	98	--	100	--	--	--
17...	--	84	--	91	--	96	--	99	100	--
FEB										
07...	91	--	95	--	99	--	100	--	--	--
MAR										
07...	--	89	--	91	--	93	--	95	97	100

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.
					% FINER THAN .062 MM	% FINER THAN .125 MM	% FINER THAN .250 MM	% FINER THAN .500 MM
JUN 07...	1630	28.0	10	2.6	0	1	2	3
DATE	1.00 MM	2.00 MM	4.00 MM	8.00 MM	16.0 MM	32.0 MM	64.0 MM	128 MM
JUN 07...	7	11	15	21	32	50	91	100

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 (274 m) downstream from highway bridge, 1.1 mi (1.8 km) upstream from Dry Creek, 1.3 mi (2.1 km) downstream from Del Valle Dam, 4.1 mi (6.6 km) south of Livermore, and 6.9 mi (11.1 km) southeast of Pleasanton.

DRAINAGE AREA.--147 mi<sup>2</sup> (381 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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 (155.582 m) National Geodetic Vertical Datum of 1929. Prior to November 1914, at site 900 ft (274 m) upstream at different datum. Nov. 1, 1914, to Sept. 30, 1930, at site 300 ft (91 m) upstream at different datum.

REMARKS.--Records good. Flow regulated by Del Valle Reservoir 1.3 mi (2.1 km) upstream beginning in September 1968, capacity, 77,100 acre-ft (95.1 hm<sup>3</sup>). 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 ft<sup>3</sup>/s (0.838 m<sup>3</sup>/s), 21,450 acre-ft/yr (26.4 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft<sup>3</sup>/s (346 m<sup>3</sup>/s) Apr. 2, 1958, gage height, 10.91 ft (3.325 m); no flow at times. Maximum discharge since construction of Del Valle Dam in 1968, 1,080 ft<sup>3</sup>/s (30.6 m<sup>3</sup>/s) Mar. 5, 1978, gage height, 5.58 ft (1.701 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 13.93 ft (4.246 m) from floodmarks, discharge, 18,200 ft<sup>3</sup>/s (515 m<sup>3</sup>/s), on basis of contracted-opening and slope-area measurement of maximum flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,080 ft<sup>3</sup>/s (30.6 m<sup>3</sup>/s) Mar. 5, gage height, 5.58 ft (1.701 m); minimum daily, 0.27 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Nov. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.36	.51	.39	.54	1.7	1.8	1.6	11	13	40	38	34
2	.32	.34	.33	.64	7.4	1.8	1.5	11	13	40	38	34
3	.35	.40	.32	.67	13	1.6	1.5	10	13	40	38	34
4	.39	.51	.38	.80	14	1.8	1.6	11	13	40	37	34
5	.39	.50	.36	1.2	14	400	1.4	10	13	40	37	33
6	.36	.47	.28	.69	9.7	1020	1.9	11	13	40	37	33
7	.39	.53	.29	.51	2.5	812	1.6	10	13	40	38	33
8	.36	.61	.35	.44	1.9	445	1.6	11	13	39	38	33
9	.35	1.0	.44	.81	2.3	442	1.6	9.7	13	36	38	30
10	.41	1.0	.47	.64	206	236	1.5	10	13	37	38	2.0
11	.61	1.2	.52	.51	358	2.7	5.1	9.8	13	37	38	1.7
12	.64	.91	.59	.48	356	2.1	9.9	11	13	37	38	1.6
13	.72	.33	.49	.51	357	1.8	9.9	13	13	37	38	5.8
14	.76	.35	.50	.78	356	1.7	9.9	14	12	37	38	7.9
15	.72	.37	.98	.84	354	1.6	10	15	12	38	38	1.7
16	.61	.34	1.0	1.3	353	1.4	9.7	15	13	38	38	1.6
17	.73	.38	1.3	.94	159	1.4	9.6	15	13	37	38	1.6
18	.75	.57	.69	314	3.7	1.4	9.9	14	12	37	39	4.9
19	.67	.70	.68	200	2.9	1.4	9.9	14	13	36	39	11
20	.67	.47	.70	3.3	2.6	1.4	10	14	13	37	39	11
21	.52	1.0	1.2	2.6	2.6	1.8	10	15	13	37	39	11
22	.47	1.6	1.4	2.2	2.4	1.7	10	14	13	37	36	11
23	.35	.91	1.5	2.0	2.3	1.6	10	14	13	37	26	11
24	.37	.27	.84	1.9	1.8	1.5	10	8.5	13	37	30	11
25	.45	.28	.79	1.8	1.8	1.4	11	13	12	37	30	11
26	.46	.36	.86	1.8	1.8	1.5	11	13	13	37	30	11
27	.61	.36	.71	1.8	1.6	1.4	11	13	13	38	30	8.4
28	.54	.30	.38	1.8	1.7	1.4	11	12	12	38	30	11
29	.43	.35	.49	1.6	---	1.6	11	12	12	38	30	11
30	.38	.33	.45	1.6	---	1.5	11	12	27	38	30	11
31	.54	---	.44	1.7	---	1.7	---	13	---	38	33	---
TOTAL	15.68	17.25	20.12	643.46	2590.7	3396.0	215.7	379.0	398	1175	1104	456.2
MEAN	.51	.58	.65	20.8	92.5	110	7.19	12.2	13.3	37.9	35.6	15.2
MAX	.76	1.6	1.5	314	358	1020	11	15	27	40	39	34
MIN	.32	.27	.28	.44	1.6	1.4	1.4	8.5	12	36	26	1.6
AC-FT	31	34	40	1280	5140	6740	428	752	789	2330	2190	905
CAL YR 1977 TOTAL	399.28			MEAN 1.09	MAX 12	MIN .11	AC-FT 792					
WTR YR 1978 TOTAL	10411.11			MEAN 28.5	MAX 1020	MIN .27	AC-FT 20650					

## ALAMEDA CREEK BASIN

11176500 ARROYO VALLE NEAR LIVERMORE, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953, 1959 to current year.

CHEMICAL ANALYSES: Water years 1953, 1959-66.

WATER TEMPERATURES: Water years 1960-61, 1963 to current year.

SEDIMENT RECORDS: Water years 1963-67.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1959 to September 1961, October 1962 to current year.

SEDIMENT RECORDS: October 1962 to September 1967.

INSTRUMENTATION.--Temperature recorder since October 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 30.5°C June 14, 1966, June 29, 1974; minimum, 4.0°C Jan. 2, Dec. 28, 1966, Dec. 14, 1967.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 28.0°C Aug. 5, 6, 9; minimum, 8.0°C Nov. 20, 21.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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

11176500 ARROYO VALLE NEAR LIVERMORE, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.0	12.5	16.0	12.0	---	---	---	---	26.0	23.0	24.0	21.0
2	13.5	12.0	17.0	12.5	20.0	18.0	---	---	25.5	22.5	23.5	23.0
3	13.0	12.0	19.0	15.5	20.5	18.0	---	---	24.5	22.5	23.5	23.0
4	13.0	12.0	17.5	15.5	21.5	18.0	---	---	26.5	23.0	23.5	23.0
5	12.5	12.0	17.0	15.5	22.5	18.5	---	---	28.0	24.5	23.0	22.5
6	12.0	11.5	18.0	15.5	---	---	---	---	28.0	25.0	22.5	22.0
7	12.0	11.0	19.0	16.0	---	---	---	---	27.0	25.0	22.0	21.0
8	14.5	11.0	20.0	17.0	---	---	---	---	27.0	24.5	21.5	20.5
9	16.0	13.0	18.5	17.0	22.0	20.5	---	---	28.0	24.5	21.0	20.0
10	18.0	14.0	17.5	16.0	21.0	19.5	---	---	26.5	25.0	20.5	19.0
11	16.5	13.5	17.0	16.0	22.0	19.0	---	---	25.5	24.0	19.0	17.0
12	14.5	13.5	19.0	16.0	22.5	20.0	22.0	20.5	24.5	23.5	18.0	17.0
13	14.5	12.5	20.5	17.5	21.5	19.5	24.0	20.0	23.5	22.5	17.5	15.0
14	13.0	12.5	19.0	18.0	20.0	19.0	25.0	21.5	25.0	21.5	15.5	14.5
15	12.5	12.0	18.5	17.5	21.0	19.0	23.5	22.0	25.0	22.0	17.5	15.0
16	13.0	10.5	18.0	16.5	21.0	18.5	24.5	21.0	23.0	22.5	18.0	16.5
17	13.0	11.5	20.5	17.0	22.0	19.0	26.5	22.5	23.0	21.5	17.5	16.0
18	13.5	11.5	20.5	18.5	21.5	20.0	27.0	23.0	23.5	21.5	16.0	13.5
19	13.5	12.0	21.0	19.0	22.0	19.5	27.0	24.0	25.0	21.5	14.0	13.0
20	13.0	12.0	20.0	19.5	21.0	20.0	26.5	23.5	24.0	22.5	13.5	12.5
21	13.5	12.0	19.5	18.5	21.5	20.0	27.0	23.5	22.5	21.5	13.5	12.5
22	14.0	12.0	19.5	18.0	21.0	20.0	27.0	24.5	22.0	21.0	13.5	12.5
23	14.0	12.0	18.0	17.0	20.5	19.0	26.5	24.0	21.0	18.0	14.5	13.0
24	13.5	13.0	18.5	16.5	19.5	19.0	26.5	24.0	21.0	18.5	14.5	13.5
25	13.5	12.5	17.5	14.0	21.0	18.5	25.5	24.0	23.0	20.5	15.0	14.0
26	13.5	12.5	18.0	16.5	21.0	19.0	24.0	23.0	22.5	21.5	14.0	13.5
27	14.0	12.5	21.0	16.0	20.0	19.0	23.5	22.0	21.5	21.0	15.0	13.5
28	14.0	12.5	20.5	17.5	22.5	19.0	23.0	21.5	23.0	20.5	14.5	13.5
29	14.5	12.5	22.0	18.0	21.5	20.5	22.5	21.5	22.5	21.5	15.0	14.0
30	13.5	12.5	22.5	20.0	22.0	20.5	23.5	21.5	22.5	22.0	15.0	14.0
31	---	---	---	---	---	---	26.0	22.0	22.0	21.0	---	---
MONTH	18.0	10.5	22.5	12.0	22.5	18.0	27.0	20.0	28.0	18.0	24.0	12.5

## ALAMEDA CREEK BASIN

11176600 ARROYO VALLE AT PLEASANTON, CA

LOCATION.--Lat 37°40'02", long 121°53'02", in Valle de San Jose Grant, Alameda County, Hydrologic Unit 18050004, on right bank 0.4 mi (0.6 km) northwest of Pleasanton, and 5.8 mi (9.3 km) west of Livermore.

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

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Concrete control since Sept. 2, 1970. Datum of gage is 311.80 ft (95.037 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Del Valle Reservoir 10 mi (16 km) upstream beginning in September 1968, capacity, 77,100 acre-ft (95.1 hm<sup>3</sup>). Water imported from Sacramento-San Joaquin Delta (see REMARKS for station 11176500). Flow regulated by pumping and gravel operations above station.

AVERAGE DISCHARGE.--11 years (1958-68), 27.7 ft<sup>3</sup>/s (0.784 m<sup>3</sup>/s), 20,050 acre-ft/yr (24.7 hm<sup>3</sup>/yr); 10 years (1969-78), 16.5 ft<sup>3</sup>/s (0.467 m<sup>3</sup>/s), 11,950 acre-ft/yr (14.7 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,300 ft<sup>3</sup>/s (320 m<sup>3</sup>/s) Apr. 3, 1958, gage height, 25.36 ft (7.730 m); no flow at times in most years. Maximum discharge since construction of Del Valle Dam in 1968, 1,060 ft<sup>3</sup>/s (30.0 m<sup>3</sup>/s) Feb. 13, 1973, gage height, 11.17 ft (3.405 m); maximum gage height, 11.43 ft (3.484 m) Mar. 3, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 905 ft<sup>3</sup>/s (25.6 m<sup>3</sup>/s) Mar. 7, gage height, 10.87 ft (3.313 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	.11	3.2	0	.54	.22	1.9	21	17
2			0	0	1.8	13	0	.85	.26	10	20	18
3			0	0	3.2	5.1	0	.90	.37	15	20	19
4			0	0	3.6	12	.15	.96	.50	16	20	19
5			0	6.0	7.1	30	0	.46	.37	17	21	19
6			0	.01	17	836	.30	.48	.37	18	20	20
7			0	0	37	865	0	.22	.14	18	20	20
8			0	0	26	479	0	.24	.08	18	20	19
9			0	1.0	31	450	0	0	0	18	20	20
10			0	0	56	386	0	0	0	18	20	19
11			0	0	339	54	0	.02	0	18	20	8.2
12			0	0	366	24	0	.03	0	19	20	2.4
13			0	2.2	380	13	0	0	0	20	20	.34
14			0	20	364	8.2	0	.31	0	19	21	0
15			0	19	364	7.1	0	1.3	0	19	21	0
16			0	19	364	4.2	0	2.1	.31	19	21	0
17			2.8	9.2	307	5.0	0	2.1	.37	20	21	0
18			0	93	48	5.1	0	2.1	.37	21	22	0
19			0	257	23	4.6	0	1.9	.43	20	21	0
20			0	59	16	2.6	0	1.9	.58	20	21	0
21			0	17	10	12	0	2.1	1.5	20	21	0
22			.05	10	8.5	4.6	0	2.1	2.4	20	21	0
23			3.8	6.5	6.6	3.8	0	2.1	.86	20	20	0
24			0	.92	6.7	2.7	.01	2.3	.76	19	16	0
25			0	0	7.1	2.9	1.6	1.9	1.2	18	15	0
26			0	0	6.7	3.2	1.7	.66	.76	19	15	0
27			0	0	4.4	1.5	1.3	.26	1.2	19	15	0
28			0	1.8	4.4	.84	1.2	.43	1.1	20	15	0
29			0	4.0	---	.98	1.1	.43	.86	20	16	0
30			0	2.7	---	.56	1.1	.31	.66	21	16	0
31		---	0	.81	---	4.2	---	.18	---	21	15	---
TOTAL	0	0	6.65	529.14	2808.21	3244.38	8.46	29.18	15.67	561.9	595	200.94
MEAN	0	0	.21	17.1	100	105	.28	.94	.52	18.1	19.2	6.70
MAX	0	0	3.8	257	380	865	1.7	2.3	2.4	21	22	20
MIN	0	0	0	0	.11	.56	0	0	0	1.9	15	0
AC-FT	0	0	13	1050	5570	6440	17	58	31	1110	1180	399
CAL YR 1977	TOTAL	42.25	MEAN	.12	MAX	4.9	MIN	0	AC-FT	84		
WTR YR 1978	TOTAL	7999.53	MEAN	21.9	MAX	865	MIN	0	AC-FT	15870		



## ALAMEDA CREEK BASIN

11176600 ARROYO VALLE AT PLEASANTON, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1975, 1978.

SPECIFIC CONDUCTANCE: Water years 1975 to current year.

WATER TEMPERATURES: Water years 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1974 to current year.

WATER TEMPERATURES: December 1974 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1974.

COOPERATION.--Chemical-quality samples were collected by Alameda County Water District.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 736 micromhos Mar. 30, 1976; minimum, 82 micromhos Mar. 2, 1976.

WATER TEMPERATURES: Maximum, 30.5°C Aug. 6, 8, 1978; minimum, 3.0°C Jan. 1, 1975.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 691 micromhos Mar. 31; minimum, 146 micromhos Apr. 6.

WATER TEMPERATURES: Maximum, 30.5°C Aug. 6, 8; minimum, 8.0°C Jan. 24.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
APR 26...	1035	1.9	531	8.1	17.0	2.0	200	40	24
AUG 02...	1020	20	364	8.5	23.0	1.9	120	25	14

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
APR 26...	61	306	.42	.19	.01	.20	.10	.00
AUG 02...	42	216	.29	.28	.01	.29	.00	.10

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1										---	---	---
2										---	---	---
3										---	---	---
4										---	---	---
5										---	---	---
6										---	---	---
7										---	---	---
8										---	---	---
9										---	---	---
10										---	---	---
11										---	---	---
12										---	---	---
13										---	---	---
14										---	---	---
15										---	---	---
16										341	193	262
17										478	208	360
18										664	396	529
19										627	567	596
20										608	566	579
21										603	585	592
22										625	603	615
23										686	626	640
24										675	631	649
25										---	---	---
26										---	---	---
27										---	---	---
28										---	---	---
29										---	---	---
30										---	---	---
31										---	---	---
MONTH										686	193	536

## ALAMEDA CREEK BASIN

11176600 ARROYO VALLE AT PLEASANTON, CA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	678	642	665	---	---	---	598	584	679
2	---	---	---	670	220	403	---	---	---	609	593	600
3	---	---	---	658	442	590	---	---	---	616	598	608
4	---	---	---	628	370	538	314	266	297	620	602	612
5	---	---	---	648	474	543	---	---	---	625	613	619
6	---	---	---	560	500	520	298	146	208	640	622	630
7	---	---	---	500	492	497	---	---	---	645	625	638
8	---	---	---	502	488	497	---	---	---	650	630	643
9	---	---	---	502	492	499	---	---	---	---	---	---
10	---	---	---	506	498	501	---	---	---	---	---	---
11	---	---	---	540	506	522	---	---	---	659	649	654
12	---	---	---	554	534	546	---	---	---	662	630	651
13	---	---	---	578	554	563	---	---	---	---	---	---
14	---	---	---	578	532	553	---	---	---	676	662	669
15	544	532	536	588	552	572	---	---	---	673	659	667
16	534	526	529	632	592	614	---	---	---	674	668	670
17	528	518	523	618	590	606	---	---	---	676	666	671
18	558	526	543	638	612	627	---	---	---	675	667	671
19	582	560	570	652	626	637	---	---	---	676	662	671
20	602	584	589	656	636	648	---	---	---	675	667	672
21	612	602	606	654	262	507	---	---	---	678	670	674
22	616	578	593	652	342	584	---	---	---	679	671	675
23	624	608	618	656	618	640	---	---	---	680	668	674
24	636	598	618	660	628	640	475	465	470	677	665	672
25	654	632	644	664	618	641	492	456	468	672	660	668
26	666	644	655	670	642	662	529	483	517	669	657	663
27	678	642	659	684	672	678	558	532	544	668	654	664
28	674	618	646	684	676	681	569	553	559	667	649	661
29	---	---	---	681	673	676	580	562	572	666	644	659
30	---	---	---	684	666	677	593	581	585	664	652	659
31	---	---	---	691	379	487	---	---	---	667	645	660
MONTH	678	518	595	691	220	581	593	146	469	680	584	656
JUNE			JULY			AUGUST			SEPTEMBER			
1	668	656	663	---	---	---	373	363	369	444	430	439
2	667	647	659	---	---	---	373	363	369	442	430	439
3	658	644	651	---	---	---	376	368	373	441	427	437
4	653	631	647	---	---	---	380	370	375	438	426	434
5	654	640	649	---	---	---	385	373	379	435	423	429
6	656	642	650	---	---	---	388	376	383	428	416	424
7	660	642	651	---	---	---	396	384	390	428	414	424
8	660	642	652	---	---	---	399	387	394	427	415	422
9	---	---	---	---	---	---	402	392	398	426	404	418
10	---	---	---	---	---	---	405	395	401	421	405	416
11	---	---	---	---	---	---	409	399	405	439	417	424
12	---	---	---	---	---	---	412	402	407	442	418	429
13	---	---	---	428	412	421	411	401	408	474	437	447
14	---	---	---	417	401	410	416	404	410	---	---	---
15	---	---	---	409	389	399	417	407	413	---	---	---
16	620	592	604	397	381	390	423	409	418	---	---	---
17	596	582	592	394	378	386	424	414	420	---	---	---
18	592	586	589	386	370	379	425	415	421	---	---	---
19	590	578	585	380	366	374	428	416	422	---	---	---
20	590	576	583	377	363	372	428	416	424	---	---	---
21	590	576	583	375	361	370	431	421	427	---	---	---
22	---	---	---	375	361	368	432	420	429	---	---	---
23	---	---	---	370	358	365	435	425	431	---	---	---
24	---	---	---	368	356	363	441	429	435	---	---	---
25	---	---	---	369	357	363	440	426	435	---	---	---
26	---	---	---	367	357	363	439	427	435	---	---	---
27	---	---	---	367	359	364	440	428	435	---	---	---
28	---	---	---	370	358	366	439	427	436	---	---	---
29	---	---	---	370	360	367	443	431	439	---	---	---
30	---	---	---	372	360	334	444	430	440	---	---	---
31	---	---	---	373	361	369	445	433	440	---	---	---
MONTH	668	576	626	428	356	375	445	363	412	474	404	429

11176600 ARROYO VALLE AT PLEASANTON, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1					---	---	---	---	---	---	15.5	13.5
2					---	---	---	---	---	---	15.0	13.5
3					---	---	---	---	---	---	15.5	13.0
4					---	---	---	---	---	---	16.0	14.0
5					---	---	12.5	11.5	---	---	17.0	13.5
6					---	---	11.5	11.5	---	---	14.0	12.0
7					---	---	---	---	---	---	12.5	11.5
8					---	---	---	---	---	---	12.5	12.0
9					---	---	14.0	13.0	---	---	12.5	12.0
10					---	---	---	---	---	---	12.0	11.5
11					---	---	---	---	---	---	14.5	11.5
12					---	---	---	---	---	---	16.0	11.5
13					---	---	13.0	12.5	---	---	16.0	11.5
14					---	---	13.0	11.0	---	---	18.0	13.0
15					---	---	12.5	10.5	12.0	11.0	18.5	12.5
16					---	---	13.0	11.5	11.5	11.0	19.5	13.0
17					13.0	12.0	13.0	11.5	12.0	11.0	20.5	14.5
18					---	---	12.0	11.0	14.0	11.0	19.0	15.5
19					---	---	12.0	11.5	15.5	11.0	21.0	15.0
20					---	---	13.5	11.0	15.5	11.0	18.5	16.0
21					---	---	12.5	11.0	16.0	12.0	18.0	15.5
22					13.5	13.5	12.5	10.0	16.5	11.5	19.0	15.5
23					13.5	12.5	11.5	9.0	17.0	13.0	19.0	16.0
24					---	---	10.0	8.0	16.0	14.0	20.0	14.0
25					---	---	---	---	15.0	13.5	21.0	14.5
26					---	---	---	---	14.5	13.5	21.0	16.0
27					---	---	---	---	16.0	12.5	19.5	16.5
28					---	---	---	---	15.0	12.0	20.0	17.0
29					---	---	---	---	---	---	18.5	16.0
30					---	---	---	---	---	---	17.0	15.5
31					---	---	---	---	---	---	17.0	15.5
MONTH					13.5	12.0	14.0	8.0	17.0	11.0	21.0	11.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	21.5	16.5	24.5	21.5	---	---	29.0	23.0	26.5	20.5
2	---	---	23.5	18.0	24.0	20.5	---	---	28.5	22.5	26.5	21.0
3	---	---	23.5	19.0	24.5	20.0	---	---	28.5	22.0	26.0	21.0
4	13.5	12.5	22.0	18.5	26.5	21.0	---	---	28.5	23.0	25.0	22.0
5	---	---	21.0	18.0	26.5	22.0	---	---	29.5	23.0	23.0	21.0
6	15.5	14.0	22.0	17.0	28.0	23.5	---	---	30.5	24.0	24.5	20.5
7	---	---	24.5	18.0	28.0	24.0	---	---	30.0	24.0	23.5	19.5
8	---	---	22.5	18.5	27.0	22.5	---	---	30.5	24.0	24.0	19.0
9	---	---	---	---	---	---	---	---	30.0	24.5	21.0	19.5
10	---	---	---	---	---	---	---	---	29.5	24.0	23.5	19.0
11	---	---	22.0	18.0	---	---	---	---	29.0	23.5	23.5	18.5
12	---	---	23.0	18.0	---	---	---	---	27.0	22.5	22.5	18.0
13	---	---	---	---	---	---	28.0	21.5	27.5	21.5	22.0	19.5
14	---	---	23.5	19.0	---	---	28.5	22.0	28.0	21.5	---	---
15	---	---	23.0	20.0	---	---	28.0	22.0	27.5	22.0	---	---
16	---	---	23.5	18.0	23.5	20.0	28.5	21.5	26.5	21.5	---	---
17	---	---	24.5	18.5	24.5	20.5	29.0	22.5	26.5	20.5	---	---
18	---	---	26.0	19.5	24.0	21.0	29.5	22.5	27.0	21.0	---	---
19	---	---	27.0	20.5	24.0	20.5	29.5	23.0	27.0	20.5	---	---
20	---	---	26.5	21.0	23.5	20.5	29.0	22.5	26.5	21.0	---	---
21	---	---	25.0	20.0	25.0	20.5	29.5	22.5	26.0	21.0	---	---
22	---	---	24.0	19.0	---	---	29.5	23.5	25.5	20.0	---	---
23	---	---	22.5	18.0	---	---	29.0	23.0	25.0	20.0	---	---
24	17.0	17.0	21.0	17.0	---	---	29.5	23.0	25.5	20.0	---	---
25	19.0	16.5	22.5	16.5	---	---	29.0	23.0	25.5	21.0	---	---
26	21.0	16.5	22.0	18.0	---	---	28.5	23.0	25.0	20.5	---	---
27	20.5	17.5	24.0	19.5	---	---	28.5	22.5	26.0	20.0	---	---
28	21.0	17.0	26.5	21.0	---	---	28.0	22.0	26.5	20.0	---	---
29	21.5	17.0	26.5	22.0	---	---	28.0	22.0	26.5	21.0	---	---
30	19.5	17.5	27.0	22.5	---	---	28.5	22.0	25.5	20.5	---	---
31	---	---	26.0	22.5	---	---	29.0	22.0	26.0	20.5	---	---
MONTH	21.5	12.5	27.0	16.5	28.0	20.0	29.5	21.5	30.5	20.0	26.5	18.0

## ALAMEDA CREEK BASIN

11177000 ARROYO DE LA LAGUNA NEAR PLEASANTON, CA

LOCATION.--Lat 37°36'55", long 121°52'50", in Valle de San Jose Grant, Alameda County, Hydrologic Unit 18050004, on right bank 0.3 mi (0.5 km) upstream from small left-bank tributary, 0.8 mi (1.3 km) downstream from highway bridge, and 3.2 mi (5.1 km) south of Pleasanton.

DRAINAGE AREA.--405 mi<sup>2</sup> (1,049 km<sup>2</sup>).

PERIOD OF RECORD.--January 1912 to September 1930, October 1969 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 251.40 ft (76.627 m) National Geodetic Vertical Datum of 1929. January 1912 to September 1917, at site 3.0 mi (4.8 km) upstream at different datum. October 1917 to September 1930, at site 0.8 mi (1.3 km) downstream at different datum.

REMARKS.--Records good. Flow partly regulated by Del Valle Reservoir 15 mi (24 km) upstream, capacity, 77,100 acre-ft (95.1 hm<sup>3</sup>). Water imported from Sacramento-San Joaquin Delta (see REMARKS for station 11176500). Water from South Bay Aqueduct at times imported through Vallecitos Creek 1.5 mi (2.4 km) downstream.

AVERAGE DISCHARGE.--17 years (water years 1913-19, 1921-30), 42.5 ft<sup>3</sup>/s (1.204 m<sup>3</sup>/s), 30,790 acre-ft/yr (38.0 hm<sup>3</sup>/yr); 9 years (water years 1970-78), 46.5 ft<sup>3</sup>/s (1.317 m<sup>3</sup>/s), 33,690 acre-ft/yr (41.5 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 9,810 ft<sup>3</sup>/s (278 m<sup>3</sup>/s) Jan. 25, 1914; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,340 ft<sup>3</sup>/s (94.6 m<sup>3</sup>/s) Jan. 16, gage height, 13.12 ft (3.999 m); minimum daily, 4.9 ft<sup>3</sup>/s (0.14 m<sup>3</sup>/s) Nov. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	7.2	12	14	34	28	53	19	17	11	29	29
2	7.5	7.2	11	15	33	180	37	19	14	24	28	31
3	7.7	6.2	12	21	39	109	28	18	16	31	27	32
4	6.6	6.6	12	40	39	260	97	16	19	31	27	30
5	7.2	17	13	411	88	539	33	14	13	33	28	32
6	7.5	8.9	12	176	186	994	190	15	13	32	30	33
7	6.8	7.9	13	38	763	998	75	15	12	33	29	32
8	5.8	7.3	12	23	328	629	41	14	12	34	30	33
9	8.5	7.1	12	252	1200	858	34	17	11	37	30	33
10	6.2	7.2	12	110	262	481	32	14	9.3	35	32	40
11	5.8	6.9	14	31	350	151	31	14	16	32	34	26
12	6.4	7.6	23	34	716	110	26	13	14	30	34	14
13	5.8	7.8	13	105	978	86	23	16	13	33	37	8.4
14	6.0	7.5	14	865	492	71	22	15	12	32	35	7.5
15	5.6	6.0	175	888	379	62	73	17	11	31	34	10
16	7.7	6.2	21	1390	354	55	50	23	11	31	36	12
17	6.6	5.7	176	1160	304	54	33	19	13	32	37	12
18	6.4	5.3	51	278	101	53	22	16	13	31	36	10
19	6.2	4.9	14	947	64	50	19	18	13	31	35	11
20	6.0	5.5	13	260	51	46	31	20	14	30	36	11
21	6.0	53	13	136	46	127	24	25	8.9	33	35	11
22	6.4	174	37	99	39	134	21	22	10	30	37	11
23	6.8	16	272	74	35	50	20	17	10	32	36	9.0
24	7.7	13	28	53	35	42	32	17	14	31	31	11
25	7.5	13	17	45	32	38	84	20	14	29	30	9.5
26	7.0	12	16	41	31	37	34	16	14	30	30	7.5
27	7.5	13	20	40	30	36	25	15	12	31	30	11
28	5.6	13	12	40	27	31	21	15	13	31	26	10
29	6.4	11	20	45	---	31	20	13	13	32	27	11
30	7.9	12	16	42	---	32	19	16	13	31	29	9.1
31	8.2	---	15	33	---	120	---	15	---	29	30	---
TOTAL	210.2	476.0	1101	7706	7036	6492	1250	523	388.2	953	985	547.0
MEAN	6.78	15.9	35.5	249	251	209	41.7	16.9	12.9	30.7	31.8	18.2
MAX	8.5	174	272	1390	1200	998	190	25	19	37	37	40
MIN	5.6	4.9	11	14	27	28	19	13	8.9	11	26	7.5
AC-FT	417	944	2180	15280	13960	12880	2480	1040	770	1890	1950	1080
CAL YR 1977	TOTAL	4704.0	MEAN	12.9	MAX	272	MIN	4.7	AC-FT	9330		
WTR YR 1978	TOTAL	27667.4	MEAN	75.8	MAX	1390	MIN	4.9	AC-FT	54880		

## 11177200 VALLECITOS CREEK AT SUNOL, CA

LOCATION.--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 (213 m) upstream from mouth, and 0.3 mi (0.5 km) east of Sunol.

DRAINAGE AREA.--7.48 mi<sup>2</sup> (19.37 km<sup>2</sup>).

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

CHEMICAL ANALYSES: Water years 1975 to current year.

SPECIFIC CONDUCTANCE: Water years 1975 to current year.

WATER TEMPERATURES: Water years 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1974 to current year.

WATER TEMPERATURES: November 1974 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1974.

REMARKS.--Differences between unadjusted recorder and field measurement values exceeded ±10 percent micromhos for specific conductance, at times during calibration visits.

COOPERATION.--Chemical-quality samples were collected by Alameda County Water District.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,400 micromhos Nov. 22, 1977; minimum, 117 micromhos Feb. 9, 1978.

WATER TEMPERATURES: Maximum, 28.5°C July 8, 1978; minimum, 2.0°C Jan. 7, 1977.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,400 micromhos Nov. 22; minimum, 117 micromhos Feb. 9.

WATER TEMPERATURES: Maximum, 28.5°C July 8; minimum, 6.0°C Jan. 24.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 09...	1005	844	8.4	9.5	4.0	200	34	27
JAN 25...	1300	780	7.8	13.0	6.0	230	42	30
APR 26...	1010	508	8.3	16.0	.60	160	31	20
AUG 02...	1000	565	8.4	19.0	.60	140	26	19

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
NOV 09...	160	477	.65	.26	.01	.27	.01	.10
JAN 25...	140	450	.61	2.8	.02	2.8	.03	.10
APR 26...	80	299	.41	.10	.00	.10	.00	.10
AUG 02...	80	299	.41	.15	.00	.15	.00	.10

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	1120	1080	1100	1200	1170	1190	1090	1060	1070
2	---	---	---	1110	1020	1070	1200	1160	1170	1060	1030	1040
3	---	---	---	1120	1000	1070	1190	1160	1170	1020	985	1000
4	---	---	---	1120	1060	1090	1190	1170	1180	1150	687	919
5	---	---	---	1040	646	842	1170	1130	1150	935	281	598
6	---	---	---	904	794	853	1140	1120	1130	985	489	786
7	---	---	---	906	838	882	1170	1120	1150	1060	939	1000
8	1120	1100	1110	934	846	893	1180	1160	1170	1200	935	1060
9	1130	1110	1120	972	878	923	1180	1160	1170	1110	486	709
10	1130	1110	1120	1000	904	950	1170	1150	1160	1000	592	846
11	1130	1110	1130	1100	1010	1060	1150	1090	1130	1070	976	1010
12	1130	1100	1120	1130	1090	1100	1140	1040	1130	1160	556	921
13	1120	1090	1110	1130	1090	1120	1140	1130	1130	910	680	858
14	1110	1100	1110	1150	1120	1140	1130	995	1110	652	230	453
15	1120	1100	1110	1160	1120	1140	1110	865	981	576	450	497
16	1120	1110	1120	1160	1110	1140	1050	890	981	622	166	413
17	1120	1110	1120	1160	1110	1130	960	414	749	432	200	336
18	1130	1120	1120	1310	1090	1190	964	742	891	548	438	496
19	1130	1120	1120	1320	1300	1310	1120	968	1040	496	356	414
20	1140	1130	1140	1320	1310	1310	1170	1010	1100	628	506	566
21	1150	1130	1140	1370	1200	1320	1190	1000	1120	674	612	644
22	1150	1130	1140	1400	1150	1230	1170	457	1000	724	678	702
23	1150	1140	1150	1360	1120	1260	955	269	544	806	726	748
24	1160	1120	1140	1360	1330	1340	1150	931	1040	810	760	777
25	1130	1030	1080	1330	1320	1330	1190	1150	1170	830	770	785
26	1110	950	1050	1320	1280	1300	1200	963	1150	826	772	795
27	1090	810	987	1310	1260	1280	1270	1110	1180	826	774	789
28	1070	942	1030	1260	1230	1240	1130	1020	1090	834	780	797
29	1070	956	1000	1230	1200	1210	1210	1080	1160	848	772	800
30	1120	972	1040	1210	1190	1200	1240	1110	1160	801	773	793
31	1120	1040	1090	---	---	---	1140	1100	1120	871	767	807
MONTH	1160	810	1100	1400	646	1130	1270	269	1080	1200	166	756
FEBRUARY			MARCH			APRIL			MAY			
1	825	769	790	755	681	714	676	544	620	732	664	693
2	803	751	765	699	413	544	811	543	714	732	652	691
3	843	727	754	647	485	574	769	657	731	694	644	667
4	819	741	771	698	516	651	674	314	564	680	622	648
5	817	241	678	724	616	668	727	575	656	653	633	643
6	611	235	470	687	669	676	705	331	497	649	627	640
7	511	163	327	727	667	685	614	472	549	673	639	655
8	505	283	405	736	466	641	670	606	642	703	675	687
9	417	117	278	708	602	655	739	655	700	713	701	707
10	563	425	487	698	652	672	783	703	740	721	691	705
11	635	553	599	725	677	690	794	710	741	700	286	647
12	645	427	551	735	679	696	779	697	725	276	260	265
13	443	187	319	746	684	700	765	677	713	372	256	288
14	559	403	491	754	668	700	764	670	711	450	374	412
15	619	547	581	710	654	674	734	438	638	488	438	460
16	681	605	634	759	643	674	667	531	606	487	447	471
17	685	641	663	717	653	678	787	613	689	507	467	492
18	726	670	691	724	664	687	770	688	718	519	479	503
19	746	698	712	742	662	695	754	692	723	531	491	513
20	773	719	730	743	689	716	709	581	659	533	495	517
21	769	723	737	775	187	639	666	580	627	534	500	517
22	772	712	732	583	409	497	714	638	668	542	490	530
23	798	696	725	680	574	630	701	637	669	530	510	520
24	762	708	729	684	632	665	715	611	677	514	454	498
25	757	691	716	705	557	632	664	536	589	542	464	507
26	761	691	719	739	643	702	710	550	609	555	517	530
27	750	698	721	736	682	723	753	657	686	589	547	565
28	772	698	734	744	660	716	769	715	744	591	549	565
29	---	---	---	757	719	735	749	689	719	609	571	586
30	---	---	---	735	681	703	734	668	701	615	583	597
31	---	---	---	672	522	625	---	---	---	615	583	601
MONTH	843	117	625	775	187	666	811	314	668	732	256	559

11177200 VALLECITOS CREEK AT SUNOL, CA--Continued

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	616	566	586	206	202	205	539	521	531	546	496	521
2	574	512	539	208	202	204	562	536	548	504	486	495
3	526	502	512	215	203	208	566	530	548	498	488	494
4	538	512	523	215	201	208	543	507	523	510	494	502
5	542	520	531	220	206	213	529	513	519	510	496	504
6	559	519	533	222	208	214	539	523	531	516	498	506
7	557	283	480	221	211	216	551	537	543	518	492	505
8	333	287	317	361	217	288	557	543	549	496	458	480
9	323	301	309	444	368	411	587	557	575	466	432	454
10	310	300	305	478	446	461	589	547	571	444	422	432
11	302	294	298	507	483	494	557	521	536	456	440	449
12	381	301	336	585	511	552	539	509	521	470	450	462
13	453	349	404	622	244	361	527	509	518	500	464	481
14	482	450	460	250	240	244	527	517	523	500	472	486
15	524	484	511	247	239	243	537	527	531	488	454	469
16	551	521	531	249	235	241	559	525	541	480	460	467
17	565	547	553	254	236	244	531	485	506	484	464	477
18	578	568	571	257	239	248	505	485	494	496	480	488
19	596	580	586	345	251	293	499	487	495	502	490	496
20	621	599	610	420	352	401	503	491	498	510	476	493
21	633	621	628	472	422	439	517	497	509	510	476	491
22	634	618	625	501	473	490	527	511	518	482	438	458
23	624	580	597	496	472	482	517	471	494	453	413	433
24	579	547	561	494	478	487	483	423	451	451	439	444
25	567	553	560	509	487	497	438	396	417	467	451	461
26	905	211	339	532	510	526	418	398	407	479	469	475
27	214	206	209	542	508	522	430	410	424	483	477	480
28	214	208	211	527	499	511	458	430	448	481	467	473
29	219	207	212	517	499	507	480	460	471	475	467	469
30	219	207	210	516	500	507	964	478	556	477	465	469
31	---	---	---	523	507	516	574	540	551	---	---	---
MONTH	905	206	455	622	201	369	964	396	511	546	413	477

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	16.5	11.5	14.5	11.5	11.5	10.5	14.5	10.0	16.0	12.0
2	---	---	17.0	12.0	14.0	10.5	11.5	10.5	14.5	10.0	15.0	13.0
3	---	---	14.5	11.5	14.0	13.0	12.0	11.0	14.5	9.0	15.0	12.0
4	---	---	14.5	10.5	14.5	12.0	12.0	10.5	12.0	9.5	16.5	13.5
5	---	---	14.0	12.0	14.5	12.5	12.0	11.5	12.5	11.0	16.5	12.5
6	---	---	14.0	9.5	14.0	12.0	13.5	11.0	13.5	11.0	18.5	12.0
7	---	---	14.5	9.5	13.5	12.0	13.0	10.0	14.0	11.5	19.0	12.0
8	19.0	15.5	13.0	9.5	13.5	11.5	13.5	11.5	12.0	10.0	15.0	13.5
9	19.0	16.0	13.0	8.5	12.0	10.5	14.0	11.5	12.5	11.0	16.5	13.0
10	19.0	16.0	13.5	9.5	12.5	10.5	14.5	11.5	12.5	10.0	15.0	12.0
11	19.0	16.0	15.0	10.5	13.0	11.0	14.5	11.0	12.5	8.0	15.5	11.0
12	19.5	16.0	15.5	11.5	13.0	11.0	13.0	11.0	11.5	10.0	17.5	10.5
13	19.5	16.0	15.0	11.0	13.0	11.0	13.0	11.5	13.5	9.0	16.0	10.0
14	19.5	16.0	14.0	10.0	13.5	11.5	13.0	11.0	13.5	10.0	20.0	12.5
15	19.5	16.5	14.0	9.5	13.5	10.5	12.5	10.5	13.0	9.5	20.0	10.5
16	18.5	16.5	14.0	9.5	12.0	9.5	13.5	11.5	12.0	8.5	21.0	11.0
17	18.0	16.0	14.0	9.5	13.0	10.0	14.0	11.5	14.5	10.0	21.5	12.5
18	17.5	16.0	13.5	9.5	11.5	8.5	12.5	11.0	15.5	9.5	20.0	13.5
19	17.0	15.5	13.0	11.5	10.0	7.5	13.5	11.0	16.5	9.5	22.0	12.5
20	17.0	15.0	13.5	11.5	8.5	7.0	14.0	11.0	16.5	9.5	19.0	13.5
21	17.0	14.5	13.0	12.5	11.0	8.0	12.5	10.5	17.0	10.5	18.5	14.5
22	17.5	14.5	14.5	11.0	13.0	10.0	13.0	9.0	18.0	10.0	20.0	14.0
23	17.0	15.0	13.5	9.5	14.5	11.5	11.0	7.5	18.0	11.0	18.5	13.5
24	20.0	15.0	13.5	11.0	12.5	10.0	11.0	6.0	15.0	12.5	20.5	11.5
25	20.5	15.5	14.0	11.0	12.0	10.5	11.5	6.5	15.5	12.0	22.0	12.0
26	18.0	15.0	15.5	11.5	12.0	11.0	12.0	6.5	15.0	12.5	21.5	13.0
27	15.5	13.5	14.5	12.5	13.5	11.0	11.5	7.0	15.5	11.5	21.0	14.0
28	16.0	13.0	14.0	12.0	14.0	12.0	13.0	8.0	15.5	10.0	21.0	13.5
29	17.5	13.5	15.0	12.0	13.5	11.5	13.0	8.0	---	---	16.0	14.5
30	17.5	14.0	15.0	12.5	12.5	11.0	10.5	9.0	---	---	17.5	13.5
31	16.0	12.0	---	---	12.0	10.5	14.0	9.0	---	---	16.0	14.0
MONTH	20.5	12.0	17.0	8.5	14.5	7.0	14.5	6.0	18.0	8.0	22.0	10.0

## ALAMEDA CREEK BASIN

11177200 VALLECITOS CREEK AT SUNOL, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	18.0	13.0	22.5	12.0	24.0	17.0	23.5	19.5	22.5	19.0	24.0	17.0
2	20.0	12.0	24.5	13.5	24.5	16.0	23.0	19.0	22.5	18.0	23.5	18.5
3	18.0	12.0	24.5	14.5	24.5	16.5	23.5	19.0	23.0	17.5	21.5	19.0
4	18.5	12.0	22.0	14.0	26.5	17.0	24.0	19.0	23.0	19.0	22.0	19.5
5	17.5	11.5	20.5	13.0	27.0	17.5	24.0	18.5	24.5	20.0	20.5	18.5
6	16.0	12.0	22.0	12.0	28.0	18.5	24.0	19.5	23.0	21.0	20.5	17.5
7	16.0	11.0	22.5	13.0	26.0	18.0	24.5	20.5	22.0	21.0	20.0	17.0
8	20.0	10.5	24.0	14.0	27.5	17.0	28.5	19.0	22.0	20.5	21.5	14.5
9	23.0	11.5	22.5	14.5	25.0	17.0	26.0	19.0	26.0	20.0	19.0	16.0
10	24.0	13.0	20.5	14.5	24.5	16.5	22.5	18.0	24.0	20.0	20.0	16.5
11	23.0	15.0	21.0	13.5	26.0	16.0	20.5	16.5	23.0	19.0	20.5	16.0
12	22.0	15.0	22.0	15.0	25.0	17.0	23.0	16.5	21.0	18.0	21.0	15.5
13	21.0	15.0	24.0	16.5	24.0	17.0	25.5	17.5	21.5	18.0	19.5	15.5
14	17.5	13.0	25.0	15.5	22.0	16.0	26.5	20.5	20.5	17.5	21.0	16.0
15	14.0	12.0	23.5	16.5	22.5	15.0	26.0	20.0	21.5	18.0	21.0	15.5
16	17.0	11.0	23.5	13.5	23.0	15.0	26.5	19.5	21.0	17.5	22.0	16.5
17	21.0	10.5	25.0	13.5	22.5	15.5	27.5	20.5	21.0	16.5	20.0	17.5
18	21.0	11.5	26.0	14.5	19.5	16.5	28.0	21.5	21.5	16.0	17.5	14.5
19	20.0	13.0	26.5	15.5	19.5	15.5	28.0	21.0	21.5	16.5	17.5	13.5
20	17.5	12.5	25.5	16.5	19.5	16.0	25.0	18.5	20.5	18.0	16.0	11.5
21	20.5	11.0	23.0	15.5	21.5	16.0	26.0	18.5	19.5	17.5	18.5	12.0
22	21.0	11.0	23.0	15.0	21.5	16.5	24.0	19.5	21.0	16.5	19.0	12.5
23	21.5	12.0	21.0	13.0	21.5	16.0	22.0	19.0	20.0	16.0	20.0	14.0
24	16.5	14.5	20.5	13.0	21.0	16.0	22.5	19.0	21.5	16.0	20.5	15.5
25	18.0	14.5	22.0	13.0	20.5	15.5	23.5	19.0	23.5	18.0	20.0	16.0
26	19.0	14.0	22.5	15.0	24.0	16.5	22.0	18.5	21.0	18.0	19.0	17.0
27	20.5	14.0	25.5	15.0	21.5	18.0	21.5	17.5	20.0	17.0	20.0	17.0
28	21.0	13.5	26.0	16.5	24.0	19.0	21.5	16.5	20.5	17.0	20.0	14.5
29	22.0	13.0	26.5	16.5	24.5	19.5	23.0	17.0	22.0	18.5	20.0	14.5
30	18.0	13.5	25.5	17.5	24.0	19.5	22.0	17.5	23.0	18.0	20.5	15.5
31	---	---	25.5	16.0	---	---	22.0	18.5	23.5	17.0	---	---
MONTH	24.0	10.5	26.5	12.0	28.0	15.0	28.5	16.5	26.0	16.0	24.0	11.5



## 11179000 ALAMEDA CREEK NEAR NILES, CA

LOCATION.--Lat 37°35'14", long 121°57'35", in NW¼ sec.15, T.4 S., R.1 W., Alameda County, Hydrologic Unit 18050004, on right bank 0.3 mi (0.5 km) downstream from railroad bridge, and 1.2 mi (1.9 km) northeast of Niles.

DRAINAGE AREA.--633 mi<sup>2</sup> (1,639 km<sup>2</sup>).

## 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.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 85.65 ft (26.106 m) National Geodetic Vertical Datum of 1929. Prior to 1901, nonrecording gage at site 1 mi (2 km) upstream at different datum. 1901 to Sept. 30, 1914, nonrecording gage and Oct. 1, 1914, to Sept. 30, 1916, water-stage recorder at site 4.5 mi (7.2 km) upstream at different datum. Oct. 1, 1916, to Dec. 17, 1923, water-stage recorder at site 800 ft (244 m) upstream at different datum.

REMARKS.--Records good. Flow regulated by Calaveras Reservoir, usable capacity, 96,800 acre-ft (119 hm<sup>3</sup>), most of which is diverted for San Francisco water supply, beginning in 1916 although dam not completed until 1925, by San Antonio Reservoir beginning in February 1965, capacity, 51,000 acre-ft (62.9 hm<sup>3</sup>), and by Del Valle Reservoir 23 mi (37 km) upstream beginning in September 1968, capacity, 77,100 acre-ft (95.1 hm<sup>3</sup>). Natural flow of stream affected by imported water from Delta-Mendota Canal beginning in 1962. Other diversions from ground-water basin for irrigation of 9,000 acres (36.4 km<sup>2</sup>) above station.

AVERAGE DISCHARGE.--71 years (water years 1896-1962), 123 ft<sup>3</sup>/s (3.483 m<sup>3</sup>/s), 89,050 acre-ft/yr (110 hm<sup>3</sup>/yr); 16 years (water years 1963-78), 93.0 ft<sup>3</sup>/s (2.634 m<sup>3</sup>/s), 67,380 acre-ft/yr (83.1 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,000 ft<sup>3</sup>/s (821 m<sup>3</sup>/s) Dec. 23, 1955, gage height, 14.9 ft (4.54 m); minimum (water years 1892-1962), no flow at times; minimum daily (water years 1963-78), 1.4 ft<sup>3</sup>/s (0.040 m<sup>3</sup>/s) Dec. 7, 8, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,970 ft<sup>3</sup>/s (112 m<sup>3</sup>/s) Jan. 16, gage height, 7.33 ft (2.234 m); minimum daily, 6.9 ft<sup>3</sup>/s (0.20 m<sup>3</sup>/s) Nov. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	9.6	23	36	27	43	96	29	17	41	29	25
2	34	9.9	22	35	26	211	63	28	15	49	27	26
3	33	9.2	30	44	29	186	52	27	13	58	27	28
4	32	6.9	30	45	28	252	130	25	15	58	27	25
5	32	15	32	446	65	705	67	22	17	67	27	28
6	32	16	32	377	210	944	258	21	14	71	30	29
7	32	11	31	73	859	1020	144	23	14	72	28	28
8	32	11	31	39	416	670	91	20	14	44	27	28
9	34	8.8	30	281	1480	984	73	21	13	33	29	27
10	33	8.3	30	181	371	607	62	22	12	32	28	36
11	31	7.7	32	63	408	228	60	20	16	29	31	25
12	30	8.5	37	42	723	156	55	31	15	27	29	17
13	26	10	32	104	1120	127	48	33	14	38	33	11
14	27	10	31	887	643	105	43	24	14	46	33	8.3
15	26	9.5	155	1310	490	101	80	22	12	45	30	10
16	28	8.4	34	1680	426	84	108	25	13	46	31	10
17	28	8.0	132	2000	391	80	69	26	12	46	33	12
18	27	13	85	466	152	69	54	22	15	45	32	10
19	27	58	25	1130	98	63	48	22	13	35	31	12
20	28	58	21	394	80	59	63	24	13	28	33	11
21	28	77	19	168	72	94	61	27	12	28	32	11
22	29	170	25	119	60	235	41	31	9.5	28	32	8.9
23	30	29	267	89	54	75	39	24	11	31	33	8.0
24	25	29	45	69	51	61	32	20	12	30	29	8.6
25	10	28	22	55	48	53	59	23	15	27	26	7.7
26	9.5	24	19	47	46	50	51	22	21	27	27	7.2
27	11	24	23	42	44	47	41	20	30	29	27	7.6
28	9.0	27	16	42	41	48	33	18	31	29	24	9.3
29	9.5	26	19	41	---	45	31	16	30	34	23	9.1
30	10	26	22	39	---	50	30	18	38	43	25	11
31	10	---	37	33	---	133	---	19	---	37	26	---
TOTAL	785.0	756.8	1389	10377	8458	7585	2082	725	490.5	1253	899	494.7
MEAN	25.3	25.2	44.8	335	302	245	69.4	23.4	16.4	40.4	29.0	16.5
MAX	34	170	267	2000	1480	1020	258	33	38	72	33	36
MIN	9.0	6.9	16	33	26	43	30	16	9.5	27	23	7.2
AC-FT	1560	1500	2760	20580	16780	15040	4130	1440	973	2490	1780	981
CAL YR 1977 TOTAL	11581.0		MEAN 31.7	MAX 267	MIN 5.1	AC-FT 22970						
WTR YR 1978 TOTAL	35295.0		MEAN 96.7	MAX 2000	MIN 6.9	AC-FT 70010						

## 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 ANALYSES: Water years 1906, 1952-67, 1969, 1975 to current year.

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

WATER TEMPERATURES: Water years 1956-73, 1976 to current year.

SEDIMENT RECORDS: 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 TEMPERATURES: July 1956 to September 1973, October 1975 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1975.

REMARKS.--Unpublished records of daily specific conductance are included in extremes and are available in files of district office.

COOPERATION.--The letter "A" following a date indicates chemical-quality samples were collected and specific conductance and pH were furnished by Alameda County Water District.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,530 micromhos Nov. 19, 1977; minimum daily, 225 micromhos Jan. 16, 1978.

WATER TEMPERATURES: Maximum daily recorded, 31.0°C June 1, 1960; minimum daily, 2.5°C Dec. 12, 1972.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,530 micromhos Nov. 19; minimum, 225 micromhos Jan. 16.

WATER TEMPERATURES: Maximum, 26.5°C Aug. 6; minimum, 8.0°C Jan. 24, 25.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT										
12...	1310	31	1170	8.1	--	200	94	31	30	160
NOV										
09...A	0945	8.5	1290	8.0	4.0	250	--	44	34	--
22...	1250	168	338	7.8	--	--	--	--	--	--
DEC										
22...	0930	23	1380	7.7	--	--	--	--	--	--
JAN										
25...A	0940	55	969	8.3	35	300	--	64	34	--
26...	1330	46	1100	8.1	--	--	--	--	--	--
FEB										
14...	1115	611	511	8.1	--	--	--	--	--	--
MAR										
28...	1300	46	1060	8.3	--	--	--	--	--	--
APR										
26...A	0925	48	932	8.0	9.0	270	--	57	32	--
27...	0815	42	1120	8.1	--	--	--	--	--	--
MAY										
22...	1515	33	986	--	--	--	--	--	--	--
JUN										
28...	1100	32	730	8.0	--	--	--	--	--	--
AUG										
02...A	0930	28	677	8.5	6.2	190	--	39	23	--
03...	1410	26	657	--	--	--	--	--	--	--
24...	1500	30	745	8.3	--	--	--	--	--	--
SEP										
14...	1000	8.9	943	7.7	--	--	--	--	--	--

11179000 ALAMEDA CREEK NEAR NILES, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (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)
OCT 12...	62	4.9	8.2	130	0	110	87	230	.3	16
NOV 09...	--	--	--	--	--	--	--	220	--	--
22...	--	--	--	--	--	--	--	--	--	--
DEC 22...	--	--	--	--	--	--	--	--	--	--
JAN 25...	--	--	--	--	--	--	--	110	--	--
26...	--	--	--	--	--	--	--	--	--	--
FEB 14...	--	--	--	--	--	--	--	--	--	--
MAR 28...	--	--	--	--	--	--	--	--	--	--
APR 26...	--	--	--	--	--	--	--	110	--	--
27...	--	--	--	--	--	--	--	--	--	--
MAY 22...	--	--	--	--	--	--	--	--	--	--
JUN 28...	--	--	--	--	--	--	--	--	--	--
AUG 02...	--	--	--	--	--	--	--	75	--	--
03...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
SEP 14...	--	--	--	--	--	--	--	--	--	--

DATE	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, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT 12...	640	652	.87	--	--	4.3	4.5	.00	.02	1.2
NOV 09...	793	--	1.08	17	.03	--	17	--	.03	--
22...	--	--	--	--	--	2.0	2.2	.22	.14	.98
DEC 22...	--	--	--	--	--	13	17	.01	.09	.94
JAN 25...	582	--	.79	5.6	.03	--	5.6	--	.13	--
26...	--	--	--	--	--	5.9	6.2	.10	.12	.66
FEB 14...	--	--	--	--	--	1.4	1.6	.07	.04	.85
MAR 28...	--	--	--	--	--	5.2	6.0	.01	.01	1.1
APR 26...	620	--	.84	5.5	.04	--	5.5	--	.01	--
27...	--	--	--	--	--	6.2	5.3	.01	.01	.77
MAY 22...	--	--	--	--	--	6.4	6.3	.03	.01	.97
JUN 28...	--	--	--	--	--	6.7	6.6	.04	.00	.86
AUG 02...	397	--	.54	4.2	.02	--	4.2	--	.02	--
03...	--	--	--	--	--	4.4	4.5	.00	.02	.80
24...	--	--	--	--	--	4.3	4.4	.03	.03	.95
SEP 14...	--	--	--	--	--	7.9	8.5	.95	.98	1.5

## ALAMEDA CREEK BASIN

11179000 ALAMEDA CREEK NEAR NILES, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. 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, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)	CARBON, ORGANIC TOTAL (MG/L AS C)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT 12...	1.3	1.2	.00	1.3	5.5	3.8	1.7	5.2	4.3	.10
NOV 09...	--	--	--	--	--	--	--	--	--	.30
22...	.96	1.2	.10	1.1	3.2	.86	.75	2.3	--	--
DEC 22...	1.4	.95	.00	1.5	14	8.2	3.1	9.5	6.6	--
JAN 25...	--	--	--	--	--	--	--	--	--	.10
26...	.49	.76	.15	.61	6.7	1.6	1.7	5.2	5.0	--
FEB 14...	.66	.92	.22	.70	2.3	.47	.24	.74	9.8	--
MAR 28...	.89	1.1	.20	.90	6.3	2.1	1.7	5.2	5.6	--
APR 26...	--	--	--	--	--	--	--	--	--	.20
27...	.77	.78	.00	.78	6.1	1.8	1.7	5.2	6.0	--
MAY 22...	1.3	1.0	.00	1.3	7.4	2.0	2.5	7.7	5.4	--
JUN 28...	.79	.90	.11	.79	7.6	2.6	2.5	7.7	5.6	--
AUG 02...	--	--	--	--	--	--	--	--	--	.20
03...	.61	.80	.17	.63	5.2	2.0	2.1	6.4	4.1	--
24...	.68	.98	.27	.71	5.3	2.2	2.0	6.1	4.4	--
SEP 14...	1.6	2.4	.00	2.6	10	4.1	3.3	10	6.3	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	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)
OCT 12...	1310	3	300	520	<10	10	<10
JAN 26...	1330	--	--	770	--	--	--
APR 27...	0815	--	--	1100	--	--	--
AUG 03...	1410	--	--	470	--	--	--

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT 12...	50	<100	.0	0	<10	0
JAN 26...	--	--	--	--	--	--
APR 27...	--	--	--	--	--	--
AUG 03...	--	--	--	--	--	--

11179000 ALAMEDA CREEK NEAR NILES, CA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	1220	1180	1200	---	---	---	1320	1300	1310	1140	1130	1130
2	1200	1180	1190	1480	1450	1470	1380	1300	1330	1130	1120	1130
3	1200	1180	1190	---	---	---	1370	1330	1340	1160	1120	1140
4	1180	1150	1160	---	---	---	1330	1310	1320	1120	1050	1070
5	1170	1150	1160	1460	1420	1430	1320	1310	1320	1070	804	911
6	1190	1170	1180	1470	1050	1350	1320	1300	1310	824	802	813
7	1200	1170	1180	1050	924	977	1310	1280	1290	849	823	836
8	1180	1150	1160	1290	1020	1150	1300	1280	1290	874	846	860
9	1190	1140	1150	1360	1290	1330	1290	1270	1280	922	884	902
10	1230	1170	1190	1380	1360	1380	1300	1280	1290	941	911	926
11	1180	1150	1170	1400	1370	1390	1300	1240	1270	972	940	954
12	1170	1150	1160	1440	1400	1420	1410	1210	1290	991	969	980
13	1180	1170	1170	1480	1440	1460	1160	1060	1090	1010	991	1000
14	1180	1160	1170	1490	1460	1480	1230	1130	1190	1050	1020	1030
15	1200	1170	1190	1490	1450	1480	1180	432	694	1050	999	1010
16	1210	1180	1190	1490	1460	1480	775	523	654	1010	225	734
17	1230	1220	1220	1480	1460	1480	1160	424	754	404	226	303
18	1230	1210	1220	1510	1480	1480	655	445	554	546	408	492
19	1250	1210	1230	1530	1280	1330	902	672	800	528	428	472
20	1260	1250	1260	1290	1280	1280	1150	918	1030	---	---	---
21	1270	1250	1260	1330	1260	1270	1330	1170	1260	---	---	---
22	1270	1250	1270	---	---	---	1480	1300	1400	---	---	---
23	1280	1250	1260	738	534	642	1140	531	649	---	---	---
24	---	---	---	1050	746	902	721	545	625	---	---	---
25	---	---	---	1260	1060	1140	966	722	861	---	---	---
26	---	---	---	1300	1270	1290	1130	973	1050	---	---	---
27	---	---	---	1330	1300	1310	1300	1130	1210	1200	1140	1170
28	---	---	---	1330	1310	1320	1300	1090	1230	1240	1190	1210
29	---	---	---	1330	1310	1320	1220	1080	1130	1310	1250	1280
30	---	---	---	1330	1310	1320	1230	1030	1180	1280	1240	1260
31	---	---	---	---	---	---	1130	1030	1090	1280	1210	1240
MONTH	1280	1140	1200	1530	534	1300	1480	424	1100	1310	225	952
FEBRUARY			MARCH			APRIL			MAY			
1	1360	1230	1280	1160	1130	1140	1020	1000	1010	1190	1150	1170
2	1430	1360	1400	1130	942	1080	1030	1020	1020	1200	1180	1190
3	1460	1420	1450	932	672	762	1040	1030	1040	1220	1180	1200
4	1460	1440	1450	804	630	725	1040	990	1020	1220	1180	1200
5	1420	839	1360	586	558	573	1010	1000	1010	1210	1190	1210
6	977	575	755	646	582	627	1020	988	1010	1230	1200	1210
7	784	304	521	652	538	606	984	952	964	1240	1210	1230
8	586	424	520	638	620	630	960	940	949	1250	1230	1240
9	530	268	346	610	474	511	954	938	947	1230	1180	1200
10	582	364	434	554	502	533	960	860	935	1240	1210	1220
11	614	588	602	682	558	621	960	870	926	1250	1230	1240
12	616	422	554	736	676	705	922	826	887	1250	1100	1200
13	514	470	497	772	724	744	954	888	929	1100	974	1020
14	568	516	542	804	778	787	1000	942	979	1060	934	975
15	583	543	566	822	728	766	984	810	937	1130	1070	1100
16	600	547	575	828	792	814	830	666	709	1170	1130	1160
17	630	600	612	850	828	839	874	750	819	1190	1060	1130
18	792	632	717	898	850	873	934	790	878	1090	1070	1080
19	874	800	842	954	902	930	1040	868	956	1120	1070	1090
20	936	872	907	990	960	976	1050	952	1010	1160	1120	1150
21	956	930	943	1010	926	998	1020	790	881	1120	1020	1090
22	1010	956	982	878	804	831	1050	830	939	994	914	964
23	1030	992	1010	894	860	877	1070	778	931	1010	861	932
24	1090	1020	1050	928	896	912	1090	796	987	1100	1010	1050
25	1110	1090	1100	970	930	948	1150	996	1070	1110	1030	1070
26	1130	1110	1130	1010	970	991	1010	912	965	1100	1070	1090
27	1160	1130	1150	1060	1010	1040	1110	1030	1080	1100	1060	1080
28	1170	1150	1160	1080	1030	1050	1160	1070	1090	1110	1080	1090
29	---	---	---	1090	1040	1070	1180	1160	1170	1120	1080	1090
30	---	---	---	1100	1080	1090	1200	1160	1180	1110	1090	1100
31	---	---	---	1100	976	1060	---	---	---	1110	1080	1100
MONTH	1460	268	873	1160	474	842	1200	666	974	1250	861	1120

11179000 ALAMEDA CREEK NEAR NILES, CA--Continued

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	1100	1080	1090	608	520	565	669	619	651	838	822	831
2	1110	1080	1090	573	521	538	687	662	676	844	824	833
3	1120	1100	1110	576	550	561	673	655	665	836	820	830
4	1110	1080	1100	558	536	547	675	663	669	831	815	824
5	1120	1090	1110	555	531	545	680	662	672	825	813	819
6	1110	1080	1090	540	500	521	684	666	675	827	817	822
7	1100	1080	1090	516	496	505	694	676	686	818	810	814
8	1100	1070	1090	605	513	531	694	680	687	814	796	806
9	1140	1090	1110	698	618	680	703	687	695	806	798	802
10	1150	1120	1130	723	699	713	709	693	702	797	783	790
11	1150	1130	1140	733	715	723	717	695	702	803	789	795
12	1160	1150	1150	750	706	728	724	712	718	865	801	826
13	1160	1140	1150	731	667	712	720	702	712	902	868	885
14	1160	1140	1150	644	584	609	720	700	711	944	906	924
15	1160	1120	1140	599	579	586	724	710	718	1020	946	972
16	1140	1110	1130	595	571	579	725	719	722	1100	1020	1060
17	1150	1120	1140	594	556	571	743	717	731	1120	1090	1100
18	1150	1130	1140	581	547	563	741	719	729	1130	1100	1110
19	1150	1130	1140	590	534	558	742	722	733	1120	1100	1110
20	1130	1120	1120	721	607	692	742	724	733	1120	1100	1110
21	1140	1120	1130	726	686	706	740	728	734	1130	1100	1110
22	1130	1120	1120	741	689	715	746	734	738	1130	1110	1120
23	1130	1110	1120	737	691	718	749	739	744	1130	1110	1120
24	1120	1090	1100	720	658	695	759	745	751	1120	1100	1110
25	1090	1080	1090	725	671	696	771	755	762	1130	1100	1120
26	1080	1010	1040	756	714	735	802	770	782	1130	1120	1130
27	986	784	865	785	753	769	818	800	810	1130	1120	1120
28	772	676	717	790	768	777	824	806	816	1120	1080	1100
29	683	619	652	783	743	769	827	813	820	1140	1110	1120
30	641	605	627	747	631	719	825	817	822	1150	1130	1140
31	---	---	---	680	612	650	833	821	827	---	---	---
MONTH	1160	605	1060	790	496	644	833	619	729	1150	783	975

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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

11179000 ALAMEDA CREEK NEAR NILES, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.5	13.5	18.5	14.0	21.5	19.0	21.0	19.0	24.5	20.5	23.0	19.5
2	16.0	13.0	20.0	15.5	21.5	18.0	20.5	18.5	23.5	20.0	22.5	20.0
3	15.5	13.0	20.0	16.5	21.5	18.0	22.0	18.0	23.5	20.0	22.5	20.5
4	14.5	13.0	19.0	16.0	22.5	18.5	22.5	18.5	24.0	21.0	22.5	20.5
5	14.5	12.5	18.5	15.5	23.0	19.0	22.5	18.5	26.0	21.5	21.5	20.0
6	14.0	12.0	19.0	15.0	24.0	20.0	23.0	19.0	26.5	22.5	21.0	19.0
7	13.0	11.5	20.0	15.5	23.5	20.5	23.0	19.5	26.0	22.5	20.5	18.5
8	15.0	11.5	20.5	16.0	23.0	19.0	24.5	20.0	25.5	22.0	20.0	17.0
9	17.5	12.5	19.5	16.5	22.0	19.5	24.5	21.0	25.5	22.0	19.0	18.0
10	18.5	14.0	18.5	16.5	21.5	18.5	23.0	20.0	24.5	22.0	20.5	18.0
11	19.0	15.5	19.0	15.5	21.5	18.5	21.5	19.0	24.5	21.0	20.5	17.5
12	18.5	16.0	20.5	15.5	21.5	18.5	22.0	18.5	23.0	20.5	20.5	17.5
13	18.0	16.0	21.5	17.5	21.5	19.0	24.0	19.0	23.5	20.0	20.0	17.5
14	16.0	15.0	21.5	18.0	21.0	18.0	24.5	20.5	24.0	19.5	20.5	17.5
15	15.0	13.0	20.0	18.0	21.0	17.5	23.0	20.0	23.5	20.0	20.5	17.5
16	14.0	12.0	20.0	16.0	21.5	17.5	24.0	19.5	22.5	20.0	20.5	18.0
17	15.5	12.0	21.0	16.5	22.0	18.0	25.0	20.5	22.5	19.0	20.0	18.0
18	17.0	13.0	22.0	17.0	21.0	18.5	25.0	21.5	23.0	19.0	19.0	16.0
19	16.5	14.5	22.5	18.0	21.5	18.0	24.5	21.5	23.0	19.5	17.5	15.0
20	16.0	14.5	21.5	18.5	20.5	17.5	24.5	20.5	23.0	19.5	17.5	14.5
21	16.5	13.5	20.5	18.0	21.0	17.5	24.5	20.0	22.5	19.5	18.0	15.0
22	16.5	13.0	20.0	17.0	21.5	18.5	25.0	21.0	22.0	19.5	18.5	15.5
23	17.0	14.0	18.5	16.0	20.5	18.0	24.5	21.0	21.5	18.5	20.0	16.5
24	16.0	15.0	18.0	15.0	21.0	18.0	24.5	20.5	22.0	19.0	20.5	18.0
25	16.5	15.0	19.0	15.5	21.0	17.5	23.5	21.0	22.5	20.0	21.0	18.5
26	17.5	15.0	20.0	16.5	21.5	18.0	23.5	20.5	22.0	20.0	20.5	18.5
27	18.0	15.5	21.0	17.0	20.0	18.5	23.0	20.0	22.0	19.5	21.0	18.5
28	18.5	16.0	22.5	18.5	21.0	18.0	23.0	19.5	22.5	19.0	20.0	17.5
29	18.5	15.5	23.5	19.0	22.0	19.0	23.0	19.0	22.5	19.5	20.0	17.5
30	17.0	15.5	23.0	20.0	21.5	19.0	22.5	19.0	22.0	19.5	20.5	18.0
31	---	---	22.5	19.5	---	---	24.0	19.5	22.5	19.5	---	---
MONTH	19.0	11.5	23.5	14.0	24.0	17.5	25.0	18.0	26.5	18.5	23.0	14.5

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 (274 m) downstream from bridge on State Highway 238 in Decoto District in Union City, and 1.7 mi (2.7 km) upstream from mouth.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 85.12 ft (25.945 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 1, 1959, at site 1.4 mi (2.3 km) downstream at different datum.

AVERAGE DISCHARGE.--22 years, 2.03 ft<sup>3</sup>/s (0.057 m<sup>3</sup>/s), 1,470 acre-ft/yr (1.81 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 930 ft<sup>3</sup>/s (26.3 m<sup>3</sup>/s) Oct. 13, 1962, gage height, 5.27 ft (1.606 m) from outside gage, from rating curve extended above 140 ft<sup>3</sup>/s (3.96 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow most of each year.

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)		Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Jan. 5	1300	50	1.42	2.33	0.710	Feb. 12	1530	106	3.00	2.62	0.799
Jan. 9	1115	111	3.14	2.64	.805	Mar. 4	1600	104	2.95	2.61	.796
Jan. 14	1830	*347	9.83	3.35	1.021	Mar. 9	0515	86	2.44	2.53	.771
Jan. 16	1830	291	8.24	3.20	.975	Mar. 21	2100	62	1.76	2.40	.732
Feb. 7	1115	160	4.53	2.82	.860	Apr. 6	0615	60	1.70	2.39	.728

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	0	1.1	2.7	9.3	1.7	.19			
2		0	0	0	1.1	7.0	6.6	1.5	.21			
3		0	0	0	.98	4.2	5.1	1.3	.19			
4		0	0	.02	.97	21	11	1.3	.16			
5		.03	0	14	3.3	37	5.7	1.2	.11			
6		0	0	4.8	5.2	19	28	1.0	.08			
7		0	0	1.8	35	12	14	.90	.03			
8		0	0	1.1	19	28	9.9	.83	.06			
9		0	0	17	51	43	7.1	.82	.01			
10		0	0	6.7	19	21	5.7	.78	0			
11		0	0	3.3	11	15	5.0	.82	.01			
12		0	0	3.1	34	11	4.6	.97	0			
13		0	0	16	47	7.9	4.2	.79	0			
14		0	.09	78	24	6.9	3.7	.71	0			
15		0	0	82	17	5.6	10	.74	0			
16		0	0	103	12	4.9	6.7	.63	0			
17		0	.14	66	9.1	4.4	4.7	.57	0			
18		0	0	33	7.3	4.0	4.0	.56	0			
19		0	0	40	6.0	3.6	3.5	.50	0			
20		0	0	19	5.1	3.4	4.2	.49	0			
21		.06	0	12	4.6	13	3.4	.52	0			
22		.01	.20	7.5	4.2	7.8	3.0	.56	0			
23		0	.14	5.6	3.8	4.6	2.7	.57	0			
24		0	0	3.9	3.4	3.9	2.9	.54	0			
25		0	0	3.3	3.2	3.4	3.9	.54	0			
26		0	0	2.7	3.1	3.2	3.2	.52	0			
27		0	0	2.5	2.8	3.0	2.5	.54	0			
28		0	0	2.1	2.7	2.8	2.2	.56	0			
29		0	0	1.8	---	2.7	2.0	.44	0			
30		0	0	1.5	---	2.6	1.8	.31	0			
31		---	0	1.3	---	11	---	.16	---			---
TOTAL	0	.10	.57	533.02	336.95	319.6	180.6	23.37	1.05	0	0	0
MEAN	0	.003	.018	17.2	12.0	10.3	6.02	.75	.035	0	0	0
MAX	0	.06	.20	103	51	43	28	1.7	.21	0	0	0
MIN	0	0	0	0	.97	2.6	1.8	.16	0	0	0	0
AC-FT	0	.2	1.1	1060	668	634	358	46	2.1	0	0	0
CAL YR 1977	TOTAL	1.08	MEAN	.003	MAX	.20	MIN	0	AC-FT	2		
WTR YR 1978	TOTAL	1395.26	MEAN	3.82	MAX	103	MIN	0	AC-FT	2770		



## 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 (0.2 km) downstream from effluence from Alameda Creek, 0.2 mi (0.3 km) upstream from bridge on State Highway 17 (Nimitz Freeway), and 2.0 mi (3.2 km) 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 (1.259 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 26, 1966, at site 0.2 mi (0.3 km) downstream at same datum.

REMARKS.--Records fair including those for period of no gage-height record, Mar. 22 to Apr. 26. This stream is a distributary of Alameda Creek. (See REMARKS for Alameda Creek near Niles). Diversion by Alameda County Water District to percolation ponds between station near Niles and this station; additional percolation to ground water by placing check dams in channel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,500 ft<sup>3</sup>/s (297 m<sup>3</sup>/s) Feb. 1, 1963, gage height, 20.4 ft (6.22 m) from floodmarks; no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,430 ft<sup>3</sup>/s (97.1 m<sup>3</sup>/s) Jan. 16, gage height, 10.71 ft (3.264 m) from rating extended above 660 ft<sup>3</sup>/s (18.7 m<sup>3</sup>/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	.01	36	22	71	14	17	.13	.77	.35
2	0	0	0	.01	25	272	35	4.8	43	.08	.67	.17
3	0	0	0	.02	24	246	22	14	30	.10	.50	.17
4	0	0	0	3.3	26	240	106	2.0	19	.11	.46	.16
5	0	4.8	0	469	29	737	38	6.5	9.1	.11	.47	.11
6	0	.76	0	566	143	899	252	.88	.37	.23	.42	.12
7	0	.03	0	123	902	992	124	.01	.74	.18	.40	.79
8	0	0	0	7.2	490	730	66	.01	.96	.23	.40	.10
9	0	0	0	329	1360	978	44	0	.45	.26	.50	.07
10	0	0	0	315	462	618	33	.07	.52	.30	.59	.05
11	0	0	.62	90	322	166	30	0	2.6	.36	.59	1.7
12	0	0	.52	16	778	68	25	0	10	.40	.52	5.9
13	0	0	15	206	1100	58	17	0	6.7	.38	.48	17
14	0	0	6.5	956	674	49	12	.09	1.3	.37	.40	18
15	0	56	212	1360	380	52	55	.01	.02	.47	.44	7.8
16	0	24	82	1660	423	39	80	0	.02	.58	.48	.72
17	0	5.8	139	1930	403	36	39	0	.14	.72	.65	.57
18	0	3.6	196	520	163	27	23	.01	.05	.81	1.6	.32
19	0	1.3	34	1070	66	24	16	.01	.05	7.5	.58	.19
20	0	.72	3.5	403	48	21	32	.04	.05	23	.61	.19
21	0	.78	.56	160	41	22	29	0	.26	13	.55	.19
22	5.3	214	10	56	30	208	9.0	0	.08	.65	.51	.13
23	11	70	418	38	28	45	6.7	0	.07	.42	.59	.08
24	11	4.2	87	24	27	30	8.5	0	.07	.42	.68	.05
25	11	.37	40	17	20	22	28	0	.08	.46	.49	4.9
26	18	75	27	11	20	18	41	0	.07	.60	.40	3.6
27	19	3.9	21	7.1	18	15	31	0	.08	.81	.92	.03
28	6.8	.19	3.5	7.8	18	16	12	.01	.34	1.1	.52	0
29	1.6	.01	1.3	8.6	---	13	16	0	.07	1.3	.83	0
30	.28	.01	.19	4.9	---	18	8.2	.01	.08	.94	.53	0
31	.02	---	.03	129	---	110	---	.03	---	.78	.40	---
TOTAL	84.00	465.47	1297.72	10486.94	8056	6791	1309.4	42.48	143.27	56.80	17.95	63.46
MEAN	2.71	15.5	41.9	338	288	219	43.6	1.37	4.78	1.83	.58	2.12
MAX	19	214	418	1930	1360	992	252	14	43	23	1.6	18
MIN	0	0	0	.01	18	13	6.7	0	.02	.08	.40	0
AC-FT	167	923	2570	20800	15980	13470	2600	84	284	113	36	126
CAL YR 1977 TOTAL	2441.73			MEAN 6.69	MAX 418	MIN 0	AC-FT 4840					
WTR YR 1978 TOTAL	28814.49			MEAN 78.9	MAX 1930	MIN 0	AC-FT 57150					

## SAN LORENZO CREEK BASIN

11181000 SAN LORENZO CREEK AT HAYWARD, CA

LOCATION.--Lat 37°41'11", long 122°03'44", in San Lorenzo Grant, Alameda County, Hydrologic Unit 18050004, on right bank at bridge on B Street, just outside city limits of Hayward, 0.5 mi (0.8 km) downstream from Crow Creek, and 0.9 mi (1.4 km) downstream from Don Castro Dam.

DRAINAGE AREA.--37.5 mi<sup>2</sup> (97.1 km<sup>2</sup>).

PERIOD OF RECORD.--October 1939 to September 1940, October 1946 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1315-B: 1947(M), 1949(M). WSP 1345: 1940(M). WSP 1715: 1947.

GAGE.--Water-stage recorder and concrete control (control ineffective since 1952 due to gravel fill). Datum of gage is 133.16 ft (40.587 m) National Geodetic Vertical Datum of 1929. January to September 1940, nonrecording gage on bridge at present site and datum.

REMARKS.--Records good. Flow partly regulated by Cull Creek Reservoir beginning in October 1962, capacity, 310 acre-ft (382,000 m<sup>3</sup>) and Don Castro Reservoir 0.9 mi (1.4 km) upstream beginning in January 1965, capacity, 380 acre-ft (469,000 m<sup>3</sup>). A few very small diversions above station for irrigation.

AVERAGE DISCHARGE.--33 years, 14.5 ft<sup>3</sup>/s (0.411 m<sup>3</sup>/s), 10,510 acre-ft/yr (13.0 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,460 ft<sup>3</sup>/s (211 m<sup>3</sup>/s) Oct. 13, 1962, gage height, 19.73 ft (6.014 m) from floodmarks, from rating curve extended above 2,700 ft<sup>3</sup>/s (76.5 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; maximum gage height, 20.82 ft (6.346 m), from floodmarks, Dec. 22, 1955; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft<sup>3</sup>/s (9.9 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)				
Jan. 5	1615	382	10.8	7.43	2.265	Feb. 7	1200	917	26.0	9.15	2.789
Jan. 16	1130	*2410	68.3	12.32	3.755	Feb. 12	1445	559	15.8	8.06	2.457
Jan. 19	0030	533	15.1	7.97	2.429	Mar. 8	2015	551	15.6	8.03	2.448

Minimum daily discharge, no flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.02	.09	1.0	20	24	34	10	3.4	1.3	.47	.62
2	0	.02	.09	1.4	19	45	27	9.2	3.7	1.3	.48	.61
3	0	.01	.10	2.4	18	34	27	8.7	3.6	1.3	.42	.60
4	0	.01	.09	31	18	69	43	8.0	3.3	1.4	.39	.62
5	0	1.6	.09	118	29	136	26	8.0	3.1	1.2	.36	.67
6	0	.05	.09	53	46	69	65	7.3	3.1	1.2	.26	.68
7	0	.03	.09	17	182	50	28	8.0	2.8	1.2	.13	.77
8	0	.02	.10	13	114	156	21	7.6	2.8	1.2	.15	.80
9	0	.01	.09	90	233	159	17	8.1	2.5	1.1	.19	1.6
10	0	.01	.09	30	85	83	15	7.9	2.5	.87	.19	1.6
11	0	.01	.82	17	58	68	14	6.4	2.5	.91	.19	.74
12	0	.01	.24	26	185	55	13	8.7	2.4	1.1	.16	.59
13	0	.01	.06	91	182	48	12	8.2	2.3	1.2	.22	.37
14	0	.01	5.3	398	105	43	12	8.4	2.2	1.0	.46	.55
15	0	.02	17	364	79	38	26	8.4	2.3	1.0	.56	.44
16	0	.02	1.1	628	63	35	22	7.6	2.4	1.0	.57	.26
17	0	.01	40	293	51	32	15	6.6	1.9	1.1	.61	.27
18	0	.01	2.3	157	47	30	13	6.0	2.0	.95	.58	.54
19	.01	.01	.85	239	41	28	12	5.8	2.0	.97	.53	.59
20	.01	.01	.65	104	37	28	14	6.5	2.1	.97	.37	.44
21	.01	11	.78	67	34	60	12	5.9	2.2	.91	.45	.48
22	.01	7.6	4.9	50	32	60	11	6.0	2.1	.87	.51	.54
23	.01	.40	17	39	30	45	10	5.6	1.9	.93	.63	.30
24	.01	.13	1.8	33	28	39	10	5.3	1.8	.84	.65	.16
25	.01	.10	1.4	30	26	35	12	5.3	1.6	.86	.55	.42
26	.01	.10	1.4	28	26	34	17	5.0	1.6	.80	.47	.25
27	.03	.10	1.3	26	24	29	11	5.0	1.5	.85	.45	.69
28	.04	.10	1.6	24	23	24	10	4.7	1.5	.84	.59	.56
29	.36	.09	2.0	22	---	24	10	4.4	1.5	.73	.59	.34
30	.05	.09	3.0	21	---	24	10	3.8	1.4	.75	.67	.45
31	.03	---	1.3	20	---	47	---	3.4	---	.43	.67	---
TOTAL	.59	21.61	105.72	3033.8	1835	1651	569	209.8	70.0	31.08	13.52	17.55
MEAN	.019	.72	3.41	97.9	65.5	53.3	19.0	6.77	2.33	1.00	.44	.59
MAX	.36	11	40	628	233	159	65	10	3.7	1.4	.67	1.6
MIN	0	.01	.06	1.0	18	24	10	3.4	1.4	.43	.13	.16
AC-FT	1.2	43	210	6020	3640	3270	1130	416	139	62	27	35
CAL YR 1977	TOTAL	249.81	MEAN	.68	MAX	40	MIN	0	AC-FT	495		
WTR YR 1978	TOTAL	7558.67	MEAN	20.7	MAX	628	MIN	0	AC-FT	14990		

## 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 at Hayward, 700 ft (213 m) upstream from mouth, and 700 ft (213 m) downstream from small left-bank tributary.

DRAINAGE AREA.--5.51 mi<sup>2</sup> (14.27 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 100 ft (30 m), from topographic map. Recording rain gages at Sydney School, altitude, 400 ft (122 m) at site 2.2 mi (3.5 km) northwest of gaging station and at Proctor School, altitude, 420 ft (128 m) at site 2.6 mi (4.2 km) north of gaging station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 665 ft<sup>3</sup>/s (18.8 m<sup>3</sup>/s) Feb. 27, 1973, gage height, 7.15 ft (2.179 m), from rating curve extended above 53 ft<sup>3</sup>/s (1.50 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 3.92 ft (1.195 m) and 6.02 ft (1.835 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft<sup>3</sup>/s (11 m<sup>3</sup>/s) and maximum (\*) from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 21	2320	444 12.6	5.16 1.573	Feb. 5	1155	419 11.9	4.98 1.518
Jan. 14	1745	*664 18.8	7.14 2.176	Feb. 8	2145	533 15.1	5.88 1.792
Jan. 16	0815	546 15.5	5.99 1.826	Mar. 4	1415	405 11.5	4.88 1.487

Minimum daily discharge, no flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	0	.08	.35	.43	3.5	7.5	.88	.30	.24	.30	.19
2	.02	0	.06	3.3	.45	22	2.0	.79	.30	.26	.26	.16
3	.01	.01	.06	5.4	.39	2.0	11	.74	.30	.35	.30	.19
4	.01	.01	.07	14	.38	23	19	.63	.32	.28	.25	.15
5	.01	15	.09	42	12	23	2.1	.60	.32	.28	.22	.19
6	.01	.05	.09	5.6	19	2.8	50	.60	.30	.32	.30	.16
7	.01	.03	.09	.95	56	2.5	6.0	.63	.32	.28	.20	.41
8	.01	.04	.09	3.2	43	72	2.9	.60	.32	.20	.23	.16
9	.01	.02	.08	32	23	26	2.1	.60	.30	.22	.30	6.0
10	.02	.01	.08	1.5	3.5	5.0	1.7	.54	.26	.26	.33	.60
11	0	.01	16	.73	2.0	3.6	1.5	.57	.30	.26	.24	.19
12	0	.01	.70	16	50	2.5	1.3	.54	.30	.30	.17	.20
13	0	.02	.20	48	36	3.4	1.2	.57	.28	.28	.31	.13
14	.01	.01	42	88	4.5	1.9	1.1	.60	.30	.29	.22	.14
15	0	.01	7.7	57	3.7	1.6	42	.57	.28	.19	.19	.14
16	0	.02	1.4	84	2.5	1.5	7.8	.46	.54	.21	.21	.13
17	0	.01	42	24	1.9	1.3	2.1	.46	.37	.35	.27	.18
18	0	.01	1.2	35	1.6	1.2	1.7	.42	.35	.27	.17	.13
19	.01	.01	.50	32	1.4	1.1	1.5	.48	.40	.25	.17	.09
20	.01	.01	.24	3.9	1.2	1.1	5.6	.42	.37	.22	.18	.14
21	.01	63	8.2	2.2	1.1	41	1.4	.40	.48	.26	.16	.12
22	0	5.5	24	1.5	1.0	3.8	1.2	.41	.51	.18	.15	.13
23	.01	.18	2.9	1.0	.93	3.0	1.2	.37	.45	.22	.19	.13
24	.01	.18	.45	.80	.86	1.5	5.8	.35	.32	.22	.18	.14
25	.01	.10	1.2	.71	.81	1.3	7.4	.39	.37	.26	.43	.16
26	0	.08	2.8	.63	.89	1.1	31	.40	.30	.26	.16	.13
27	1.8	.09	.50	.58	.77	.99	1.6	.41	.40	.24	.19	.13
28	2.1	.07	4.9	.54	.72	.93	1.1	.41	.45	.26	.16	.12
29	.26	.08	2.4	.50	---	1.1	1.0	.40	.30	.22	.18	.14
30	.17	.06	6.5	.48	---	.88	.93	.41	.28	.24	.16	.15
31	.01	---	.45	.44	---	54	---	.36	---	.28	.16	---
TOTAL	4.54	84.63	167.03	506.31	270.03	310.60	222.73	16.01	10.39	7.95	6.94	11.03
MEAN	.15	2.82	5.39	16.3	9.64	10.0	7.42	.52	.35	.26	.22	.37
MAX	2.1	63	.42	88	56	72	50	.88	.54	.35	.43	6.0
MIN	0	0	.06	.35	.38	.88	.93	.35	.26	.18	.15	.09
AC-FT	9.0	168	331	1000	536	616	442	32	21	16	14	22
(†)	.36	2.75	4.25	7.68	3.99	5.36	3.70	--	--	--	--	--
(†)	.28	2.70	4.04	7.81	4.15	5.59	3.72	--	--	--	--	--

WTR YR 1978 TOTAL 1618.19 MEAN 4.43 MAX 88 MIN 0 AC-FT 3210

† Precipitation, in inches, at Proctor School.

† Precipitation, in inches, at Sydney School.

## SAN LORENZO CREEK BASIN

11181040 SAN LORENZO CREEK AT SAN LORENZO, CA

LOCATION.--Lat 37°41'03", long 122°08'20", in San Lorenzo (Soto) Grant, Alameda County, Hydrologic Unit 18050004, on left bank 400 ft (122 m) downstream from Washington Avenue bridge in San Lorenzo, and 1.6 mi (2.6 km) upstream from mouth.

DRAINAGE AREA.--44.6 mi<sup>2</sup> (115.5 km<sup>2</sup>).

PERIOD OF RECORD.--October 1967 to September 1978 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 6.13 ft (1.868 m) National Geodetic Vertical Datum of 1929 (levels by Alameda County Flood Control and Water Conservation District).

REMARKS.--Records poor including those for periods of no gage-height record, Jan. 15 to Feb. 9, June 15 to Sept. 30. Flow partly regulated by Cull Creek Reservoir beginning in October 1962, capacity, 310 acre-ft (382,000 m<sup>3</sup>), and Don Castro Reservoir 7 mi (11 km) upstream beginning in January 1965, capacity, 380 acre-ft (469,000 m<sup>3</sup>). A few very small diversions above station.

AVERAGE DISCHARGE.--11 years, 20.9 ft<sup>3</sup>/s (0.592 m<sup>3</sup>/s), 15,140 acre-ft/yr (18.7 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,960 ft<sup>3</sup>/s (112 m<sup>3</sup>/s) Apr. 1, 1974, gage height, 8.22 ft (2.505 m), from rating curve extended above 1,200 ft<sup>3</sup>/s (34.0 m<sup>3</sup>/s); minimum daily, 0.01 ft<sup>3</sup>/s (<0.001 m<sup>3</sup>/s) June 30, July 1, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 850 ft<sup>3</sup>/s (24 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 1,200 ft<sup>3</sup>/s (34.0 m<sup>3</sup>/s):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 16	unknown	*2600 73.6	7.05 2.149	Mar. 8	unknown	999 28.3	5.43 1.655
Feb. 9	do	1390 39.4	5.84 1.780	Apr. 26	0345	1940 54.9	6.41 1.954

Minimum daily discharge, 0.08 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Oct. 11-16, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.40	.11	.20	2.1	43	40	62	20	4.5	1.9	1.1	.94
2	.33	.11	.20	2.1	42	60	42	19	4.5	1.9	1.1	.90
3	.27	.11	.20	2.6	41	49	35	16	5.0	1.8	1.2	.86
4	.22	.11	.21	2.7	40	90	70	15	4.7	1.8	1.0	.82
5	.20	.26	.21	81	62	170	37	14	4.6	1.8	.92	.80
6	.15	.29	.22	61	110	95	162	13	4.4	1.7	.86	.80
7	.13	.21	.23	22	240	75	78	11	4.0	1.7	.70	.84
8	.11	.24	.25	21	180	210	56	11	3.9	1.7	.76	1.0
9	.10	.24	.32	100	400	264	47	9.9	4.2	1.6	.92	1.4
10	.09	.31	.29	34	136	156	41	8.2	4.0	1.6	.92	1.1
11	.08	.31	3.5	21	81	117	38	7.0	3.6	1.6	.91	.85
12	.08	.31	.75	40	168	94	37	9.2	3.5	1.5	.62	.74
13	.08	.31	.17	89	253	84	35	9.0	3.2	1.5	.78	.72
14	.08	.26	.69	469	148	78	33	8.8	2.9	1.5	.90	.85
15	.08	.26	4.2	400	103	66	141	8.7	3.0	1.5	1.1	.75
16	.08	.26	1.5	820	77	60	66	8.4	2.9	1.4	1.1	.68
17	.09	.26	2.3	350	63	55	42	7.5	2.8	1.4	1.1	.73
18	.10	.26	2.4	260	58	51	36	7.0	2.8	1.4	1.0	.85
19	.08	.26	.93	380	54	48	34	6.6	2.7	1.4	.86	.88
20	1.1	.29	.42	190	50	46	51	6.8	2.6	1.4	.60	.64
21	.10	38	5.6	110	45	48	33	6.6	2.6	1.3	.62	.72
22	.10	18	28	82	43	54	31	6.3	2.5	1.3	.69	.78
23	.10	.82	35	68	42	54	30	6.0	2.4	1.3	1.0	.54
24	.10	.60	6.1	60	40	43	38	5.8	2.4	1.3	1.0	.62
25	.10	.51	4.6	52	38	38	43	5.5	2.3	1.3	.88	.70
26	.10	.40	4.6	48	36	37	128	5.5	2.2	1.3	.70	.58
27	1.5	.29	4.0	45	35	34	29	5.6	2.2	1.3	.74	.80
28	.19	.24	4.6	43	34	32	26	6.1	2.1	1.2	.78	.66
29	.50	.21	6.7	46	---	31	23	5.7	2.0	1.2	.84	.52
30	.24	.20	6.1	45	---	31	21	5.5	2.0	1.2	.90	.62
31	.13	---	3.8	44	---	141	---	5.0	---	1.1	.92	---
TOTAL	7.01	64.04	128.29	3990.5	2662	2451	1545	279.7	96.5	45.9	27.52	23.69
MEAN	.23	2.13	4.14	129	95.1	79.1	51.5	9.02	3.22	1.48	.89	.79
MAX	1.5	38	35	820	400	264	162	20	5.0	1.9	1.2	1.4
MIN	.08	.11	.17	2.1	34	31	21	5.0	2.0	1.1	.60	.52
AC-FT	14	127	254	7920	5280	4860	3060	555	191	91	55	47
CAL YR 1977 TOTAL	719.32			MEAN 1.97	MAX 80	MIN .01	AC-FT 1430					
WTR YR 1978 TOTAL	11321.15			MEAN 31.0	MAX 820	MIN .08	AC-FT 22460					

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 (5.8 km) upstream from mouth.

DRAINAGE AREA.--7.79 mi<sup>2</sup> (20.18 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 65.56 ft (19.983 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Minor storage in Lake Anza and Jewel Lake 5 mi (8 km) upstream. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 591 ft<sup>3</sup>/s (16.7 m<sup>3</sup>/s) Jan. 14, 1978, gage-height, 5.95 ft (1.814 m); minimum daily, 0.04 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) Aug. 2, 8, 10, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft<sup>3</sup>/s (4.2 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 5	2230	334 9.46	4.75 1.448	Mar. 5	0700	432 12.2	5.23 1.594
Jan. 14	1845	*591 16.7	5.95 1.814	Mar. 8	2215	173 4.90	3.83 1.167
Jan. 16	1030	559 15.8	5.81 1.771	Apr. 16	1015	184 5.21	3.90 1.189
Feb. 7	0945	254 7.19	4.32 1.317				

Minimum daily discharge, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Oct. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.18	.12	.99	1.6	7.1	16	2.8	.22	.45	.17	.12
2	.07	.35	.15	1.6	1.7	51	8.1	2.1	.25	.40	.17	.12
3	.09	.28	.15	2.6	1.4	52	7.5	1.9	.29	.32	.21	.15
4	.08	1.7	.15	9.7	1.7	94	22	2.0	.35	.30	.23	.11
5	.09	1.2	.18	58	13	177	9.0	2.1	.35	.30	.25	.13
6	.09	.15	.18	57	26	37	46	2.0	.34	.29	.30	.13
7	.08	.10	.23	9.7	80	21	17	1.9	.32	.46	.19	.13
8	.07	.10	.23	5.3	65	64	11	1.6	.32	.42	.22	.13
9	.07	.15	.23	40	88	71	9.0	1.5	.31	.35	.21	1.3
10	.09	.15	.28	12	29	27	7.8	1.6	.23	.25	.23	.13
11	.08	.09	.83	5.7	19	19	7.6	1.6	.16	.21	.23	.12
12	.06	.10	.15	8.3	58	15	7.3	1.5	.15	.30	.22	.11
13	.07	.18	.15	21	60	12	6.7	1.4	.15	.33	.20	.12
14	.08	.15	6.1	155	31	11	6.1	1.2	.13	.29	.20	.10
15	.13	.10	16	100	20	9.1	37	1.2	.47	.29	.17	.12
16	.12	.18	3.0	170	16	7.9	52	1.1	.37	.31	.23	.12
17	.13	.18	53	55	14	7.1	17	1.1	.35	.31	.16	.15
18	.15	.18	8.4	39	12	6.6	11	.88	.37	.29	.17	.13
19	.14	.28	1.6	64	10	6.3	9.0	.64	.35	.26	.17	.14
20	.15	.35	.64	22	8.8	5.9	9.0	.64	.38	.25	.19	.16
21	.14	21	1.7	14	7.9	28	7.2	.66	.46	.23	.15	.17
22	.19	18	14	9.5	7.2	26	6.2	.60	.43	.23	.11	.14
23	.15	1.3	34	7.3	6.6	12	5.4	.56	.49	.21	.12	.13
24	.09	.28	4.9	5.5	6.6	8.5	6.6	.59	.43	.19	.11	.14
25	.11	.15	1.8	4.7	6.3	7.0	6.2	.54	.46	.22	.12	.13
26	.10	.12	1.9	3.9	7.1	6.2	6.6	.48	.41	.22	.15	.11
27	.12	.15	3.1	3.1	5.6	5.6	3.6	.47	.43	.23	.13	.12
28	1.1	.15	1.9	2.6	5.3	5.1	3.1	.43	.48	.21	.12	.13
29	.18	.12	1.8	2.2	---	4.7	2.8	.29	.48	.22	.12	.12
30	.23	.09	2.4	1.9	---	4.7	2.8	.21	.47	.26	.13	.11
31	.23	---	1.5	1.8	---	16	---	.19	---	.20	.13	---
TOTAL	4.57	47.51	160.77	893.39	608.8	824.8	366.6	35.78	10.40	8.80	5.51	5.02
MEAN	.15	1.58	5.19	28.8	21.7	26.6	12.2	1.15	.35	.28	.18	.17
MAX	1.1	21	53	170	88	177	52	2.8	.49	.46	.30	1.3
MIN	.06	.09	.12	.99	1.4	4.7	2.8	.19	.13	.19	.11	.10
AC-FT	9.1	94	319	1770	1210	1640	727	71	21	17	11	10.0

CAL YR 1977 TOTAL 324.10 MEAN .89 MAX 53 MIN .04 AC-FT 643  
WTR YR 1978 TOTAL 2971.95 MEAN 8.14 MAX 177 MIN .06 AC-FT 5890

11181390 WILDCAT CREEK AT VALE ROAD AT RICHMOND, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1977 to current year.  
 WATER TEMPERATURES: Water year 1977 to current year.  
 SEDIMENT RECORDS: Water year 1977 to current year.

PERIOD OF DAILY RECORD.--  
 WATER TEMPERATURES: October 1976 to current year.  
 SEDIMENT RECORDS: October 1976 to current year.

REMARKS.--Total sediment discharge values are reported for days having mean discharge values of 6.0 ft<sup>3</sup>/s (0.17 m<sup>3</sup>/s) or less, except Nov. 4 and 5, when values are reported as suspended sediment discharge.

EXTREMES FOR PERIOD OF DAILY RECORD.--  
 SEDIMENT CONCENTRATIONS: Maximum daily mean, 5,990 mg/L Mar. 5, 1978; minimum daily mean, 1 mg/L on many days in 1976-77.  
 SEDIMENT DISCHARGE: Maximum daily, 4,340 tons (3,940 metric tons) Jan. 14, 1978; minimum daily, 0 ton (0 metric ton) on many days in 1976-78.

EXTREMES FOR CURRENT YEAR.--  
 SEDIMENT CONCENTRATIONS: Maximum daily mean, 5,990 mg/L Mar. 5; minimum daily mean, 3 mg/L many days.  
 SEDIMENT DISCHARGE: Maximum daily, 4,340 tons (3,940 metric tons) Jan. 14; minimum daily, 0 ton (0 metric ton) on many days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	12.0	---	13.5	---	---	---	---
2	---	---	20.0	---	---	---	---	---	---	---	---	---
3	---	---	---	13.0	---	13.0	11.5	---	---	---	21.5	---
4	---	19.0	---	---	---	---	11.0	---	---	---	---	---
5	---	15.0	21.0	11.0	---	---	---	---	---	---	---	---
6	---	---	---	---	12.0	---	---	---	14.5	---	---	---
7	---	19.0	20.0	11.0	11.5	---	---	---	15.0	---	---	---
8	---	---	---	11.5	---	13.0	---	---	---	---	---	---
9	---	19.0	17.5	12.0	11.0	---	---	13.0	17.0	---	---	---
10	---	19.5	---	---	---	12.0	---	16.5	---	---	---	---
11	---	18.5	20.0	10.5	---	---	15.0	13.5	---	---	---	---
12	---	---	16.0	10.5	---	---	---	---	19.5	---	---	---
13	---	---	19.0	---	---	---	---	---	---	---	---	---
14	---	19.0	15.0	---	---	---	---	14.0	---	---	---	---
15	---	---	12.0	---	9.0	13.0	---	---	---	---	---	---
16	---	19.5	---	12.5	---	---	---	14.0	18.0	---	---	---
17	---	---	11.5	---	---	16.0	13.0	---	---	---	---	---
18	20.5	---	---	11.0	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	14.0	---	---	---	---
21	---	---	---	---	11.5	14.5	---	---	---	---	---	---
22	---	---	---	---	---	14.0	---	---	---	---	22.0	---
23	---	15.0	11.0	---	---	14.0	---	13.0	---	---	---	---
24	---	---	10.5	9.0	12.0	---	12.0	---	---	---	---	---
25	---	20.5	---	---	---	---	---	14.0	---	---	---	---
26	---	---	10.0	---	---	---	12.5	---	---	---	---	---
27	---	---	---	9.5	11.5	---	---	---	---	---	---	---
28	---	20.0	---	11.0	12.0	15.0	13.0	---	---	---	---	---
29	---	---	14.0	---	---	---	13.0	---	---	---	---	---
30	---	20.5	---	10.5	---	---	---	---	---	---	---	---
31	---	---	---	10.5	---	---	---	---	---	---	---	---
MEAN	20.5	18.5	15.5	11.0	11.5	13.5	12.5	14.0	17.0	---	22.0	---

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.09	5	0	.18	11	.01	.12	6	0
2	.07	4	0	.35	12	.01	.15	5	0
3	.09	5	0	.28	12	.01	.15	4	0
4	.08	5	0	1.7	57	3.9	.15	5	0
5	.09	6	0	1.2	166	2.7	.18	5	0
6	.09	6	0	.15	24	.01	.18	5	0
7	.08	5	0	.10	18	0	.23	5	0
8	.07	5	0	.10	16	0	.23	5	0
9	.07	4	0	.15	13	.01	.23	5	0
10	.09	6	0	.15	30	.01	.28	6	0
11	.08	7	0	.09	11	0	.83	43	.40
12	.06	5	0	.10	9	0	.15	56	.02
13	.07	6	0	.18	6	0	.15	12	.01
14	.08	5	0	.15	3	0	6.1	105	5.7
15	.13	7	0	.10	5	0	16	272	21
16	.12	6	0	.18	7	0	3.0	37	.56
17	.13	5	0	.18	7	0	53	1970	424
18	.15	5	0	.18	6	0	8.4	264	6.8
19	.14	6	0	.28	5	0	1.6	128	.55
20	.15	7	0	.35	5	0	.64	27	.05
21	.14	7	0	21	809	70	1.7	77	1.7
22	.19	10	.01	18	226	19	14	456	44
23	.15	10	0	1.3	13	.05	34	720	112
24	.09	9	0	.28	6	0	4.9	120	1.6
25	.11	8	0	.15	3	0	1.8	42	.20
26	.10	8	0	.12	3	0	1.9	28	.24
27	.12	8	0	.15	5	0	3.1	28	.24
28	1.1	14	.04	.15	5	0	1.9	10	.05
29	.18	10	0	.12	5	0	1.8	9	.04
30	.23	10	.01	.09	7	0	2.4	7	.05
31	.23	10	.01	---	---	---	1.5	7	.03
TOTAL	4.57	---	.07	47.51	---	95.71	160.77	---	619.24

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.99	6	.02	1.6	5	.02	7.1	61	1.8
2	1.6	12	.05	1.7	5	.02	51	1300	226
3	2.6	19	.13	1.4	5	.02	52	1030	174
4	9.7	198	15	1.7	7	.04	94	2540	741
5	58	1340	685	13	184	26	177	5990	4010
6	57	990	310	26	912	100	37	836	92
7	9.7	86	2.5	80	2140	823	21	320	18
8	5.3	40	.57	65	1340	326	64	1450	469
9	40	1100	179	88	1540	568	71	1100	283
10	12	188	6.6	29	460	36	27	201	15
11	5.7	36	.60	19	320	16	19	110	5.6
12	8.3	87	2.7	58	1440	326	15	86	3.5
13	21	317	42	60	1150	186	12	79	2.6
14	155	4980	4340	31	540	45	11	72	2.1
15	100	2970	904	20	120	6.5	9.1	63	1.5
16	170	4890	3570	16	80	3.5	7.9	57	1.2
17	55	1330	218	14	62	2.3	7.1	44	.84
18	39	798	140	12	50	1.6	6.6	36	.64
19	64	1390	280	10	39	1.1	6.3	32	.54
20	22	620	37	8.8	33	.78	5.9	29	.46
21	14	474	18	7.9	27	.58	28	623	137
22	9.5	330	8.5	7.2	24	.47	26	405	46
23	7.3	207	4.1	6.6	25	.45	12	100	3.6
24	5.5	94	1.4	6.6	30	.53	8.5	45	1.0
25	4.7	37	.47	6.3	21	.36	7.0	33	.62
26	3.9	20	.21	7.1	14	.27	6.2	27	.45
27	3.1	16	.13	5.6	11	.17	5.6	23	.35
28	2.6	13	.09	5.3	10	.14	5.1	19	.26
29	2.2	9	.05	---	---	---	4.7	18	.23
30	1.9	7	.04	---	---	---	4.7	17	.22
31	1.8	6	.03	---	---	---	16	507	28
TOTAL	893.39	---	10766.19	608.8	---	2470.85	824.8	---	6266.51

## CASTRO CREEK BASIN

11181390 WILDCAT CREEK AT VALE ROAD AT RICHMOND, CA---Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	APRIL				MAY				JUNE			
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)			
1	16	525	23	2.8	12	.09	.22	4	0			
2	8.1	392	8.6	2.1	11	.06	.25	6	0			
3	7.5	413	13	1.9	10	.05	.29	7	.01			
4	22	596	47	2.0	11	.06	.35	8	.01			
5	9.0	160	3.9	2.1	10	.06	.35	7	.01			
6	46	1580	251	2.0	9	.05	.34	7	.01			
7	17	200	9.2	1.9	9	.05	.32	5	0			
8	11	98	2.9	1.6	8	.03	.32	5	0			
9	9.0	58	1.4	1.5	8	.03	.31	4	0			
10	7.8	32	.67	1.6	8	.03	.23	6	0			
11	7.6	15	.31	1.6	7	.03	.16	8	0			
12	7.3	11	.22	1.5	7	.03	.15	10	0			
13	6.7	11	.20	1.4	7	.03	.15	9	0			
14	6.1	10	.16	1.2	6	.02	.13	8	0			
15	37	1490	224	1.2	6	.02	.47	10	.01			
16	52	1860	357	1.1	5	.01	.37	6	.01			
17	17	200	9.2	1.1	5	.01	.35	6	.01			
18	11	34	1.0	.88	4	.01	.37	7	.01			
19	9.0	25	.61	.64	4	.01	.35	7	.01			
20	9.0	25	.61	.64	3	.01	.38	8	.01			
21	7.2	15	.29	.66	7	.01	.46	11	.01			
22	6.2	12	.20	.60	6	.01	.43	11	.01			
23	5.4	10	.15	.56	6	.01	.49	10	.01			
24	6.6	52	.93	.59	6	.01	.43	10	.01			
25	6.2	67	1.1	.54	7	.01	.46	9	.01			
26	6.6	92	1.6	.48	6	.01	.41	9	.01			
27	3.6	28	.27	.47	5	.01	.43	10	.01			
28	3.1	16	.13	.43	5	.01	.48	10	.01			
29	2.8	11	.08	.29	5	0	.48	9	.01			
30	2.8	10	.08	.21	4	0	.47	9	.01			
31	---	---	---	.19	4	0	---	---	---			
TOTAL	366.6	---	958.81	35.78	---	.77	10.40	---	.20			
DAY	JULY				AUGUST				SEPTEMBER			
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)			
1	.45	8	.01	.17	4	0	.12	3	0			
2	.40	7	.01	.17	6	0	.12	3	0			
3	.32	6	.01	.21	6	0	.15	4	0			
4	.30	6	0	.23	7	0	.11	4	0			
5	.30	5	0	.25	8	.01	.13	4	0			
6	.29	5	0	.30	7	.01	.13	3	0			
7	.46	10	.01	.19	7	0	.13	3	0			
8	.42	10	.01	.22	8	0	.13	3	0			
9	.35	9	.01	.21	7	0	1.3	40	.14			
10	.25	9	.01	.23	8	0	.13	19	.01			
11	.21	8	0	.23	7	0	.12	7	0			
12	.30	8	.01	.22	7	0	.11	6	0			
13	.33	7	.01	.20	6	0	.12	6	0			
14	.29	7	.01	.20	6	0	.10	5	0			
15	.29	7	.01	.17	5	0	.12	5	0			
16	.31	6	.01	.23	6	0	.12	5	0			
17	.31	6	.01	.16	5	0	.15	6	0			
18	.29	6	0	.17	5	0	.13	5	0			
19	.26	6	0	.17	4	0	.14	4	0			
20	.25	6	0	.19	5	0	.16	5	0			
21	.23	5	0	.15	4	0	.17	5	0			
22	.23	5	0	.11	4	0	.14	4	0			
23	.21	5	0	.12	4	0	.13	4	0			
24	.19	4	0	.11	4	0	.14	4	0			
25	.22	4	0	.12	4	0	.13	4	0			
26	.22	4	0	.15	3	0	.11	3	0			
27	.23	4	0	.13	3	0	.12	3	0			
28	.21	4	0	.12	3	0	.13	3	0			
29	.22	4	0	.12	3	0	.12	3	0			
30	.26	4	0	.13	3	0	.11	3	0			
31	.20	4	0	.13	3	0	---	---	---			
TOTAL	8.80	---	.13	5.51	---	.02	5.02	---	.15			
YEAR	2971.95		21178.65									



11181390 WILDCAT CREEK AT VALE ROAD AT RICHMOND, CA---Continued

## SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1977	4.57	0.07	0	0
NOVEMBER ...	47.51	95.71	2	98
DECEMBER ...	160.77	619.24	15	634
JANUARY 1978	893.39	10766.19	201	11000
FEBRUARY ...	608.80	2470.85	80	2550
MARCH .....	824.80	6266.51	145	6410
APRIL .....	366.60	958.81	19	978
MAY .....	35.78	0.77	0	1
JUNE .....	10.40	0.20	0	0
JULY .....	8.80	0.13	0	0
AUGUST .....	5.51	0.02	0	0
SEPTEMBER ..	5.02	0.15	0	0
TOTAL .....	2971.95	21178.65	462	21670

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
DEC 17...	0835	11.5	86	4060	943	45	49	62
JAN 05...	1435	11.0	26	638	45	62	73	84
09...	1355	12.0	48	1370	178	36	46	58
16...	0905	10.5	516	16700	23300	34	40	52
16...	1230	12.5	309	9270	7730	27	33	42
16...	1250	12.5	284	8960	6870	25	29	40
FEB 07...	1210	11.5	176	5590	2660	27	33	42

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
DEC 17...	76	89	95	98	100	--	--
JAN 05...	93	98	99	100	--	--	--
09...	72	81	90	97	100	--	--
16...	63	75	84	96	100	--	--
16...	51	61	71	85	97	100	--
16...	49	58	69	83	96	100	--
FEB 07...	52	61	71	83	93	99	100

## CASTRO CREEK BASIN

11181390 WILDCAT CREEK AT VALE ROAD AT RICHMOND, CA---Continued

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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
AUG								
22...	0930	1	.10	1	2	7	21	35
22...	0935	1	.10	1	1	3	11	23
22...	0940	1	.10	1	1	3	9	18
22...	0945	1	.10	0	1	2	5	9
22...	1000	1	.10	1	1	4	6	8
22...	1005	1	.10	0	1	2	5	12
22...	1010	1	.10	0	1	3	13	26
22...	1015	1	.10	1	2	7	24	44

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							
22...	47	60	75	90	97	100	--
22...	34	43	53	77	91	100	--
22...	26	33	41	55	75	100	--
22...	14	18	22	34	54	100	--
22...	12	21	30	48	69	100	--
22...	22	32	43	52	62	86	100
22...	39	53	70	83	89	100	--
22...	65	84	95	100	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SEDIMENT IN TRANSIT WITHIN 0.25 FOOT OF BED SURFACE,  
WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (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 .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
NOV								
04...	1020	19.0	--	.23	--	.00	--	--
10...	1445	19.5	--	.12	--	.00	--	--
JAN								
16...	1200	12.5	12	354	25	67	2	4
16...	1535	12.5	8	171	22	29	2	5
FEB								
07...	1145	11.5	5	213	20	63	2	5
MAY								
10...	1250	16.5	--	1.8	--	.00	--	--
JUN								
16...	0920	18.0	--	1.3	--	.00	--	--

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	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
NOV								
04...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
JAN								
16...	11	20	26	38	60	77	80	100
16...	24	66	75	83	89	94	96	100
FEB								
07...	18	53	71	82	90	96	100	--
MAY								
10...	--	--	--	--	--	--	--	--
JUN								
16...	--	--	--	--	--	--	--	--

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 (15 m) downstream from Santa Fe Railway bridge at San Pablo, and 0.7 mi (1.1 km) upstream from mouth.

DRAINAGE AREA.--1.49 mi<sup>2</sup> (3.86 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 13.63 ft (4.154 m) Corps of Engineers datum. Prior to Aug. 13, 1965, at site 0.2 mi (0.3 km) upstream at datum 7.74 ft (2.359 m) higher.

REMARKS.--Records fair including those for period of no gage-height record, Jan. 9 to Feb. 9. Low flow affected by return flow from industrial waste, leakage, and infrequent releases from off-stream North Reservoir.

AVERAGE DISCHARGE.--17 years (water years 1962-78), 1.36 ft<sup>3</sup>/s (0.039 m<sup>3</sup>/s), 985 acre-ft/yr (1.21 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 477 ft<sup>3</sup>/s (13.5 m<sup>3</sup>/s) Dec. 20, 1969, gage height, 6.95 ft (2.118 m), from rating curve extended above 150 ft<sup>3</sup>/s (4.25 m<sup>3</sup>/s); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft<sup>3</sup>/s (4.2 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 150 ft<sup>3</sup>/s (4.25 m<sup>3</sup>/s):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)				
Nov. 21	1000	194	5.49	4.90	1.494	Jan. 14	1730	*396	11.2	6.44	1.963
Dec. 17	0445	287	8.13	5.67	1.728	Feb. 7	0915	229	6.49	5.21	1.588
Dec. 22	1845	159	4.50	4.56	1.390	Mar. 5	0730	164	4.64	4.61	1.405
Jan. 9	0700	159	4.50	4.56	1.390	Mar. 21	1815	203	5.75	4.98	1.518

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	.35	.49	2.4	1.5	.39	0	0	.01	0
2	0	0	0	1.9	.41	10	.35	.39	0	0	0	0
3	0	0	0	1.0	.38	4.8	2.8	.48	0	0	0	0
4	0	2.7	0	7.4	.35	19	3.3	.37	0	0	0	0
5	0	3.0	0	15	13	16	.32	.36	0	0	0	0
6	0	0	0	1.9	12	1.5	16	.38	0	0	0	0
7	0	0	0	.37	33	.93	.51	.55	0	0	0	0
8	0	0	0	.38	18	17	.36	.37	0	0	0	0
9	0	0	0	22	4.6	8.9	.32	.57	0	0	0	5.0
10	0	0	0	1.6	1.3	1.4	.31	.44	0	0	0	.09
11	0	0	1.6	.49	.92	.92	.30	.29	0	0	0	0
12	0	0	.02	8.0	19	.73	.30	.32	0	0	0	0
13	0	0	0	10	8.0	.66	.29	.45	0	.09	0	0
14	0	0	11	43	1.7	.59	.27	.35	0	0	0	0
15	0	0	1.8	25	1.2	.57	21	.38	0	0	0	0
16	0	0	3.9	41	.82	.55	3.4	.22	.01	0	0	0
17	0	0	38	4.0	.72	.46	.46	.15	0	.01	0	0
18	0	0	.34	11	.66	.41	.37	.30	0	0	.01	0
19	0	0	.12	6.7	.60	.41	.35	.47	0	0	0	0
20	0	0	.05	1.6	.55	.36	.38	.23	0	0	0	0
21	0	48	2.1	1.2	.53	13	.30	.20	0	0	0	0
22	0	1.5	19	1.1	.50	1.2	.29	.17	0	.01	0	0
23	0	.04	1.8	1.1	.48	2.5	.32	.12	0	0	0	0
24	0	0	.20	1.0	.48	.46	2.3	.20	0	0	0	0
25	0	0	.11	.95	.45	.39	2.1	.20	0	0	0	0
26	0	0	1.5	.89	1.2	.35	1.5	.35	0	0	0	0
27	0	0	2.7	.83	.48	.30	.39	.28	0	0	0	0
28	1.9	0	1.1	.72	.43	.28	.35	.23	0	0	0	0
29	.73	0	.52	.62	---	.26	.39	.19	0	0	0	0
30	0	0	1.1	.57	---	.27	.46	.04	0	0	0	0
31	0	---	.15	.49	---	9.8	---	0	---	0	0	---
TOTAL	2.63	55.24	87.11	212.16	122.25	116.40	61.29	9.44	.01	.11	.02	5.09
MEAN	.085	1.84	2.81	6.84	4.37	3.75	2.04	.30	.0003	.004	.0006	.17
MAX	1.9	48	38	43	33	19	21	.57	.01	.09	.01	5.0
MIN	0	0	0	.35	.35	.26	.27	0	0	0	0	0
AC-FT	5.2	110	173	421	242	231	122	19	.02	.2	.04	10
CAL YR 1977	TOTAL	217.62	MEAN	.60	MAX	48	MIN	0	AC-FT	432		
WTR YR 1978	TOTAL	671.75	MEAN	1.84	MAX	48	MIN	0	AC-FT	1330		

11182400 ARROYO DEL HAMBRE AT MARTINEZ, CA

LOCATION.--Lat 38°00'12", long 122°07'44", in Las Juntas Grant, Contra Costa County, Hydrologic Unit 18050001, on right bank 40 ft (12 m) upstream from D Street Bridge in Martinez.

DRAINAGE AREA.--15.1 mi<sup>2</sup> (39.1 km<sup>2</sup>).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 48.33 ft (14.731 m) National Geodetic Vertical Datum of 1929 (levels by Contra Costa County Flood Control District).

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

AVERAGE DISCHARGE.--14 years, 4.09 ft<sup>3</sup>/s (0.116 m<sup>3</sup>/s), 2,960 acre-ft/yr (3.65 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,960 ft<sup>3</sup>/s (55.5 m<sup>3</sup>/s) Jan. 18, 1973, gage height, 10.93 ft (3.331 m), from rating curve extended above 540 ft<sup>3</sup>/s (15.3 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 9.62 ft (2.932 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft<sup>3</sup>/s (4.2 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Dec. 22	2315	180	5.10	3.48	1.061	Feb. 7	1000	454	12.9	4.79	1.460
Jan. 5	2100	280	7.93	3.98	1.213	Mar. 5	0315	336	9.52	4.24	1.292
Jan. 14	1900	864	24.5	6.53	1.990	Mar. 8	2030	350	9.91	4.31	1.314
Jan. 16	1045	*876	24.8	6.58	2.006	Apr. 6	0430	188	5.32	3.52	1.073

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	.22	2.9	6.0	9.1	3.9	1.4	.46	.12	.11
2		0	0	1.0	2.7	29	6.7	3.7	1.3	.33	.12	.05
3		0	0	.42	2.6	25	7.8	3.5	1.4	.36	.14	.05
4		.07	0	14	2.5	55	17	3.4	1.3	.29	.14	.06
5		.54	0	95	19	149	6.7	3.3	1.1	.31	.13	.08
6		.01	0	16	31	26	44	3.2	1.0	.23	.11	.07
7		.01	0	3.2	98	18	9.6	3.1	.93	.15	.08	.07
8		.01	0	2.0	55	84	7.6	3.1	.90	.26	.08	.06
9		.01	0	25	41	121	6.7	3.1	.83	.31	.09	.34
10		0	0	3.8	15	31	6.3	3.1	.82	.19	.09	.26
11		.01	.49	2.0	10	24	6.0	3.0	.83	.27	.09	.08
12		.01	0	7.3	52	19	5.9	3.0	.77	.37	.11	.06
13		.01	0	43	38	16	5.5	3.0	.81	.34	.13	.05
14		.01	4.7	133	14	15	5.3	3.0	.81	.31	.10	.06
15		.01	2.8	91	12	13	15	2.9	.74	.29	.10	.05
16		.01	.26	187	10	12	17	2.8	.61	.26	.11	.07
17		.01	26	50	9.3	11	7.0	2.6	.55	.24	.11	.06
18		.01	.65	21	8.4	10	6.1	2.6	.58	.22	.07	.07
19		.01	.13	40	7.9	9.7	5.6	2.4	.60	.21	.08	.06
20		.02	.13	14	7.3	9.2	6.0	2.4	.62	.19	.06	.07
21		15	2.2	9.4	6.9	20	5.2	2.4	.66	.18	.07	.08
22		2.6	20	7.6	6.5	14	5.0	2.5	.69	.17	.09	.09
23		0	16	6.6	6.3	10	4.8	2.3	.71	.16	.09	.09
24		0	.54	5.6	6.0	8.4	5.4	2.2	.59	.15	.09	.09
25		0	.19	5.0	5.8	8.1	5.7	2.3	.58	.15	.08	.09
26		0	.82	4.5	5.8	8.0	5.3	2.2	.61	.14	.08	.08
27		0	1.1	4.1	5.5	7.1	4.4	2.0	.59	.13	.07	.09
28		0	1.1	3.8	5.3	6.8	4.3	1.8	.62	.13	.08	.09
29		0	.37	3.5	---	6.6	4.1	1.6	.71	.12	.07	.08
30		0	.35	3.3	---	6.6	4.0	1.5	.51	.12	.06	.08
31		---	.15	3.1	---	16	---	1.4	---	.12	.09	---
TOTAL	0	18.36	77.98	805.44	486.7	794.5	249.1	83.3	24.17	7.16	2.93	2.64
MEAN	0	.61	2.52	26.0	17.4	25.6	8.30	2.69	.81	.23	.095	.088
MAX	0	15	26	187	98	149	44	3.9	1.4	.46	.14	.34
MIN	0	0	0	.22	2.5	6.0	4.0	1.4	.51	.12	.06	.05
AC-FT	0	36	155	1600	965	1580	494	165	48	14	5.8	5.2

CAL YR 1977 TOTAL 165.13 MEAN .45 MAX 26 MIN 0 AC-FT 328  
WTR YR 1978 TOTAL 2552.28 MEAN 6.99 MAX 187 MIN 0 AC-FT 5060

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 (0.3 km) downstream from Bollinger Creek, and 1.0 mi (1.6 km) southwest of San Ramon.

DRAINAGE AREA.--5.89 mi<sup>2</sup> (15.26 km<sup>2</sup>).

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

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 530 ft (162 m), from topographic map.

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

AVERAGE DISCHARGE.--26 years, 2.81 ft<sup>3</sup>/s (0.080 m<sup>3</sup>/s), 2,040 acre-ft/yr (2.52 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,600 ft<sup>3</sup>/s (45.3 m<sup>3</sup>/s) Oct. 13, 1962, gage height, 16.98 ft (5.176 m), from rating curve extended above 90 ft<sup>3</sup>/s (2.55 m<sup>3</sup>/s) on basis of indirect measurements of maximum flow through culvert at gage heights 12.09 ft (3.685 m) and 16.98 ft (5.176 m); no flow for parts of most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft<sup>3</sup>/s (2.8 m<sup>3</sup>/s) and maximum (\*) from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 17	1200	111 3.14	3.11 0.948	Jan. 19	0600	205 5.81	3.75 1.143
Jan. 4	1815	*596 16.9	6.43 1.960	Feb. 7	1015	217 6.15	3.83 1.167
Jan. 14	1845	254 7.19	4.06 1.237	Mar. 8	2015	118 3.34	3.16 .963
Jan. 16	0930	314 8.89	4.45 1.356				

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	.27	3.7	4.6	7.1	3.8	1.1	.71	.12	0
2		0	0	.33	3.7	13	5.4	3.6	1.0	.64	.12	0
3		0	0	.51	3.5	12	5.0	3.5	1.0	.57	.09	0
4		0	0	26	3.5	20	12	3.3	1.0	.57	.03	0
5		0	0	43	4.6	43	5.6	3.2	.93	.50	.03	0
6		0	0	13	10	17	24	3.0	.87	.57	.02	0
7		0	0	5.2	40	12	10	3.0	.80	.50	0	0
8		0	0	3.9	26	38	7.7	2.8	.87	.50	.01	0
9		0	0	15	23	36	6.5	2.6	.86	.44	0	.21
10		0	0	5.0	12	19	6.0	2.6	.90	.50	0	.58
11		0	0	3.5	9.5	16	5.6	2.5	.80	.57	0	.15
12		0	0	5.2	28	13	5.4	2.5	.80	.71	0	.10
13		0	0	22	29	11	5.1	2.4	.82	.50	.04	.06
14		0	2.4	69	15	10	4.9	2.1	.86	.44	.03	.08
15		0	7.8	57	13	9.3	8.9	2.1	.89	.39	.01	.05
16		0	.18	93	11	8.5	13	2.0	.88	.39	.01	.05
17		0	22	41	9.5	7.8	6.3	1.8	.90	.29	.02	.05
18		0	1.6	31	8.4	7.2	5.5	1.8	.89	.29	0	.03
19		0	.32	59	7.4	6.6	5.1	1.7	.98	.34	0	.02
20		0	.13	23	6.8	6.4	5.9	1.6	.98	.34	0	.02
21		.69	.09	15	6.3	11	4.7	1.6	1.1	.34	0	.03
22		3.1	2.7	12	6.0	7.9	4.4	1.7	.98	.25	0	.05
23		0	5.7	9.0	5.6	7.3	4.3	1.5	.71	.25	0	.05
24		0	.82	7.2	5.2	6.0	4.4	1.4	.71	.29	.01	.03
25		0	.42	6.4	5.0	5.6	5.2	1.4	.71	.21	0	.03
26		0	.35	5.8	4.9	5.3	12	1.4	.71	.17	0	.02
27		0	.41	5.1	4.6	4.9	5.0	1.3	.71	.19	0	.08
28		0	.34	4.7	4.4	4.8	4.5	1.3	.71	.19	0	.08
29		0	.49	4.3	---	4.6	4.3	1.2	.71	.15	0	.03
30		0	.58	4.1	---	4.6	4.1	1.1	.71	.14	0	.02
31		---	.32	3.9	---	12	---	1.0	---	.12	0	---
TOTAL	0	3.79	46.65	593.41	309.6	384.4	207.9	66.8	25.89	12.06	.54	1.82
MEAN	0	.13	1.50	19.1	11.1	12.4	6.93	2.15	.86	.39	.017	.061
MAX	0	3.1	22	93	40	43	24	3.8	1.1	.71	.12	.58
MIN	0	0	0	.27	3.5	4.6	4.1	1.0	.71	.12	0	0
AC-FT	0	7.5	93	1180	614	762	412	132	51	24	1.1	3.6
CAL YR 1977	TOTAL	60.91	MEAN	.17	MAX	22	MIN	0	AC-FT	121		
WTR YR 1978	TOTAL	1652.86	MEAN	4.53	MAX	93	MIN	0	AC-FT	3280		

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 (183 m) upstream from Rudgear Road, near south city limits of town of Walnut Creek.

DRAINAGE AREA.--47.9 mi<sup>2</sup> (124.1 km<sup>2</sup>).

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

REVISED RECORDS.--WSP 1395: 1953(M).

GAGE.--Water-stage recorder. Concrete control since Dec. 4, 1962. Datum of gage is 169.98 ft (51.810 m), revised, National Geodetic Vertical Datum of 1929. Prior to Dec. 8, 1971, at site 0.6 mi (1.0 km) downstream at different datum.

REMARKS.--Records good. No regulation; pumping for irrigation above station during periods of low flow.

AVERAGE DISCHARGE.--26 years, 15.5 ft<sup>3</sup>/s (0.439 m<sup>3</sup>/s), 11,230 acre-ft/yr (13.8 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,980 ft<sup>3</sup>/s (226 m<sup>3</sup>/s) Jan. 31, 1963, gage height, 14.40 ft (4.389 m) site and datum then in use, from rating curve extended above 2,200 ft<sup>3</sup>/s (62.3 m<sup>3</sup>/s) on basis of computed discharge at gage height 13.16 ft (4.011 m); maximum gage height, 14.55 ft (4.435 m) Dec. 23, 1955, site and datum then in use; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft<sup>3</sup>/s (14 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 15	0030	610 17.3	3.82 1.164	Feb. 7	1145	2450 69.4	6.02 1.835
Jan. 4	1830	887 25.1	4.34 1.323	Feb. 12	1330	796 22.5	4.19 1.277
Jan. 14	2030	1750 49.6	5.40 1.646	Mar. 3	0315	535 15.2	3.70 1.128
Jan. 16	1145	*3280 92.9	6.62 2.018	Mar. 8	2100	1380 39.1	5.00 1.524
Jan. 19	0715	1280 36.2	4.88 1.487				

Minimum daily discharge, 0.05 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) Oct. 2-8, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.30	.42	1.9	9.3	13	21	12	4.7	1.7	2.7	2.3
2	.05	.35	.44	2.3	8.9	94	16	11	4.6	1.6	2.8	2.2
3	.05	.40	.88	8.5	8.7	110	14	10	4.4	1.6	2.7	2.2
4	.05	.50	.36	147	8.4	141	55	10	4.7	1.4	2.7	2.2
5	.05	.56	.32	226	25	212	15	9.6	4.8	1.5	2.7	2.3
6	.05	.33	.33	60	74	50	133	9.1	4.6	1.4	2.7	2.3
7	.05	.50	.35	17	436	31	27	9.1	4.5	1.3	2.6	2.4
8	.05	.33	.33	13	141	287	19	8.8	4.6	1.4	2.5	2.6
9	.11	.21	.29	118	181	201	18	8.5	4.2	1.4	2.4	3.0
10	.09	.20	.29	27	38	54	16	8.4	3.8	1.4	2.4	12
11	.07	.21	1.1	15	25	41	15	8.0	3.8	1.6	2.3	5.6
12	.07	.22	7.3	50	220	35	15	7.8	3.2	1.0	2.1	4.9
13	.05	.20	2.6	197	167	28	14	7.3	3.1	1.2	1.9	4.9
14	.07	.21	29	586	46	26	13	6.9	3.2	.92	1.9	5.4
15	.07	.22	131	498	33	23	36	7.3	3.1	1.1	1.9	4.3
16	.09	.21	5.7	891	27	21	46	6.2	2.7	1.2	1.9	3.2
17	.11	.20	187	200	24	20	19	5.6	2.4	1.3	1.9	2.9
18	.15	.23	13	113	21	19	16	5.3	2.3	1.8	2.0	3.0
19	.23	.23	3.6	366	19	17	14	5.0	2.5	1.7	1.9	3.6
20	.35	.23	1.9	61	17	17	23	4.8	2.7	1.7	1.9	3.7
21	.33	123	4.5	38	16	51	12	4.4	2.6	1.8	1.9	3.5
22	.32	49	43	28	15	36	12	4.1	2.6	1.7	1.9	3.5
23	.31	5.6	69	20	14	22	11	4.0	2.5	1.2	1.9	3.7
24	.30	3.2	7.0	20	13	17	13	3.9	2.4	1.3	2.1	4.3
25	.28	1.6	3.8	17	12	15	25	4.0	2.2	1.3	2.1	4.9
26	.27	.79	4.3	15	12	15	45	4.0	2.1	1.4	2.2	4.7
27	.36	.45	8.0	14	12	14	15	4.1	1.9	1.4	2.3	4.3
28	.34	.35	5.5	12	11	13	13	4.0	2.0	1.4	2.3	4.3
29	.47	.41	11	11	---	13	12	4.2	1.9	1.4	2.3	4.2
30	.40	.41	5.1	11	---	13	12	4.1	1.6	1.5	2.3	4.0
31	.35	---	3.4	10	---	48	---	4.4	---	2.4	2.2	---
TOTAL	5.63	190.65	550.81	3793.7	1634.3	1697	715	205.9	95.7	45.02	69.4	116.4
MEAN	.18	6.36	17.8	122	58.4	54.7	23.8	6.64	3.19	1.45	2.24	3.88
MAX	.47	123	187	891	436	287	133	12	4.8	2.4	2.8	12
MIN	.05	.20	.29	1.9	8.4	13	11	3.9	1.6	.92	1.9	2.2
AC-FT	11	378	1090	7520	3240	3370	1420	408	190	89	138	231
CAL YR 1977	TOTAL	1480.36	MEAN	4.06	MAX 187	MIN 0	AC-FT	2940				
WTR YR 1978	TOTAL	9119.51	MEAN	25.0	MAX 891	MIN .05	AC-FT	18090				

## 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 (0.3 km) upstream from Southern Pacific Railroad bridge, and 3.8 mi (6.1 km) downstream from confluence of San Ramon and Las Trampas Creeks.

DRAINAGE AREA.--85.1 mi<sup>2</sup> (220.4 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 35.44 ft (10.802 m) Corps of Engineers datum.

REMARKS.--Records good. Flow slightly regulated by Lafayette Reservoir 10 mi (16 km) upstream, capacity, 4,240 acre-ft (5.23 hm<sup>3</sup>). Some small diversions for irrigation above station.

AVERAGE DISCHARGE.--10 years, 42.6 ft<sup>3</sup>/s (1.206 m<sup>3</sup>/s), 30,860 acre-ft/yr (38.1 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft<sup>3</sup>/s (227 m<sup>3</sup>/s) Feb. 27, 1973, gage height, 14.0 ft (4.27 m), estimated, from rating curve extended above 3,000 ft<sup>3</sup>/s (85.0 m<sup>3</sup>/s) on basis of computed discharge at gage height 13.7 ft (4.18 m); minimum daily, 0.70 ft<sup>3</sup>/s (0.020 m<sup>3</sup>/s) Oct. 7, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 850 ft<sup>3</sup>/s (24 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 21	2300	2160 61.2	6.60 2.012	Jan. 19	0800	1480 41.9	5.78 1.762
Dec. 15	0030	1560 44.2	5.88 1.792	Feb. 7	1130	3470 98.3	8.24 2.512
Dec. 17	1130	2020 57.2	6.44 1.963	Feb. 12	1415	1270 36.0	5.54 1.689
Dec. 23	0045	1010 28.6	5.24 1.597	Mar. 3	0245	1700 48.1	6.06 1.847
Jan. 5	1615	2190 62.0	6.63 2.021	Mar. 8	2130	3520 99.7	8.30 2.530
Jan. 16	1130	*5550 157	10.83 3.301				

Minimum daily discharge, 0.70 ft<sup>3</sup>/s (0.020 m<sup>3</sup>/s) Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	4.7	2.1	10	77	96	83	31	19	8.4	7.8	6.2
2	1.5	5.8	2.3	20	71	282	59	30	18	8.0	7.5	6.0
3	1.7	6.2	2.6	22	69	489	53	28	17	7.9	7.1	5.8
4	1.2	6.7	1.9	311	68	357	174	26	17	7.4	7.2	5.7
5	.95	22	1.9	833	127	499	50	25	16	7.2	6.5	5.9
6	.82	5.0	2.1	185	280	176	310	23	17	7.4	6.8	5.6
7	.70	18	2.1	51	814	111	94	22	16	7.5	6.8	5.5
8	1.6	13	1.9	35	325	787	68	21	15	6.7	7.5	5.7
9	1.7	8.6	1.9	249	423	692	53	21	15	7.0	7.2	14
10	2.1	1.2	1.7	71	123	191	49	22	14	6.5	6.8	25
11	2.2	1.1	12	39	105	159	48	23	12	7.1	6.5	9.7
12	3.3	1.1	11	111	427	152	46	23	11	7.6	6.3	8.5
13	2.3	1.1	6.7	430	344	141	43	22	9.7	7.5	6.2	7.1
14	1.1	1.1	91	1110	143	97	52	22	6.0	7.9	6.4	6.2
15	1.4	1.1	320	825	124	91	133	24	8.8	7.1	6.5	5.8
16	1.4	.93	16	1570	119	84	127	23	9.2	6.9	6.9	5.3
17	2.0	1.2	618	415	116	69	66	23	7.7	7.4	6.8	4.9
18	5.6	1.1	42	257	105	73	47	23	7.3	8.7	6.6	4.5
19	5.6	1.4	13	594	88	68	44	24	7.4	8.8	5.8	4.7
20	6.4	.93	9.1	187	88	65	76	23	7.5	9.3	5.7	4.5
21	5.7	473	52	142	96	132	43	23	8.2	8.9	5.8	4.7
22	5.8	237	156	110	100	129	40	23	8.3	8.2	5.4	4.6
23	5.4	13	206	105	100	82	38	23	9.0	7.4	6.4	4.6
24	5.0	7.4	22	103	100	66	42	23	8.0	6.9	6.4	4.3
25	4.7	5.0	15	90	100	52	66	24	7.6	7.5	6.2	4.7
26	4.3	3.7	21	80	100	56	128	22	8.0	7.2	6.2	4.6
27	5.4	3.0	28	77	100	50	45	21	8.8	8.0	6.0	4.8
28	4.7	2.1	21	78	100	50	40	19	9.3	7.9	6.1	4.9
29	8.1	2.0	25	88	---	49	36	19	9.7	6.5	6.1	5.2
30	6.7	2.1	19	92	---	49	32	19	9.6	6.4	6.1	5.2
31	5.4	---	14	85	---	154	---	19	---	6.8	6.1	---
TOTAL	106.67	850.56	1738.3	8375	4832	5548	2185	714	337.1	234.0	201.7	194.2
MEAN	3.44	28.4	56.1	270	173	179	72.8	23.0	11.2	7.55	6.51	6.47
MAX	8.1	473	618	1570	814	787	310	31	19	9.3	7.8	25
MIN	.70	.93	1.7	10	68	49	32	19	6.0	6.4	5.4	4.3
AC-FT	212	1690	3450	16610	9580	11000	4330	1420	669	464	400	385
CAL YR 1977 TOTAL	4805.16			MEAN 13.2	MAX 618	MIN .70	AC-FT 9530					
WTR YR 1978 TOTAL	25316.53			MEAN 69.4	MAX 1570	MIN .70	AC-FT 50220					

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 (61 m) downstream from road ford, 1.2 mi (1.9 km) upstream from mouth, and 3.8 mi (6.1 km) northeast of Alamo.

DRAINAGE AREA.--1.22 mi<sup>2</sup> (3.16 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 520 ft (158 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, Jan. 18 to Mar. 7, which are fair. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 86 ft<sup>3</sup>/s (2.44 m<sup>3</sup>/s) Jan. 16, 1978, gage height, 2.18 ft (0.664 m), from rating curve extended above 12 ft<sup>3</sup>/s (0.34 m<sup>3</sup>/s); no flow for long periods in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 30 ft<sup>3</sup>/s (0.8 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 12 ft<sup>3</sup>/s (0.34 m<sup>3</sup>/s):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Jan. 4	1730	51	1.44	1.95	0.594
Jan. 16	1015	*86	2.44	2.18	.664

Minimum daily discharge, no flow for long periods.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	.52	.76	.68	.40	.02	.07		
2			0	0	.50	1.2	.59	.36	.03	.08		
3			0	0	.47	1.6	.61	.34	.03	.08		
4			0	2.8	.46	3.0	.76	.32	.03	.06		
5			0	2.6	.70	4.6	.55	.33	.01	.04		
6			0	1.4	1.5	3.2	1.4	.31	0	.01		
7			0	.67	4.2	1.7	.68	.29	0	0		
8			0	.48	3.1	4.4	.57	.27	0	0		
9			0	1.7	2.5	4.7	.56	.21	0	0		
10			0	1.0	1.7	2.9	.53	.22	0	0		
11			0	.60	1.2	2.6	.52	.21	0	0		
12			0	.74	3.4	2.4	.51	.19	0	0		
13			0	2.5	3.0	1.9	.51	.17	.02	0		
14			0	6.8	2.1	1.7	.48	.16	.02	0		
15			0	5.1	1.5	1.5	.76	.19	.02	0		
16			0	12	1.2	1.4	.72	.17	.02	0		
17			.39	4.7	1.1	1.3	.55	.14	.02	0		
18			.01	3.3	.96	1.2	.50	.09	.01	0		
19			0	6.7	.90	1.1	.47	.08	.01	0		
20			0	3.8	.84	1.0	.53	.07	.02	0		
21			0	2.4	.78	1.4	.44	.07	.03	0		
22			.12	1.8	.72	1.0	.45	.08	.04	0		
23			.24	1.4	.66	.88	.45	.08	.04	0		
24			0	1.2	.62	.79	.51	.08	.03	0		
25			0	1.0	.60	.75	.59	.08	.03	0		
26			0	.83	.57	.75	.78	.07	.03	0		
27			0	.74	.56	.71	.45	.07	.03	0		
28			0	.68	.54	.67	.41	.06	.07	0		
29			0	.62	---	.67	.44	.04	.08	0		
30			0	.58	---	.67	.45	.03	.07	0		
31		---	0	.55	---	.89	---	.01	---	0		---
TOTAL	0	0	.76	68.69	36.90	53.34	17.45	5.19	.71	.34	0	0
MEAN	0	0	.025	2.22	1.32	1.72	.58	.17	.024	.011	0	0
MAX	0	0	.39	12	4.2	4.7	1.4	.40	.08	.08	0	0
MIN	0	0	0	0	.46	.67	.41	.01	0	0	0	0
AC-FT	0	0	1.5	136	73	106	35	10	1.4	.7	0	0
CAL YR 1977	TOTAL	0.95	MEAN .003	MAX	.39	MIN 0	AC-FT 1					
WTR YR 1978	TOTAL	183.38	MEAN .50	MAX	12	MIN 0	AC-FT 364					



## 11455900 NAPA RIVER AT CALISTOGA, CA

LOCATION.--Lat 38°34'38", long 122°34'49", in Carne Humana Grant, Napa County, Hydrologic Unit 18050002, on right bank at end of Pine Street in Calistoga, 200 ft (61 m) downstream from bridge on State Highway 29, and 0.6 mi (1.0 km) downstream from Cyrus Creek.

DRAINAGE AREA.--21.9 mi<sup>2</sup> (56.7 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 360 ft (110 m), from topographic map.

REMARKS.--Records fair. Flow slightly regulated by Kimball Creek Reservoir 3.7 mi (6.0 km) upstream, capacity, 344 acre-ft (424,000 m<sup>3</sup>). No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,400 ft<sup>3</sup>/s (125 m<sup>3</sup>/s) Jan. 16, 1978, gage height, 17.21 ft (5.246 m); no flow many days in each year.

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

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 21	2130	1570 44.5	9.77 2.978	Jan. 14	1845	2370 67.1	12.13 3.697
Dec. 14	2230	2340 66.3	12.04 3.670	Jan. 16	0700	*4400 125	17.21 5.246
Jan. 5	0900	2880 81.6	13.49 4.112	Feb. 7	1015	1780 50.4	10.42 3.176
Jan. 9	0700	1530 43.3	9.66 2.944				

Minimum daily discharge, no flow several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.05	1.5	21	20	17	20	13	1.8	.87	.13	.09
2	.01	.05	1.3	21	59	108	17	11	2.1	.54	.10	.04
3	.01	.04	1.2	22	33	221	19	11	2.1	.76	.09	.05
4	.02	.66	1.2	52	28	347	51	9.7	1.8	.70	.08	.05
5	.02	.86	1.2	1090	197	387	26	9.0	1.4	.73	.11	.05
6	.02	.07	1.0	300	359	180	71	8.4	1.5	.71	.17	.04
7	.02	.06	.95	115	642	100	45	7.5	1.1	.44	.13	.05
8	.02	.05	1.0	81	424	311	31	6.8	1.2	.37	.10	.04
9	.02	.05	.89	519	352	244	25	6.9	1.2	.46	.11	.82
10	.02	.05	.89	168	177	130	21	6.4	1.2	.48	.11	.14
11	.02	.05	3.7	86	104	86	18	6.0	1.2	.28	.11	.11
12	.02	.06	2.3	116	270	64	16	5.8	1.0	.33	.11	.08
13	.02	.07	1.5	171	214	48	15	5.6	1.1	.32	.10	.07
14	.02	.06	429	942	127	40	14	5.7	1.1	.32	.15	.07
15	.02	.06	378	529	94	38	41	5.4	.94	.35	.15	.07
16	.01	.07	50	1710	70	33	29	4.8	.94	.32	.10	.08
17	.01	.07	171	499	57	30	24	4.5	.96	.32	.10	.09
18	.01	.07	56	274	47	24	21	4.3	.94	.32	.10	.08
19	0	.06	34	313	41	21	20	4.0	.87	.35	.08	.08
20	0	.07	23	165	38	19	28	4.0	.89	.21	.08	.09
21	0	353	23	100	32	18	22	3.7	.97	.19	.07	.07
22	0	82	66	71	28	17	18	3.3	.97	.12	.09	.10
23	0	9.9	123	54	26	20	16	3.1	1.0	.13	.09	.09
24	0	5.1	51	43	23	17	17	2.8	1.1	.17	.08	.08
25	0	3.7	33	37	21	17	21	2.7	1.1	.29	.08	.07
26	0	2.7	27	33	21	16	25	2.7	1.0	.19	.08	.06
27	0	2.4	38	28	20	15	20	2.5	.97	.24	.07	.06
28	.06	1.8	30	25	19	15	18	2.3	1.0	.21	.08	.05
29	.19	1.6	29	22	---	13	16	2.2	.80	.24	.07	.04
30	.12	1.6	29	20	---	13	15	2.0	.78	.19	.07	.05
31	.06	---	25	18	---	19	---	1.7	---	.17	.06	---
TOTAL	.72	466.38	1633.63	7645	3543	2628	740	168.8	35.03	11.32	3.05	2.86
MEAN	.023	15.5	52.7	247	127	84.8	24.7	5.45	1.17	.37	.098	.095
MAX	.19	353	429	1710	642	387	71	13	2.1	.87	.17	.82
MIN	0	.04	.89	18	19	13	14	1.7	.78	.12	.06	.04
AC-FT	1.4	925	3240	15160	7030	5210	1470	335	69	22	6.0	5.7
CAL YR 1977 TOTAL	2241.31			MEAN 6.14	MAX 429	MIN 0	AC-FT 4450					
WTR YR 1978 TOTAL	16877.79			MEAN 46.2	MAX 1710	MIN 0	AC-FT 33480					

## NAPA RIVER BASIN

11455900 NAPA RIVER AT CALISTOGA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water year 1976 to current year.

BIOLOGICAL DATA: Water year 1976.

COOPERATION.--The letter "A" following a date indicates chemical-quality samples were collected by Napa County Flood Control and Water Conservation District.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO
NOV												
22...	1150	43	160	10.5	27	42	16	10	4.1	16	43	1.1
DEC												
15...	1130	242	101	12.0	60	34	7	7.7	3.7	7.2	30	.5
JAN												
05...	1115	2230	70	11.5	210	28	2	6.5	2.9	4.6	24	.4
16...	1115	2100	73	12.5	160	30	8	7.8	2.5	3.8	20	.3
19...A	1005	326	--	--	--	33	3	7.6	3.4	6.3	28	.5
FEB												
09...	1015	335	101	11.5	23	35	3	8.2	3.6	5.9	26	.4
15...A	1030	98	--	--	--	44	6	10	4.7	7.5	26	.5
MAR												
08...A	1015	584	--	--	--	29	0	6.9	2.9	5.1	26	.4
APR												
05...A	1005	26	--	--	--	60	8	13	6.7	11	28	.6
MAY												
03...A	1025	11	--	--	--	63	6	14	6.9	13	30	.7
JUN												
07...A	1115	1.3	--	--	--	76	4	17	8.1	22	38	1.1
JUL												
05...A	0845	.84	--	--	--	87	--	20	9.0	25	38	1.2
SEP												
27...A	1013	.06	--	--	--	140	--	31	16	49	42	1.8
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
NOV												
22...	2.9	32	26	13	19	.4	29	120	.16	2.0	500	--
DEC												
15...	2.2	33	27	5.7	6.3	.2	27	81	.11	1.0	140	90
JAN												
05...	2.3	32	26	6.2	4.7	.1	21	66	.09	.46	60	130
16...	2.1	27	22	3.4	3.8	.0	21	60	.08	.41	40	80
19...	1.9	36	30	7.7	5.4	.1	30	84	.11	.70	70	410
FEB												
09...	1.6	39	32	8.3	4.7	.1	30	84	.11	.43	50	60
15...	1.7	47	39	11	6.1	.1	32	99	.13	.63	90	80
MAR												
08...	1.8	36	30	6.1	4.2	.1	21	67	.09	.28	80	90
APR												
05...	1.9	64	53	14	8.9	.2	36	126	.17	.46	220	90
MAY												
03...	2.0	70	57	17	10	.2	36	138	.19	.86	280	70
JUN												
07...	2.6	87	71	19	21	.4	34	168	.23	.00	590	60
JUL												
05...	2.8	--	76	22	38	.6	37	--	--	.07	1100	70
SEP												
27...	4.7	--	120	30	79	1.0	43	--	--	.01	1700	50

## 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 (0.3 km) upstream from highway bridge, 1.3 mi (2.1 km) northeast of Zinfandel, and 2.5 mi (4.0 km) east of St. Helena.

DRAINAGE AREA.--81.4 mi<sup>2</sup> (210.8 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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.

GAGE.--Water-stage recorder. Datum of gage is 170.12 ft (51.853 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 22, 1958, at datum 3.00 ft (0.914 m) higher. Nov. 22, 1958, to July 22, 1976, at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good. Some regulation by Bell Canyon Reservoir since 1959, capacity, 2,530 acre-ft (3.12 hm<sup>3</sup>). Small diversions above station for irrigation of about 1,500 acres (6.07 km<sup>2</sup>).

AVERAGE DISCHARGE.--42 years, 93.4 ft<sup>3</sup>/s (2.645 m<sup>3</sup>/s), 67,670 acre-ft/yr (83.4 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft<sup>3</sup>/s (357 m<sup>3</sup>/s) Dec. 22, 1955, gage height, 18.17 ft (5.538 m) present datum; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,200 ft<sup>3</sup>/s (119 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 15	0045	4270 121	11.08 3.377	Jan. 16	1030	*10000 283	16.19 4.935
Jan. 5	1115	5600 159	12.51 3.813	Feb. 7	1200	4290 121	11.10 3.383

Minimum daily discharge, no flow many days.

REVISIONS.--The maximum discharge for water year 1977 has been revised to 83 ft<sup>3</sup>/s (2.35 m<sup>3</sup>/s) Jan. 2, Mar. 16, 1977, gage height, 3.74 ft (1.140 m), superseding figure published in the report for 1977.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	3.3	72	87	79	75	53	14	4.5	1.9	1.3
2		0	3.4	81	142	204	64	44	14	5.4	1.9	1.3
3		0	3.6	84	105	416	64	40	14	4.8	1.8	1.3
4		0	3.5	216	94	1350	157	38	13	4.4	1.7	1.3
5		0	3.3	2410	462	1290	92	37	12	4.2	1.7	1.3
6		0	3.3	910	1090	667	229	35	12	4.0	1.5	1.3
7		0	2.9	385	2000	433	147	33	11	4.0	1.2	1.3
8		0	2.7	277	1370	859	112	29	11	4.1	1.3	3.5
9		0	2.6	1530	1360	750	94	28	11	3.7	1.3	2.3
10		0	2.6	578	647	494	82	28	10	3.6	1.3	1.6
11		0	5.3	334	423	371	75	27	11	3.6	1.4	1.5
12		0	9.6	375	807	289	69	26	10	3.1	1.4	1.3
13		0	4.8	521	708	226	64	25	8.8	2.6	1.4	1.3
14		0	477	2600	485	181	62	26	8.1	2.4	1.3	1.3
15		0	1290	1850	376	159	155	27	7.5	2.1	1.2	1.3
16		0	183	4900	297	138	124	25	6.1	1.9	1.4	1.3
17		0	353	1750	243	123	93	24	6.6	1.9	1.4	1.3
18		0	181	915	204	108	83	22	6.0	1.8	1.4	1.3
19		0	101	1030	174	98	77	22	5.2	1.7	1.4	1.2
20		0	70	608	150	92	91	22	4.5	2.2	1.4	1.2
21		600	65	420	131	88	77	21	5.3	2.4	1.3	1.2
22		490	265	314	117	86	69	21	6.2	2.0	1.2	1.2
23		47	537	244	107	83	66	18	5.1	1.6	1.2	1.2
24		21	214	195	99	76	67	18	5.0	1.6	1.3	1.1
25		12	131	164	92	72	85	18	4.8	1.8	1.3	1.1
26		9.2	103	142	89	69	83	18	4.7	2.0	1.3	1.1
27		6.6	130	124	83	65	73	18	5.3	2.0	1.3	1.0
28		4.9	106	110	78	63	66	17	5.6	2.0	1.3	1.0
29		3.9	91	100	---	61	62	19	6.0	2.0	1.3	.95
30		3.5	90	94	---	57	58	18	5.0	2.0	1.3	.95
31		---	80	88	---	70	---	15	---	1.9	1.3	---
TOTAL	0	1198.1	4517.9	23421	12020	9117	2715	812	248.8	87.3	43.4	40.30
MEAN	0	39.9	146	756	429	294	90.5	26.2	8.29	2.82	1.40	1.34
MAX	0	600	1290	4900	2000	1350	229	53	14	5.4	1.9	3.5
MIN	0	0	2.6	72	78	57	58	15	4.5	1.6	1.2	.95
AC-FT	0	2380	8960	46460	23840	18080	5390	1610	493	173	86	80
CAL YR 1977	TOTAL	6268.10	MEAN	17.2	MAX	1290	MIN	0	AC-FT	12430		
WTR YR 1978	TOTAL	54220.80	MEAN	149	MAX	4900	MIN	0	AC-FT	107500		

## NAPA RIVER BASIN

11456000 NAPA RIVER NEAR ST. HELENA, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1952-66, 1976 to current year.

WATER TEMPERATURES: Water years 1958 to current year.

SEDIMENT RECORDS: Water years 1957-62.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1957 to current year.

SEDIMENT RECORDS: December 1956 to June 1962.

INSTRUMENTATION.--Temperature recorder since October 1957.

COOPERATION.--Chemical-quality samples were collected by Napa County Flood Control and Water Conservation District.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 33.5°C July 18, 1968; minimum recorded, 3.5°C

Dec. 14, 15, 1967, Dec. 11, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 27.0°C June 6; minimum 9.0°C Dec. 19, 20.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
JAN 19...	1037	--	1130	41	7	9.3	4.2	7.5	27	.5	2.4
FEB 15...	1111	--	382	56	10	13	5.7	8.8	25	.5	2.1
MAR 08...	1110	--	1130	41	3	9.8	4.1	6.8	25	.5	1.9
APR 05...	1100	--	89	82	11	19	8.4	14	26	.7	2.5
MAY 03...	1120	--	40	88	11	20	9.3	15	26	.7	2.7
JUN 07...	1210	--	11	110	16	26	12	22	29	.9	2.8
JUL 05...	0800	--	4.2	130	--	27	14	24	29	.9	3.0
SEP 27...	0915	1.0	--	150	--	33	17	23	24	.8	2.6

DATE	BICAR- BONATE (MG/L AS HC03)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
JAN 19...	41	34	8.9	6.5	.1	29	94	.13	1.2	80	640
FEB 15...	56	46	11	7.0	1.1	18	95	.13	.14	110	70
MAR 08...	47	39	7.6	5.3	.1	24	86	.12	.75	90	80
APR 05...	86	71	16	12	.1	11	134	.18	1.8	240	80
MAY 03...	94	77	21	12	.2	39	173	.24	1.6	310	40
JUN 07...	120	98	21	23	.4	24	200	.27	2.1	620	30
JUL 05...	--	110	20	24	.5	29	--	--	2.6	750	140
SEP 27...	--	140	18	30	.3	28	--	--	1.8	720	500

11456000 NAPA RIVER NEAR ST. HELENA, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1			---	---	13.0	12.0	11.5	10.5	12.5	12.0	14.5	13.5
2			---	---	12.5	11.0	12.0	11.5	13.5	12.5	14.0	13.5
3			---	---	13.5	12.5	13.0	11.5	14.0	12.0	13.5	12.5
4			---	---	13.5	12.0	12.5	12.0	13.5	12.0	14.0	12.5
5			---	---	13.0	12.5	12.5	12.0	13.0	12.0	14.0	12.5
6			---	---	13.0	12.5	13.0	12.0	13.0	11.5	14.5	11.5
7			---	---	13.5	12.5	13.0	11.0	12.5	11.5	15.0	12.5
8			---	---	13.0	11.0	13.5	12.5	12.0	11.5	14.0	13.0
9			---	---	11.0	10.0	13.5	12.5	12.5	11.0	14.5	13.0
10			---	---	11.0	10.0	14.0	12.5	12.5	11.0	14.5	12.0
11			---	---	11.0	10.0	13.5	12.5	12.0	10.0	14.0	12.0
12			---	---	12.0	11.0	13.5	13.0	11.5	10.5	14.5	11.5
13			---	---	12.5	11.5	13.0	13.0	12.5	10.5	14.5	11.5
14			---	---	13.5	12.5	13.0	12.5	13.0	10.5	16.0	12.0
15			---	---	13.5	11.5	13.0	12.0	13.0	11.0	16.5	12.0
16			---	---	11.5	11.0	13.0	12.0	12.0	11.0	17.0	12.5
17			---	---	12.5	11.5	13.5	12.5	13.0	11.5	17.5	13.0
18			---	---	11.5	10.0	13.0	12.5	15.0	12.0	17.0	13.5
19			---	---	10.0	9.0	13.5	12.5	15.0	12.0	18.0	13.5
20			---	---	10.5	9.0	13.5	12.0	15.5	12.0	16.5	14.0
21			---	---	11.0	10.5	13.0	12.0	15.5	12.0	16.0	14.5
22			12.0	11.0	12.0	11.0	12.5	11.0	16.0	12.5	18.0	14.5
23			12.0	10.5	13.0	12.0	12.0	10.5	16.0	13.0	17.0	14.5
24			13.0	11.5	12.0	10.5	12.0	10.0	15.0	14.0	17.0	13.0
25			13.0	11.0	12.5	11.5	12.5	10.5	14.5	13.5	18.0	13.5
26			13.5	12.0	12.5	12.0	12.5	10.5	15.5	13.0	17.5	14.0
27			13.5	12.5	13.0	12.0	13.0	10.5	14.5	11.5	19.0	15.0
28			13.0	11.5	14.0	13.0	13.5	11.0	15.0	11.5	18.0	15.0
29			13.0	11.5	14.0	13.5	13.0	11.0	---	---	17.0	15.0
30			13.0	12.0	13.5	12.0	12.5	11.5	---	---	17.5	14.5
31			---	---	12.0	10.5	12.5	12.0	---	---	17.0	15.0
MONTH			13.5	10.5	14.0	9.0	14.0	10.0	16.0	10.0	19.0	11.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	17.0	14.0	20.0	14.0	24.0	18.5	---	---	24.5	21.5	21.5	19.5
2	16.5	13.0	21.5	15.5	24.0	18.5	---	---	23.5	20.5	21.5	19.5
3	14.5	13.0	22.0	16.5	24.0	18.5	---	---	23.0	20.5	21.5	20.0
4	15.0	11.5	20.5	16.0	25.0	18.5	---	---	23.5	21.0	22.0	20.0
5	13.5	12.0	19.5	15.0	26.0	19.5	---	---	24.5	21.0	21.5	20.0
6	14.0	11.5	20.5	15.0	27.0	20.0	---	---	24.5	22.0	20.5	18.5
7	14.5	11.0	21.0	15.5	26.0	20.0	---	---	24.0	21.5	20.0	18.0
8	17.0	11.5	21.5	16.5	26.5	20.5	---	---	23.5	21.5	19.5	17.5
9	19.0	13.0	21.5	16.5	25.5	20.0	---	---	23.5	21.5	19.5	18.5
10	19.5	14.0	21.5	17.0	25.0	19.5	---	---	23.5	21.0	21.5	18.5
11	19.5	15.0	21.0	16.0	25.5	19.5	---	---	22.5	20.0	21.5	17.5
12	18.5	15.5	22.0	16.5	23.5	19.5	22.5	18.5	22.5	19.5	21.0	18.5
13	19.0	15.0	22.5	17.5	24.5	19.0	23.5	19.5	22.0	20.0	20.5	18.0
14	16.5	14.0	20.0	18.0	24.5	19.0	24.0	20.0	22.0	19.5	21.0	19.0
15	14.5	12.0	19.5	16.5	24.5	19.0	23.5	20.0	22.0	20.0	21.0	19.0
16	15.0	11.0	20.5	15.5	24.0	19.0	23.5	20.0	22.5	20.0	21.0	19.0
17	15.5	11.5	22.0	16.5	24.0	19.0	23.5	20.5	22.0	19.0	21.5	19.0
18	16.5	11.5	23.0	17.0	24.0	19.0	23.5	20.5	22.0	19.0	19.5	17.5
19	16.5	13.0	23.5	18.0	24.5	19.0	23.5	21.0	22.0	19.0	19.0	17.0
20	16.5	13.0	23.5	18.5	23.5	19.0	24.0	20.5	21.5	19.5	18.5	16.5
21	17.0	12.0	23.0	18.0	24.0	19.0	24.5	20.5	21.5	19.5	19.0	17.0
22	17.5	12.0	22.5	18.0	24.0	19.5	24.5	21.5	21.0	19.0	19.5	17.5
23	17.5	13.5	21.5	16.5	23.0	19.0	24.0	21.0	20.5	18.5	19.5	18.0
24	16.0	14.5	20.5	16.0	22.5	19.5	23.5	21.0	20.0	18.5	20.5	19.0
25	16.0	14.0	21.0	15.5	22.0	19.0	24.0	21.0	20.5	18.5	21.0	19.5
26	18.5	14.0	22.0	16.0	21.5	19.5	24.5	21.0	21.0	19.0	21.0	19.5
27	19.0	14.0	23.5	17.0	21.0	20.0	24.5	21.0	21.0	18.5	20.5	18.5
28	19.5	14.5	25.0	18.5	20.5	20.0	24.0	20.0	21.0	19.0	20.0	18.5
29	19.5	15.5	25.5	19.0	---	---	23.5	20.0	21.0	19.5	20.0	19.0
30	18.0	15.0	25.0	19.5	---	---	24.0	21.0	21.0	19.5	20.0	19.0
31	---	---	25.0	19.0	---	---	24.5	21.0	21.0	19.0	---	---
MONTH	19.5	11.0	25.5	14.0	27.0	18.5	24.5	18.5	24.5	18.5	22.0	16.5

## 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 (0.6 km) downstream from Dry Creek, and 5 mi (8 km) north of Napa.

DRAINAGE AREA.--218 mi<sup>2</sup> (565 km<sup>2</sup>).

## 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 (7.541 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow slightly regulated by Bell Canyon Reservoir beginning in 1959, capacity, 2,530 acre-ft (3.12 hm<sup>3</sup>) and Lake Hennessey beginning in December 1945, capacity, 31,000 acre-ft (38.2 hm<sup>3</sup>). Diversions for irrigation of about 10,000 acres (40.5 km<sup>2</sup>) above station.

AVERAGE DISCHARGE.--22 years, 179 ft<sup>3</sup>/s (5.069 m<sup>3</sup>/s), 129,700 acre-ft/yr (160 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft<sup>3</sup>/s (479 m<sup>3</sup>/s) Jan. 31, 1963, gage height, 27.59 ft (8.409 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft<sup>3</sup>/s (142 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Dec. 15	0500	5820	165	13.79	4.203	Jan. 16	1230	*15300	433	21.54	6.565
Jan. 5	1600	8490	240	16.38	4.993	Feb. 7	1515	8360	237	16.27	4.959
Jan. 9	1230	5310	150	13.22	4.029						

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	6.1	98	260	226	229	117	33	7.8	3.8	2.8
2		0	5.0	107	326	426	192	106	32	10	3.5	2.8
3		0	4.7	127	290	720	174	95	32	10	7.3	3.0
4		0	3.0	306	235	3050	343	93	30	8.9	5.4	3.0
5		0	6.1	4050	817	3010	253	86	29	11	4.7	3.3
6		0	5.4	1960	2060	1750	510	81	28	10	5.7	3.0
7		0	4.1	727	3100	1170	390	75	26	11	5.4	7.8
8		0	3.0	507	2300	1480	303	70	25	11	4.7	2.0
9		0	2.8	2540	1400	1770	250	69	23	11	5.0	2.3
10		0	3.3	1130	1250	1190	212	69	22	11	5.0	3.0
11		0	4.1	626	780	919	187	64	23	11	5.0	3.5
12		0	8.3	585	1460	768	171	63	23	9.5	4.7	2.8
13		0	9.5	873	1290	612	157	64	21	7.8	4.7	2.3
14		0	52	4190	1080	517	145	66	18	8.4	4.7	2.3
15		0	2380	4400	890	451	317	67	18	8.3	3.8	2.3
16		0	357	10200	750	404	351	64	17	8.3	4.1	2.5
17		0	538	4250	647	363	253	63	15	8.3	4.4	2.8
18		0	348	2100	565	334	214	58	16	7.3	4.1	2.8
19		0	182	2260	503	312	192	56	16	6.4	3.8	2.6
20		0	121	1470	449	295	217	54	12	6.1	4.1	2.8
21		600	102	1140	406	285	187	51	12	7.8	4.1	3.0
22		1500	431	892	366	287	162	50	13	7.3	3.8	3.9
23		71	1080	708	337	266	152	47	13	7.8	4.1	3.6
24		28	406	541	312	244	147	51	10	6.8	4.1	3.7
25		16	244	476	287	226	190	47	9.5	5.0	3.8	3.0
26		11	166	412	271	214	184	43	11	4.4	4.1	3.0
27		8.9	203	354	253	200	164	43	8.9	6.1	3.8	3.0
28		7.8	184	326	232	187	145	43	8.3	6.8	3.8	2.9
29		6.4	145	354	---	177	134	41	11	6.1	2.8	3.1
30		5.7	129	314	---	169	125	38	8.3	5.7	3.3	3.0
31		---	111	293	---	203	---	35	---	6.4	2.6	---
TOTAL	0	2254.8	7244.4	48316	22916	22225	6650	1969	564.0	253.3	134.2	91.9
MEAN	0	75.2	234	1559	818	717	222	63.5	18.8	8.17	4.33	3.06
MAX	0	1500	2380	10200	3100	3050	510	117	33	11	7.3	7.8
MIN	0	0	2.8	98	232	169	125	35	8.3	4.4	2.6	2.0
AC-FT	0	4470	14370	95830	45450	44080	13190	3910	1120	502	266	182
CAL YR 1977	TOTAL	9687.76	MEAN	26.5	MAX	2380	MIN	0	AC-FT	19220		
WTR YR 1978	TOTAL	112618.60	MEAN	309	MAX	10200	MIN	0	AC-FT	223400		

11458000 NAPA RIVER NEAR NAPA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971, 1973 to current year.  
 CHEMICAL ANALYSES: Water years 1973 to current year.  
 BIOLOGICAL DATA: Water year 1978.  
 SPECIFIC CONDUCTANCE: Water year 1978.  
 WATER TEMPERATURES: Water years 1977 to current year.  
 SEDIMENT RECORDS: Water years 1971, 1977 to current year.

PERIOD OF DAILY RECORD.--  
 SPECIFIC CONDUCTANCE: June to September 1978.  
 WATER TEMPERATURES: October 1976 to current year.  
 SEDIMENT RECORDS: October 1976 to current year.

INSTRUMENTATION: Water-quality monitor since June 1978.

REMARKS.--Differences between unadjusted recorder and field measurement values exceeded  $\pm 10$  percent micromhos for specific conductance and  $\pm 1.0^\circ\text{C}$  for water temperature, at times during calibration visits. Where no maximum or minimum is shown, temperature is once-daily reading.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 448 micromhos Sept. 30, 1978; minimum, 375 micromhos June 22, 1978.  
 WATER TEMPERATURES: Maximum recorded,  $27.5^\circ\text{C}$  July 18, 1978; minimum observed,  $9.0^\circ\text{C}$  Nov. 21, 1977.  
 SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,750 mg/L Jan. 16, 1978; minimum daily mean, no flow many days in 1976-77.  
 SEDIMENT DISCHARGE: Maximum daily, 58,100 tons (52,700 metric tons) Jan. 16, 1978; minimum daily, 0 ton (0 metric ton) on many days in 1976-77.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 448 micromhos Sept. 30; minimum 375 micromhos June 22.  
 WATER TEMPERATURES: Maximum,  $27.5^\circ\text{C}$  July 18; minimum observed,  $9.0^\circ\text{C}$  Nov. 21.  
 SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,750 mg/L Jan. 16; minimum daily mean, no flow many days.  
 SEDIMENT DISCHARGE: Maximum daily 58,100 tons (52,700 metric tons) Jan. 16; minimum daily, 0 ton (0 metric ton) on many days.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	COLI- FORM, FECAL UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JAN											
11...	1200	626	612	185	7.9	13.0	30	10.3	--	520	840
FEB											
16...	1430	750	772	206	7.3	11.5	30	10.6	--	K530	220
MAR											
02...	1030	426	429	252	7.7	13.5	--	--	11	--	--
08...	1055	1480	1010	191	7.8	13.5	--	--	62	--	--
08...	1300	1480	1370	183	7.3	13.5	--	--	19	--	--
08...	1350	1480	1600	175	6.6	13.5	--	--	19	--	--
08...	1445	1480	1780	164	7.8	13.5	--	--	30	--	--
08...	1615	1480	1980	142	7.6	14.0	--	--	40	--	--
09...	1015	1770	1780	164	7.8	13.5	--	--	21	--	--
09...	1415	1770	1680	169	7.8	14.0	--	--	26	--	--
10...	1030	1190	1200	187	7.9	12.5	--	--	13	--	--
15...	1145	451	451	230	7.7	14.0	9.0	10.2	--	76	44
APR											
17...	1215	253	250	236	7.9	14.0	7.0	--	--	110	60
MAY											
17...	1350	63	63	314	8.8	19.5	1.0	13.3	--	23	20
JUN											
01...	1445	33	34	347	8.8	23.6	--	14.6	--	--	--
01...	1545	33	34	343	8.9	23.9	--	14.5	--	--	--
01...	1645	33	33	341	8.9	24.1	--	14.2	--	--	--
01...	1715	33	32	339	8.9	24.0	--	13.8	--	--	--
01...	1745	33	32	337	8.9	23.9	--	13.3	--	--	--
01...	1800	33	32	336	8.9	23.8	--	13.0	--	--	--
01...	1815	33	32	335	8.9	23.8	--	12.7	--	--	--
01...	1830	33	31	337	8.9	23.7	--	12.4	--	--	--
01...	1845	33	31	337	8.9	23.7	--	12.1	--	--	--
01...	1900	33	31	336	8.9	23.6	--	11.9	--	--	--
01...	1915	33	31	335	8.9	23.6	--	11.6	--	--	--
01...	1930	33	31	335	8.9	23.5	--	11.3	--	--	--
01...	1945	33	31	335	8.9	23.5	--	11.1	--	--	--
01...	2000	33	30	335	8.8	23.4	--	10.8	--	--	--
01...	2015	33	30	335	8.8	23.4	--	10.6	--	--	--
01...	2030	33	30	334	8.8	23.3	--	10.3	--	--	--
01...	2045	33	30	334	8.8	23.3	--	10.1	--	--	--
01...	2100	33	30	337	8.8	23.2	--	9.8	--	--	--
01...	2115	33	30	337	8.8	23.2	--	9.6	--	--	--
01...	2130	33	30	336	8.8	23.1	--	9.3	--	--	--
01...	2145	33	30	336	8.7	23.0	--	9.2	--	--	--

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

## NAPA RIVER BASIN

11458000 NAPA RIVER NEAR NAPA, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUN											
01...	2200	33	30	336	8.7	22.9	--	8.9	--	--	--
01...	2215	33	30	335	8.5	22.9	--	8.9	--	--	--
01...	2245	33	30	341	8.6	22.7	--	8.4	--	--	--
01...	2315	33	30	342	8.5	22.5	--	8.0	--	--	--
01...	2345	33	30	342	8.5	22.3	--	7.7	--	--	--
02...	0015	32	30	346	8.4	22.1	--	7.4	--	--	--
02...	0045	32	30	346	8.3	21.8	--	7.2	--	--	--
02...	0115	32	31	349	8.2	21.5	--	7.0	--	--	--
02...	0145	32	31	352	8.0	21.2	--	6.8	--	--	--
02...	0215	32	31	352	7.9	21.0	--	6.6	--	--	--
02...	0245	32	31	351	7.8	20.8	--	6.4	--	--	--
02...	0315	32	32	353	7.7	20.5	--	6.3	--	--	--
02...	0345	32	32	353	7.6	20.4	--	6.2	--	--	--
02...	0415	32	32	359	7.6	20.2	--	6.1	--	--	--
02...	0515	32	32	355	7.6	20.0	--	6.2	--	--	--
02...	0530	32	32	356	7.6	19.9	--	6.1	--	--	--
02...	0545	32	32	356	7.5	19.9	--	6.1	--	--	--
02...	0600	32	32	356	7.5	19.8	--	6.0	--	--	--
02...	0615	32	32	356	7.5	19.8	--	5.9	--	--	--
02...	0630	32	32	356	7.5	19.8	--	5.9	--	--	--
02...	0645	32	32	360	7.5	19.7	--	5.9	--	--	--
02...	0700	32	32	360	7.5	19.7	--	5.9	--	--	--
02...	0715	32	32	360	7.5	19.7	--	6.0	--	--	--
02...	0730	32	32	360	7.5	19.7	--	6.1	--	--	--
02...	0745	32	32	360	7.5	19.7	--	6.2	--	--	--
02...	0800	32	33	358	7.5	19.6	--	6.4	--	--	--
02...	0815	32	33	358	7.6	19.6	--	6.6	--	--	--
02...	0830	32	33	358	7.6	19.6	--	6.8	--	--	--
02...	0845	32	33	360	7.6	19.6	--	7.0	--	--	--
02...	0900	32	33	360	7.7	19.6	--	7.2	--	--	--
02...	0915	32	33	360	7.7	19.6	--	7.6	--	--	--
02...	0930	32	33	360	7.7	19.7	--	8.0	--	--	--
02...	0945	32	33	360	7.8	19.7	--	8.3	--	--	--
02...	1000	32	34	360	7.8	19.7	--	8.5	--	--	--
02...	1015	32	34	357	7.9	19.8	--	9.0	--	--	--
02...	1030	32	34	359	8.0	19.9	--	9.5	--	--	--
02...	1045	32	34	360	8.0	20.1	--	10.0	--	--	--
02...	1100	32	34	354	8.1	20.3	--	10.5	--	--	--
02...	1115	32	34	355	8.2	20.5	--	11.0	--	--	--
02...	1130	32	34	356	8.3	20.7	--	11.4	--	--	--
02...	1145	32	34	354	8.3	20.9	--	11.8	--	--	--
02...	1200	32	34	355	8.4	21.1	--	12.2	--	--	--
02...	1215	32	34	353	8.5	21.3	--	12.5	--	--	--
02...	1230	32	34	364	8.5	21.5	--	12.8	--	--	--
02...	1245	32	34	364	8.6	21.6	--	13.5	--	--	--
02...	1300	32	34	359	8.6	21.8	--	13.7	--	--	--
02...	1315	32	34	363	8.6	22.0	--	13.8	--	--	--
02...	1330	32	34	364	8.7	22.2	--	14.0	--	--	--
02...	1345	32	34	362	8.7	22.4	--	14.2	--	--	--
02...	1400	32	34	364	8.8	22.6	--	14.3	--	--	--
02...	1415	32	34	362	8.8	22.8	--	14.5	--	--	--
02...	1430	32	34	362	8.8	22.9	--	14.5	--	--	--
02...	1445	32	33	363	8.8	23.0	--	14.6	--	--	--
13...	1145	21	19	411	8.5	21.0	.40	13.9	--	K10	29
JUL											
11...	1435	11	9.5	411	8.7	21.5	.50	15.1	--	20	K5
AUG											
09...	1315	5.0	4.8	424	8.6	25.5	.50	14.2	--	K4	K3
SEP											
22...	1355	3.9	2.9	431	7.0	19.5	.60	16.5	--	K2	K4

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



11458000 NAPA RIVER NEAR NAPA, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

		HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	
DATE	TIME											
JAN												
11...	1200	72	17	15	8.3	11	24	.6	2.5	67	0	
19...	1105	50	10	10	6.1	8.0	25	.5	2.2	49	--	
FEB												
16...	1430	89	16	16	12	10	19	.5	1.9	90	0	
MAR												
02...	1030	110	17	20	14	13	20	.5	2.0	110	0	
08...	1055	85	16	16	11	9.0	18	.4	2.0	85	0	
08...	1300	--	--	--	--	--	--	--	--	--	--	
08...	1350	--	--	--	--	--	--	--	--	--	--	
08...	1445	--	--	--	--	--	--	--	--	--	--	
08...	1615	59	7	11	7.6	7.5	21	.4	2.0	63	0	
09...	1015	69	9	13	8.8	7.6	19	.4	1.9	73	0	
09...	1415	--	--	--	--	--	--	--	--	--	--	
10...	1030	76	10	14	10	8.5	19	.4	1.9	81	0	
15...	1145	100	22	18	14	11	19	.5	1.8	98	0	
APR												
17...	1215	110	19	19	15	12	19	.5	2.0	110	0	
MAY												
17...	1350	140	20	24	19	16	20	.6	1.9	140	2	
JUN												
13...	1145	160	1	28	22	21	22	.7	2.4	--	--	
JUL												
11...	1435	180	28	30	25	23	22	.8	3.1	--	--	
AUG												
09...	1315	190	17	32	26	25	22	.8	3.1	--	--	
SEP												
22...	1355	190	24	33	27	25	22	.8	2.8	--	--	
DATE		ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JAN												
11...	55	19	8.8	.2	33	140	131	.19	--	2.7	--	--
19...	40	12	6.6	.1	28	--	105	.14	--	--	--	1.7
FEB												
16...	74	20	8.0	.1	30	147	142	.20	--	1.1	--	--
MAR												
02...	90	23	9.8	.1	11	165	151	.22	28	2.4	.86	--
08...	70	14	6.8	.1	28	132	135	.18	84	1.4	1.4	--
08...	--	--	--	--	--	125	--	.17	189	1.3	--	--
08...	--	--	--	--	--	120	--	.16	232	1.2	--	--
08...	--	--	--	--	--	110	--	.15	396	.99	--	--
08...	52	8.9	5.6	.1	24	100	102	.14	496	.83	.83	--
09...	60	14	5.4	.2	26	74	117	.10	260	.87	.90	--
09...	--	--	--	--	--	111	--	.15	174	.88	--	--
10...	66	15	6.2	.1	28	119	129	.16	116	1.1	1.1	--
15...	80	20	12	.1	32	162	157	.22	--	1.9	--	--
APR												
17...	90	22	8.9	.1	30	155	163	.21	--	1.5	--	--
MAY												
17...	120	33	12	.2	20	197	197	.27	--	1.8	--	--
JUN												
13...	160	35	19	.2	17	223	241	.30	--	2.0	--	--
JUL												
11...	150	42	19	.2	23	258	255	.35	--	1.2	--	--
AUG												
09...	170	37	18	.2	27	274	271	.37	--	.63	--	--
SEP												
22...	170	38	22	.2	25	282	275	.38	--	.42	--	--

## NAPA RIVER BASIN

11458000 NAPA RIVER NEAR NAPA, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	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)	NITRO- GEN,NH4 + ORG. SUSP. 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)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)
JAN 11...	.04	--	--	--	.46	--	.13	.08	3.6	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
FEB 16...	.12	.01	.13	.00	.15	1.2	.10	.06	--	3.6	.6
MAR 02...	--	--	.35	--	--	2.8	.07	--	--	--	--
08...	--	--	.43	--	--	1.8	.13	--	--	--	--
08...	--	--	.55	--	--	1.9	.20	--	--	--	--
08...	--	--	.62	--	--	1.8	.23	--	--	--	--
08...	--	--	.49	--	--	1.5	.28	--	--	--	--
08...	--	--	.61	--	--	1.4	.38	--	--	--	--
09...	--	--	.46	--	--	1.3	.21	--	--	--	--
09...	--	--	.41	--	--	1.3	.18	--	--	--	--
10...	--	--	.32	--	--	1.4	.14	--	--	--	--
15...	.00	.24	.24	.04	.20	2.1	.07	.03	2.5	--	--
APR 17...	.03	.33	.36	.01	.35	1.9	.07	.07	3.2	--	--
MAY 17...	.04	1.5	1.5	1.2	.29	3.3	.05	.06	--	1.8	.4
JUN 13...	.01	.54	.55	.01	.54	2.6	.06	.06	2.3	--	--
JUL 11...	.01	.51	.52	.07	.45	1.7	.16	.15	2.3	--	--
AUG 09...	.03	.48	.51	.05	.46	1.1	.23	.22	--	2.7	.3
SEP 22...	.02	.34	.36	.00	.38	.78	.30	.28	2.4	--	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS- PENDE TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)
JAN 19...	1105	--	--	--	--	--	--	80	--	--	--
FEB 16...	1430	2	0	2	100	100	0	--	2	1	1
MAR 02...	1030	--	--	--	--	--	--	150	--	--	--
08...	1055	--	--	--	--	--	--	90	--	--	--
08...	1615	--	--	--	--	--	--	80	--	--	--
09...	1015	--	--	--	--	--	--	70	--	--	--
10...	1030	--	--	--	--	--	--	80	--	--	--
MAY 17...	1350	1	0	1	100	0	100	--	4	3	1
AUG 09...	1315	3	1	2	200	0	300	--	0	0	0

DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, SUS- PENDE RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
JAN 19...	--	--	--	--	--	--	--	--	--	--
FEB 16...	10	10	0	0	0	0	10	8	2	2200
MAR 02...	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
MAY 17...	20	0	30	1	0	3	6	3	3	130
AUG 09...	0	0	0	3	2	1	5	3	2	90

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDED TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, SUS- PENDED RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDED RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
JAN 19...	--	--	--	--	--	--	--	--	--	--
FEB 16...	.0	1	1	0	1	1	0	30	20	10
MAR 02...	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
MAY 17...	.0	0	0	0	0	0	0	20	20	0
AUG 09...	.0	0	0	0	0	0	0	10	0	10

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PHYTOPLANKTON

DATE TIME	MAR 15,78 1145	MAY 17,78 1350	JUN 13,78 1145	JUL 11,78 1435	AUG 9,78 1315	SEP 22,78 1355				
TOTAL CELLS/ML	2100	800	3300	1100	720	140				
DIVERSITY: DIVISION	1.0	1.5	1.5	1.5	1.3	1.0				
..CLASS	1.0	1.5	1.5	1.5	1.3	1.0				
...ORDER	1.1	2.2	1.6	1.5	1.9	1.4				
...FAMILY	1.4	2.5	2.4	2.6	2.0	1.4				
....GENUS	1.5	2.5	2.5	3.1	2.0	1.7				
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	420	13	--	-	--	-
...OOCYSTACEAE										
...ANKISTRODESMUS	--	-	--	-	100	3	--	-	--	-
...OOCYSTIS	--	-	--	-	--		120	11	--	-
...SELENASTRUM	--	-	--	-	29	1	--	-	--	-
...TETRAEDRON	--	-	--	-	--		27	2	--	-
...SCENEDESMACEAE										
...SCENEDESMUS	130	6	300#	38	1700#	52	160	15	170#	24
...VOLVOCALES										
...CHLAMYDOMONADACEAE										
...CHLAMYDOMONAS	--	-	110	14	--	-	--	-	350#	48
...CHLOROCOCCALES										
...OOCYSTACEAE										
...GLOEOACTINIUM	--	-	--	-	--	-	230#	21	--	-
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
...COSCINODISCAEAE										
...CYCLOTELLA	44	2	80	10	--	-	--	-	--	-
...MELOSIRA	--	-	--	-	300	9	--	-	--	-
...STEPHANODISCUS	22	1	--	-	--	-	--	-	--	-
...PENNALES										
...ACHNANTHACEAE										
...ACHNANTHES	44	2	--	-	29	1	27	2	--	-
...COCCONEIS	--	-	32	4	130	4	27	2	--	-
...DIATOMACEAE										
...DIATOMA	--	-	16	2	--	-	14	1	--	-
...FRAGILARIACEAE										
...SYNEDRA	22	1	--	-	29	1	41	4	--	-
...GOMPHONEMACEAE										
...GOMPHONEMA	22	1	--	-	*	0	150	14	22	3
...NAVICULACEAE										
...NAVICULA	130	6	64	8	--	-	27	2	--	-
...NITZSCHIAEAE										
...NITZSCHIA	89	4	32	4	*	0	41	4	22	3
CRYPTOPHYTA (CRYPTOMONADS)										
..CRYPTOPHYCEAE										
...CRYPTOMONIDALES										
...CRYPTOCHRYSIDACEAE										
...CHROOMONAS	--	-	--	-	29	1	--	-	--	-
...CRYPTOMONODACEAE										
...CRYPTOMONAS	--	-	--	-	57	2	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROCCOCCALES										
...CHROCCOCCAEAE										
...AGMENELLUM	--	-	--	-	100	3	--	-	--	-
...ANACYSTIS	--	-	160#	20	110	3	220#	20	65	9
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
...EUGLENACEAE										
...EUGLENA	--	-	--	-	--	-	--	-	87	12
...TRACHELOMONAS	--	-	--	-	230	7	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
..DINOPHYCEAE										
...PERIDINIALES										
...PERIDINIACEAE										
...PERIDINIUM	1500#	75	--	-	--	-	--	-	--	-

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

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

## 11458000 NAPA RIVER NEAR NAPA, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll <sup>a</sup>	Chlorophyll <sup>b</sup>	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight	(mg/m <sup>2</sup> )	(mg/m <sup>2</sup> )		
May 17	31	23.2	15.0	16.0	6.55	512	Polyethylene strip do
July 11	29	22.4	17.5	24.8	4.32	198	

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), JUNE TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	409	401	405	406	382	398	431	417	426
2	---	---	---	408	401	405	411	381	397	431	417	427
3	---	---	---	414	398	407	410	391	400	433	419	429
4	---	---	---	410	399	405	404	389	398	435	421	429
5	---	---	---	411	399	405	419	396	408	435	425	431
6	---	---	---	409	398	405	420	406	415	438	427	433
7	---	---	---	410	401	406	419	406	414	440	383	420
8	---	---	---	419	395	409	423	409	418	433	411	425
9	---	---	---	417	406	412	424	414	420	431	404	421
10	---	---	---	412	405	410	424	412	419	420	398	411
11	---	---	---	412	405	409	426	410	417	428	402	414
12	---	---	---	413	408	410	420	403	413	445	428	438
13	---	---	---	418	401	408	416	401	410	441	430	434
14	---	---	---	418	403	412	419	403	413	434	428	431
15	---	---	---	419	406	412	421	407	415	432	426	430
16	---	---	---	422	409	415	421	407	415	432	426	429
17	---	---	---	421	406	415	421	401	414	430	426	428
18	---	---	---	423	405	415	421	405	414	433	423	428
19	---	---	---	420	405	414	421	405	415	431	423	428
20	---	---	---	420	404	413	421	407	416	435	423	431
21	---	---	---	432	407	416	421	408	415	437	421	431
22	396	375	388	415	401	410	421	406	413	437	419	431
23	404	388	394	414	399	409	420	406	413	436	426	432
24	403	393	396	412	396	405	420	408	415	439	429	435
25	403	397	399	414	394	405	422	410	416	442	431	437
26	406	397	401	423	395	407	422	408	416	443	430	436
27	407	396	401	413	392	403	422	412	418	444	431	438
28	408	397	402	406	390	400	426	414	421	444	434	440
29	408	400	404	408	389	399	426	412	422	447	437	443
30	412	396	407	409	389	399	430	414	423	448	440	445
31	---	---	---	406	390	400	430	416	423	---	---	---
MONTH	412	375	399	432	389	408	430	381	414	448	383	430

## NAPA RIVER BASIN

11458000 NAPA RIVER NEAR NAPA, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	OCT DAILY	MIN	MAX	NOV DAILY	MIN	MAX	DEC DAILY	MIN	MAX	JAN DAILY	MIN	MAX	FEB DAILY	MIN	MAX	MAR DAILY	MIN
1	--	--	--	--	--	--	--	--	--	--	10.5	--	--	11.5	--	--	--	--
2	--	--	--	--	--	--	--	13.0	--	--	--	--	--	13.0	--	--	13.5	--
3	--	--	--	--	--	--	--	--	--	--	--	--	--	13.0	--	--	--	--
4	--	--	--	--	--	--	--	13.5	--	--	--	--	--	12.0	--	--	--	--
5	--	--	--	--	--	--	--	12.5	--	--	12.0	--	--	13.0	--	--	--	--
6	--	--	--	--	--	--	--	--	--	--	11.5	--	--	12.0	--	--	--	--
7	--	--	--	--	--	--	--	--	--	--	--	--	--	12.0	--	--	--	--
8	--	--	--	--	--	--	--	11.0	--	--	--	--	--	12.0	--	--	13.5	--
9	--	--	--	--	--	--	--	--	--	--	--	--	--	11.0	--	--	13.5	--
10	--	--	--	--	--	--	--	--	--	--	--	--	--	12.5	--	--	13.5	--
11	--	--	--	--	--	--	--	--	--	--	13.0	--	--	11.5	--	--	14.0	--
12	--	--	--	--	--	--	--	--	--	--	--	--	--	10.0	--	--	14.5	--
13	--	--	--	--	--	--	--	11.0	--	--	--	--	--	11.0	--	--	--	--
14	--	--	--	--	--	--	--	12.0	--	--	12.5	--	--	12.5	--	--	--	--
15	--	--	--	--	--	--	--	11.5	--	--	--	--	--	--	--	--	13.0	--
16	--	--	--	--	--	--	--	--	--	--	--	--	--	11.5	--	--	17.0	--
17	--	--	--	--	--	--	--	--	--	--	--	--	--	11.5	--	--	17.5	--
18	--	--	--	--	--	--	--	--	--	--	--	--	--	14.0	--	--	17.0	--
19	--	--	--	--	--	--	--	--	--	--	--	--	--	14.0	--	--	--	--
20	--	--	--	--	--	--	--	--	--	--	12.0	--	--	14.0	--	--	16.0	--
21	--	--	--	--	9.0	--	--	9.5	--	--	12.0	--	--	14.5	--	--	--	--
22	--	--	--	--	13.0	--	--	--	--	--	10.5	--	--	15.5	--	--	15.5	--
23	--	--	--	--	12.0	--	--	--	--	--	10.5	--	--	--	--	--	16.0	--
24	--	--	--	--	--	--	--	--	--	--	10.0	--	--	14.0	--	--	16.0	--
25	--	--	--	--	--	--	--	--	--	--	11.5	--	--	14.0	--	--	16.5	--
26	--	--	--	--	--	--	--	11.5	--	--	12.0	--	--	--	--	--	16.5	--
27	--	--	--	--	--	--	--	--	--	--	12.0	--	--	--	--	--	17.0	--
28	--	--	--	--	--	--	--	--	--	--	12.5	--	--	--	--	--	17.0	--
29	--	--	--	--	--	--	--	--	--	--	11.0	--	--	--	--	--	16.0	--
30	--	--	--	--	--	--	--	--	--	--	11.0	--	--	--	--	--	17.0	--
31	--	--	--	--	--	--	--	--	--	--	11.0	--	--	--	--	--	16.0	--
MONTH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DAY	MAX	APR DAILY	MIN	MAX	MAY DAILY	MIN	MAX	JUN DAILY	MIN	MAX	JUL DAILY	MIN	MAX	AUG DAILY	MIN	MAX	SEP DAILY	MIN
1	--	15.0	--	--	19.0	--	--	--	--	24.0	--	19.5	25.5	--	21.0	25.0	--	19.5
2	--	16.0	--	--	20.5	--	--	23.5	--	23.5	--	19.5	24.5	--	19.5	25.0	--	20.0
3	--	--	--	--	21.0	--	--	--	--	24.0	--	19.0	25.0	--	20.0	24.5	--	20.5
4	--	12.0	--	--	20.0	--	--	--	--	24.5	--	20.0	25.5	--	21.0	24.5	--	20.5
5	--	13.5	--	--	18.0	--	--	--	--	25.0	--	20.5	27.0	--	21.0	22.5	--	21.0
6	--	14.0	--	--	19.0	--	--	20.0	--	24.5	--	21.0	27.0	--	22.5	22.5	--	19.0
7	--	14.0	--	--	--	--	--	--	--	23.5	--	20.5	27.0	--	22.5	21.5	--	17.5
8	--	14.0	--	--	19.5	--	--	21.0	--	25.0	--	20.5	27.0	--	22.0	22.0	--	17.0
9	--	15.0	--	--	20.5	--	--	--	--	26.0	--	22.0	26.0	--	22.0	19.5	--	18.0
10	--	19.0	--	--	21.0	--	--	21.5	--	24.5	--	21.0	25.0	--	21.0	20.0	--	17.5
11	--	18.5	--	--	21.0	--	--	21.5	--	22.5	--	20.0	24.5	--	19.5	22.5	--	17.5
12	--	18.5	--	--	20.0	--	--	23.0	--	23.0	--	19.0	24.0	--	19.5	23.5	--	18.0
13	--	18.0	--	--	22.0	--	--	21.0	--	25.0	--	19.0	24.0	--	19.0	23.0	--	18.0
14	--	--	--	--	20.0	--	--	22.5	--	26.0	--	20.5	24.5	--	19.5	23.5	--	18.0
15	--	--	--	--	19.5	--	--	--	--	25.5	--	20.5	24.5	--	20.0	24.0	--	18.5
16	--	--	--	--	19.5	--	--	22.0	--	26.0	--	20.5	24.0	--	20.5	24.5	--	19.5
17	--	14.0	--	--	19.5	--	--	--	--	27.0	--	21.0	24.0	--	19.0	23.0	--	19.0
18	--	--	--	--	--	--	--	22.0	--	27.5	--	21.5	24.0	--	19.0	21.5	--	17.5
19	--	--	--	--	23.0	--	--	--	--	27.0	--	21.5	24.5	--	19.5	21.0	--	16.0
20	--	--	--	--	--	--	--	--	--	26.0	--	20.5	24.5	--	19.5	21.0	--	15.5
21	--	--	--	--	21.5	--	--	23.0	--	26.0	--	20.5	24.0	--	19.5	21.5	--	16.0
22	--	--	--	--	--	--	--	23.5	--	27.0	--	21.5	23.0	--	18.5	21.5	--	16.5
23	--	--	--	--	20.5	--	--	23.5	--	26.0	--	21.0	23.0	--	18.0	22.5	--	17.0
24	--	--	--	--	--	--	--	23.5	--	26.5	--	21.0	23.0	--	18.5	23.5	--	18.0
25	--	--	--	--	20.0	--	--	24.0	--	25.5	--	21.0	23.0	--	19.5	23.5	--	19.0
26	--	--	--	--	--	--	--	23.5	--	25.5	--	20.0	24.0	--	19.5	22.5	--	18.5
27	--	--	--	--	21.0	--	--	22.0	--	25.5	--	20.5	24.0	--	19.0	22.5	--	17.5
28	--	--	--	--	--	--	--	21.0	--	25.0	--	20.0	24.5	--	19.0	22.5	--	17.5
29	--	--	--	--	--	--	--	23.0	--	25.0	--	20.0	24.5	--	19.5	22.5	--	17.5
30	--	--	--	--	--	--	--	23.5	--	25.0	--	20.0	24.5	--	20.0	23.0	--	18.0
31	--	--	--	--	24.5	--	--	--	--	26.0	--	20.5	24.5	--	19.5	--	--	--
MONTH	--	--	--	--	--	--	--	--	--	27.5	--	19.0	27.0	--	18.0	25.0	--	15.5

11458000 NAPA RIVER NEAR NAPA, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1				0	0	0	6.1	6	.10
2				0	0	0	5.0	5	.07
3				0	0	0	4.7	8	.10
4				0	0	0	3.0	5	.04
5				0	0	0	6.1	3	.05
6				0	0	0	5.4	4	.06
7				0	0	0	4.1	7	.08
8				0	0	0	3.0	11	.09
9				0	0	0	2.8	10	.08
10				0	0	0	3.3	8	.07
11				0	0	0	4.1	7	.08
12				0	0	0	8.3	7	.16
13				0	0	0	9.5	3	.08
14				0	0	0	52	35	45
15				0	0	0	2380	917	9990
16				0	0	0	357	72	69
17				0	0	0	538	99	154
18				0	0	0	348	39	37
19				0	0	0	182	22	11
20				0	0	0	121	14	4.6
21				600	680	1100	102	10	2.8
22				1500	986	9210	431	70	128
23				71	52	10	1080	226	776
24				28	14	1.1	406	60	66
25				16	9	.39	244	27	18
26				11	8	.24	166	11	4.9
27				8.9	7	.17	203	13	7.1
28				7.8	7	.15	184	11	5.5
29				6.4	6	.10	145	11	4.3
30				5.7	6	.09	129	10	3.5
31				---	---	---	111	9	2.7
TOTAL	0	0	0	2254.80	---	10322.24	7244.4	---	11330.46

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	98	8	2.1	260	17	12	226	21	13
2	107	8	2.3	326	33	29	426	96	122
3	127	12	4.1	290	27	21	720	104	210
4	306	51	77	235	15	9.5	3050	650	6120
5	4050	1190	19200	817	366	1120	3010	426	3500
6	1960	405	2140	2060	659	4400	1750	262	1240
7	727	114	224	3100	790	6610	1170	174	550
8	507	72	99	2300	580	3600	1480	545	2910
9	2540	882	8300	1400	320	1210	1770	448	2420
10	1130	254	856	1250	250	844	1190	122	392
11	626	75	127	780	125	263	919	105	261
12	585	82	150	1460	320	1260	768	98	203
13	873	105	259	1290	260	906	612	78	129
14	4190	1030	16900	1080	200	583	517	62	87
15	4400	958	12900	890	160	384	451	56	68
16	10200	1750	58100	750	92	186	404	46	50
17	4250	1020	12700	647	82	143	363	39	38
18	2100	451	2640	565	74	113	334	35	32
19	2260	534	3410	503	68	92	312	28	24
20	1470	280	1110	449	64	78	295	25	20
21	1140	178	548	406	59	65	285	22	17
22	892	135	325	366	55	54	287	27	21
23	708	118	226	337	50	45	266	23	17
24	541	74	108	312	44	37	244	21	14
25	476	48	62	287	39	30	226	21	13
26	412	34	38	271	34	25	214	20	12
27	354	28	27	253	29	20	200	18	9.7
28	326	24	21	232	24	15	187	18	9.1
29	354	29	28	---	---	---	177	14	6.7
30	314	20	17	---	---	---	169	9	4.1
31	293	18	14	---	---	---	203	22	12
TOTAL	48316	---	140614.5	22916	---	22154.5	22225	---	18524.6

## NAPA RIVER BASIN

11458000 NAPA RIVER NEAR NAPA, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	229	24	15	117	11	3.5	33	6	.53
2	192	17	8.8	106	11	3.1	32	3	.26
3	174	13	6.1	95	9	2.3	32	3	.26
4	343	131	135	93	8	2.0	30	2	.16
5	253	37	25	86	7	1.6	29	2	.16
6	510	128	192	81	6	1.3	28	2	.15
7	390	84	88	75	5	1.0	26	3	.21
8	303	52	43	70	5	.94	25	4	.27
9	250	33	22	69	6	1.1	23	3	.19
10	212	26	15	69	5	.93	22	2	.12
11	187	23	12	64	4	.69	23	3	.19
12	171	16	7.4	63	4	.68	23	4	.25
13	157	11	4.7	64	4	.69	21	3	.17
14	145	10	3.9	66	9	1.6	18	5	.24
15	317	59	69	67	4	.72	18	5	.24
16	351	30	28	64	8	1.4	17	6	.28
17	253	16	11	63	4	.68	15	6	.24
18	214	12	6.9	58	4	.63	16	7	.30
19	192	11	5.7	56	4	.60	16	6	.26
20	217	10	5.9	54	4	.58	12	5	.16
21	187	9	4.5	51	4	.55	12	4	.13
22	162	8	3.5	50	4	.54	13	4	.14
23	152	7	2.9	47	4	.51	13	3	.11
24	147	6	2.4	51	5	.69	10	3	.08
25	190	15	7.7	47	4	.51	9.5	3	.08
26	184	14	7.0	43	3	.35	11	3	.09
27	164	14	6.2	43	3	.35	8.9	4	.10
28	145	13	5.1	43	4	.46	8.3	6	.13
29	134	12	4.3	41	7	.77	11	4	.12
30	125	12	4.1	38	7	.72	8.3	3	.07
31	---	---	---	35	8	.76	---	---	---
TOTAL	6650	---	752.1	1969	---	32.25	564.0	---	5.69
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	7.8	3	.06	3.8	3	.03	2.8	3	.02
2	10	3	.08	3.5	3	.03	2.8	3	.02
3	10	3	.08	7.3	3	.06	3.0	3	.02
4	8.9	3	.07	5.4	3	.04	3.0	3	.02
5	11	4	.12	4.7	4	.05	3.3	3	.03
6	10	5	.14	5.7	5	.08	3.0	4	.03
7	11	5	.15	5.4	6	.09	7.8	10	.21
8	11	5	.15	4.7	4	.05	2.0	6	.03
9	11	3	.09	5.0	1	.01	2.3	4	.02
10	11	2	.06	5.0	1	.01	3.0	3	.02
11	11	3	.09	5.0	2	.03	3.5	2	.02
12	9.5	1	.03	4.7	2	.03	2.8	2	.02
13	7.8	1	.02	4.7	4	.05	2.3	2	.01
14	8.4	2	.05	4.7	2	.03	2.3	2	.01
15	8.3	1	.02	3.8	1	.01	2.3	2	.01
16	8.3	1	.02	4.1	1	.01	2.5	2	.01
17	8.3	1	.02	4.4	1	.01	2.8	3	.02
18	7.3	2	.04	4.1	2	.02	2.8	3	.02
19	6.4	2	.03	3.8	3	.03	2.6	3	.02
20	6.1	3	.05	4.1	3	.03	2.8	3	.02
21	7.8	3	.06	4.1	4	.04	3.0	4	.03
22	7.3	3	.06	3.8	4	.04	3.9	5	.05
23	7.8	3	.06	4.1	5	.06	3.6	5	.05
24	6.8	3	.06	4.1	4	.04	3.7	4	.04
25	5.0	3	.04	3.8	4	.04	3.0	3	.02
26	4.4	4	.05	4.1	3	.03	3.0	3	.02
27	6.1	4	.07	3.8	3	.03	3.0	2	.02
28	6.8	6	.11	3.8	3	.03	2.9	2	.02
29	6.1	5	.08	2.8	3	.02	3.1	2	.02
30	5.7	4	.06	3.3	3	.03	3.0	2	.02
31	6.4	3	.05	2.6	4	.03	---	---	---
TOTAL	253.3	---	2.07	134.2	---	1.09	91.9	---	.87
YEAR	112618.6		203740.37						



11458000 NAPA RIVER NEAR NAPA, CA--Continued

## SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1977	0.0	0.0	0	0
NOVEMBER ...	2254.80	10322.24	104	10400
DECEMBER ...	7244.40	11330.46	269	11600
JANUARY 1978	48316.00	140614.50	4000	145000
FEBRUARY ...	22916.00	22154.50	1170	23300
MARCH .....	22225.00	18524.60	1160	19700
APRIL .....	6650.00	752.10	7	759
MAY .....	1969.00	32.25	0	32
JUNE .....	564.00	5.69	0	6
JULY .....	253.30	2.07	0	2
AUGUST .....	134.20	1.09	0	1
SEPTEMBER ..	91.90	0.87	0	1
TOTAL .....	112618.60	203740.37	6710	210801

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	
NOV									
21...	1525	9.0	167	287	465	59	75	87	
21...	1820	11.0	869	802	1300	52	70	84	
22...	1340	13.0	463	241	976	60	74	83	
DEC									
15...	1745	12.0	854	270	1740	49	59	71	
JAN									
06...	1240	11.5	1490	322	1700	37	46	57	
14...	1340	12.5	4320	846	9570	--	36	47	
FEB									
07...	1235	12.0	7330	1860	15600	--	36	44	
12...	1245	10.0	2410	617	2430	26	35	43	
APR									
17...	1200	14.0	250	18	12	--	--	--	
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
NOV									
21...	97	99	100	--	--	--	--	--	--
21...	94	98	100	--	--	--	--	--	--
22...	91	96	97	99	100	--	--	--	--
DEC									
15...	82	90	94	98	100	--	--	--	--
JAN									
06...	68	79	83	88	93	97	99	100	100
14...	57	68	77	85	93	97	99	100	100
FEB									
07...	55	65	73	84	95	99	100	--	--
12...	53	64	74	85	98	100	--	--	--
APR									
17...	--	--	83	91	100	--	--	--	--

## NAPA RIVER BASIN

11458000 NAPA RIVER NEAR NAPA, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SEDIMENT IN TRANSIT WITHIN 0.25 FOOT OF BED SURFACE,  
WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (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 .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
NOV									
21...	1450	9.0	--	62	51	.00	--	--	--
22...	1430	13.0	7	415	52	9.2	--	0	1
DEC									
05...	1055	12.5	--	6.1	--	.00	--	--	--
15...	1635	12.0	5	930	56	23	--	0	2
JAN									
06...	1345	11.5	7	1420	57	102	0	1	2
11...	1330	13.0	6	595	53	21	0	1	1
FEB									
07...	1300	12.0	4	7560	81	835	1	1	8
APR									
05...	1420	13.0	--	243	47	.00	--	--	--
17...	1200	14.0	--	250	47	.00	--	--	--
MAY									
17...	1305	19.5	--	63	41	.00	--	--	--
JUN									
13...	1125	21.0	--	19	45	.00	--	--	--
JUL									
11...	1410	21.5	--	9.4	32	.00	--	--	--
AUG									
09...	1305	25.5	--	4.8	8.0	.00	--	--	--

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
NOV								
21...	--	--	--	--	--	--	--	--
22...	4	11	23	39	63	90	100	--
DEC								
05...	--	--	--	--	--	--	--	--
15...	9	23	46	66	84	95	100	--
JAN								
06...	12	33	51	69	83	94	100	--
11...	6	24	49	79	95	100	--	--
FEB								
07...	35	46	51	57	65	78	93	100
APR								
05...	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--
MAY								
17...	--	--	--	--	--	--	--	--
JUN								
13...	--	--	--	--	--	--	--	--
JUL								
11...	--	--	--	--	--	--	--	--
AUG								
09...	--	--	--	--	--	--	--	--

## 11458100 MILLIKEN CREEK NEAR NAPA, CA

LOCATION.--Lat 38°20'19", long 122°16'06", in Yajome Grant, Napa County, Hydrologic Unit 18050002, on right bank at upstream side of Medgeside Road bridge, 3.0 mi (4.8 km) northwest of town of Napa.

DRAINAGE AREA.--17.3 mi<sup>2</sup> (44.8 km<sup>2</sup>).

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 37.68 ft (11.485 m) National Geodetic Vertical Datum of 1929 (levels by county of Napa).

REMARKS.--Records good. Flow regulated by Milliken Reservoir, capacity, 2,000 acre-ft (2.47 km<sup>3</sup>) and by several small lakes and diversion dams on the Silverado Golf Course; diversions above station for irrigation of about 500 acres (2.02 km<sup>2</sup>).

AVERAGE DISCHARGE.--8 years, 20.5 ft<sup>3</sup>/s (0.581 m<sup>3</sup>/s), 14,850 acre-ft/yr (18.3 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,160 ft<sup>3</sup>/s (259 m<sup>3</sup>/s) Jan. 16, 1978, gage height, 8.47 ft (2.582 m), from rating curve extended above 1,100 ft<sup>3</sup>/s (31.2 m<sup>3</sup>/s); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft<sup>3</sup>/s (17 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 1,100 ft<sup>3</sup>/s (31.2 m<sup>3</sup>/s):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Nov. 21	2115	7260	206	7.61	2.320	Jan. 9	0845	2570	72.8	5.06	1.542
Dec. 15	0015	1060	30.0	3.81	1.161	Jan. 16	1030	*9160	259	8.47	2.582
Dec. 22	2345	940	26.6	3.68	1.122	Feb. 7	1100	2590	73.3	5.07	1.545
Jan. 5	0900	3640	103	5.72	1.743	Mar. 5	0500	1220	34.6	3.98	1.213

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	3.4	18	3.5	10	28	9.9	1.1	.74	.20	.16
2		0	1.9	18	6.2	35	24	3.1	1.7	.65	.27	.19
3		0	1.9	27	5.3	72	21	2.7	1.3	.72	.12	.06
4		0	1.9	67	3.4	654	37	2.3	1.5	.76	.16	0
5		0	1.8	1310	34	677	22	2.5	1.7	.72	.18	.06
6		.37	1.7	348	133	139	87	2.6	1.7	.54	.02	.01
7		.02	2.0	88	592	80	49	2.4	1.7	.14	.03	0
8		0	1.7	66	307	137	31	2.4	1.7	.23	.32	0
9		0	1.7	823	259	136	23	2.0	1.7	.66	.16	.39
10		0	1.6	143	77	75	21	1.9	1.5	.67	.10	1.1
11		0	1.9	71	51	67	20	1.3	1.6	.97	.44	.49
12		.40	2.1	130	181	58	20	2.8	1.7	.67	.36	.71
13		1.4	2.0	140	112	36	19	.51	2.1	.58	.28	.72
14		.60	117	1310	84	28	18	.54	2.3	.54	.24	.50
15		.52	218	895	60	22	46	.52	1.3	.42	.11	.48
16		.54	26	2870	48	21	29	.46	1.5	.39	.42	.70
17		.71	80	490	37	16	24	.76	1.3	.34	.49	.85
18		.42	29	136	29	14	24	.78	1.5	.71	.09	.87
19		.40	17	162	23	10	24	.64	1.7	.46	0	.85
20		.42	12	46	20	8.6	24	.52	1.8	.26	0	1.1
21		1100	12	33	17	8.0	24	.60	1.3	.21	0	1.2
22		159	102	25	14	15	19	.65	.89	.35	0	1.3
23		16	143	19	11	12	15	.92	.55	.44	0	1.1
24		8.4	32	13	8.8	9.5	12	.64	.43	1.2	0	1.0
25		5.4	20	14	7.0	6.8	22	.46	.43	1.4	.21	.97
26		3.8	19	13	5.6	5.9	24	.55	.44	1.3	.21	1.0
27		3.0	21	13	4.8	5.2	16	.57	.46	.95	0	1.1
28		2.7	24	9.7	4.3	3.1	12	.51	.53	.31	0	.40
29		2.1	22	7.5	---	3.1	9.0	.50	.42	.34	.22	.49
30		2.2	20	5.7	---	3.7	7.0	.35	.74	.06	.27	.52
31		---	25	3.8	---	20	---	.50	---	.32	.09	---
TOTAL	0	1308.40	964.6	9314.7	2137.9	2387.9	751.0	46.88	38.59	18.05	4.99	18.32
MEAN	0	43.6	31.1	300	76.4	77.0	25.0	1.51	1.29	.58	.16	.61
MAX	0	1100	218	2870	592	677	87	9.9	2.3	1.4	.49	1.3
MIN	0	0	1.6	3.8	3.4	3.1	7.0	.35	.42	.06	0	0
AC-FT	0	2600	1910	18480	4240	4740	1490	93	77	36	9.9	36

CAL YR 1977 TOTAL 2462.14 MEAN 6.75 MAX 1100 MIN 0 AC-FT 4880  
WTR YR 1978 TOTAL 16991.33 MEAN 46.6 MAX 2870 MIN 0 AC-FT 33700

## NAPA RIVER BASIN

11458300 NAPA CREEK AT NAPA, CA

LOCATION.--Lat 38°18'07", long 122°18'10", in Napa Grant, Napa County, Hydrologic Unit 18050002, on left bank 150 ft (46 m) upstream from bridge on State Highway 29 in town of Napa, 0.6 mi (1.0 km) downstream from confluence of Redwood and Browns Creeks.

DRAINAGE AREA.--14.9 mi<sup>2</sup> (38.6 km<sup>2</sup>).

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 32.60 ft (9.936 m) National Geodetic Vertical Datum of 1929 (levels by county of Napa).

REMARKS.--Records fair. No regulation; small diversion above station for domestic use.

AVERAGE DISCHARGE.--8 years, 15.5 ft<sup>3</sup>/s (0.439 m<sup>3</sup>/s), 11,230 acre-ft/yr (13.8 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,660 ft<sup>3</sup>/s (75.3 m<sup>3</sup>/s) Jan. 16, 1978, gage height, 11.16 ft (3.402 m), from rating curve extended above 1,100 ft<sup>3</sup>/s (31.2 m<sup>3</sup>/s); no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft<sup>3</sup>/s (17 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 1,100 ft<sup>3</sup>/s (31.2 m<sup>3</sup>/s):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 21	2200	2380 67.4	10.46 3.188	Jan. 14	1900	2150 60.9	9.86 3.005
Dec. 14	2300	1380 39.1	7.74 2.359	Jan. 16	0815	*2660 75.3	11.16 3.402
Dec. 22	2200	1080 30.6	6.75 2.057	Feb. 7	1000	1570 44.5	8.29 2.527
Jan. 5	1000	900 25.5	6.13 1.868	Feb. 12	1230	847 24.0	5.93 1.807
Jan. 9	0615	964 27.3	6.36 1.939	Mar. 4	0630	944 26.7	6.29 1.917

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.58	22	13	21	38	10	2.4	.51	.14	.05
2	0	0	.52	25	15	59	24	9.0	2.1	.50	.11	.07
3	0	0	.44	28	13	82	24	8.0	1.9	.55	.10	.07
4	0	1.7	.40	89	12	480	60	7.2	1.7	.53	.12	.07
5	0	5.6	.37	450	80	340	28	7.1	1.5	.50	.13	.07
6	0	.07	.35	157	183	140	95	6.9	1.4	.54	.09	.07
7	0	.04	.32	76	439	110	39	6.0	1.2	.57	.10	.05
8	0	.03	.30	55	286	190	31	5.2	1.0	.53	.14	.04
9	0	.03	.29	304	210	150	24	5.2	.85	.52	.09	2.9
10	0	.02	.28	82	118	95	20	5.2	.76	.56	.14	.50
11	0	.02	2.8	50	86	73	18	4.7	.61	.50	.17	.14
12	0	.02	1.4	67	275	66	17	4.7	.58	.46	.16	.09
13	0	.02	1.0	91	145	69	16	4.7	.56	.50	.08	.07
14	0	.02	187	696	91	42	15	4.9	.55	.42	.09	.06
15	0	.02	239	348	79	36	60	4.2	.56	.30	.09	.05
16	0	.01	44	1010	63	32	34	4.2	.51	.29	.08	.04
17	0	.01	159	277	62	30	23	4.2	.49	.30	.05	.03
18	0	.01	51	197	46	26	19	4.0	.50	.29	.04	.02
19	0	.01	34	205	40	24	17	4.0	.50	.26	.04	.01
20	0	.01	25	129	36	21	22	3.6	.49	.26	.05	.01
21	0	662	33	92	32	22	17	3.6	.47	.27	.04	.02
22	0	150	200	60	29	24	14	3.6	.50	.25	.01	.03
23	0	20	152	43	25	23	13	3.2	.49	.20	.01	.03
24	0	7.5	51	35	24	20	14	3.0	.44	.20	.02	.03
25	0	2.9	35	31	23	17	24	2.7	.44	.19	.04	.01
26	0	1.5	32	27	21	15	16	2.6	.47	.14	.06	.01
27	0	1.1	31	23	19	15	15	2.6	.40	.26	.06	.01
28	.73	1.0	35	19	17	16	13	2.6	.44	.18	.06	.01
29	.02	.96	31	17	---	16	12	2.6	.48	.14	.05	.01
30	0	.63	32	15	---	15	11	2.6	.53	.12	.04	.03
31	0	---	24	14	---	30	---	2.6	---	.14	.05	---
TOTAL	.75	855.23	1404.05	4734	2482	2299	773	144.7	24.82	10.98	2.45	4.60
MEAN	.024	28.5	45.3	153	88.6	74.2	25.8	4.67	.83	.35	.079	.15
MAX	.73	662	239	1010	439	480	95	10	2.4	.57	.17	2.9
MIN	0	0	.28	14	12	15	11	2.6	.40	.12	.01	.01
AC-FT	1.5	1700	2780	9390	4920	4560	1530	287	49	22	4.9	9.1
CAL YR 1977	TOTAL	2349.17	MEAN	6.44	MAX	662	MIN	0	AC-FT	4660		
WTR YR 1978	TOTAL	12735.58	MEAN	34.9	MAX	1010	MIN	0	AC-FT	25260		

## 11458350 TULUCAY CREEK AT NAPA, CA

LOCATION.--Lat 38°17'09", long 122°16'29", in Tulucay Grant, Napa County, Hydrologic Unit 18050002, on left bank 150 ft (46 m) downstream from bridge on State Highways 12 and 29 in Napa.

DRAINAGE AREA.--12.6 mi<sup>2</sup> (32.6 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 3.65 ft (1.113 m) National Geodetic Vertical Datum of 1929 (levels by county of Napa).

REMARKS.--Records good. No regulation; some small diversions above station for irrigation of about 30 acres (121,000 m<sup>2</sup>).

AVERAGE DISCHARGE.--7 years, 8.28 ft<sup>3</sup>/s (0.234 m<sup>3</sup>/s), 6,000 acre-ft/yr (7.40 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,940 ft<sup>3</sup>/s (54.9 m<sup>3</sup>/s) Jan. 16, 1978, gage height, 5.03 ft (1.533 m), from rating curve extended above 560 ft<sup>3</sup>/s (15.9 m<sup>3</sup>/s); maximum gage height, 5.55 ft (1.692 m) Jan. 16, 1973 (affected by tide); no flow many days in 1977-78.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft<sup>3</sup>/s (11 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 560 ft<sup>3</sup>/s (15.9 m<sup>3</sup>/s):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Jan. 4	1500	567	16.1	3.80	1.158	Jan. 16	1030	*1940	54.9	5.03	1.533
Jan. 9	0745	746	21.1	4.03	1.228	Feb. 8	2145	610	17.3	3.86	1.177

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.02	1.2	10	5.6	6.0	15	2.2	.17	.05	.03	.02
2	.02	.02	1.1	10	5.2	25	11	2.1	.11	.06	.04	.01
3	.02	.01	.94	11	4.5	35	10	1.8	.16	.05	.04	.04
4	0	.40	.94	87	4.2	162	19	1.7	.16	.06	.04	.04
5	0	.34	.87	181	19	157	11	1.5	.15	.05	.04	.02
6	0	.02	1.3	120	56	73	42	1.4	.15	.05	.05	.02
7	0	.04	.87	50	161	42	25	1.3	.14	.04	.04	.01
8	0	.02	.80	33	128	69	18	1.2	.14	.05	.04	.02
9	0	.02	.80	223	141	85	13	1.2	.13	.05	.05	.69
10	0	.02	.74	83	62	48	10	1.1	.12	.06	.07	.15
11	0	.04	1.3	42	38	35	7.7	1.0	.12	.05	.06	.08
12	0	.02	1.1	57	127	28	6.8	.98	.11	.04	.06	.08
13	0	.02	.87	73	105	20	6.0	.99	.12	.03	.08	.09
14	0	.02	.46	376	59	15	5.6	.89	.12	.02	.09	.13
15	0	.04	103	239	39	12	25	1.1	.12	.02	.08	.11
16	0	.04	23	641	27	10	14	.85	.11	.02	.06	.15
17	0	.04	89	195	20	8.2	8.8	.75	.10	.02	.05	.15
18	0	.05	33	115	16	7.3	6.8	.71	.10	.02	.05	.15
19	0	.04	17	132	14	6.4	6.4	.71	.08	.01	.05	.15
20	0	.04	11	69	11	6.4	6.0	.51	.08	.02	.05	.17
21	0	.86	10	43	9.4	7.7	4.8	.38	.08	.02	.05	.15
22	0	.40	59	30	8.2	9.4	4.2	.31	.07	.02	.05	.15
23	0	6.4	89	22	7.3	11	3.9	.34	.07	.02	.04	.17
24	0	3.9	29	16	6.4	7.3	3.9	.31	.05	.02	.03	.17
25	0	2.8	18	14	6.0	6.0	5.2	.30	.05	.02	.03	.17
26	0	2.4	16	11	6.0	5.6	3.9	.29	.05	.02	.02	.19
27	0	2.1	18	9.4	5.6	5.2	3.3	.26	.07	.02	.02	.19
28	.11	1.7	21	7.7	4.8	4.8	3.1	.23	.06	.01	.01	.21
29	.06	1.5	19	6.8	---	4.5	2.6	.22	.06	0	.05	.21
30	.02	1.3	16	6.0	---	4.2	2.4	.20	.05	.04	.06	.24
31	.02	---	13	6.0	---	19	---	.18	---	.03	.04	---
TOTAL	.26	149.36	642.83	2918.9	1096.2	935.0	304.4	27.01	3.10	.99	1.47	4.13
MEAN	.008	4.98	20.7	94.2	39.2	30.2	10.1	.87	.10	.032	.047	.14
MAX	.11	.86	103	641	161	162	42	2.2	.17	.06	.09	.69
MIN	0	.01	.74	6.0	4.2	4.2	2.4	.18	.05	0	.01	.01
AC-FT	.5	296	1280	5790	2170	1850	604	54	6.1	2.0	2.9	8.2

CAL YR 1977	TOTAL	877.76	MEAN	2.40	MAX	103	MIN	0	AC-FT	1740
WTR YR 1978	TOTAL	6083.65	MEAN	16.7	MAX	641	MIN	0	AC-FT	12070

## SONOMA CREEK BASIN

11458500 SONOMA CREEK AT AGUA CALIENTE, CA

LOCATION.--Lat 38°19'24", long 122°29'36", in Agua Caliente Grant, Sonoma County, Hydrologic Unit 18050002, on left bank 20 ft (6 m) upstream from bridge, and 0.4 mi (0.6 km) west of Agua Caliente.

DRAINAGE AREA.--58.4 mi<sup>2</sup> (151.3 km<sup>2</sup>).

PERIOD OF RECORD.--February 1955 to current year. Prior to October 1966, published as "at Boyes Hot Springs".

GAGE.--Water-stage recorder. Datum of gage is 104.28 ft (31.785 m) National Geodetic Vertical Datum of 1929.

Prior to July 24, 1967, at site 0.8 mi (1.3 km) downstream at different datum. July 24, 1967, to Oct. 9, 1968, at site 130 ft (40 m) upstream at different datum.

REMARKS.--Records good. No regulation; some diversion above station for irrigation of about 2,000 acres (8.09 km<sup>2</sup>).

AVERAGE DISCHARGE.--23 years, 71.0 ft<sup>3</sup>/s (2.011 m<sup>3</sup>/s), 51,440 acre-ft/yr (63.4 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,880 ft<sup>3</sup>/s (251 m<sup>3</sup>/s) Dec. 22, 1955, gage height, 17.10 ft (5.212 m) site and datum then in use, from rating curve extended above 4,100 ft<sup>3</sup>/s (116 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,300 ft<sup>3</sup>/s (65 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 1,500 ft<sup>3</sup>/s (42.5 m<sup>3</sup>/s):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 21	2115	4920 139	11.56 3.523	Jan. 14	1830	*7110 201	13.66 4.164
Dec. 14	2345	3870 110	10.47 3.191	Jan. 16	0645	6910 196	13.48 4.109
Jan. 5	0915	5430 154	12.08 3.682	Feb. 7	0945	5470 155	12.12 3.694
Jan. 9	0800	4860 138	11.49 3.502	Mar. 4	0615	3200 90.6	9.79 2.984

Minimum daily discharge, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Oct. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.68	1.2	11	80	56	66	30	8.8	3.4	1.2	1.1
2	.08	.62	.98	23	100	224	53	27	9.1	3.6	1.2	.75
3	.15	.61	1.1	22	65	358	52	24	9.3	3.0	1.2	.68
4	.15	.62	1.6	146	52	1250	131	22	9.6	3.0	1.1	.95
5	.14	2.9	2.0	1830	300	679	63	20	8.5	2.9	1.1	1.0
6	.12	1.7	2.3	540	800	366	228	20	7.5	2.8	.97	1.4
7	.11	1.0	2.4	189	1530	245	109	20	7.5	2.3	.98	.94
8	.11	.85	3.6	121	902	631	79	19	6.4	2.3	.98	.75
9	.12	.68	3.6	1560	718	471	68	18	7.1	2.1	.92	7.0
10	.12	.52	3.7	342	404	285	59	17	7.3	1.6	.90	5.7
11	.11	.49	5.9	156	299	207	53	17	7.9	1.7	.97	3.2
12	.10	.49	7.6	169	734	164	49	16	7.5	2.0	.95	2.2
13	.09	.64	3.7	217	519	135	46	15	7.4	2.0	1.1	1.7
14	.08	.61	498	2760	346	122	43	15	6.2	1.7	1.3	1.2
15	.07	.68	823	1260	290	111	231	16	5.8	1.5	1.2	.92
16	.07	.61	102	3430	240	96	111	15	5.0	1.5	1.2	1.2
17	.06	.46	228	1100	200	88	75	15	4.3	2.0	1.1	1.0
18	.06	.46	85	802	160	81	63	14	5.3	1.4	1.1	.92
19	.18	.58	40	877	140	74	59	14	6.1	.96	.98	.87
20	.18	.71	25	471	118	70	64	14	6.3	1.2	.83	.87
21	.31	1090	52	362	100	67	53	13	5.7	1.3	.84	.89
22	.31	318	437	296	83	68	47	12	5.0	1.1	.79	.97
23	.28	11	405	250	76	62	43	11	4.6	.97	.82	.96
24	.35	6.9	81	220	69	55	44	11	4.7	1.2	.87	.91
25	.38	5.7	34	200	65	53	63	12	4.7	1.2	.95	.76
26	.38	4.6	24	170	63	50	51	12	4.2	.94	1.1	.92
27	.43	3.8	27	150	58	47	42	11	4.2	.98	.91	.95
28	.43	3.7	18	130	54	45	38	9.5	4.1	1.2	.80	.97
29	.92	2.8	18	120	---	42	34	10	3.9	1.3	.87	1.1
30	.95	1.3	17	100	---	41	32	8.1	4.0	1.3	.80	.98
31	.78	---	13	90	---	65	---	8.4	---	1.1	.78	---
TOTAL	7.70	1463.71	2966.68	18114	8565	6308	2149	486.0	188.0	55.55	30.81	43.76
MEAN	.25	48.8	95.7	584	306	203	71.6	15.7	6.27	1.79	.99	1.46
MAX	.95	1090	823	3430	1530	1250	231	30	9.6	3.6	1.3	7.0
MIN	.06	.46	.98	11	52	41	32	8.1	3.9	.94	.78	.68
AC-FT	15	2900	5880	35930	16990	12510	4260	964	373	110	61	87
CAL YR 1977 TOTAL	4787.73			MEAN 13.1	MAX 1090	MIN 0	AC-FT 9500					
WTR YR 1978 TOTAL	40378.21			MEAN 111	MAX 3430	MIN .06	AC-FT 80090					

## 11459300 SAN ANTONIO CREEK NEAR PETALUMA, CA

LOCATION.--Lat 38°10'57", long 122°36'55", in sec.22, T.4 N., R.7 W., Sonoma County, Hydrologic Unit 18050002, on left bank 0.8 mi (1.3 km) upstream from bridge on San Antonio Road, 3.6 mi (5.8 km) southeast of Petaluma.

DRAINAGE AREA.--28.9 mi<sup>2</sup> (74.9 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 30 ft (9 m), from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,140 ft<sup>3</sup>/s (88.9 m<sup>3</sup>/s) Jan. 14, 1978, gage height, 13.98 ft (4.261 m); no flow many days in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft<sup>3</sup>/s (8.5 m<sup>3</sup>/s), revised, and maximum(\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Dec. 21	2230	529	15.0	6.36	1.939	Feb. 7	1015	2640	74.8	12.73	3.880
Jan. 5	0830	1560	44.2	9.79	2.984	Feb. 12	1130	1350	38.2	9.31	2.838
Jan. 9	0630	2060	58.3	11.22	3.420	Mar. 4	0545	1250	35.4	9.02	2.749
Jan. 14	1815	*3140	88.9	13.98	4.261	Mar. 8	2015	1680	47.6	10.17	3.100
Jan. 16	1015	2910	82.4	13.41	4.087						

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	5.8	9.6	11	21	6.7	0	2.1		
2		0	0	45	11	141	12	4.8	0	1.8		
3		0	0	26	9.1	194	17	3.7	0	1.5		
4		0	0	95	8.6	430	69	3.3	0	.80		
5		0	0	620	203	223	19	2.8	0	.12		
6		0	0	214	338	105	90	2.4	0	0		
7		0	0	90	715	62	29	1.9	0	0		
8		0	0	83	416	379	17	1.7	0	0		
9		0	0	634	295	313	13	1.6	.07	0		
10		0	0	177	130	142	12	1.4	.22	0		
11		0	0	89	69	85	9.6	1.1	.17	0		
12		0	0	110	430	56	9.2	.32	.44	0		
13		0	0	164	252	38	8.4	.09	.84	0		
14		0	4.8	1160	122	30	7.5	.10	1.2	0		
15		0	53	534	84	23	56	.16	.48	0		
16		0	5.1	1270	63	20	26	0	0	0		
17		0	78	435	51	17	15	.08	0	0		
18		0	14	353	40	17	12	.17	0	0		
19		0	6.6	322	32	16	11	.25	.59	0		
20		0	4.4	138	27	14	11	.02	1.5	0		
21		29	44	87	22	14	8.7	.03	1.9	0		
22		32	119	57	19	18	7.8	0	2.3	0		
23		1.7	80	37	17	17	7.7	0	2.5	0		
24		.32	16	24	15	12	9.3	.03	2.4	0		
25		0	10	19	13	11	13	.01	2.5	0		
26		0	8.5	17	13	9.5	15	.01	2.4	0		
27		0	16	15	11	9.1	9.0	2.3	2.2	0		
28		0	13	13	10	8.9	7.4	.03	1.9	0		
29		0	11	12	---	9.2	7.7	0	1.9	0		
30		0	8.7	11	---	11	7.2	0	2.0	0		
31		---	7.0	9.6	---	27	---	0	---	0		---
TOTAL	0	63.02	499.1	6866.4	3425.3	2462.7	557.5	35.00	27.51	6.32	0	0
MEAN	0	2.10	16.1	221	122	79.4	18.6	1.13	.92	.20	0	0
MAX	0	32	119	1270	715	430	90	6.7	2.5	2.1	0	0
MIN	0	0	0	5.8	8.6	8.9	7.2	0	0	0	0	0
AC-FT	0	125	990	13620	6790	4880	1110	69	55	13	0	0
CAL YR 1977	TOTAL	567.94	MEAN	1.56	MAX	119	MIN	0	AC-FT	1130		
WTR YR 1978	TOTAL	13942.85	MEAN	38.2	MAX	1270	MIN	0	AC-FT	27660		

## 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 (30 m) upstream from 7th Street Bridge.

DRAINAGE AREA.--17.6 mi<sup>2</sup> (45.6 km<sup>2</sup>).

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. Altitude of gage is 30 ft (9 m), from topographic map. Prior to Aug. 23, 1967, at site 0.6 mi (1.0 km) upstream at different datum.

REMARKS.--Records good. Flow regulated by Stafford Lake beginning Dec. 1, 1951, capacity, 4,500 acre-ft (5.55 hm<sup>3</sup>) since Oct. 18, 1954; contents, 3,330 acre-ft (4.11 hm<sup>3</sup>) Sept. 30, 1977, and 2,360 acre-ft (2.91 hm<sup>3</sup>) Sept. 30, 1978. Diversion from Stafford Lake for municipal water supply began Apr. 25, 1952, and amounted to 2,970 acre-ft (3.66 hm<sup>3</sup>) for the current year. No diversion from Russian River into Stafford Lake during current year.

COOPERATION.--Record of diversions furnished by North Marin County Water District.

AVERAGE DISCHARGE (adjusted for diversions).--32 years, 12.8 ft<sup>3</sup>/s (0.362 m<sup>3</sup>/s), 9,270 acre-ft/yr (11.4 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft<sup>3</sup>/s (56.6 m<sup>3</sup>/s) Jan. 14, 1970, gage height, 11.01 ft (3.356 m); no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,840 ft<sup>3</sup>/s (52.1 m<sup>3</sup>/s) Jan. 16 gage height, 10.56 ft (3.219 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.03	2.9	14	9.7	12	2.8	.65	.31	.03	0
2		0	.09	15	14	52	8.9	2.3	.45	.23	.01	0
3		0	.03	7.3	13	69	21	2.0	.90	.23	.07	0
4		1.5	.03	34	13	195	22	2.0	.65	.20	.05	0
5		4.4	.03	108	77	128	13	1.6	.65	.20	.05	0
6		0	.16	35	150	76	32	2.0	.57	.20	.05	0
7		0	.26	15	395	52	17	2.0	.45	.17	.02	0
8		0	.37	22	252	128	13	2.0	.50	.15	0	0
9		0	.26	124	201	181	11	2.0	.40	.15	0	.75
10		0	.16	27	111	100	8.5	2.0	.45	.17	0	.12
11		0	1.6	16	70	62	7.5	2.3	.45	.20	0	.05
12		0	.54	27	187	43	7.0	.90	.45	.23	0	.02
13		0	.35	61	154	34	8.0	.90	.50	.17	0	0
14		0	11	694	95	27	7.0	.90	.50	.17	0	0
15		0	7.3	413	70	21	32	.90	.45	.08	0	0
16		0	2.4	1000	54	19	22	.75	.45	.12	0	0
17		0	15	493	43	16	13	.90	.45	.12	0	0
18		0	2.1	257	35	15	11	.75	.45	.15	0	0
19		0	1.3	279	29	14	12	.75	.57	.10	0	0
20		0	1.2	154	24	13	16	.75	.57	.07	0	0
21		50	14	94	18	14	9.7	.75	.45	.05	0	0
22		4.8	32	65	16	14	7.5	.75	.40	.05	0	0
23		.94	12	49	15	14	5.6	.75	.35	.08	0	0
24		.52	3.7	36	13	11	7.5	.75	.27	.07	0	0
25		.39	2.8	30	12	8.0	8.9	.75	.31	.05	0	0
26		.30	3.2	24	11	6.5	6.0	.75	.31	.07	0	0
27		.20	6.8	22	9.3	6.0	4.8	.75	.27	.07	0	0
28		.16	10	21	8.5	5.6	4.5	.65	.27	.07	0	0
29		.09	5.3	20	---	5.2	3.2	.65	.23	.04	0	0
30		.03	3.9	17	---	4.8	3.2	.57	.23	.10	0	0
31		---	3.2	15	---	13	---	.57	---	.10	0	---
TOTAL	0	63.33	141.11	4177.2	2103.8	1356.8	354.8	38.19	13.60	4.17	.28	.94
MEAN	0	2.11	4.55	135	75.1	43.8	11.8	1.23	.45	.13	.009	.031
MAX	0	50	32	1000	395	195	32	2.8	.90	.31	.07	.75
MIN	0	0	.03	2.9	8.5	4.8	3.2	.57	.23	.04	0	0
AC-FT	0	126	280	8290	4170	2690	704	76	27	8.3	.6	1.9
CAL YR 1977	TOTAL	321.70	MEAN	.88	MAX	50	MIN	0	AC-FT	638		
WTR YR 1978	TOTAL	8254.22	MEAN	22.6	MAX	1000	MIN	0	AC-FT	16370		



## 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 (2.7 km) southwest of San Rafael, and 4 mi (6 km) upstream from mouth.

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

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 7.97 ft (2.429 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those below 2.0 ft<sup>3</sup>/s (0.057 m<sup>3</sup>/s) and those for Dec. 14-22, which are fair. Flow regulated by Phoenix Lake 1.7 mi (2.7 km) upstream, capacity, 612 acre-ft (755,000 m<sup>3</sup>). Diversion on tributary above station by Marin Municipal Water District.

AVERAGE DISCHARGE.--27 years, 27.5 ft<sup>3</sup>/s (0.779 m<sup>3</sup>/s), 19,920 acre-ft/yr (24.6 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,620 ft<sup>3</sup>/s (103 m<sup>3</sup>/s) Dec. 22, 1955, gage height, 17.45 ft (5.319 m); no flow at times.

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

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 21	2145	1830 51.8	13.10 3.993	Feb. 7	0900	1830 51.8	13.09 3.990
Jan. 9	0515	1410 39.9	11.75 3.581	Feb. 12	1200	1490 42.2	12.04 3.670
Jan. 14	1800	*2180 61.7	14.32 4.365				

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	1.0	35	7.7	6.3	20	8.9	3.2	.65	.31	.15
2	0	0	1.2	69	8.2	81	14	7.7	3.0	.64	.21	.12
3	0	0	1.3	55	6.3	96	33	6.7	2.8	.65	.17	.11
4	0	1.2	1.3	188	5.8	420	47	5.9	2.7	.62	.23	.12
5	0	5.3	1.5	377	175	200	29	5.4	2.5	.58	.19	.14
6	0	.08	1.5	236	217	102	120	5.2	2.1	.58	.13	.19
7	0	.03	1.4	107	623	65	56	4.8	1.9	.59	.12	.15
8	0	.03	1.2	98	409	242	40	4.8	1.8	.55	.14	.12
9	0	.03	1.3	549	303	290	30	4.8	1.5	.51	.13	15
10	0	.03	1.2	167	129	141	24	4.5	1.4	.51	.12	.91
11	0	.08	9.2	97	85	93	18	4.3	1.4	.59	.12	.23
12	0	.12	1.3	106	463	66	16	4.4	1.4	.57	.11	.22
13	0	.12	.76	170	256	49	14	4.4	1.3	.56	.11	.22
14	0	.08	130	1350	127	39	12	4.6	1.2	.46	.11	.22
15	0	.12	173	527	81	32	115	4.8	1.2	.45	.10	.18
16	0	.12	47	675	57	27	48	4.3	1.1	.39	.11	.18
17	0	.12	279	334	40	23	34	4.2	1.1	.41	.11	.18
18	0	.12	70	340	30	20	28	4.0	.99	.35	.09	.15
19	0	.02	23	326	23	17	27	3.9	1.1	.37	.09	.18
20	0	.05	9.9	179	18	15	27	3.9	.97	.33	.10	.18
21	0	493	48	110	15	20	19	4.0	.91	.32	.12	.12
22	0	143	237	73	12	15	17	4.1	.86	.31	.08	.15
23	0	21	220	48	9.3	23	15	3.9	.78	.28	.11	.12
24	0	6.2	79	31	7.5	14	21	4.1	.79	.28	.12	.09
25	0	2.8	45	24	6.2	12	23	4.1	.76	.34	.14	.10
26	0	1.9	36	18	5.2	11	16	4.1	.81	.30	.15	.12
27	0	1.7	95	15	4.6	9.6	14	4.1	.77	.30	.13	.12
28	1.9	1.3	96	13	3.8	9.2	12	4.1	.78	.28	.13	.12
29	.36	1.3	80	11	---	8.7	11	4.0	.75	.28	.12	.10
30	.04	3.8	63	9.8	---	8.6	9.8	3.6	.70	.27	.13	.08
31	0	---	45	8.1	---	33	---	3.3	---	.24	.13	---
TOTAL	2.30	683.65	1800.06	6345.9	3127.6	2188.4	909.8	144.9	42.57	13.56	4.16	20.07
MEAN	.074	22.8	58.1	205	112	70.6	30.3	4.67	1.42	.44	.13	.67
MAX	1.9	493	279	1350	623	420	120	8.9	3.2	.65	.31	.15
MIN	0	0	.76	8.1	3.8	6.3	9.8	3.3	.70	.24	.08	.08
AC-FT	4.6	1360	3570	12590	6200	4340	1800	287	84	27	8.3	40
CAL YR 1977	TOTAL	2873.19	MEAN	7.87	MAX	493	MIN	0	AC-FT	5700		
WTR YR 1978	TOTAL	15282.97	MEAN	41.9	MAX	1350	MIN	0	AC-FT	30310		

## CORTE MADERA CREEK BASIN

11460000 CORTE MADERA CREEK AT ROSS, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1977 to September 1978.

WATER TEMPERATURES: October 1977 to September 1978.

SEDIMENT RECORDS: October 1977 to September 1978.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1977 to September 1978.

SEDIMENT RECORDS: October 1977 to September 1978.

REMARKS.--Zero bedload observed at flows less than 38 ft<sup>3</sup>/s (1.08 m<sup>3</sup>/s).

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,180 mg/L Jan. 14; minimum daily mean, no flow many days.

SEDIMENT DISCHARGE: Maximum daily, 4,740 tons (4,300 metric tons) Jan. 14; minimum daily, 0 ton (0 metric ton) on many days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	---	---	10.5	12.0	14.0	12.5	---	---	---	18.5
2		---	---	---	12.0	12.5	---	---	17.0	18.5	---	---
3		---	---	---	---	12.5	12.5	17.0	---	---	19.5	---
4		---	---	11.0	11.0	13.5	13.5	15.0	19.0	---	---	---
5		---	---	---	11.5	13.5	11.5	15.5	---	18.5	21.5	18.5
6		---	---	---	11.5	12.0	12.0	---	20.0	---	---	---
7		---	12.5	---	11.5	13.0	11.5	16.0	---	18.5	21.0	18.5
8		---	---	---	11.5	13.0	---	17.0	19.0	---	---	---
9		---	---	---	11.5	12.5	---	---	18.0	20.5	---	17.5
10		---	---	---	10.5	12.0	13.5	16.5	---	---	21.0	17.5
11		12.5	---	---	11.0	12.0	16.0	---	18.5	18.0	---	---
12		---	---	---	9.5	---	14.5	---	---	---	20.0	19.5
13		---	---	---	11.0	11.5	---	18.0	17.0	---	---	---
14		---	---	13.5	12.0	12.0	13.5	---	---	18.5	---	20.0
15		---	---	---	10.5	11.0	12.0	16.0	---	---	20.5	---
16		---	---	13.0	11.0	12.0	13.5	---	18.5	19.0	---	19.5
17		---	13.0	---	11.0	12.5	11.5	---	---	---	---	---
18		---	---	---	13.0	---	---	15.5	18.5	21.5	16.5	---
19		---	---	---	12.5	---	12.5	---	---	---	---	17.0
20		---	---	13.0	13.0	---	13.5	---	---	18.0	---	---
21		12.0	---	12.0	13.0	---	---	16.0	---	---	19.5	15.5
22		---	12.0	11.5	11.5	15.0	---	---	18.5	20.5	---	---
23		---	---	10.0	---	14.0	14.0	15.5	---	---	18.5	---
24		---	---	10.0	13.0	---	13.5	---	18.0	---	---	19.5
25		---	---	10.5	---	---	---	---	---	19.5	17.5	---
26		---	---	10.5	---	---	13.5	13.5	---	---	---	18.0
27		---	---	10.0	10.5	14.0	---	---	---	18.5	19.0	---
28		---	---	10.0	---	---	---	---	16.0	19.5	---	---
29		---	---	10.5	---	13.5	---	---	---	---	---	16.5
30		---	---	10.0	---	---	---	---	17.5	19.5	19.0	---
31		---	---	11.0	---	14.0	---	19.5	---	---	---	---
MEAN		12.5	12.5	11.0	11.5	13.0	13.0	16.0	18.0	19.0	19.5	18.0

11460000 CORTE MADERA CREEK AT ROSS, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	0	0	0	0	0	0	1.0	2	.01
2	0	0	0	0	0	0	1.2	2	.01
3	0	0	0	0	0	0	1.3	2	.01
4	0	0	0	1.2	2	.01	1.3	2	.01
5	0	0	0	5.3	8	.11	1.5	2	.01
6	0	0	0	.08	7	0	1.5	2	.01
7	0	0	0	.03	6	0	1.4	2	.01
8	0	0	0	.03	5	0	1.2	2	.01
9	0	0	0	.03	4	0	1.3	2	.01
10	0	0	0	.03	3	0	1.2	2	.01
11	0	0	0	.08	2	0	9.2	7	.17
12	0	0	0	.12	2	0	1.3	6	.02
13	0	0	0	.12	2	0	.76	5	.01
14	0	0	0	.08	2	0	130	230	422
15	0	0	0	.12	2	0	173	178	169
16	0	0	0	.12	2	0	47	38	9.1
17	0	0	0	.12	2	0	279	487	459
18	0	0	0	.12	2	0	70	66	16
19	0	0	0	.02	2	0	23	5	.31
20	0	0	0	.05	3	0	9.9	5	.13
21	0	0	0	493	631	1660	48	91	39
22	0	0	0	143	140	98	237	305	486
23	0	0	0	21	9	.51	220	294	217
24	0	0	0	6.2	8	.13	79	75	16
25	0	0	0	2.8	7	.05	45	40	4.9
26	0	0	0	1.9	6	.03	36	18	1.7
27	0	0	0	1.7	5	.02	95	54	15
28	1.9	15	.08	1.3	4	.01	96	54	16
29	.36	7	.01	1.3	2	.01	80	13	2.8
30	.04	2	0	3.8	2	.02	63	17	3.0
31	0	0	0	---	---	---	45	12	1.5
TOTAL	2.30	---	.09	683.65	---	1758.90	1800.06	---	1878.74

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	35	9	.85	7.7	6	.12	6.3	4	.07
2	69	213	90	8.2	7	.15	81	132	37
3	55	57	8.5	6.3	6	.10	96	66	19
4	188	346	315	5.8	7	.11	420	273	455
5	377	518	628	175	223	183	200	63	36
6	236	268	191	217	206	187	102	20	5.5
7	107	102	29	623	670	1960	65	13	2.3
8	98	79	24	409	272	434	242	137	153
9	549	679	1410	303	129	125	290	101	90
10	167	192	92	129	24	8.4	141	27	10
11	97	68	18	85	12	2.8	93	17	4.3
12	106	25	8.5	463	365	1000	66	10	1.8
13	170	74	60	256	63	49	49	6	.79
14	1350	1180	4740	127	19	6.5	39	6	.63
15	527	370	575	81	11	2.4	32	5	.43
16	675	711	1520	57	8	1.2	27	5	.36
17	334	247	240	40	8	.86	23	5	.31
18	340	246	370	30	6	.49	20	5	.27
19	326	214	209	23	4	.25	17	4	.18
20	179	49	24	18	6	.29	15	4	.16
21	110	18	5.3	15	5	.20	20	5	.27
22	73	11	2.2	12	3	.10	15	4	.16
23	48	9	1.2	9.3	2	.05	23	20	2.6
24	31	13	1.1	7.5	3	.06	14	7	.26
25	24	12	.78	6.2	3	.05	12	7	.23
26	18	9	.44	5.2	3	.04	11	6	.18
27	15	7	.28	4.6	3	.04	9.6	5	.13
28	13	6	.21	3.8	2	.02	9.2	5	.12
29	11	5	.15	---	---	---	8.7	6	.14
30	9.8	5	.13	---	---	---	8.6	6	.14
31	8.1	5	.11	---	---	---	33	41	5.5
TOTAL	6345.9	---	10564.75	3127.6	---	3962.23	2188.4	---	826.83

## CORTE MADERA CREEK BASIN

11460000 CORTE MADERA CREEK AT ROSS, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	APRIL				MAY				JUNE			
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	20	8	.43	8.9	7	.17	3.2	2	.02			
2	14	4	.15	7.7	7	.15	3.0	3	.02			
3	33	22	6.2	6.7	7	.13	2.8	3	.02			
4	47	29	4.9	5.9	8	.13	2.7	2	.01			
5	29	22	6.3	5.4	6	.09	2.5	1	.01			
6	120	69	33	5.2	4	.06	2.1	1	.01			
7	56	11	1.7	4.8	2	.03	1.9	1	.01			
8	40	6	.65	4.8	2	.03	1.8	1	0			
9	30	5	.41	4.8	5	.06	1.5	4	.02			
10	24	4	.26	4.5	8	.10	1.4	2	.01			
11	18	9	.44	4.3	5	.06	1.4	1	0			
12	16	8	.35	4.4	3	.04	1.4	1	0			
13	14	6	.23	4.4	1	.01	1.3	1	0			
14	12	5	.16	4.6	1	.01	1.2	1	0			
15	115	86	41	4.8	1	.01	1.2	1	0			
16	48	13	1.7	4.3	2	.02	1.1	1	0			
17	34	7	.64	4.2	4	.05	1.1	1	0			
18	28	6	.45	4.0	6	.06	.99	2	.01			
19	27	7	.51	3.9	4	.04	1.1	2	.01			
20	27	8	.58	3.9	2	.02	.97	2	.01			
21	19	7	.36	4.0	1	.01	.91	2	0			
22	17	7	.32	4.1	1	.01	.86	2	0			
23	15	8	.32	3.9	1	.01	.78	2	0			
24	21	15	1.1	4.1	2	.02	.79	2	0			
25	23	12	.93	4.1	6	.07	.76	2	0			
26	16	8	.35	4.1	8	.09	.81	2	0			
27	14	8	.30	4.1	7	.08	.77	1	0			
28	12	7	.23	4.1	5	.06	.78	1	0			
29	11	7	.21	4.0	3	.03	.75	1	0			
30	9.8	7	.19	3.6	2	.02	.70	1	0			
31	---	---	---	3.3	2	.02	---	---	---			
TOTAL	909.8	---	104.37	144.9	---	1.69	42.57	---	.16			
DAY	JULY				AUGUST				SEPTEMBER			
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.65	1		.31	2		.15	1	0			
2	.64	1		.21	2		.12	1	0			
3	.65	1		.17	2		.11	1	0			
4	.62	1		.23	2		.12	1	0			
5	.58	1		.19	1		.14	1	0			
6	.58	1		.13	1		.19	1	0			
7	.59	1		.12	1		.15	1	0			
8	.55	1		.14	1		.12	1	0			
9	.51	1		.13	1		15	49	7.1			
10	.51	1		.12	1		.91	16	.04			
11	.59	1		.12	1		.23	6	0			
12	.57	1		.11	1		.22	3	0			
13	.56	2		.11	1		.22	2	0			
14	.46	2		.11	1		.22	2	0			
15	.45	2		.10	1		.18	2	0			
16	.39	1		.11	1		.18	2	0			
17	.41	1		.11	1		.18	2	0			
18	.35	1		.09	1		.15	2	0			
19	.37	1		.09	1		.18	2	0			
20	.33	1		.10	1		.18	1	0			
21	.32	1		.12	1		.12	1	0			
22	.31	1		.08	1		.15	2	0			
23	.28	1		.11	1		.12	2	0			
24	.28	1		.12	1		.09	2	0			
25	.34	1		.14	1		.10	3	0			
26	.30	1		.15	1		.12	4	0			
27	.30	2		.13	1		.12	3	0			
28	.28	1		.13	1		.12	2	0			
29	.28	1		.12	1		.10	2	0			
30	.27	1		.13	1		.08	2	0			
31	.24	1		.13	1		---	---	---			
TOTAL	13.56	---	0	4.16	---	0	20.07	---	7.14			
YEAR 15282.97				19104.90								

11460000 CORTE MADERA CREEK AT ROSS, CA--Continued

## SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1977	2.30	0.09	0	0
NOVEMBER ...	683.65	1758.90	193	1950
DECEMBER ...	1800.06	1878.74	433	2310
JANUARY 1978	6345.90	10564.75	2010	12600
FEBRUARY ...	3127.60	3962.23	948	4910
MARCH .....	2188.40	826.83	514	1340
APRIL .....	909.80	104.37	73	178
MAY .....	144.90	1.69	0	2
JUNE .....	42.57	0.16	0	0
JULY .....	13.56	0.0	0	0
AUGUST .....	4.16	0.0	0	0
SEPTEMBER ..	20.07	7.14	1	8
TOTAL .....	15282.97	19104.90	4172	23298

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
NOV								
21...	1245	12.0	204	469	258	58	74	83
21...	1405	12.0	167	294	133	63	77	85
DEC								
22...	1255	12.0	47	15	1.9	--	--	--
JAN								
14...	1100	13.5	1260	1210	4120	21	28	36
14...	1220	13.5	1020	921	2540	--	28	35
FEB								
05...	1000	11.5	138	157	58	--	--	--
07...	1530	12.5	652	443	780	22	29	35
APR								
15...	1030	12.0	235	257	163	42	55	67
SEP								
09...	1420	17.5	48	234	30	50	63	75

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
NOV							
21...	92	96	97	99	100	--	--
21...	91	94	95	97	99	100	--
DEC							
22...	--	--	98	100	--	--	--
JAN							
14...	46	57	68	78	91	99	100
14...	47	60	71	86	95	99	100
FEB							
05...	--	--	87	89	92	98	100
07...	44	54	63	77	91	98	100
APR							
15...	79	87	91	95	98	100	--
SEP							
09...	85	93	96	98	99	100	--

## CORTE MADERA CREEK BASIN

11460000 CORTE MADERA CREEK AT ROSS, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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
OCT							
04...	1100	1	.00	8	20	44	81
04...	1105	1	.00	2	4	11	20
04...	1110	1	.00	1	2	4	10
04...	1115	1	.00	1	2	4	9
04...	1120	1	.00	1	2	3	8

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
OCT							
04...	89	94	97	100	--	--	--
04...	30	44	62	79	95	100	--
04...	18	30	44	63	82	96	100
04...	14	21	37	59	78	95	100
04...	15	25	35	46	62	74	100

PARTICLE-SIZE DISTRIBUTION OF SEDIMENT IN TRANSIT WITHIN 0.25 FOOT OF BED SURFACE,  
WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (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 .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
NOV									
21...	1150	12.0	14	230	38	9.7	0	1	4
21...	1350	12.0	15	175	40	15	--	0	3
21...	1450	12.0	15	182	40	14	--	0	3
DEC									
22...	1330	12.0	12	47	31	8.1	--	--	0
JAN									
04...	1525	11.0	5	317	65	78	--	0	1
14...	1250	13.5	5	1180	70	377	0	1	3
MAR									
03...	1235	13.0	14	63	32	4.4	--	0	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	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
NOV								
21...	14	19	27	40	55	76	100	--
21...	15	24	35	51	71	92	100	--
21...	16	28	42	57	75	92	100	--
DEC								
22...	4	14	25	37	53	74	96	100
JAN								
04...	8	26	48	68	86	99	100	--
14...	16	25	34	45	59	76	88	100
MAR								
03...	6	26	51	65	78	95	100	--

11460100 ARROYO CORTE MADERA DEL PRESIDIO AT MILL VALLEY, CA

LOCATION.--Lat 37°53'50", long 122°32'06", in Sausalito Grant, Marin County, Hydrologic Unit 18050002, on right bank near south boundary of town of Mill Valley, 1 mi (2 km) upstream from mouth.

DRAINAGE AREA.--4.69 mi<sup>2</sup> (12.15 km<sup>2</sup>).

PERIOD OF RECORD.--October 1965 to September 1973, May 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1.85 ft (0.564 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--11 years, 6.70 ft<sup>3</sup>/s (0.190 m<sup>3</sup>/s), 4,850 acre-ft/yr (5.98 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,180 ft<sup>3</sup>/s (33.4 m<sup>3</sup>/s) Jan. 21, 1970, gage height, 7.52 ft (2.292 m); no flow for many days in 1968, 1975-77.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 220 ft<sup>3</sup>/s (6.2 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 21	2115	229 6.49	4.98 1.518	Jan. 14	1700	*373 10.6	5.48 1.670
Dec. 21	2215	305 8.64	5.26 1.603	Feb. 7	0945	287 8.13	5.20 1.585

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.36	7.3	5.1	4.7	9.0	4.2	1.3	.80	.32	.18
2	0	0	.34	9.8	5.1	13	7.5	3.9	1.2	.74	.32	.18
3	0	0	.32	7.8	5.0	12	8.0	3.2	1.0	.81	.35	.18
4	0	.52	.31	21	4.7	34	7.8	3.0	1.1	.78	.28	.18
5	0	1.6	.29	54	14	41	6.3	2.9	.93	.73	.30	.18
6	0	.18	.28	54	21	31	15	2.8	.78	.71	.34	.27
7	0	.01	.28	24	112	21	11	2.6	1.3	.73	.31	.26
8	0	0	.28	18	65	39	9.5	2.5	1.7	.74	.33	.21
9	0	0	.29	64	54	66	7.9	2.7	1.8	.66	.26	.21
10	0	0	.32	32	32	37	6.7	2.6	.99	.71	.27	.21
11	0	0	3.6	18	20	23	5.7	2.4	.97	.73	.27	.21
12	0	0	1.1	18	65	17	5.1	2.3	.94	.74	.31	.21
13	0	0	.71	20	50	13	4.7	2.4	.91	1.5	.28	.21
14	0	0	49	190	31	10	4.4	2.5	.87	.70	.23	.21
15	0	0	53	159	23	8.5	27	2.5	.88	.67	.19	.21
16	0	0	15	77	16	7.4	18	2.5	.87	.69	.23	.21
17	0	0	91	50	13	6.4	13	2.3	.96	.65	.23	.21
18	0	0	24	45	11	5.6	10	2.2	.95	.61	.21	.21
19	0	0	11	56	9.2	5.1	10	2.1	.92	.70	.21	.21
20	0	0	6.7	37	7.9	4.8	8.1	2.3	.90	.66	.18	.21
21	0	57	7.6	25	6.9	5.9	7.1	2.3	.90	.66	.18	.21
22	0	20	17	17	6.1	5.0	6.1	2.2	.94	.64	.18	.25
23	0	3.4	27	13	5.4	5.7	5.3	2.1	.90	.62	.21	.25
24	0	1.5	14	11	5.1	4.6	7.4	2.2	.84	.60	.26	.25
25	0	.91	9.1	9.0	4.8	3.9	8.1	2.2	.80	.51	.28	.25
26	0	.70	7.3	7.8	4.8	3.6	6.7	2.2	.83	.44	.28	.25
27	0	.54	11	7.0	4.3	3.2	5.5	2.2	.78	.34	.27	.24
28	.64	.47	11	6.4	4.2	2.9	5.2	2.3	.90	.43	.22	.18
29	.25	.43	13	5.8	---	2.8	5.0	2.2	.91	.43	.21	.22
30	.34	.39	12	5.3	---	2.6	4.7	1.9	.82	.43	.21	.17
31	0	---	9.1	5.0	---	12	---	1.6	---	.38	.20	---
TOTAL	1.23	87.65	396.28	1074.2	605.6	451.7	255.8	77.3	29.89	20.54	7.92	6.43
MEAN	.040	2.92	12.8	34.7	21.6	14.6	8.53	2.49	1.00	.66	.26	.21
MAX	.64	57	91	190	112	66	27	4.2	1.8	1.5	.35	.27
MIN	0	0	.28	5.0	4.2	2.6	4.4	1.6	.78	.34	.18	.17
AC-FT	2.4	174	786	2130	1200	896	507	153	59	41	16	13

CAL YR 1977 TOTAL 639.70 MEAN 1.75 MAX 91 MIN 0 AC-FT 1270  
WTR YR 1978 TOTAL 3014.54 MEAN 8.26 MAX 190 MIN 0 AC-FT 5980

## LAGUNITAS CREEK BASIN

11460600 LAGUNITAS CREEK NEAR POINT REYES STATION, CA

LOCATION.--Lat 39°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 (91 m) downstream from small right-bank tributary, and 1.4 mi (2.3 km) northeast of town of Point Reyes Station.

DRAINAGE AREA.--81.7 mi<sup>2</sup> (211.6 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 50 ft (15 m), from topographic map.

REMARKS.--Records good. Flow regulated by Nicasio Reservoir, capacity, 22,450 acre-ft (27.7 hm<sup>3</sup>), Kent Lake, capacity, 16,680 acre-ft (20.6 hm<sup>3</sup>), and Alpine Lake, capacity, 8,890 acre-ft (11.0 hm<sup>3</sup>), all of which divert water for domestic and industrial use in the county of Marin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,210 ft<sup>3</sup>/s (204 m<sup>3</sup>/s) Mar. 21, 1975, gage height, 16.39 ft (4.996 m), from rating curve extended above 1,300 ft<sup>3</sup>/s (36.8 m<sup>3</sup>/s); minimum daily, 0.01 ft<sup>3</sup>/s (<0.001 m<sup>3</sup>/s) Sept. 26, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,060 ft<sup>3</sup>/s (172 m<sup>3</sup>/s) Feb. 7, gage height, 14.99 ft (4.569 m); minimum daily, 0.02 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) Oct. 14-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.78	5.8	44	42	60	31	37	3.8	2.6	3.0	2.9
2	.03	.62	5.2	64	42	250	42	33	4.0	2.5	2.8	2.7
3	.04	.48	4.8	58	47	419	59	26	4.7	2.4	2.9	2.6
4	.04	11	4.5	192	48	1480	240	21	4.8	2.3	2.9	2.7
5	.05	4.7	4.4	411	337	1030	270	16	4.6	2.3	2.8	2.6
6	.04	2.3	4.3	208	696	669	250	17	4.4	2.3	2.8	2.8
7	.06	1.9	3.9	118	2880	464	305	13	4.3	2.2	2.7	2.6
8	.07	1.2	3.8	93	1570	662	188	12	3.9	2.1	2.5	2.4
9	.07	.82	3.8	811	1500	1070	138	12	3.3	2.1	2.4	3.3
10	.05	.62	3.7	246	723	711	111	12	3.1	2.1	2.4	7.9
11	.04	.46	3.8	125	465	480	98	9.6	3.2	2.0	2.4	4.1
12	.03	.33	6.7	96	869	342	84	8.6	3.3	2.4	2.3	3.1
13	.03	.27	5.3	111	928	251	72	8.0	3.2	2.3	2.3	2.8
14	.02	.20	19	1390	643	191	62	7.7	3.0	2.4	2.4	2.5
15	.02	.20	302	628	463	149	190	8.9	2.9	2.9	2.5	2.0
16	.02	.20	75	1360	345	125	210	8.2	2.9	2.9	2.6	1.8
17	.02	.17	290	1470	270	105	143	7.7	2.9	2.8	2.6	1.6
18	.02	.17	131	979	205	91	108	6.4	2.8	2.6	2.8	1.6
19	.02	.10	67	1140	163	73	98	6.2	2.8	2.6	3.0	1.6
20	.02	.14	40	555	139	65	105	5.8	2.9	2.3	3.6	1.6
21	.02	757	146	349	117	66	87	5.7	2.9	2.4	3.6	1.5
22	.02	749	265	236	105	72	73	5.1	2.9	2.6	3.6	1.5
23	.02	69	184	164	92	73	63	4.9	2.9	2.6	3.6	1.5
24	.02	33	91	120	83	71	61	4.9	2.9	2.6	3.5	1.4
25	.02	20	62	96	77	60	93	4.6	2.8	2.6	4.3	1.4
26	.02	14	50	82	79	50	84	4.5	2.6	2.6	4.4	1.3
27	.02	11	68	71	72	42	68	4.2	2.6	2.6	4.0	1.3
28	4.0	8.8	72	61	67	37	58	4.1	2.6	2.6	3.6	1.3
29	2.6	7.4	73	52	---	34	50	4.1	2.8	2.5	3.5	1.3
30	1.4	6.4	63	49	---	32	40	4.0	2.8	2.7	3.4	1.3
31	1.0	---	52	45	---	40	---	3.9	---	3.0	3.0	---
TOTAL	9.86	1702.26	2110.0	11424	13067	9264	3481	326.1	98.6	76.9	94.2	69.0
MEAN	.32	56.7	68.1	369	467	299	116	10.5	3.29	2.48	3.04	2.30
MAX	4.0	757	302	1470	2880	1480	305	37	4.8	3.0	4.4	7.9
MIN	.02	.10	3.7	44	42	32	31	3.9	2.6	2.0	2.3	1.3
AC-FT	20	3380	4190	22660	25920	18380	6900	647	196	153	187	137

CAL YR 1977 TOTAL 4654.57 MEAN 12.8 MAX 757 MIN .01 AC-FT 9230  
WTR YR 1978 TOTAL 41722.92 MEAN 114 MAX 2880 MIN .02 AC-FT 82760



## 11460800 WALKER CREEK NEAR TOMALES, CA

LOCATION.--Lat 38°12'35", long 122°51'35", in Nicasio Grant, Marin County, Hydrologic Unit 18050005, on left bank 1,300 ft (396 m) upstream from Chileno Creek, and 3.5 mi (5.6 km) southeast of Tomales.

DRAINAGE AREA.--37.1 mi<sup>2</sup> (96.1 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 56.74 ft (17.294 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for period of no gage-height record, Dec. 18 to Jan. 20, which are fair. No regulation; small diversions above station for irrigation of about 50 acres (202,000 m<sup>2</sup>) and stock watering.

AVERAGE DISCHARGE.--19 years, 43.7 ft<sup>3</sup>/s (1.238 m<sup>3</sup>/s), 31,660 acre-ft/yr (39.0 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,420 ft<sup>3</sup>/s (153 m<sup>3</sup>/s) Jan. 5, 1966, gage height, 22.23 ft (6.776 m); maximum gage height, 22.91 ft (6.983 m) Jan. 16, 1973; no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft<sup>3</sup>/s (57 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Jan. 9	unknown	2180	61.7	15.35	4.679
Jan. 16	do	*3690	105	19.67	5.995
Feb. 7	0945	2740	77.6	17.11	5.215

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	2.0	36	64	38	33	7.4	.44	.13	.06	.10
2		0	1.8	47	63	71	30	6.5	.46	.12	.05	.06
3		0	1.8	38	61	123	37	5.6	.45	.11	.04	.05
4		0	1.8	118	60	318	93	4.9	.51	.11	.03	.06
5		0	1.8	272	154	314	54	4.5	.48	.08	.01	.05
6		0	1.6	150	313	181	101	3.8	.41	.08	.01	.08
7		0	1.6	90	1190	122	69	3.2	.32	.11	0	.10
8		0	1.4	78	741	574	58	2.8	.31	.12	0	.10
9		0	1.4	495	548	576	51	2.8	.25	.10	0	.24
10		0	1.4	295	262	278	43	2.8	.24	.11	0	.34
11		0	1.8	160	160	177	17	2.3	.22	.12	0	.35
12		0	3.7	96	442	124	15	2.1	.30	.12	0	.29
13		0	1.8	106	485	95	15	1.9	.27	.12	0	.27
14		0	24	890	237	75	14	2.0	.26	.09	0	.26
15		0	131	555	167	63	68	2.0	.23	.10	0	.23
16		0	57	1080	118	55	53	1.7	.17	.08	0	.23
17		0	114	805	94	49	43	1.3	.21	.05	.01	.20
18		0	94	695	74	47	40	1.1	.22	.05	.01	.19
19		0	56	920	59	45	39	1.0	.21	.05	.01	.16
20		0	32	300	52	43	38	.97	.23	.06	0	.11
21		249	88	214	47	44	32	1.0	.26	.07	.01	.13
22		159	185	145	44	43	29	1.0	.27	.07	.02	.12
23		23	115	114	42	43	27	.90	.29	.08	.03	.09
24		10	62	94	41	40	28	.96	.24	.07	.04	.05
25		5.6	47	84	41	36	28	.89	.20	.07	.07	.03
26		4.4	39	79	40	38	15	.82	.18	.07	.09	0
27		3.7	49	75	39	36	11	.83	.20	.07	.12	0
28		2.5	54	72	38	35	10	.75	.17	.09	.15	0
29		2.3	58	69	---	34	9.0	.70	.14	.08	.10	0
30		2.0	53	67	---	32	8.2	.61	.14	.08	.10	0
31		---	43	64	---	17	---	.50	---	.08	.10	---
TOTAL	0	461.5	1324.9	8303	5676	3766	1108.2	69.63	8.28	2.74	1.06	3.89
MEAN	0	15.4	42.7	268	203	121	36.9	2.25	.28	.088	.034	.13
MAX	0	249	185	1080	1190	576	101	7.4	.51	.13	.15	.35
MIN	0	0	1.4	36	38	17	8.2	.50	.14	.05	0	0
AC-FT	0	915	2630	16470	11260	7470	2200	138	16	5.4	2.1	7.7

CAL YR 1977	TOTAL	1870.45	MEAN	5.12	MAX	249	MIN	0	AC-FT	3710
WTR YR 1978	TOTAL	20725.20	MEAN	56.8	MAX	1190	MIN	0	AC-FT	41110

## 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 (6 m) downstream from bridge on Lake Mendocino Drive, 0.4 mi (0.6 km) upstream from East Fork, 0.6 mi (1.0 km) downstream from York Creek, and 3.2 mi (5.1 km) north of Ukiah.

DRAINAGE AREA.--100 mi<sup>2</sup> (259 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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 (182.642 m) National Geodetic Vertical Datum of 1929. Prior to October 1952, nonrecording gage at bridge 20 ft (6 m) upstream at different datum. Oct. 1, 1952, to Nov. 8, 1971, water-stage recorder at site 0.6 mi (1.0 km) upstream at different datums.

REMARKS.--Records good. No regulation. Diversions above station for irrigation of about 1,000 acres (4.05 km<sup>2</sup>).

AVERAGE DISCHARGE.--28 years, 177 ft<sup>3</sup>/s (5.013 m<sup>3</sup>/s), 128,200 acre-ft/yr (158 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,900 ft<sup>3</sup>/s (535 m<sup>3</sup>/s) Dec. 21, 1955, gage height, 19.0 ft (5.79 m) site and datum then in use; no flow at times in 1911, 1952-53, 1960-61, 1964-65, 1970-73, 1975-78.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft<sup>3</sup>/s (113 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 14	1930	*9900 280	18.54 5.651	Jan. 16	2030	6970 197	16.06 4.895
Jan. 5	1745	5770 163	15.01 4.575	Feb. 7	1800	6410 182	15.58 4.749
Jan. 9	0500	7430 210	16.47 5.020	Mar. 8	0915	4930 140	14.23 4.337
Jan. 14	1915	6490 184	15.65 4.770				

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	11	183	94	89	260	92	11	5.7		0
2		0	10	533	627	278	160	78	12	5.3		0
3		0	9.4	437	346	619	156	66	13	4.8		0
4		0	8.9	1120	237	1150	487	57	12	5.0		.03
5		5.2	8.4	3560	938	1560	531	51	11	4.5		.17
6		9.4	8.0	1590	1720	739	1230	45	8.5	4.0		.33
7		6.5	8.0	634	2840	543	563	40	8.9	4.2		.29
8		4.6	7.5	741	2310	3670	347	35	6.0	2.4		.28
9		3.6	7.1	3550	2060	1310	257	32	7.7	2.0		3.0
10		2.8	6.7	919	1050	675	199	29	7.7	2.1		5.9
11		2.9	54	513	793	449	166	27	9.3	1.7		2.7
12		3.6	94	433	977	334	140	25	8.5	1.3		1.6
13		4.4	38	935	1950	272	118	23	8.1	1.1		1.1
14		3.8	3330	2840	1090	232	105	21	7.4	1.5		.83
15		3.4	2260	3620	682	201	227	41	7.0	1.6		.63
16		2.4	573	4870	507	180	207	34	4.8	1.3		.54
17		1.5	1120	3110	454	161	190	23	6.3	1.4		.55
18		1.2	334	1340	373	146	144	19	7.4	1.3		.48
19		1.4	148	1450	291	136	204	17	7.0	1.1		.44
20		1.9	85	1200	241	125	338	15	7.0	.88		.44
21		563	471	931	204	116	262	16	5.0	.77		.43
22		405	1500	442	176	108	194	16	5.0	.69		.38
23		101	1290	325	156	112	168	14	5.0	.45		.33
24		49	393	258	139	99	152	14	4.2	.24		.24
25		33	192	213	132	90	227	14	6.7	.09		.17
26		25	177	179	117	86	219	15	5.7	.11		.24
27		20	437	153	105	81	157	16	5.0	.15		.27
28		16	230	132	95	75	132	15	5.7	.20		.24
29		14	179	113	---	71	114	15	4.5	.28		.23
30		12	232	100	---	69	100	14	6.0	.05		.20
31		---	163	89	---	161	---	13	---	.17		---
TOTAL	0	1296.6	13385.0	36513	20704	13937	7754	932	223.4	56.38	0	22.04
MEAN	0	43.2	432	1178	739	450	258	30.1	7.45	1.82	0	.73
MAX	0	563	3330	4870	2840	3670	1230	92	13	5.7	0	5.9
MIN	0	0	6.7	89	94	69	100	13	4.2	.05	0	0
AC-FT	0	2570	26550	72420	41070	27640	15380	1850	443	112	0	44
CAL YR 1977	TOTAL	16636.80	MEAN	45.6	MAX	3330	MIN	0	AC-FT	33000		
WTR YR 1978	TOTAL	94823.42	MEAN	260	MAX	4870	MIN	0	AC-FT	188100		

## 11461000 RUSSIAN RIVER NEAR UKIAH, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-68, 1977-79 (discontinued).

CHEMICAL ANALYSES: Water years 1977-79 (discontinued).

BIOLOGICAL DATA: Water years 1977-79 (discontinued).

WATER TEMPERATURES: Water years 1965-68.

SEDIMENT RECORDS: Water years 1964-68.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1964 to September 1968.

SEDIMENT RECORDS: January 1964 to September 1968.

REMARKS.--Chemical-quality samples and biological data collected 200 ft (61 m) upstream from gaging station.

COOPERATION.--Chemical-quality samples and biological data were collected by California Regional Water Quality Control Board, North Coast Region.

## WATER-QUALITY DATA, OCTOBER 1977 TO OCTOBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)
MAY, 1978										
16...	1333	32	187	8.8	19.5	2.4	10.5	115	540	23
23...	1035	14	194	--	16.0	.60	11.5	117	--	2
30...	1035	12	213	8.8	21.0	.50	11.4	130	--	70
JUN										
06...	1030	7.0	210	8.4	22.5	9.5	10.6	123	--	17
16...	0940	4.0	235	--	18.0	.40	9.7	103	--	--
20...	1130	6.7	233	8.7	22.0	.20	10.1	116	--	--
28...	1010	5.7	236	7.9	19.5	.70	8.2	90	--	--
JUL										
07...	1310	4.8	244	8.8	26.0	.60	11.7	146	--	--
12...	1230	1.1	263	8.1	23.5	.40	9.4	112	--	13
19...	1200	1.1	284	7.8	25.0	.50	8.1	99	--	2
26...	1300	.14	291	8.0	26.5	4.3	9.4	118	--	23
AUG										
01...	1100	.00	268	7.2	25.0	.50	2.3	28	--	<2
09...	1200	.00	277	7.8	26.0	.40	4.0	50	--	240
SEP										
06...	1320	.34	323	7.7	20.0	.20	7.6	84	--	110
12...	1000	1.7	288	7.6	17.0	.40	7.4	77	--	33
20...	1220	.44	302	8.1	18.0	.40	--	--	--	13
27...	1040	.29	308	7.6	18.5	.60	5.8	62	--	7
OCT										
12...	0830	.29	316	7.7	16.0	--	--	--	--	--

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	PSEUDO- MONAS AERU- GINOSA IN H2O (MPN/ 100 ML)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	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)
MAY, 1978									
16...	11	18	350	5	--	--	--	--	--
23...	21	62	330	--	.01	.00	.00	.01	.00
30...	22	74	80	--	--	--	--	--	--
JUN									
06...	23	49	170	--	.02	.01	.00	.01	.02
16...	K6	41	--	--	--	--	--	--	--
20...	7	17	--	--	.01	.02	.00	.00	.02
28...	10	46	--	--	--	--	--	--	--
JUL									
07...	15	31	--	--	.02	.03	.01	.00	.03
12...	K6	16	11	<20	--	--	--	--	--
19...	K3	21	9	--	.04	.04	.01	.01	.05
26...	11	43	70	--	--	--	--	--	--
AUG									
01...	52	91	13	--	.13	.01	.01	.00	.01
09...	13	120	8	--	--	--	--	--	--
SEP									
06...	56	--	220	--	--	--	--	--	--
12...	84	89	280	70	.00	.01	.01	.01	.02
20...	K10	41	540	--	--	--	--	--	--
27...	8	75	2	--	.01	.00	.00	.01	.00
OCT									
12...	--	--	--	--	--	--	--	--	--

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

## RUSSIAN RIVER BASIN

11461000 RUSSIAN RIVER NEAR UKIAH, CA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO OCTOBER 1978--Continued

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	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, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)
MAY, 1978										
16...	--	--	--	--	--	--	--	--	--	--
23...	.00	.00	.71	.52	.71	.52	.72	.01	.00	.00
30...	--	--	--	--	--	--	--	--	--	--
JUN										
06...	.00	.00	.54	.37	.54	.37	.56	.01	.01	.03
16...	--	--	--	--	--	--	--	--	--	--
20...	.00	.00	.31	.11	.31	.11	.32	.00	.01	.03
28...	--	--	--	--	--	--	--	--	--	--
JUL										
07...	.00	.01	.22	.19	.22	.20	.25	.01	.01	.03
12...	--	--	--	--	--	--	--	--	--	--
19...	.00	.01	.36	.30	.36	.31	.41	.01	.00	.00
26...	--	--	--	--	--	--	--	--	--	--
AUG										
01...	.00	.01	.27	.30	.27	.31	.41	.03	.01	.03
09...	--	--	--	--	--	--	--	--	--	--
SEP										
06...	--	--	--	--	--	--	--	--	--	--
12...	.00	.01	.28	--	.28	--	.29	.00	.00	.00
20...	--	--	--	--	--	--	--	--	--	--
27...	.00	.01	.68	.30	.68	.31	.69	.01	.01	.03
OCT										
12...	--	--	--	--	--	--	--	--	--	--

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, OCTOBER 1977 TO OCTOBER 1978

## PHYTOPLANKTON

Date	Time	Potential algal growth bottle test (mg/L)	Biomass (mg/L)		Chlorophyll a (µg/L)	Chlorophyll b (µg/L)	Biomass pigment ratio
			Dry weight	Ash weight			
May 23	1035	1.1	33.3	33.0	0.410	0.000	732
June 20	1130	1.6	57.9	56.8	.860	.000	1279
July 19	1200	1.2	53.0	52.5	.960	.000	521
Sept. 12	1000	.7	26.3	25.8	.620	.000	806

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll a (mg/m <sup>2</sup> )	Chlorophyll b (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
July 19	34	17.8	13.2	5.56	0.670	827	Polyethylene strip
Oct. 12, 1978	31	43.3	42.7	6.79	1.33	88	do

## 11461500 EAST FORK RUSSIAN RIVER NEAR CALPELLA, CA

LOCATION.--Lat 39°14'48", long 123°07'45", in NW¼NW¼ sec.18, T.16 N., R.11 W., Mendocino County, Hydrologic Unit 18010110, on left bank 0.1 mi (0.2 km) downstream from Cold Creek, and 3.9 mi (6.3 km) east of Calpella.

DRAINAGE AREA.--92.2 mi<sup>2</sup> (238.8 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 787.87 ft (240.143 m) National Geodetic Vertical Datum of 1929. Prior to May 28, 1957, at site 1.3 mi (2.1 km) downstream at different datum. May 28, 1957, to Apr. 5, 1966, at site 0.4 mi (0.6 km) downstream at same datum.

REMARKS.--Records good. Flow greatly affected by diversion from Eel River through Potter Valley powerhouse (station 11471000). Diversion for irrigation of about 8,000 acres (32.4 km<sup>2</sup>) above station.

AVERAGE DISCHARGE.--37 years, 334 ft<sup>3</sup>/s (9.459 m<sup>3</sup>/s), 242,000 acre-ft/yr (298 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,700 ft<sup>3</sup>/s (530 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 20.21 ft (6.160 m) site then in use; minimum daily, 2.0 ft<sup>3</sup>/s (0.057 m<sup>3</sup>/s) July 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,300 ft<sup>3</sup>/s (93 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 14	1900	5250 149	14.55 4.435	Jan. 16	unknown	6820 193	16.26 4.956
Jan. 5	1815	5060 143	14.34 4.371	Feb. 7	do	5990 170	15.38 4.688
Jan. 9	0615	*8130 230	17.57 5.355	Mar. 8	0900	4610 131	13.81 4.209

Minimum daily discharge, 14 ft<sup>3</sup>/s (0.40 m<sup>3</sup>/s) Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	31	45	430	494	407	533	399	272	148	122	123
2	30	24	37	638	643	521	430	387	276	146	111	116
3	29	25	32	552	480	802	455	380	268	146	118	124
4	25	27	35	1580	438	1170	753	373	278	146	120	124
5	23	51	39	3110	1930	983	726	351	260	148	117	130
6	23	45	38	1380	2030	669	1370	349	251	150	105	155
7	25	35	38	691	3440	618	718	360	266	146	112	157
8	24	33	32	931	1920	2730	581	358	275	140	125	157
9	23	32	35	3540	1410	1120	522	346	284	134	121	217
10	21	27	37	1000	930	766	479	339	278	136	125	195
11	18	29	51	634	729	652	455	346	276	138	125	174
12	17	30	70	590	1360	585	435	347	281	136	130	306
13	14	29	51	1110	1370	544	422	347	282	134	129	319
14	15	29	1730	3000	800	513	411	348	284	130	131	320
15	19	29	1310	3430	688	488	635	360	282	126	113	319
16	23	29	631	4500	631	471	535	347	282	124	120	320
17	22	27	1030	2300	599	455	494	342	292	128	136	314
18	20	27	456	1400	561	442	457	335	291	130	133	277
19	22	28	273	1500	532	430	491	329	284	130	119	63
20	19	27	179	990	509	420	590	325	276	130	122	54
21	18	563	445	715	490	412	519	324	277	120	134	52
22	18	458	1110	600	474	408	466	301	275	114	157	43
23	19	181	1160	525	459	420	450	290	275	104	134	49
24	21	99	515	484	448	401	439	293	257	125	134	59
25	26	79	409	459	444	390	520	294	259	116	137	282
26	22	67	475	441	436	381	498	304	250	115	134	283
27	21	59	592	427	423	373	445	305	142	118	125	303
28	20	54	434	414	413	363	427	299	151	123	116	297
29	27	52	441	401	---	362	414	294	167	129	114	301
30	35	47	486	391	---	360	408	289	142	137	114	304
31	34	---	394	384	---	468	---	273	---	122	118	---
TOTAL	703	2273	12610	38547	25081	19124	16078	10334	7733	4069	3851	5937
MEAN	22.7	75.8	407	1243	896	617	536	333	258	131	124	198
MAX	35	563	1730	4500	3440	2730	1370	399	292	150	157	320
MIN	14	24	32	384	413	360	408	273	142	104	105	43
AC-FT	1390	4510	25010	76460	49750	37930	31890	20500	15340	8070	7640	11780
CAL YR 1977 TOTAL	22700.0		MEAN 62.2	MAX 1730	MIN 2.0	AC-FT 45030						
WTR YR 1978 TOTAL	146340.0		MEAN 401	MAX 4500	MIN 14	AC-FT 290300						

## RUSSIAN RIVER BASIN

11461500 EAST FORK RUSSIAN RIVER NEAR CALPELLA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951-58, 1964 to current year.  
 CHEMICAL ANALYSES: Water years 1951-58, 1973 to current year.  
 WATER TEMPERATURES: Water years 1964 to current year.  
 SEDIMENT RECORDS: Water years 1964, 1967-68.  
 TURBIDITY: Water years 1964-71.

PERIOD OF DAILY RECORD.--  
 WATER TEMPERATURES: March 1964 to current year.  
 SEDIMENT RECORDS: March to September 1964, October 1966 to September 1968.

INSTRUMENTATION.--Temperature recorder since August 1965.

COOPERATION.--The letter "A" following a date indicates chemical-quality data furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF DAILY RECORD.--  
 WATER TEMPERATURES: Maximum recorded, 29.0°C Aug. 11, 1971, July 1, 1972; minimum recorded, 2.0°C Dec. 12, 1972, Dec. 21, 22, 1976.

EXTREMES FOR CURRENT YEAR.--  
 WATER TEMPERATURES: Maximum recorded, 25.0°C Aug. 5, 6; minimum, 5.5°C Nov. 21.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT								
14...A	0945	15	344	8.1	14.0	1.0	--	--
28...A	0950	21	384	8.1	13.0	1.0	--	--
NOV								
10...	0835	26	362	7.5	8.5	--	11.5	100
11...A	0950	29	360	8.0	10.0	1.0	--	--
25...A	1000	63	260	8.0	10.0	17	--	--
DEC								
09...A	0950	35	335	8.0	8.0	3.2	--	--
13...	1030	49	299	7.7	9.0	--	11.4	100
22...A	0930	533	170	7.5	9.0	60	--	--
JAN								
06...A	0950	1380	130	7.3	10.0	90	--	--
20...A	1145	1020	151	7.5	10.0	60	--	--
FEB								
03...A	1120	476	157	7.0	10.0	45	--	--
17...A	1100	594	161	7.7	9.0	27	--	--
MAR								
03...A	0950	857	139	7.6	11.0	--	--	--
17...A	1000	458	167	7.7	10.0	19	--	--
28...	1110	362	150	8.2	13.0	--	10.4	100
30...A	0900	362	175	7.7	13.0	8.5	--	--
APR								
14...A	1000	414	177	7.8	11.0	9.3	--	--
28...A	1020	427	185	7.9	12.0	6.6	--	--
MAY								
15...A	1345	365	172	7.9	14.0	6.6	--	--
JUN								
02...A	1000	275	173	7.7	16.0	2.8	--	--
06...	0730	256	162	8.0	17.0	--	9.3	97
20...A	0940	275	170	7.7	17.0	3.5	--	--
JUL								
07...A	1100	150	187	7.8	19.0	3.9	--	--
21...A	1025	140	198	7.7	20.0	3.2	--	--
26...	1215	117	172	8.0	21.0	--	8.8	100
AUG								
04...A	0955	120	195	7.5	21.0	2.7	--	--
18...A	0945	128	189	7.4	17.0	2.2	--	--
SEP								
08...A	1045	157	189	7.4	17.0	2.2	--	--
15...A	1000	318	193	7.2	19.0	4.2	--	--
28...	0840	306	185	7.7	18.0	--	9.0	96
29...A	1120	300	191	7.2	18.0	4.8	--	--

11461500 EAST FORK RUSSIAN RIVER NEAR CALPELLA, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN+AM- MONIA + ORGANIC TOTAL (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)
NOV 10...	0835	43	78	.08	.01	.07	.09	.16	.23	.04	.03
DEC 13...	1030	310	K850	.26	.01	.27	.27	.06	.33	.06	.03
MAR 28...	1110	68	38	.02	.00	.11	.02	.33	.44	.03	.04
JUN 06...	0730	320	370	.04	.01	.09	.05	.29	.38	.01	.01
JUL 26...	1215	K280	480	.07	.01	.06	.08	.27	.33	.03	.03
SEP 28...	0840	K190	200	--	--	--	--	--	--	--	--

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	13.0	12.5	---	---	8.5	8.0	8.5	8.0	10.0	9.5
2	---	---	12.5	12.5	---	---	9.0	8.5	10.0	8.5	11.0	10.0
3	---	---	12.5	12.5	---	---	9.5	9.0	10.0	9.0	11.0	10.0
4	---	---	12.5	12.0	---	---	10.0	9.5	9.5	9.0	11.5	10.0
5	---	---	12.0	12.0	---	---	10.0	10.0	10.0	9.5	11.0	10.0
6	---	---	12.0	11.5	---	---	11.0	10.0	11.0	9.5	12.0	9.0
7	---	---	12.0	11.5	---	---	10.5	9.5	11.0	9.5	11.0	10.0
8	---	---	12.0	11.5	---	---	11.5	10.5	10.0	9.0	12.0	11.0
9	---	---	11.5	9.5	---	---	12.0	11.0	10.0	9.0	12.5	10.0
10	---	---	9.5	8.5	---	---	11.0	10.0	9.0	8.0	12.0	10.0
11	---	---	9.0	9.0	8.0	7.0	10.5	9.5	9.0	7.0	11.5	10.0
12	15.5	14.5	9.5	9.0	9.5	8.0	10.5	10.0	9.0	7.5	11.5	9.0
13	14.5	14.0	10.0	9.5	9.0	8.5	10.5	10.0	10.0	8.0	11.0	9.0
14	14.5	14.0	9.5	9.5	12.0	9.0	10.5	9.5	10.0	8.0	11.5	9.0
15	14.5	14.0	10.0	9.5	12.0	9.5	10.0	9.5	9.5	8.0	11.5	8.5
16	14.5	14.0	9.5	9.5	9.5	8.5	10.5	10.0	9.0	8.0	11.5	9.0
17	14.0	13.5	9.5	9.5	10.0	8.5	11.5	10.0	9.5	8.5	12.0	9.5
18	14.0	13.5	9.5	9.0	8.5	7.5	10.5	10.0	11.0	9.0	11.5	9.5
19	14.0	13.5	9.0	8.5	7.5	7.0	11.0	10.0	10.5	8.5	12.0	10.0
20	14.0	14.0	8.5	7.5	7.5	6.5	11.0	10.0	11.0	9.0	12.0	10.0
21	14.0	13.0	8.0	5.5	9.0	7.5	10.5	9.5	11.0	9.0	11.5	11.0
22	13.0	13.0	8.0	7.0	10.0	8.5	9.5	8.5	11.0	9.0	12.5	11.0
23	13.0	13.0	8.5	8.0	10.5	9.5	9.0	8.0	11.0	9.0	12.5	11.5
24	14.0	13.0	10.0	8.5	9.5	8.5	8.5	7.5	10.5	9.5	12.5	10.0
25	14.0	14.0	11.0	9.5	9.0	8.0	9.0	8.0	11.0	10.0	13.0	10.5
26	14.0	14.0	12.5	10.5	9.0	8.5	9.0	8.0	11.0	9.0	13.5	11.5
27	14.0	13.5	12.0	10.0	10.0	9.0	9.0	8.0	10.0	8.5	13.5	12.0
28	13.5	13.0	12.0	10.0	9.5	9.0	9.0	8.0	10.5	8.5	14.0	12.5
29	13.0	13.0	11.0	8.5	9.5	9.5	9.0	8.0	---	---	13.5	12.0
30	13.0	13.0	11.0	8.0	9.5	8.5	8.5	8.0	---	---	15.0	12.5
31	13.0	12.5	---	---	8.5	8.0	9.0	8.0	---	---	14.0	12.5
MONTH	15.5	12.5	13.0	5.5	12.0	6.5	12.0	7.5	11.0	7.0	15.0	8.5

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

11461500 EAST FORK RUSSIAN RIVER NEAR CALPELLA, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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



## 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 (9 m) upstream from Coyote Dam on East Fork Russian River, and 3.6 mi (5.8 km) northeast of Ukiah.

DRAINAGE AREA.--105 mi<sup>2</sup> (272 km<sup>2</sup>).

## WATER-CONTENT RECORDS

PERIOD OF RECORD.--October 1965 to current year. Records prior to October 1965 in files of Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam; storage began in November 1958. Capacity based on 1975 resurvey, new capacity table put into use July 1, 1977, 122,100 acre-ft (152 hm<sup>3</sup>) between elevations 637.0 ft (194.16 m), invert of outlet tunnel and 764.8 ft (233.11 m), spillway crest, NGVD. Storage affected by diversions from Bel River through Potter Valley powerhouse (station 11471000). Water is released down East Fork Russian River for irrigation and recreation use. Records given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 114,800 acre-ft (142 hm<sup>3</sup>) Jan. 24, 1970, elevation, 760.86 ft (231.910 m); minimum, 12,070 acre-ft (14.9 hm<sup>3</sup>) Nov. 4, 1977, elevation, 687.15 ft (209.443 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 100,100 acre-ft (123 hm<sup>3</sup>) Jan. 17, elevation, 753.13 ft (229.554 m); minimum, 12,070 acre-ft (14.9 hm<sup>3</sup>) Nov. 4, elevation, 687.15 ft (209.443 m).

## Capacity table (elevation, in feet, and contents, in acre-feet)

637	0	665	2810	690	13800	730	59500
645	152	670	4290	695	17300	740	76400
650	432	675	6110	700	21200	750	94400
655	914	680	8280	710	31300	760	113000
660	1700	685	10800	720	44300	764.8	122100

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13200	12100	16000	42100	72900	72000	80100	88000	91600	89800	79600	68300
2	13200	12100	16000	43400	73500	72400	80800	88100	91600	89500	79200	68000
3	13300	12100	16100	44600	73300	73500	81800	88000	91500	89200	78800	67600
4	13300	12100	16100	47900	73100	75300	83100	87800	91500	89000	78400	67300
5	13300	12200	16200	54200	76600	76000	84800	87500	91400	88800	78000	67000
6	13300	12200	16200	56800	79700	74800	86100	87200	91400	88600	77500	66800
7	13200	12300	16300	58200	85900	73500	86000	87000	91300	88400	77200	66600
8	13200	12300	16300	60500	89000	79200	86000	86700	91200	88100	76800	66600
9	13200	12300	16300	67900	88300	79400	86600	86400	91100	87900	76400	66500
10	13200	12400	16400	69900	81900	77500	87400	86300	91100	87600	76000	66600
11	13200	12400	16500	71200	75100	75300	88100	86500	91000	87300	75600	66700
12	13100	12500	16600	71600	75000	72900	88400	87000	90900	87000	75100	67000
13	13100	12500	16700	74400	75100	71800	88400	87500	90900	86700	74800	67200
14	13000	12500	20300	80800	73400	71900	88400	88100	90900	86300	74400	67500
15	12900	12600	23100	88100	73000	72000	89100	88600	90800	86000	74000	67700
16	12900	12600	24100	97300	73100	72200	89400	89100	90800	85600	73600	67900
17	12900	12600	26100	99600	72800	72400	89300	89600	90800	85200	73200	68000
18	12800	12700	27100	97900	72500	72600	89200	90000	90800	84800	72800	68100
19	12700	12700	27700	93700	72200	72800	89100	90400	90800	84500	72400	67900
20	12700	12800	28100	85900	71700	73200	89200	90700	90800	84100	72100	67600
21	12600	13900	29100	79300	71500	73700	89100	91000	90800	83800	71700	67300
22	12500	14800	31500	77000	71500	74100	89000	91300	90800	83400	71400	67000
23	12500	15200	33800	74600	71600	74700	88800	91600	90800	83000	71100	66700
24	12400	15300	34800	73800	71600	75100	88600	91700	90700	82700	70800	66500
25	12300	15500	35600	73800	71800	75500	88600	91700	90700	82300	70500	66600
26	12300	15600	37000	73600	71800	76000	88500	91600	90600	81900	70200	66700
27	12200	15700	37700	73400	71900	76400	88300	91600	90400	81600	69900	66900
28	12200	15800	38700	73100	72000	77100	88100	91700	90300	81200	69600	67100
29	12200	15900	39500	72900	---	77700	88100	91700	90200	80800	69200	67300
30	12100	15900	40400	72600	---	78200	88100	91700	90000	80400	68900	67600
31	12100	---	41200	72500	---	79300	---	91700	---	80000	68600	---
MAX	13300	15900	41200	99600	89000	79400	89400	91700	91600	89800	79600	68300
MIN	12100	12100	16000	42100	71500	71800	80100	86300	90000	80000	68600	66500
(+)	687.24	693.13	717.82	737.75	737.45	741.60	746.51	748.50	747.61	742.03	735.47	734.90
(‡)	-1000	+3800	+25300	+31300	-500	+7300	+8800	+3600	-1700	-10000	-11400	-1000

CAL YR 1977 ‡ -7800

WTR YR 1978 ‡ +54500

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

NOTE.--New capacity table put into use July 1, 1977; contents on Dec. 31, 1976, from new table, 49,000 acre-ft. Change in contents for calendar year 1977 based on new table.

## RUSSIAN RIVER BASIN

11461800 LAKE MENDOCINO NEAR UKIAH, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-68, 1977 to current year.

CHEMICAL ANALYSES: Water year 1977 to current year.

WATER TEMPERATURES: Water years 1966-68.

SEDIMENT RECORDS: Water years 1964-68.

TURBIDITY: Water years 1964-68.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: December 1965 to September 1968.

SEDIMENT RECORDS: February 1964 to September 1968.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SAM- PLING DEPTH (M) <sup>1/</sup>	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	LIGHT TRANS- MISSION 1 METER PATH- LENGTH (%)	LIGHT, ATTENU- ATION COEFFI- CIENT (ALPHA/ METER)
DEC								
13...	1045	.50	260	8.0	10.8	10.0	--	--
13...	1046	1.0	259	8.0	10.9	9.8	2.8	5.88
13...	1047	2.0	259	8.0	10.9	9.6	3.3	5.71
13...	1048	3.0	262	8.0	10.9	9.5	3.3	5.71
13...	1049	4.0	260	8.0	10.9	9.5	3.3	5.71
13...	1050	5.0	259	8.0	10.9	9.5	2.8	5.88
13...	1051	6.0	258	8.0	10.9	9.5	1.6	6.44
13...	1052	7.0	258	8.0	10.8	9.4	.07	7.33
13...	1053	8.0	257	7.5	10.7	5.7	.00	12.88
13...	1054	9.0	243	7.4	10.4	3.7	.00	18.42
13...	1055	10.0	242	7.3	10.3	3.5	.00	19.31
13...	1056	11.0	243	7.3	10.2	3.5	.00	19.31
13...	1057	12.0	251	7.3	10.2	4.5	.00	19.85
13...	1058	13.0	264	7.5	10.2	6.0	.00	16.54
13...	1059	14.0	285	7.6	10.2	7.2	.00	14.92
13...	1100	15.0	290	7.6	10.1	7.6	.00	14.03
13...	1101	16.0	292	7.7	10.1	7.8	.00	13.77
MAR								
28...	0930	.50	138	8.8	16.2	10.7	--	--
28...	0931	1.0	138	8.8	15.6	10.5	.16	6.44
28...	0932	2.0	139	8.7	15.2	10.3	.14	6.54
28...	0933	3.0	140	8.5	14.6	9.8	.19	6.24
28...	0934	4.0	138	8.4	14.0	9.5	.19	6.24
28...	0935	5.0	140	8.2	13.2	9.1	.17	6.40
28...	0936	6.0	139	8.0	12.4	8.9	.12	6.75
28...	0937	7.0	138	7.9	12.2	9.4	.08	7.18
28...	0938	8.0	136	7.9	11.8	9.4	.05	7.59
28...	0939	9.0	136	7.8	11.7	9.6	.02	8.35
28...	0940	10.0	136	7.8	11.6	9.4	.02	8.65
28...	0941	11.0	135	7.8	11.5	9.5	.01	9.13
28...	0942	12.0	135	7.8	11.4	9.5	.01	9.63
28...	0943	13.0	136	7.8	11.2	9.6	.00	10.36
28...	0944	14.0	136	7.8	11.1	9.5	.00	11.25
28...	0945	15.0	136	7.8	11.0	9.2	.00	12.88
28...	0946	16.0	136	7.8	10.8	9.3	.00	15.27
28...	0947	17.0	136	7.7	10.6	9.2	.00	16.54
28...	0948	18.0	136	7.7	10.4	9.1	.00	17.69
28...	0949	19.0	135	7.7	10.3	9.0	.00	18.04
28...	0950	20.0	137	7.7	10.2	9.0	.00	18.42
28...	0951	21.0	137	7.6	10.1	8.9	.00	18.04
28...	0952	22.0	138	7.6	10.1	8.8	.00	18.42
28...	0953	23.0	138	7.6	10.0	8.6	.00	18.84
28...	0954	24.0	138	7.6	10.0	8.2	.00	18.84
28...	0955	25.0	138	7.5	10.0	8.2	.00	18.84
28...	0956	26.0	138	7.5	10.0	8.4	.00	18.84
28...	0957	27.0	138	7.5	9.9	8.2	.00	19.31
28...	0958	28.0	138	7.5	9.9	8.1	.00	19.85
28...	0959	29.0	138	7.5	9.9	7.9	.00	20.46
JUN								
06...	0850	.50	157	8.6	23.8	9.1	--	--
06...	0851	1.0	157	8.6	23.8	9.1	33	1.10
06...	0852	2.0	157	8.6	23.8	9.1	28	1.26
06...	0853	3.0	159	8.6	23.7	9.2	28	1.26
06...	0854	4.0	158	8.6	22.9	9.5	28	1.26
06...	0855	5.0	159	8.5	20.9	9.1	30	1.20
06...	0856	6.0	159	8.4	19.8	8.6	30	1.20
06...	0857	7.0	158	8.3	18.8	8.3	30	1.20
06...	0858	8.0	158	8.1	18.0	7.8	28	1.26
06...	0859	9.0	157	8.0	16.8	6.7	23	1.48
06...	0900	10.0	160	7.8	15.7	6.2	17	1.78
06...	0901	11.0	157	7.5	15.3	6.1	13	2.04
06...	0902	12.0	156	7.4	14.8	6.0	11	2.18
06...	0903	13.0	158	7.4	14.5	5.9	7.9	2.54
06...	0904	14.0	157	7.4	14.1	5.9	6.8	2.69
06...	0905	15.0	155	7.4	14.0	6.0	4.5	3.11
06...	0906	16.0	154	7.4	13.5	6.1	4.1	3.19
06...	0907	17.0	152	7.5	13.4	6.2	2.8	3.57
06...	0908	18.0	153	7.5	13.1	6.3	2.3	3.77
06...	0909	19.0	152	7.6	13.0	6.3	2.3	3.77

<sup>1/</sup> To convert meters to feet, multiply by 3.281.

11461800 LAKE MENDOCINO NEAR UKIAH, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SAM- PLING DEPTH (M) 1/	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	LIGHT TRANS- MISSION 1 METER PATH- LENGTH (%)	LIGHT, ATTENU- ATION COEFFI- CIENT (ALPHA/ METER)
JUN								
06...	0910	20.0	151	7.6	12.9	6.3	1.9	3.98
06...	0911	21.0	151	7.6	12.9	6.2	1.7	4.09
06...	0912	22.0	153	7.6	12.7	6.3	1.5	4.20
06...	0913	23.0	152	7.6	12.6	6.3	1.0	4.56
06...	0914	24.0	152	7.6	12.5	6.2	1.0	4.56
06...	0915	25.0	152	7.6	12.5	5.9	.81	4.82
06...	0916	26.0	152	7.6	12.3	5.5	.39	5.54
06...	0917	27.0	153	7.5	12.2	5.0	.16	6.44
06...	0918	28.0	153	7.5	12.2	4.9	.10	6.86
06...	0919	29.0	153	7.4	12.1	4.6	.04	7.72
06...	0920	30.0	153	7.4	12.0	4.2	.02	8.48
06...	0921	31.0	153	7.4	12.0	4.1	.01	9.21
06...	0922	32.0	153	7.4	12.0	4.1	.00	10.00
06...	0923	33.0	153	7.4	12.0	4.0	.00	10.52
SEP								
28...	1100	.50	184	8.6	21.2	9.0	9.8	2.32
28...	1101	1.0	184	8.6	21.1	9.1	5.8	2.85
28...	1102	2.0	183	8.7	21.0	9.2	5.3	2.94
28...	1103	3.0	183	8.7	21.0	9.0	5.8	2.85
28...	1104	4.0	183	8.6	20.9	8.7	7.3	2.62
28...	1105	5.0	183	8.4	20.8	8.0	9.2	2.39
28...	1106	6.0	183	8.2	20.8	7.2	9.8	2.32
28...	1107	7.0	184	8.0	20.6	6.6	11	2.18
28...	1108	8.0	184	7.9	20.6	6.4	13	2.04
28...	1109	9.0	184	7.8	20.6	6.3	14	1.98
28...	1110	10.0	183	7.8	20.6	6.2	15	1.91
28...	1111	11.0	183	7.8	20.6	6.0	16	1.85
28...	1112	12.0	183	7.8	20.5	5.2	17	1.78
28...	1113	13.0	183	7.6	20.5	5.1	17	1.78
28...	1114	14.0	183	7.6	20.5	4.9	17	1.78
28...	1115	15.0	183	7.5	20.4	4.4	17	1.78
28...	1116	16.0	182	7.5	20.3	4.2	17	1.78
28...	1117	17.0	185	7.5	20.2	3.8	17	1.78
28...	1118	18.0	185	7.4	20.2	4.0	16	1.85
28...	1119	19.0	185	7.4	20.0	3.5	13	2.04
28...	1120	20.0	184	7.4	19.8	3.2	13	2.04
28...	1121	21.0	186	7.3	19.7	3.0	12	2.11
28...	1122	22.0	186	7.3	19.6	3.4	11	2.25
28...	1123	23.0	186	7.4	19.5	3.7	8.5	2.46
28...	1124	24.0	186	7.4	19.5	3.4	5.8	2.85
28...	1125	25.0	186	7.3	19.3	3.3	5.3	2.94
28...	1126	26.0	188	7.3	19.2	3.1	.92	4.68
28...	1127	27.0	188	7.3	19.0	2.7	.28	5.88
28...	1128	28.0	189	7.3	18.8	2.0	.08	7.09

1/ To convert meters to feet, multiply by 3.281.

## RUSSIAN RIVER BASIN

11461800 LAKE MENDOCINO NEAR UKIAH, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SAM- PLING DEPTH (M) <sup>1/</sup>	RESER- VOIR STORAGE (AC-FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)
DEC									
13...	1120	16.0	16700	292	7.7	10.1	K15	79	.18
13...	1135	8.0	16700	257	7.5	10.7	K6	43	.15
13...	1145	1.0	16700	259	8.0	10.9	K4	27	.06
MAR									
28...	1225	29.0	76900	138	7.5	9.9	23	27	.23
28...	1245	15.0	76900	136	7.8	11.0	19	32	.15
28...	1300	1.0	76900	138	8.8	15.6	K1	K2	.00
JUN									
06...	1015	1.0	91400	157	8.6	23.8	K1	K4	.00
06...	1045	10.0	91400	160	7.8	15.7	<1	<1	.00
06...	1105	33.0	91400	153	7.4	12.0	K1	K4	.17
SEP									
28...	1140	27.0	67100	188	7.3	19.0	K1	K3	--
28...	1145	13.0	67100	183	7.6	20.5	<1	<1	--
28...	1150	1.0	67100	184	8.6	21.1	<1	<1	--

DATE	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+AM- MONIA + ORGANIC TOTAL (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)	ALGAL GROWTH POTEN- TIAL, BOTTLE TEST (MG/L)
DEC								
13...	.01	.18	.19	.16	.34	.05	.01	3.8
13...	.01	.12	.16	.32	.44	.03	.01	1.3
13...	.00	.05	.06	.23	.28	.04	.00	4.5
MAR								
28...	.00	.25	.23	.14	.39	.07	.04	13
28...	.00	.16	.15	.15	.31	.06	.04	12
28...	.00	.02	.00	.35	.37	.03	.02	2.4
JUN								
06...	.00	.01	.00	.61	.62	.00	.00	1.4
06...	.00	.00	.00	.18	.18	.00	.00	3.2
06...	.00	.23	.17	.30	.53	.09	.02	12
SEP								
28...	--	--	--	--	--	--	--	.8
28...	--	--	--	--	--	--	--	.4
28...	--	--	--	--	--	--	--	.5

<sup>1/</sup> To convert meters to feet, multiply by 3.281.

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

## 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 (152 m) downstream from Coyote Dam, 1,300 ft (396 m) upstream from mouth, and 3.2 mi (5.1 km) northeast of Ukiah.

DRAINAGE AREA.--105 mi<sup>2</sup> (272 km<sup>2</sup>).

## 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 (187.272 m) National Geodetic Vertical Datum of 1929. Prior to October 1951, nonrecording gage at site 0.5 mi (0.8 km) upstream at different datum. October 1951 to June 1956, water-stage recorder at site 1.0 mi (1.6 km) upstream at different datum.

REMARKS.--Records good. Flow affected by diversion from Eel River through Potter Valley powerhouse (station 11471000) and since November 1958 by storage in Lake Mendocino (station 11461800) 500 ft (152 m) upstream. Diversions above station for irrigation of about 8,000 acres (32.4 km<sup>2</sup>).

AVERAGE DISCHARGE (unadjusted).--7 years (water years 1912-13, 1952-55, 1958), 356 ft<sup>3</sup>/s (10.08 m<sup>3</sup>/s), 257,900 acre-ft/yr (318 hm<sup>3</sup>/yr); 19 years (water years 1960-78), 341 ft<sup>3</sup>/s (9.657 m<sup>3</sup>/s), 247,100 acre-ft/yr (305 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD (Prior to regulation by Lake Mendocino).--Maximum discharge, 13,300 ft<sup>3</sup>/s (377 m<sup>3</sup>/s) Dec. 21, 1955, gage height, 16.86 ft (5.139 m) site and datum then in use, from rating curve extended above 1,700 ft<sup>3</sup>/s (48.1 m<sup>3</sup>/s) on basis of maximum flow at station upstream which was defined to 8,600 ft<sup>3</sup>/s (244 m<sup>3</sup>/s); no flow Aug. 13-15, 1913.  
1957 to current year: Maximum discharge, 7,350 ft<sup>3</sup>/s (208 m<sup>3</sup>/s) Jan. 24, 1970, gage height, 10.84 ft (3.304 m); minimum daily, 0.02 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) Apr. 17, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,260 ft<sup>3</sup>/s (149 m<sup>3</sup>/s) Jan. 20, gage height, 8.32 ft (2.536 m); minimum daily, 2.3 ft<sup>3</sup>/s (0.065 m<sup>3</sup>/s) Jan. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	33	8.9	3.5	349	349	100	388	289	251	291	284
2	8.9	33	10	2.3	490	350	100	363	289	251	296	285
3	9.5	33	10	2.3	647	354	100	441	289	251	296	281
4	22	28	8.3	3.8	625	422	102	511	289	251	296	280
5	33	22	8.9	4.8	473	743	103	529	291	248	297	278
6	33	22	7.8	3.5	480	1780	953	528	293	237	297	277
7	33	17	8.3	3.2	207	1660	1100	522	293	228	300	224
8	33	11	8.5	4.1	694	257	652	522	297	228	300	184
9	33	10	8.1	5.3	1790	1320	252	522	297	230	298	184
10	33	10	8.5	4.4	4300	2240	91	395	293	238	301	181
11	41	11	8.1	18	4420	2220	92	181	295	244	301	181
12	45	11	8.4	27	1970	2210	285	106	297	244	304	171
13	45	11	8.0	144	1790	1220	393	106	297	253	303	163
14	43	10	10	91	2160	429	393	109	287	268	303	190
15	43	8.9	9.3	29	1230	392	397	109	283	274	301	203
16	45	5.8	8.6	28	741	378	448	111	285	274	301	200
17	45	7.3	7.3	1160	837	321	563	112	287	279	305	203
18	53	9.5	6.2	2660	837	289	612	142	288	289	305	183
19	59	8.9	6.3	3520	834	289	612	159	289	290	305	171
20	59	7.3	6.5	5000	828	208	612	160	285	289	305	181
21	59	12	7.6	4830	622	158	612	160	285	277	295	187
22	59	10	6.1	2180	475	159	612	162	286	270	289	187
23	57	9.5	5.1	2170	414	160	612	163	288	270	291	190
24	57	9.5	4.4	1200	371	160	612	241	289	271	285	187
25	57	8.9	3.9	570	345	160	612	281	289	270	285	197
26	57	10	3.1	570	349	162	612	281	289	270	285	197
27	51	9.5	3.4	570	349	123	612	281	237	270	285	194
28	49	7.8	3.8	570	349	99	500	281	206	284	289	194
29	49	8.3	4.2	570	---	97	434	285	206	293	288	184
30	49	5.4	4.4	570	---	97	436	285	227	291	285	178
31	41	---	4.0	434	---	98	---	285	---	292	285	---
TOTAL	1312.4	400.6	216.0	26948.2	28976	18904	13614	8721	8415	8175	9167	6199
MEAN	42.3	13.4	6.97	869	1035	610	454	281	281	264	296	207
MAX	59	33	10	5000	4420	2240	1100	529	297	293	305	285
MIN	8.9	5.4	3.1	2.3	207	97	91	106	206	228	285	163
AC-FT	2600	795	428	53450	57470	37500	27000	17300	16690	16220	18180	12300

CAL YR 1977 TOTAL 26394.5 MEAN 72.3 MAX 227 MIN 3.1 AC-FT 52350  
WTR YR 1978 TOTAL 131048.2 MEAN 359 MAX 5000 MIN 2.3 AC-FT 259900

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 ANALYSES: Water years 1953-55, 1973 to current year.

BIOLOGICAL DATA: Water year 1977-78.

WATER TEMPERATURES: Water years 1953-55, 1965-68, 1973 to current year.

SEDIMENT RECORDS: Water years 1953-55, 1964-68.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: December 1952 to March 1955, October 1964 to September 1968, October 1972 to current year.

SEDIMENT RECORDS: December 1952 to March 1955, January 1964 to September 1968.

INSTRUMENTATION.--Temperature recorder since October 1972.

COOPERATION.--The letter "A" following a date indicates chemical-quality data furnished by Corps of Engineers and "B" following a date indicates chemical-quality samples were collected by California Regional Water Quality Control Board, North Coast Region.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 23.5°C on several days in 1977; minimum recorded, 7.0°C Jan. 14, 1973.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 20.0°C on several days during September; minimum, 8.5°C Dec. 20, 21.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT								
14...A	1015	41	266	7.8	18.0	4.1	--	--
28...A	1005	49	257	7.8	18.0	5.3	--	--
NOV								
10...B	1315	10	286	7.3	14.0	--	10.4	102
11...A	1100	11	279	7.9	13.0	11	--	--
25...A	1045	10	229	7.8	10.0	250	--	--
DEC								
09...A	1045	8.3	241	7.6	10.0	50	--	--
13...B	1330	7.8	264	7.8	11.0	--	10.9	100
22...A	0950	6.3	178	7.6	10.0	80	--	--
JAN								
06...A	1248	3.4	171	7.2	11.0	160	--	--
20...A	1300	5190	169	7.4	10.0	110	--	--
FEB								
03...A	1150	846	145	7.1	10.0	85	--	--
17...A	1120	837	104	7.6	10.0	90	--	--
MAR								
03...A	1045	354	143	7.5	10.0	60	--	--
17...A	1040	285	147	7.5	11.0	40	--	--
28...B	1155	100	131	7.8	10.5	--	10.8	98
30...A	0930	97	145	7.6	12.0	30	--	--
APR								
14...A	1100	391	152	7.5	11.0	39	--	--
28...A	1100	436	162	7.5	12.0	19	--	--
MAY								
15...A	1410	110	168	7.4	12.0	20	--	--
16...B	1415	112	144	8.0	12.0	14	11.0	103
23...B	0945	163	146	--	12.0	--	10.6	99
30...B	1110	285	152	7.7	13.5	--	10.5	102
JUN								
02...A	1030	289	161	7.5	13.0	12	--	--
06...B	0845	293	156	7.7	12.0	--	--	--
06...B	0950	293	154	7.6	12.5	.60	10.5	99
16...B	1040	285	145	--	13.0	8.7	10.3	99
20...A	1000	285	160	7.4	13.0	8.8	--	--
20...B	1015	285	151	7.7	13.5	4.0	10.1	98
28...B	1100	206	150	7.4	13.0	--	10.1	97
JUL								
07...A	1120	228	167	8.1	14.0	8.1	--	--
07...B	1350	230	158	7.4	14.5	8.6	10.0	99
12...B	1320	244	160	7.6	14.0	8.3	10.0	98
19...B	1040	289	161	7.7	14.0	7.0	9.7	114
21...A	1045	270	170	7.3	14.0	7.5	--	--
26...B	1350	270	164	7.4	14.5	4.8	9.8	97
AUG								
01...B	1015	289	157	7.5	14.5	4.1	9.4	93
04...A	1020	296	183	7.2	16.0	5.1	--	--
09...B	1230	297	161	7.2	16.0	2.6	9.2	94
15...B	1000	301	159	7.7	16.5	2.3	9.2	95
18...A	1015	305	175	7.0	16.0	2.8	--	--
23...B	1210	293	165	7.4	17.0	1.8	9.0	94

11462000 EAST FORK RUSSIAN RIVER NEAR UKIAH, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)				
SEP												
01...B	1000	281	167	6.8	18.0	1.7	8.8	94				
06...B	1230	281	172	7.3	18.5	1.8	8.6	92				
08...A	1105	184	178	7.2	19.0	2.3	--	--				
12...B	1100	163	171	6.8	18.5	2.4	6.8	73				
15...A	1020	203	175	7.1	19.0	3.1	--	--				
20...B	1255	187	175	7.5	19.5	2.4	8.8	97				
27...B	1000	194	175	7.4	20.0	2.4	8.7	97				
28...B	0830	194	176	7.1	20.0	--	8.6	96				
29...A	1140	178	184	6.9	20.0	4.2	--	--				
DATE	TIME	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCO FECAL, KF AGAR (COLS. PER 100 ML)	STREP- TOCOCO FECAL (MPN)	PSEUDO- MONAS AERU- GINOSA IN H2O (MPN/ 100 ML)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
NOV												
10...B	1315	--	--	31	53	--	--	--	.08	--	.01	.08
DEC												
13...B	1330	--	--	K13	360	--	--	--	.22	--	.01	.24
MAR												
28...B	1155	--	--	31	37	--	--	--	.08	--	.00	.25
MAY												
16...B	1415	23	2	K4	K4	11	2	--	--	--	--	--
23...B	0945	--	2	K1	K4	<20	--	.12	.10	.01	.01	.13
30...B	1110	--	2	K1	<1	20	--	--	--	--	--	--
JUN												
06...B	0845	--	--	--	--	--	--	--	.09	--	.01	.13
06...B	0950	--	<2	K1	K2	50	--	.13	.14	.01	.01	.14
16...B	1040	--	--	<1	<1	--	--	--	--	--	--	--
20...B	1015	--	--	K1	K3	--	--	.08	.10	.01	.01	.09
28...B	1100	--	--	<1	K2	--	--	--	--	--	--	--
JUL												
07...B	1350	--	--	<1	K6	--	--	.06	.08	.01	.01	.07
12...B	1320	--	<3	<1	K2	30	<3	--	--	--	--	--
19...B	1040	--	<2	K1	K2	<3	--	.05	.06	.01	.01	.06
26...B	1350	--	<2	<1	K2	2	--	--	.02	--	.01	.02
AUG												
01...B	1015	--	<2	K1	<1	5	--	.01	.01	.01	.00	.02
09...B	1230	--	2	<1	<1	5	--	--	--	--	--	--
15...B	1000	--	2	<1	<1	<20	<20	.03	.01	.00	.01	.03
23...B	1210	--	4	<1	<1	8	--	--	--	--	--	--
SEP												
01...B	1000	--	2	<1	K2	2	--	.00	.01	.00	.00	.00
06...B	1230	--	<2	K1	<1	6	--	--	--	--	--	--
12...B	1100	--	<2	<1	6	4	20	.00	.01	.01	.00	.01
20...B	1255	--	2	<1	8	46	--	--	--	--	--	--
27...B	1000	--	170	<1	16	8	--	.15	.04	.00	.01	.15
28...B	0830	--	--	K1	17	--	--	--	--	--	--	--

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

## RUSSIAN RIVER BASIN

11462000 EAST FORK RUSSIAN RIVER NEAR UKIAH, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	NITRO- GEN, NO2+N03 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	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)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)
NOV												
10...	.09	--	--	--	--	.28	--	.36	.05	.03	--	--
DEC												
13...	.23	--	--	--	--	.37	--	.61	.05	.01	--	--
MAR												
28...	.08	--	--	--	--	.20	--	.45	.07	.02	--	--
MAY												
16...	--	--	--	--	--	--	--	--	--	--	--	--
23...	.11	.00	.00	1.2	.25	1.2	.25	1.3	.04	--	.01	.03
30...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
06...	.10	--	--	--	--	.33	--	.46	.02	.02	--	--
06...	.15	.01	.00	.96	.29	.97	.29	1.1	.03	--	.01	.03
16...	--	--	--	--	--	--	--	--	--	--	--	--
20...	.11	.00	.00	.38	.33	.38	.33	.47	.02	--	.01	.03
28...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
07...	.09	.00	.01	.16	.13	.16	.14	.23	.03	--	.02	.06
12...	--	--	--	--	--	--	--	--	--	--	--	--
19...	.07	.00	.01	.33	.26	.33	.27	.39	.03	--	.01	.03
26...	.03	--	--	--	--	.15	--	.17	.01	.01	--	--
AUG												
01...	.01	.00	.00	.22	--	.22	--	.24	.02	--	.01	.03
09...	--	--	--	--	--	--	--	--	--	--	--	--
15...	.02	.02	.02	.22	.20	.24	.22	.27	.02	--	.01	.03
23...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
01...	.01	.03	.04	.18	.11	.21	.15	.21	.04	--	.03	.09
06...	--	--	--	--	--	--	--	--	--	--	--	--
12...	.01	.05	.05	1.1	.69	1.1	.74	1.1	.03	--	.03	.09
20...	--	--	--	--	--	--	--	--	--	--	--	--
27...	.05	.01	.02	.15	.13	.16	.15	.31	.02	--	.02	.06
28...	--	--	--	--	--	--	--	--	--	--	--	--

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PHYTOPLANKTON

Date	Time	Potential algal growth bottle test (mg/L)	Biomass (mg/L)		Chlorophyll a (ug/L)	Chlorophyll b (ug/L)	Biomass pigment ratio
May 23	0945	9.5	33.0	32.7	0.470	0.000	638
June 20	1015	6.7	75.3	74.7	.200	.000	3000
July 19	1040	6.1	101	99.0	.290	.000	6897
Aug. 15	1000	2.3	--	--	.320	.000	--
Sept. 12	1100	--	25.8	25.3	.210	.000	2381

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll a (mg/m <sup>2</sup> )	Chlorophyll b (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
Sept. 12	77	2.60	1.50	1.93	0.730	570	Polyethylene strip



11462000 EAST FORK RUSSIAN RIVER NEAR UKIAH, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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

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 (0.3 km) downstream from McNab Creek, 4 mi (6 km) north of Hopland.

WATER-DISCHARGE RECORDS

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,900 ft<sup>3</sup>/s (507 m<sup>3</sup>/s) Jan. 16, gage height, 17.23 ft (5.252 m); minimum daily, 14 ft<sup>3</sup>/s (0.40 m<sup>3</sup>/s) Oct. 5.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	45	47	416	744	849	682	643	318	203	236	231
2	18	41	45	953	1620	1050	494	590	317	213	236	236
3	16	40	45	1010	1090	1890	424	596	311	219	236	236
4	15	39	45	2340	1040	3250	1130	637	304	219	239	236
5	14	43	41	8210	3620	3880	785	646	298	219	240	241
6	18	41	41	4520	4880	3360	3430	639	288	210	240	244
7	19	37	39	1810	8730	3080	2430	623	280	196	239	226
8	20	32	37	1520	6120	7410	1600	611	279	193	236	167
9	21	25	37	9760	5910	4670	1040	605	276	193	232	180
10	23	22	37	2990	6450	4070	688	549	276	195	237	178
11	24	21	39	1650	6030	3460	590	412	279	204	239	171
12	30	21	119	1310	5300	3060	621	268	280	206	236	162
13	33	20	87	2440	5360	2320	734	244	279	206	239	150
14	35	20	3290	7250	4480	1350	708	232	272	212	242	154
15	35	20	5840	10000	3390	1190	1050	243	262	220	243	180
16	36	20	929	14500	2360	1080	945	243	260	226	240	183
17	37	18	1900	10500	2210	983	982	218	253	227	240	184
18	37	17	742	6750	1920	886	919	207	257	237	244	187
19	43	17	427	6920	1830	816	940	221	258	240	244	180
20	46	17	300	7510	1690	714	1170	223	258	240	244	170
21	47	330	564	7020	1490	553	1100	223	258	234	245	160
22	48	1290	3620	3830	1220	505	966	222	257	219	235	159
23	49	184	3600	3060	1120	505	920	219	253	219	231	163
24	50	121	1110	2240	1040	469	892	252	249	218	231	163
25	52	92	622	1280	977	439	974	329	249	213	231	164
26	49	80	497	1110	929	419	960	332	252	210	231	170
27	49	70	964	1010	889	385	875	332	227	210	231	165
28	50	63	658	942	862	337	791	332	180	215	231	163
29	52	57	506	885	---	318	700	332	174	230	231	159
30	52	52	525	845	---	313	682	331	172	236	231	147
31	51	---	456	755	---	400	---	325	---	236	231	---
TOTAL	1088	2895	27209	125336	83301	54011	30222	11879	7876	6718	7341	5509
MEAN	35.1	96.5	878	4043	2975	1742	1007	383	263	217	237	184
MAX	52	1290	5840	14500	8730	7410	3430	646	318	240	245	244
MIN	14	17	37	416	744	313	424	207	172	193	231	147
AC-FT	2160	5740	53970	248600	165200	107100	59950	23560	15620	13330	14560	10930
CAL YR 1977	TOTAL	52786.1	MEAN	145	MAX	5840	MIN	9.1	AC-FT	104700		
WTR YR 1978	TOTAL	363385.0	MEAN	996	MAX	14500	MIN	14	AC-FT	720800		

11462500 RUSSIAN RIVER NEAR HOPLAND, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

CHEMICAL ANALYSES: Water years 1951-66.

WATER TEMPERATURES: Water years 1965 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: September 1965 to current year.

INSTRUMENTATION.--Temperature recorder since September 1965.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 27.0°C Sept. 5, 6, 1977; minimum recorded, 5.0°C Feb. 2, Dec. 16, 1972, Jan. 31 to Feb. 2, 1975.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 21.5°C Sept. 24, 27; minimum, 7.5°C Nov. 20.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	16.5	13.5	13.0	11.5	---	---	11.5	10.5	12.5	11.5
2	---	---	17.0	14.0	13.0	11.5	---	---	11.5	10.5	12.5	12.0
3	---	---	15.0	13.5	14.0	12.5	---	---	12.0	11.5	12.5	11.5
4	---	---	13.5	12.0	14.5	13.0	---	---	12.0	11.0	12.5	11.5
5	---	---	15.0	13.0	14.5	13.0	---	---	11.5	10.5	12.5	11.5
6	---	---	15.0	12.5	13.5	11.5	---	---	12.0	11.5	12.5	11.0
7	---	---	15.0	12.5	14.0	12.5	---	---	12.5	12.0	12.0	11.5
8	---	---	15.0	12.0	12.5	11.0	---	---	12.0	11.5	13.0	12.0
9	---	---	14.0	11.5	11.5	10.0	---	---	12.0	11.0	13.0	11.5
10	---	---	13.0	11.5	11.0	9.5	---	---	11.5	10.5	13.0	11.5
11	---	---	13.0	12.0	11.5	11.0	---	---	11.0	10.5	12.5	11.5
12	19.5	15.5	14.5	12.5	---	---	---	---	11.0	10.5	12.5	11.5
13	19.5	15.5	14.5	12.0	---	---	12.5	11.5	11.0	10.0	13.0	11.0
14	19.0	15.5	13.5	12.0	---	---	12.0	11.5	11.5	10.5	13.5	11.5
15	19.0	15.5	14.0	12.0	---	---	11.5	11.0	11.5	10.5	13.5	11.5
16	19.0	15.5	14.0	12.0	---	---	11.5	11.5	11.0	10.5	14.0	12.0
17	18.0	15.0	13.5	12.0	---	---	12.0	11.5	11.5	10.5	14.5	12.0
18	18.0	15.0	13.0	10.5	---	---	11.5	11.0	12.5	11.5	14.5	12.5
19	17.5	15.5	10.5	9.0	---	---	11.5	11.0	12.5	11.5	14.5	12.5
20	18.0	15.5	9.0	7.5	---	---	11.5	11.0	12.5	11.5	14.5	12.5
21	17.5	14.5	11.0	9.0	---	---	11.5	11.0	13.0	11.5	14.0	13.5
22	17.5	14.5	10.0	9.5	---	---	11.5	10.5	13.5	12.0	14.5	13.5
23	16.5	15.5	11.0	10.0	---	---	11.0	10.5	13.0	11.5	14.5	13.5
24	18.5	16.0	13.0	11.0	---	---	11.0	10.0	13.0	12.0	14.5	13.0
25	18.5	17.5	14.0	12.0	---	---	11.0	10.5	13.0	12.5	15.5	13.0
26	18.5	16.0	15.0	13.5	---	---	11.5	10.5	13.0	12.0	15.5	14.0
27	16.5	15.0	14.0	13.0	---	---	11.0	10.0	12.5	10.5	15.5	13.5
28	15.0	14.5	13.5	12.0	---	---	11.5	10.5	12.5	10.5	16.0	14.0
29	15.5	14.5	14.0	12.0	---	---	11.0	10.0	---	---	15.5	14.0
30	17.0	14.5	14.0	12.5	---	---	11.0	10.0	---	---	16.0	14.0
31	16.0	13.5	---	---	---	---	11.0	10.5	---	---	15.5	13.5
MONTH	19.5	13.5	17.0	7.5	14.5	9.5	12.5	10.0	13.5	10.0	16.0	11.0

RUSSIAN RIVER BASIN  
11462500 RUSSIAN RIVER NEAR HOPLAND, CA--Continued

WATER-QUALITY RECORDS

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.5	13.0	15.5	12.0	17.5	14.0	19.0	16.0	20.5	17.0	20.0	16.5
2	13.5	12.0	16.0	13.0	17.5	14.5	19.0	15.5	20.5	17.0	20.0	16.0
3	13.5	12.0	16.0	13.0	18.0	14.5	19.0	15.5	20.5	17.0	20.0	16.0
4	13.0	10.0	15.5	12.5	18.0	14.5	19.0	16.0	20.0	18.0	20.0	16.5
5	12.5	11.0	15.5	12.0	18.5	15.0	---	---	19.5	17.5	20.0	16.5
6	12.0	10.5	16.0	12.0	18.5	15.0	---	---	19.5	17.0	20.5	16.0
7	13.0	10.5	16.0	12.5	18.5	14.5	---	---	20.0	16.5	20.0	16.5
8	14.0	10.5	16.0	12.5	18.5	15.0	---	---	20.0	16.5	20.5	17.0
9	15.5	11.5	16.0	12.5	18.5	14.5	---	---	18.5	17.0	20.5	17.0
10	16.0	13.5	16.0	13.0	18.0	14.5	---	---	19.0	17.0	20.5	16.5
11	16.0	14.5	16.5	13.0	18.0	14.0	---	---	20.0	17.0	20.0	16.5
12	16.0	14.0	17.5	15.0	18.0	15.0	---	---	20.0	17.5	19.5	16.0
13	15.0	13.0	18.0	16.5	18.0	15.0	---	---	20.5	18.0	20.0	16.0
14	14.5	12.0	17.0	16.5	18.0	14.0	---	---	20.5	18.0	20.0	16.0
15	12.0	11.0	17.0	16.0	18.0	14.0	---	---	21.0	18.0	20.0	16.5
16	12.5	10.5	18.0	14.5	18.0	14.0	---	---	21.0	18.5	20.0	16.5
17	12.5	11.0	19.0	16.0	18.5	14.5	---	---	19.0	17.5	20.0	16.0
18	14.0	11.0	19.5	17.0	18.5	15.0	---	---	19.5	16.5	20.0	16.0
19	13.0	11.5	19.0	16.5	18.5	14.5	---	---	20.0	16.0	20.0	17.0
20	13.0	11.5	19.0	16.5	18.5	15.0	---	---	20.0	16.0	20.0	17.5
21	13.5	10.5	19.0	16.5	18.5	15.0	---	---	19.0	16.0	20.0	18.0
22	14.0	11.0	18.0	15.5	18.5	15.0	---	---	19.5	16.0	20.5	17.5
23	14.0	12.0	17.5	15.0	18.5	15.0	---	---	20.0	16.0	21.0	18.5
24	13.5	12.5	17.0	15.0	18.5	15.0	---	---	18.5	17.0	21.5	19.0
25	14.0	12.5	16.5	13.0	18.5	14.5	---	---	19.5	17.5	20.5	19.5
26	15.0	12.5	17.0	13.5	18.0	15.5	20.0	16.5	20.0	16.5	20.0	19.0
27	15.5	12.5	17.5	14.0	18.0	15.0	20.0	16.0	19.5	16.0	21.5	18.5
28	15.5	12.5	18.0	14.0	17.0	16.0	20.0	16.5	19.5	15.5	21.0	18.5
29	15.5	12.5	18.0	14.5	18.5	16.5	20.5	17.0	19.5	15.5	21.0	18.5
30	14.5	13.0	18.0	14.5	19.5	17.0	20.5	17.0	19.5	15.5	21.0	19.0
31	---	---	18.0	14.0	---	---	20.0	17.0	20.0	17.0	---	---
MONTH	16.0	10.0	19.5	12.0	19.5	14.0	20.5	15.5	21.0	15.5	21.5	16.0

## 11463000 RUSSIAN RIVER NEAR CLOVERDALE, CA

LOCATION.--Lat 38°52'46", long 123°03'09", in NW¼NW¼ sec.23, T.12 N., R.11 W., Mendocino County, Hydrologic Unit 18010110, on left bank 0.3 mi (0.5 km) downstream from Cumisky Creek, and 5.5 mi (8.8 km) northwest of Cloverdale.

DRAINAGE AREA.--503 mi<sup>2</sup> (1,303 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 350 ft (107 m), from topographic map. Prior to July 30, 1970, at site 0.2 mi (0.3 km) upstream at different datum.

REMARKS.--Records good including those for period of no gage-height record, Jan. 13-17. Diversions for irrigation of about 15,300 acres (61.9 km<sup>2</sup>) 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) 28 mi (45 km) upstream.

COOPERATION.--Three discharge measurements were furnished by Sonoma County Water Agency.

AVERAGE DISCHARGE.--27 years, 978 ft<sup>3</sup>/s (27.70 m<sup>3</sup>/s), 708,600 acre-ft/yr (874 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,200 ft<sup>3</sup>/s (1,560 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 31.60 ft (9.632 m) site and datum then in use; minimum daily, 12 ft<sup>3</sup>/s (0.34 m<sup>3</sup>/s) Apr. 22, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,700 ft<sup>3</sup>/s (784 m<sup>3</sup>/s) Jan. 16, gage height, 19.80 ft (6.035 m); minimum daily, 19 ft<sup>3</sup>/s (0.54 m<sup>3</sup>/s) Oct. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	48	56	684	1150	876	927	896	361	193	246	232
2	24	43	52	1590	2490	1250	699	806	361	209	251	229
3	22	40	50	1830	1790	2690	635	776	354	226	247	231
4	20	40	48	3890	1650	5140	1620	821	344	224	256	236
5	19	57	46	12000	6500	5550	1240	830	341	226	257	249
6	19	47	43	7490	8100	4360	4270	811	325	216	256	251
7	20	42	42	2990	13100	3910	3130	791	319	197	254	245
8	22	38	40	2880	8590	11000	2220	766	313	193	244	180
9	23	33	39	14100	8220	6460	1620	752	313	195	237	204
10	23	29	38	4720	7060	4830	1140	712	313	197	241	206
11	24	27	42	2710	6550	3970	964	568	325	204	240	183
12	24	26	86	2250	6510	3630	902	378	331	207	239	174
13	28	24	101	6000	6450	3020	1040	331	319	202	248	160
14	30	24	2680	9400	5170	1790	991	306	316	207	253	153
15	32	23	8080	13500	4000	1500	1970	319	300	216	247	182
16	33	23	1780	21000	2760	1350	1560	325	297	226	244	187
17	34	22	3110	13500	2540	1220	1470	288	279	238	249	189
18	34	21	1540	8010	2250	1090	1350	261	282	244	255	191
19	36	20	896	7880	2030	1020	1330	276	285	244	255	174
20	41	20	596	8050	1870	933	1620	270	270	244	249	168
21	42	893	1260	7480	1630	786	1560	267	267	241	256	177
22	44	1890	6160	4690	1370	726	1360	264	267	221	239	178
23	45	382	4340	3590	1240	726	1280	258	264	212	233	181
24	47	200	4290	2940	1150	674	1240	264	261	215	228	182
25	47	138	4280	1990	1070	619	1370	378	258	214	224	182
26	47	109	4280	1750	1010	589	1330	391	267	211	223	189
27	47	91	4300	1610	954	556	1210	391	247	214	223	183
28	52	79	2600	1450	907	481	1120	388	191	215	229	180
29	58	69	951	1370	---	452	980	388	178	235	223	179
30	54	61	904	1330	---	430	943	385	170	242	222	168
31	51	---	783	1220	---	492	---	371	---	246	224	---
TOTAL	1069	4559	53513	173894	108111	72120	43091	15028	8718	6774	7492	5823
MEAN	34.5	152	1726	5609	3861	2326	1436	485	291	219	242	194
MAX	58	1890	8080	21000	13100	11000	4270	896	361	246	257	251
MIN	19	20	38	684	907	430	635	258	170	193	222	153
AC-FT	2120	9040	106100	344900	214400	143000	85470	29810	17290	13440	14860	11550

CAL YR 1977 TOTAL 81983 MEAN 225 MAX 8080 MIN 12 AC-FT 162600  
WTR YR 1978 TOTAL 500192 MEAN 1370 MAX 21000 MIN 19 AC-FT 992100

## RUSSIAN RIVER BASIN

11463000 RUSSIAN RIVER NEAR CLOVERDALE, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-69, 1977-79 (discontinued).

CHEMICAL ANALYSES: Water years 1977-79 (discontinued).

BIOLOGICAL DATA: Water years 1977-78 (discontinued).

WATER TEMPERATURES: Water years 1964-69.

SEDIMENT RECORDS: Water years 1964-68.

TURBIDITY: Water years 1964-68.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1963 to September 1969.

SEDIMENT RECORDS: November 1963 to September 1966, January 1967 to September 1968.

REMARKS.--Chemical-quality samples and biological data collected 0.2 mi (0.3 km) upstream from gaging station.

COOPERATION.--Chemical-quality samples and biological data were collected by California Regional Water Quality Control Board, North Coast Region.

## WATER QUALITY DATA, OCTOBER 1977 TO OCTOBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)	
DEC , 1977												
15...	1115	7380	83	7.7	12.5	650	--	--	110	--	--	
MAY , 1978												
16...	0925	335	363	8.2	14.0	7.0	10.3	101	--	9200	490	
23...	1455	258	209	--	17.5	4.6	10.9	115	--	--	20	
30...	1510	388	200	8.4	20.0	6.5	10.0	111	--	--	20	
JUN												
05...	1430	347	180	--	21.0	6.2	10.2	116	--	--	70	
16...	1430	300	189	--	19.0	5.8	10.5	114	--	--	--	
21...	0820	264	196	7.8	16.5	3.1	9.4	97	--	--	--	
27...	1500	250	186	8.2	19.0	6.2	11.2	122	--	--	--	
JUL												
06...	1515	216	192	8.2	21.0	4.4	9.5	108	--	--	--	
11...	0940	205	194	7.5	17.5	5.2	9.5	100	--	--	20	
19...	1425	247	177	8.2	22.0	2.4	10.1	116	--	--	--	
25...	0950	219	171	7.8	18.5	3.7	9.3	100	--	--	23	
AUG												
02...	0915	250	186	7.9	18.0	3.1	8.9	95	--	--	49	
08...	1315	253	183	8.3	22.0	3.0	10.0	115	--	--	23	
15...	1450	253	178	8.3	21.5	1.7	10.3	117	--	--	23	
22...	1350	244	188	8.7	18.5	1.2	11.4	123	--	--	33	
31...	0945	221	172	7.4	18.5	1.4	9.2	99	--	--	79	
SEP												
05...	1420	258	192	7.4	19.0	3.1	9.0	98	--	--	70	
13...	0915	172	207	7.6	18.5	70	8.7	94	--	--	33	
19...	1350	174	204	8.4	18.0	1.0	11.7	124	--	--	8	
26...	0955	189	203	7.7	18.5	1.2	9.7	104	--	--	14	
OCT												
12...	1100	191	201	8.0	17.0	--	--	--	--	--	--	
DATE		COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCEI KF AGAR (COLS. PER 100 ML)	STREP- TOCOCCEI FECAL (MPN)	PSEUDO- MONAS AERU- GINOSA IN H2O (MPN/ 100 ML)	SOLIDS, SUSP. TOTAL RESIDUE AT 110 DEG. C (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	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)
DEC , 1977												
15...	1500	7400	--	--	--	1070	.24	--	.02	--	.26	--
MAY , 1978												
16...	K130	31	700	79	--	--	--	--	--	--	--	--
23...	K9	26	50	--	--	--	.62	.63	.01	.01	.63	.64
30...	K11	24	20	--	--	--	--	--	--	--	--	--
JUN												
05...	K33	25	<2	--	--	--	.33	.34	.01	.01	.34	.35
16...	18	20	--	--	--	--	--	--	--	--	--	--
21...	42	99	--	--	--	--	.39	.42	.01	.01	.40	.43
27...	18	K12	--	--	--	--	--	--	--	--	--	--
JUL												
06...	--	15	--	--	--	--	.33	.35	.02	.01	.35	.36
11...	K32	100	20	17	--	--	--	--	--	--	--	--
19...	29	18	--	--	--	--	.17	.22	.01	.01	.18	.23
25...	27	39	28	--	--	--	--	--	--	--	--	--
AUG												
02...	40	K84	7	--	--	--	.18	.21	.01	.01	.19	.22
08...	34	26	33	--	--	--	--	--	--	--	--	--
15...	21	24	5	790	--	--	.15	.17	.01	.01	.16	.18
22...	20	12	5	--	--	--	--	--	--	--	--	--
31...	46	25	17	--	--	--	.14	.14	.01	.01	.15	.15
SEP												
05...	K350	K77	13	--	--	--	--	--	--	--	--	--
13...	44	54	14	<2	--	--	.38	.41	.00	.01	.38	.42
19...	K3	K10	27	--	--	--	--	--	--	--	--	--
26...	24	30	9	--	--	--	.13	.17	.01	.01	.14	.18
OCT												
12...	--	--	--	--	--	--	--	--	--	--	--	--

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

## 11463000 RUSSIAN RIVER NEAR CLOVERDALE, CA--Continued

## WATER QUALITY DATA, OCTOBER 1977 TO OCTOBER 1978

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	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, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)
DEC , 1977											
15...	.10	--	1.4	--	1.5	--	1.8	.36	.04	--	--
MAY , 1978											
16...	--	--	--	--	--	--	--	--	--	--	--
23...	.01	.00	.34	.10	.35	.10	.98	.02	--	.01	.03
30...	--	--	--	--	--	--	--	--	--	--	--
JUN											
05...	.01	.00	.53	.23	.54	.23	.88	.02	--	.01	.03
16...	--	--	--	--	--	--	--	--	--	--	--
21...	.00	.00	.40	.20	.40	.20	.80	.02	--	.01	.03
27...	--	--	--	--	--	--	--	--	--	--	--
JUL											
06...	.01	.01	.47	.23	.48	.24	.83	.03	--	.02	.06
11...	--	--	--	--	--	--	--	--	--	--	--
19...	.00	.01	.32	.28	.32	.29	.50	.02	--	.03	.09
25...	--	--	--	--	--	--	--	--	--	--	--
AUG											
02...	.00	.01	.31	.29	.31	.30	.50	.02	--	.01	.03
08...	--	--	--	--	--	--	--	--	--	--	--
15...	.00	.02	.35	.27	.35	.29	.51	.01	--	.00	.00
22...	--	--	--	--	--	--	--	--	--	--	--
31...	.01	.01	.18	.21	.19	.22	.34	.02	--	.00	.00
SEP											
05...	--	--	--	--	--	--	--	--	--	--	--
13...	.01	.02	.34	.26	.35	.28	.73	.04	--	.01	.03
19...	--	--	--	--	--	--	--	--	--	--	--
26...	.01	.01	.25	.23	.26	.24	.40	.01	--	.01	.03
OCT											
12...	--	--	--	--	--	--	--	--	--	--	--

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PHYTOPLANKTON

Date	Time	Potential algal growth bottle test	Biomass (mg/L)		Chlorophyll a	Chlorophyll b	Biomass pigment ratio
		(mg/L)	Dry weight	Ash weight	(µg/L)	(µg/L)	
May 23	1455	7.1	33.3	33.0	1.73	0.000	173
June 21	0820	11	116	113	1.85	.000	1622
July 19	1425	7.0	114	112	1.26	.000	1587
Aug. 15	1450	5.1	30.3	29.2	1.45	.000	759
Sept. 13	0915	8.8	48.0	46.0	.910	.000	2198

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll a (mg/m <sup>2</sup> )	Chlorophyll b (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
July 6	21	4.09	2.91	21.4	3.50	55	Polyethylene strip

## RUSSIAN RIVER BASIN

11463160 BIG SULPHUR CREEK NEAR MIDDLETOWN, CA

LOCATION.--Lat 38°45'49", long 122°44'43", in NW¼SE¼ sec.33, T.11 N., R.8 W., Sonoma County, Hydrologic Unit 18010110, on right bank 400 ft (122 m) upstream from small right-bank tributary, 7.1 mi (11.4 km) west of Middletown, and 15 mi (24 km) southeast of Cloverdale.

DRAINAGE AREA.--2.89 mi<sup>2</sup> (7.49 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to September 1978.

GAGE.--Water-stage recorder. Altitude of gage is 2,530 ft (771 m), from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft<sup>3</sup>/s (20 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 68 ft<sup>3</sup>/s (1.93 m<sup>3</sup>/s):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Nov. 21	2000	870	24.6	6.22	1.896
Dec. 14	2030	*956	27.1	6.33	1.929
Jan. 16	0545	947	26.8	6.32	1.926

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.76	.75	1.6	21	7.3	5.3	27	7.1	.82	.14	.01	0
2	.53	.53	1.4	22	46	55	16	6.3	.81	.14	0	0
3	.38	.50	1.3	20	24	114	37	5.6	.76	.12	0	0
4	.30	1.1	1.2	34	15	170	57	5.2	.74	.11	0	0
5	.27	6.0	1.1	265	108	172	50	4.6	.68	.09	0	0
6	.24	1.7	1.0	100	181	59	82	4.2	.62	.08	0	0
7	.24	1.2	.96	40	178	32	39	3.7	.56	.07	0	0
8	.24	.76	.89	58	104	155	26	3.4	.51	.07	0	0
9	.21	.70	.82	225	74	90	17	3.0	.48	.06	0	1.1
10	.21	.58	.76	62	37	45	13	2.8	.48	.05	0	.17
11	.19	.58	4.0	35	23	29	9.9	2.5	.46	.05	0	.07
12	.19	.82	2.5	56	82	21	8.7	2.3	.43	.05	0	.06
13	.19	.82	1.5	116	66	14	8.0	2.2	.43	.05	0	.08
14	.17	.82	284	281	37	11	7.3	2.0	.43	.04	0	.11
15	.16	.76	143	255	25	9.5	33	2.7	.43	.03	0	.12
16	.14	.70	34	330	19	8.2	18	2.0	.38	.03	0	.14
17	.14	.58	76	117	15	7.3	14	1.8	.30	.03	0	.14
18	.14	.53	30	62	12	6.6	11	1.6	.27	.02	0	.14
19	.14	.53	18	67	10	5.9	13	1.5	.27	.02	0	.14
20	.12	.53	13	39	8.9	5.4	13	1.4	.24	.02	0	.12
21	.12	284	19	26	7.9	5.1	11	1.3	.24	.02	0	.11
22	.12	61	68	18	7.1	4.8	9.9	1.3	.21	.02	0	.11
23	.12	14	76	15	6.5	7.7	8.8	1.2	.19	.02	0	.08
24	.20	8.0	32	12	5.9	5.4	9.3	1.1	.19	.02	0	.07
25	.24	5.6	20	10	5.6	4.6	16	1.1	.19	.01	0	.07
26	.24	4.4	17	8.7	5.8	4.2	12	1.1	.17	.01	0	.05
27	.25	3.5	35	7.5	5.2	3.8	11	1.0	.14	.01	0	.05
28	.37	2.4	25	6.8	4.8	3.4	9.4	.96	.14	.01	0	.05
29	3.0	2.1	48	6.5	---	3.1	8.5	.94	.14	.01	0	.05
30	5.8	1.7	39	5.6	---	2.8	7.9	.87	.14	.01	0	.04
31	1.3	---	28	5.0	---	9.8	---	.82	---	0	0	---
TOTAL	16.72	407.19	1024.03	2326.1	1121.0	1069.9	603.7	77.59	11.85	1.41	.01	3.07
MEAN	.54	13.6	33.0	75.0	40.0	34.5	20.1	2.50	.40	.046	.0003	.10
MAX	5.8	284	284	330	181	172	82	7.1	.82	.14	.01	1.1
MIN	.12	.50	.76	5.0	4.8	2.8	7.3	.82	.14	0	0	0
AC-FT	33	808	2030	4610	2220	2120	1200	154	24	2.8	.02	6.1

WTR YR 1978 TOTAL 6662.57 MEAN 18.3 MAX 330 MIN 0 AC-FT 13220



11463160 BIG SULPHUR CREEK NEAR MIDDLETOWN, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1978.

CHEMICAL ANALYSES: Water year 1978.

SPECIAL CONDUCTANCE: Water year 1978.

pH: Water year 1978.

WATER TEMPERATURES: Water year 1978.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1977 to September 1978.

pH: October 1977 to September 1978.

WATER TEMPERATURES: October 1977 to September 1978.

INSTRUMENTATION.--Water-quality monitor since October 1977.

REMARKS.--Differences between unadjusted recorder and field measurement values exceeded  $\pm 10$  percent micromhos for specific conductance;  $\pm 0.5$  units for pH; and  $\pm 1.0^{\circ}\text{C}$  for water temperature, at times during calibration visits.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 295 micromhos July 31; minimum, 33 micromhos Jan. 16.

pH: Maximum, 8.6 units Feb. 6; minimum, 6.9 units Dec. 25-29.

WATER TEMPERATURES: Maximum,  $25.0^{\circ}\text{C}$  July 19, 22, 23, 26; minimum,  $4.0^{\circ}\text{C}$  Nov. 20, 21.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
DEC 09...	1340	.78	204	8.1	5.5	K1	K3	130	35	22
MAR 13...	1250	14	132	7.7	9.5	K4	K2	74	10	9.9
JUN 12...	1615	.42	207	8.1	15.5	--	--	110	12	16

DATE	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)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)
DEC 09...	17	3.4	6	.1	.3	110	0	90	32
MAR 13...	12	2.3	6	.1	.4	78	0	64	8.8
JUN 12...	17	3.3	6	.1	.3	120	0	98	17

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 CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)
DEC 09...	2.3	.1	13	145	.20	.02	10	0	0
MAR 13...	2.0	.1	13	87	.12	.08	90	0	100
JUN 12...	2.4	.1	16	131	.18	.00	60	0	200

DATE	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)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
DEC 09...	40	0	0	0	50	0	.0	1	0
MAR 13...	30	1	10	5	40	20	.0	10	10
JUN 12...	30	0	0	7	20	2	.0	15	10

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

## RUSSIAN RIVER BASIN

11463160 BIG SULPHUR CREEK NEAR MIDDLETOWN, CA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	214	208	210	---	---	---	180	174	178
2	---	---	---	218	214	216	---	---	---	181	175	178
3	---	---	---	224	218	220	---	---	---	186	180	182
4	---	---	---	226	194	222	---	---	---	205	179	185
5	---	---	---	216	182	204	---	---	---	205	62	99
6	---	---	---	222	216	220	---	---	---	130	104	117
7	---	---	---	226	220	223	---	---	---	143	127	135
8	---	---	---	228	222	226	---	---	---	154	110	139
9	---	---	---	228	224	226	---	---	---	110	71	84
10	---	---	---	228	226	227	253	247	250	110	95	102
11	---	---	---	230	220	227	264	210	240	122	108	114
12	---	---	---	234	226	231	252	232	244	125	109	120
13	---	---	---	234	232	234	253	247	250	110	94	104
14	---	---	---	236	234	236	---	---	---	95	49	69
15	---	---	---	238	236	236	---	---	---	62	48	56
16	---	---	---	238	236	238	---	---	---	72	33	61
17	---	---	---	238	236	238	184	146	157	95	72	85
18	---	---	---	240	238	239	157	148	152	104	94	99
19	---	---	---	242	238	241	164	156	161	109	95	101
20	---	---	---	242	238	241	169	161	166	114	108	111
21	244	240	242	---	---	---	196	166	173	124	114	118
22	244	242	243	---	---	---	266	144	188	129	123	126
23	246	242	244	---	---	---	229	143	179	140	128	132
24	252	244	248	---	---	---	163	152	156	147	133	138
25	258	250	253	---	---	---	169	155	162	150	138	144
26	258	254	256	---	---	---	176	166	170	150	146	147
27	258	256	257	---	---	---	182	174	180	151	145	149
28	260	242	256	---	---	---	183	173	177	154	150	152
29	250	192	219	---	---	---	188	180	185	157	151	155
30	196	160	181	---	---	---	186	179	182	164	154	158
31	208	196	203	---	---	---	179	168	173	162	158	160
MONTH	260	160	237	242	182	228	266	143	187	205	33	126
FEBRUARY			MARCH			APRIL			MAY			
1	175	153	162	166	156	163	142	106	123	---	---	---
2	153	96	110	168	78	118	137	124	132	---	---	---
3	144	124	136	96	70	86	143	75	123	---	---	---
4	152	144	150	76	54	67	119	93	109	---	---	---
5	160	68	109	72	48	59	130	86	113	---	---	---
6	94	62	77	92	66	79	---	---	---	---	---	---
7	96	54	76	110	92	102	---	---	---	---	---	---
8	96	58	84	110	48	73	---	---	---	---	---	---
9	95	75	86	96	68	81	---	---	---	---	---	---
10	122	94	111	108	96	101	---	---	---	194	176	183
11	131	121	126	118	106	113	---	---	---	192	178	184
12	136	86	109	126	118	121	---	---	---	192	178	185
13	111	102	107	132	122	128	150	142	146	190	182	186
14	125	109	116	138	128	134	153	144	148	188	180	184
15	130	122	126	143	135	139	153	99	125	186	178	182
16	137	125	133	147	139	143	135	123	129	194	180	187
17	144	134	140	149	143	146	147	133	139	190	182	186
18	151	143	146	152	146	149	148	142	146	192	182	187
19	152	146	149	156	148	152	150	122	140	196	182	189
20	157	149	153	158	152	155	---	---	---	192	182	188
21	158	152	156	158	153	156	---	---	---	194	180	188
22	161	153	157	159	155	158	---	---	---	196	184	190
23	163	157	160	183	137	158	---	---	---	194	186	189
24	164	160	162	168	162	165	---	---	---	188	180	185
25	165	155	161	168	162	166	---	---	---	194	180	186
26	166	155	163	170	164	167	---	---	---	194	182	189
27	167	161	164	171	163	167	---	---	---	196	186	192
28	168	162	166	173	167	169	---	---	---	198	190	194
29	---	---	---	171	167	170	---	---	---	200	190	195
30	---	---	---	172	166	169	---	---	---	202	194	197
31	---	---	---	170	130	152	---	---	---	202	194	198
MONTH	175	54	132	183	48	132	153	75	131	202	176	188

11463160 BIG SULPHUR CREEK NEAR MIDDLETOWN, CA--Continued

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	202	194	197	212	202	207						
2	202	192	197	213	203	209						
3	200	192	196	215	205	210						
4	200	192	196	213	205	210						
5	202	192	196	214	202	209						
6	200	192	196	214	202	209						
7	202	194	197	216	204	210						
8	200	194	197	217	207	213						
9	200	194	198	221	209	214						
10	200	192	198	221	211	216						
11	200	196	198	224	212	218						
12	202	194	199	226	214	220						
13	202	194	199	227	217	223						
14	202	194	199	229	217	224						
15	203	195	200	231	221	226						
16	203	195	199	234	222	228						
17	203	195	200	238	224	230						
18	202	194	199	240	226	232						
19	202	192	197	243	231	237						
20	198	192	196	245	235	239						
21	199	192	197	249	237	242						
22	199	191	195	259	245	250						
23	198	190	195	265	251	257						
24	198	190	195	269	255	261						
25	200	190	195	273	261	266						
26	203	193	198	277	265	270						
27	203	197	200	283	267	275						
28	205	197	202	285	273	279						
29	210	202	205	291	277	283						
30	212	202	207	295	283	288						
31	---	---	---	---	---	---						
MONTH	212	190	198	295	202	235						

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	TUR- BID- ITY (NTU)
DEC						
09...	1330	5.5	.64	2	.00	1.0
FEB						
02...	1630	9.0	40	6	.65	6.2
08...	1200	9.0	65	6	1.1	4.0
APR						
12...	1055	11.5	9.0	1	.02	.70
MAY						
09...	1120	12.0	2.9	2	.02	4.0

11463160 BIG SULPHUR CREEK NEAR MIDDLETOWN, CA--Continued

PH (UNITS), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	8.0	7.9	8.2	8.2	7.0	7.0	8.2	8.0	7.9	7.8
2	---	---	8.0	7.8	8.2	8.1	7.2	7.0	8.2	7.9	8.0	7.7
3	---	---	8.1	7.9	8.1	8.1	7.1	7.1	8.1	7.7	7.7	7.6
4	---	---	8.1	7.9	8.1	8.1	7.3	7.1	8.3	8.1	7.7	7.5
5	---	---	8.2	8.1	8.1	8.1	7.7	7.1	8.4	8.1	7.6	7.5
6	---	---	8.2	8.1	8.1	8.0	7.9	7.7	8.6	8.0	7.7	7.5
7	---	---	8.2	8.1	8.1	8.1	8.1	7.9	8.1	7.9	7.8	7.6
8	---	---	8.2	8.1	8.1	8.1	8.2	8.1	7.9	7.7	7.8	7.5
9	---	---	8.2	8.1	8.3	8.1	8.2	8.0	8.0	7.8	7.7	7.5
10	---	---	8.2	8.1	8.2	8.1	8.2	8.1	8.0	7.9	7.8	7.6
11	---	---	8.1	8.0	8.3	8.0	8.3	8.2	7.9	7.8	7.8	7.6
12	---	---	8.2	8.0	8.2	8.1	8.3	8.2	7.9	7.7	7.8	7.7
13	---	---	8.2	8.1	8.2	8.1	8.2	7.8	7.9	7.8	7.8	7.6
14	---	---	8.2	8.1	8.3	7.2	8.2	7.8	7.9	7.8	7.9	7.8
15	---	---	8.2	8.1	8.0	7.4	8.1	7.9	7.9	7.9	7.9	7.8
16	---	---	8.2	8.1	7.6	7.5	8.1	7.8	8.0	7.9	7.9	7.8
17	---	---	8.2	8.1	7.6	7.5	8.1	8.1	8.1	8.0	7.9	7.8
18	---	---	8.2	8.1	7.6	7.3	8.1	8.1	8.1	8.0	7.9	7.8
19	---	---	8.2	8.1	7.3	7.2	8.1	8.0	8.0	7.9	7.9	7.8
20	7.7	7.7	8.2	8.1	7.3	7.1	8.1	7.9	8.0	7.9	7.9	7.8
21	7.7	7.6	8.3	7.5	7.3	7.0	8.1	7.9	8.0	7.9	7.9	7.8
22	7.8	7.7	8.1	7.7	7.4	7.1	8.1	7.9	8.0	7.9	7.9	7.8
23	7.8	7.7	8.2	8.1	7.5	7.1	8.2	7.9	8.0	7.9	8.0	7.8
24	7.7	7.5	8.2	8.1	7.2	7.0	8.2	8.1	8.0	7.9	8.0	7.8
25	7.7	7.5	8.2	8.1	7.1	6.9	8.1	8.0	8.0	7.9	8.0	7.8
26	7.8	7.7	8.2	8.1	7.0	6.9	8.1	8.0	7.9	7.8	8.0	7.8
27	7.8	7.7	8.3	8.2	7.1	6.9	8.2	8.1	8.0	7.9	8.0	7.8
28	7.8	7.7	8.2	8.2	7.2	6.9	8.2	8.1	7.9	7.8	8.0	7.8
29	8.0	7.7	8.2	8.1	7.2	6.9	8.2	8.1	---	---	7.9	7.8
30	8.0	7.9	8.2	8.2	7.2	7.1	8.1	8.1	---	---	7.9	7.8
31	8.0	7.9	---	---	7.2	7.0	8.1	8.0	---	---	7.9	7.8
MONTH	8.0	7.5	8.3	7.5	8.3	6.9	8.3	7.0	8.6	7.7	8.0	7.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.9	7.8	7.9	7.7	7.9	7.7	7.9	7.6	---	---	---	---
2	7.9	7.8	7.9	7.7	8.0	7.8	7.9	7.6	---	---	---	---
3	7.9	7.7	7.9	7.7	7.9	7.8	7.9	7.6	---	---	---	---
4	7.7	7.5	7.9	7.7	8.0	7.8	7.8	7.5	---	---	---	---
5	7.6	7.5	7.9	7.8	8.0	7.8	---	---	---	---	---	---
6	7.6	7.5	7.9	7.8	8.0	7.7	---	---	---	---	---	---
7	7.6	7.5	7.9	7.7	7.9	7.7	---	---	---	---	---	---
8	7.6	7.5	7.9	7.7	7.9	7.7	---	---	---	---	---	---
9	7.5	7.4	7.9	7.7	8.1	7.8	---	---	---	---	---	---
10	7.5	7.4	7.9	7.7	8.1	7.9	---	---	---	---	---	---
11	7.5	7.4	7.9	7.7	8.1	7.9	---	---	---	---	---	---
12	7.9	7.4	7.9	7.7	8.1	7.9	---	---	---	---	7.2	7.1
13	7.9	7.8	7.9	7.7	8.1	7.8	---	---	---	---	7.3	7.2
14	7.9	7.8	7.9	7.7	8.1	7.8	---	---	---	---	7.3	7.2
15	7.9	7.8	7.9	7.7	8.1	7.8	---	---	---	---	7.3	7.2
16	7.9	7.8	7.9	7.8	8.1	7.8	---	---	---	---	7.3	7.2
17	7.9	7.8	8.0	7.8	8.1	7.8	---	---	---	---	7.4	7.3
18	7.9	7.8	7.9	7.7	8.0	7.8	---	---	---	---	7.4	7.4
19	7.9	7.8	7.9	7.7	8.0	7.8	---	---	---	---	7.4	7.4
20	7.9	7.8	7.9	7.7	8.0	7.8	7.4	7.3	---	---	7.4	7.4
21	7.9	7.8	7.9	7.8	8.0	7.8	7.5	7.3	---	---	7.4	7.3
22	7.9	7.8	7.9	7.8	8.0	7.7	7.5	7.3	---	---	7.4	7.3
23	7.9	7.8	7.9	7.8	8.0	7.7	7.5	7.3	---	---	7.4	7.3
24	7.9	7.8	7.9	7.8	8.0	7.7	7.5	7.3	---	---	7.4	7.3
25	7.9	7.8	8.0	7.8	8.0	7.7	7.6	7.3	---	---	7.4	7.3
26	7.9	7.8	8.0	7.8	7.9	7.7	7.5	7.1	---	---	7.4	7.3
27	7.9	7.8	8.0	7.8	7.9	7.6	7.5	7.3	---	---	7.4	7.3
28	7.9	7.8	8.0	7.8	7.8	7.6	7.5	7.3	---	---	7.4	7.3
29	7.9	7.8	8.0	7.8	7.9	7.6	7.5	7.4	---	---	7.4	7.3
30	7.9	7.8	8.0	7.8	7.9	7.6	7.5	7.4	---	---	7.4	7.3
31	---	---	7.9	7.7	---	---	---	---	---	---	---	---
MONTH	7.9	7.4	8.0	7.7	8.1	7.6	7.9	7.1	---	---	7.4	7.1

11463160 BIG SULPHUR CREEK NEAR MIDDLETOWN, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	10.5	9.0	9.0	8.0	9.0	8.5	8.5	7.5	9.5	8.0
2	---	---	11.0	9.0	8.5	7.5	9.0	8.5	9.0	8.0	9.0	8.0
3	---	---	10.5	9.0	8.5	7.0	9.5	8.5	9.5	7.5	9.5	8.5
4	---	---	9.5	7.5	9.5	8.5	9.5	9.0	10.0	8.5	9.5	8.5
5	---	---	10.0	9.0	9.0	8.0	9.5	8.5	9.0	7.5	10.0	8.5
6	---	---	9.5	8.0	8.5	6.5	10.0	9.0	9.5	8.5	11.0	8.5
7	---	---	10.0	8.5	8.5	7.0	10.0	9.0	10.0	8.5	10.5	9.5
8	---	---	9.0	8.0	7.0	5.5	10.5	10.0	9.5	8.5	10.0	8.5
9	---	---	8.5	7.0	6.0	5.0	10.5	9.5	9.5	8.5	11.0	9.0
10	---	---	9.0	7.0	5.5	4.5	10.5	10.0	8.5	8.0	11.0	8.5
11	---	---	9.5	8.0	7.5	5.0	10.0	9.5	8.0	7.0	10.0	8.5
12	---	---	9.5	7.5	7.0	5.5	10.0	9.5	8.0	7.0	9.5	7.5
13	---	---	8.5	7.0	8.0	7.0	10.5	9.5	9.0	7.0	10.0	7.5
14	---	---	8.5	6.5	11.0	8.0	10.5	9.5	9.0	7.0	10.5	7.5
15	---	---	9.0	7.5	11.0	10.0	10.5	9.0	8.5	7.0	11.0	7.5
16	---	---	8.5	7.5	10.0	9.0	10.5	9.0	8.0	7.0	11.0	8.0
17	---	---	9.0	7.5	9.5	9.0	11.0	10.0	9.0	8.0	11.5	8.0
18	---	---	8.5	6.0	9.5	8.5	10.5	9.5	10.0	8.5	12.0	9.0
19	---	---	6.0	4.5	8.5	7.5	10.5	9.5	10.5	8.5	11.5	9.0
20	---	---	5.5	4.0	8.0	8.0	10.5	9.0	10.5	8.0	11.5	9.0
21	11.5	9.5	10.0	4.0	8.5	8.0	10.5	8.5	10.5	8.0	10.5	9.5
22	11.5	9.0	10.5	9.5	9.0	8.5	9.0	7.5	10.5	8.0	11.0	10.0
23	12.0	10.0	10.0	8.5	9.5	9.0	8.0	7.5	10.5	8.0	10.5	8.5
24	14.0	12.0	10.5	9.5	9.5	8.5	8.0	7.0	10.0	8.0	11.0	7.5
25	14.0	12.5	10.0	8.5	9.5	9.0	8.5	7.0	10.0	9.0	11.5	8.0
26	13.0	11.0	10.5	9.0	9.5	9.0	8.5	7.0	9.0	7.5	11.5	9.0
27	11.5	10.5	10.0	8.5	9.5	9.0	8.5	7.0	9.0	6.5	12.5	9.0
28	10.5	10.5	9.0	7.5	10.0	9.5	9.0	8.0	8.5	6.5	13.0	9.5
29	11.5	10.5	9.5	8.5	10.0	10.0	8.5	7.0	---	---	11.5	9.5
30	11.5	10.5	9.5	9.0	10.0	10.0	8.5	7.0	---	---	12.5	10.0
31	10.5	9.5	---	---	10.0	8.5	8.0	6.5	---	---	11.5	9.5
MONTH	14.0	9.0	11.0	4.0	11.0	4.5	11.0	6.5	10.5	6.5	13.0	7.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	8.0	---	---	17.0	11.5	20.0	13.5				
2	11.0	7.5	---	---	16.5	12.0	21.0	13.5				
3	8.5	7.5	---	---	17.0	12.5	19.5	13.5				
4	10.5	7.5	---	---	18.0	13.0	20.0	14.0				
5	9.0	8.0	---	---	19.0	14.0	21.5	15.0				
6	---	---	---	---	19.0	14.0	22.0	15.5				
7	---	---	---	---	18.5	13.0	22.0	16.0				
8	---	---	---	---	19.0	13.5	22.5	17.0				
9	---	---	---	---	18.5	14.0	23.5	17.5				
10	---	---	14.0	10.0	17.5	13.5	23.0	16.0				
11	---	---	13.5	9.5	17.5	12.5	23.0	16.0				
12	---	---	15.5	10.5	15.5	13.0	23.0	15.5				
13	12.5	10.0	15.0	10.5	18.5	12.0	23.0	15.5				
14	10.0	8.5	12.5	10.5	18.5	11.5	23.5	16.5				
15	9.0	7.0	11.5	10.0	18.5	11.5	23.0	17.0				
16	9.0	7.0	13.0	9.0	17.5	11.5	24.0	17.0				
17	10.5	7.0	14.5	11.0	17.5	12.0	24.5	17.0				
18	11.0	7.0	16.0	10.0	18.0	12.5	24.0	17.0				
19	9.0	7.5	15.5	10.5	18.5	12.5	25.0	17.5				
20	---	---	16.5	10.5	18.0	11.5	23.5	17.5				
21	---	---	15.0	10.5	18.5	12.5	24.5	17.5				
22	---	---	14.5	10.5	18.5	12.0	25.0	18.5				
23	---	---	13.0	9.5	19.5	12.5	25.0	18.0				
24	---	---	11.0	9.0	20.0	13.0	23.5	18.0				
25	---	---	12.0	8.5	20.0	12.5	23.5	19.0				
26	---	---	13.0	8.5	19.5	14.0	25.0	19.0				
27	---	---	15.5	10.0	16.5	14.0	24.0	18.5				
28	---	---	16.5	11.5	16.0	14.0	22.5	17.0				
29	---	---	17.0	12.0	20.0	14.0	24.0	17.0				
30	---	---	17.5	12.5	20.0	13.5	24.5	17.5				
31	---	---	17.0	13.0	---	---	---	---				
MONTH	12.5	7.0	17.5	8.5	20.0	11.5	25.0	13.5				

## RUSSIAN RIVER BASIN

11463900 MAACAMA CREEK NEAR KELLOGG, CA

LOCATION.--Lat 38°38'25", long 122°45'45", in SW¼ sec.9, T.9 N., R.8 W., Sonoma County, Hydrologic Unit 18010110, on right bank 0.5 mi (0.8 km) downstream from Redwood Creek, and 4.4 mi (7.1 km) west of Kellogg.

DRAINAGE AREA.--43.4 mi<sup>2</sup> (112.4 km<sup>2</sup>).

PERIOD OF RECORD.--Occasional low-flow measurements and annual maximum, water years 1958-60, December 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 188.91 ft (57.580 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 20, 1960, crest-stage gage only at site 700 ft (213 m) upstream at different datum.

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

AVERAGE DISCHARGE.--17 years (water years 1962-78), 84.4 ft<sup>3</sup>/s (2.390 m<sup>3</sup>/s), 61,150 acre-ft/yr (75.4 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,330 ft<sup>3</sup>/s (264 m<sup>3</sup>/s) Jan. 16, 1978, gage height, 16.48 ft (5.023 m); maximum gage height, 17.56 ft (5.352 m) Dec. 22, 1964; no flow for many days in 1964, 1968, 1976-77.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft<sup>3</sup>/s (57 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 21	2100	6280 178	13.43 4.093	Jan. 16	0600	*9330 264	16.48 5.023
Dec. 14	2030	6950 197	14.14 4.310	Feb. 7	0945	5220 148	12.26 3.737
Jan. 5	unknown	6700 190	unknown	Mar. 8	0945	3260 92.3	10.08 3.072

Minimum daily discharge, 0.29 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Oct. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.3	11	63	84	63	118	46	11	3.3	.84	1.7
2	.79	1.0	10	69	242	327	82	41	11	3.3	.79	.84
3	.60	.90	9.5	70	120	542	118	39	11	3.5	.79	.80
4	.52	1.1	9.4	70	96	868	228	37	11	3.4	.84	1.4
5	.47	6.5	9.3	2100	760	1070	120	34	10	3.6	.75	1.1
6	.46	3.3	9.0	600	1020	464	287	32	8.3	3.4	.89	1.5
7	.44	2.0	8.4	400	1510	306	154	30	8.2	2.7	.97	1.2
8	.41	1.6	8.2	300	1060	1170	116	28	8.2	2.6	.75	1.0
9	.38	1.4	8.1	800	710	669	96	26	7.8	3.1	.59	4.3
10	.37	1.3	7.9	450	417	397	84	26	7.6	3.6	.45	6.3
11	.36	1.2	13	300	289	292	74	25	7.5	3.4	.43	3.2
12	.34	1.3	16	350	668	228	68	24	7.1	3.2	.44	2.3
13	.32	1.2	11	450	509	186	63	23	6.4	2.9	.51	1.8
14	.30	1.6	2050	2310	325	157	59	23	5.7	2.5	.50	1.8
15	.30	1.1	899	1890	262	134	183	25	5.6	2.2	.49	1.9
16	.29	1.1	194	4130	223	117	110	21	5.2	2.1	.51	1.6
17	.30	1.1	172	1320	196	105	83	20	4.6	1.4	.51	1.5
18	.33	1.1	162	700	160	96	73	19	4.5	.62	.50	1.4
19	.37	.91	99	667	130	87	74	18	4.5	1.7	.48	1.4
20	.41	.99	67	417	114	81	76	18	4.0	1.7	.47	1.3
21	.38	1810	75	305	102	77	71	18	4.1	1.8	.44	1.2
22	.36	391	183	235	92	74	60	17	4.2	1.4	.50	1.1
23	.35	66	189	187	85	77	56	16	4.5	1.2	.98	.88
24	.42	36	137	154	79	65	58	15	3.9	1.1	1.1	.35
25	.47	25	94	140	78	60	84	15	3.4	.92	1.4	.47
26	.48	20	83	122	75	57	68	15	3.5	.97	1.5	.77
27	.43	17	125	104	67	54	60	14	3.6	1.2	1.3	.95
28	.67	14	87	90	61	51	54	14	3.9	1.5	1.0	1.1
29	2.8	12	110	81	---	48	51	13	4.1	1.1	.98	1.0
30	2.7	11	98	76	---	45	49	12	3.6	1.0	.91	.91
31	2.2	---	76	72	---	79	---	11	---	.98	.86	---
TOTAL	20.32	2434.00	5030.8	19022	9534	8046	2877	715	188.0	67.39	23.47	47.07
MEAN	.66	81.1	162	614	341	260	95.9	23.1	6.27	2.17	.76	1.57
MAX	2.8	1810	2050	4130	1510	1170	287	46	11	3.6	1.5	6.3
MIN	.29	.90	7.9	63	61	45	49	11	3.4	.62	.43	.35
AC-FT	40	4830	9980	37730	18910	15960	5710	1420	373	134	47	93

CAL YR 1977 TOTAL 8221.65 MEAN 22.5 MAX 2050 MIN 0 AC-FT 16310  
WTR YR 1978 TOTAL 48005.05 MEAN 132 MAX 4130 MIN .29 AC-FT 95220

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 (3 km) east of Healdsburg, and 3.5 mi (5.6 km) upstream from Dry Creek.

DRAINAGE AREA.--793 mi<sup>2</sup> (2,054 km<sup>2</sup>).

## 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. Datum of gage is 77.01 ft (23.473 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Several diversions for irrigation of about 17,800 acres (72.0 km<sup>2</sup>) 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 (101 km) upstream.

COOPERATION.--Two discharge measurements were furnished by Sonoma County Water Agency.

AVERAGE DISCHARGE.--39 years, 1,431 ft<sup>3</sup>/s (40.53 m<sup>3</sup>/s), 1,037,000 acre-ft/yr (1.28 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,300 ft<sup>3</sup>/s (2,020 m<sup>3</sup>/s) Dec. 23, 1964, gage height, 27.00 ft (8.230 m); maximum gage height, 30.0 ft (9.14 m) Feb. 28, 1940; minimum daily discharge, 17 ft<sup>3</sup>/s (0.48 m<sup>3</sup>/s) Apr. 25, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached a stage of 30.8 ft (9.39 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 41,800 ft<sup>3</sup>/s (1,180 m<sup>3</sup>/s) Jan. 16, gage height, 19.28 ft (5.877 m); minimum daily, 21 ft<sup>3</sup>/s (0.59 m<sup>3</sup>/s) Oct. 11-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	59	145	1160	1610	1320	1690	1270	424	212	218	210
2	56	58	131	1400	2990	2440	1340	1180	414	223	214	214
3	44	55	121	2210	2910	5400	1140	1110	411	235	216	214
4	36	54	112	2340	2400	9290	2940	1090	405	247	214	220
5	33	63	104	18700	8730	10500	1980	1090	396	247	220	229
6	28	61	98	15900	13500	7690	5590	1080	380	242	227	250
7	26	65	92	6860	19600	6210	4890	1050	365	227	227	250
8	25	60	88	4740	15600	14000	3430	1020	356	212	227	242
9	23	55	84	23300	14900	13100	2600	1010	346	208	220	233
10	22	51	80	11400	10600	8670	1950	990	346	231	212	264
11	21	48	83	6200	9330	6860	1600	919	343	208	216	240
12	21	46	96	4960	10600	5630	1420	800	349	199	225	215
13	21	42	106	6990	10700	4770	1420	689	346	199	227	198
14	21	40	1970	20600	8440	3300	1400	652	335	205	231	187
15	21	37	13800	30300	6900	2720	2770	633	326	210	233	180
16	22	36	3760	37200	4820	2380	2980	630	315	216	233	187
17	23	33	4370	31400	4170	2130	2180	578	309	220	233	193
18	24	32	2980	23000	3610	1900	1970	546	304	223	240	193
19	26	31	1680	17500	3150	1730	1840	521	309	227	242	193
20	27	30	1150	18400	2820	1610	2060	510	307	231	238	183
21	27	2240	1020	18400	2580	1460	2120	475	298	229	235	180
22	29	5940	7190	15200	2190	1350	1870	450	286	223	227	183
23	32	1310	10100	11900	1930	1310	1720	430	276	214	222	183
24	36	571	4290	9800	1770	1300	1640	405	279	210	216	183
25	38	391	2330	7700	1640	1200	1870	385	279	210	212	183
26	40	308	1640	6200	1570	1120	1850	440	286	207	210	183
27	42	253	2230	5000	1460	1050	1670	505	286	205	214	187
28	47	213	2200	3950	1370	950	1540	495	269	199	218	205
29	54	184	1690	3200	---	870	1410	495	240	202	212	180
30	55	163	1560	2540	---	800	1320	482	220	214	210	177
31	57	---	1390	2000	---	740	---	427	---	220	210	---
TOTAL	1044	12529	66690	370450	171890	123800	64200	22357	9805	6755	6899	6139
MEAN	33.7	418	2151	11950	6139	3994	2140	721	327	218	223	205
MAX	67	5940	13800	37200	19600	14000	5590	1270	424	247	242	264
MIN	21	30	80	1160	1370	740	1140	385	220	199	210	177
AC-FT	2070	24850	132300	734800	340900	245600	127300	44350	19450	13400	13680	12180
CAL YR 1977 TOTAL	103136			283	13800	17	AC-FT	204600				
WTR YR 1978 TOTAL	862558			2363	37200	21	AC-FT	1711000				

11464000 RUSSIAN RIVER NEAR HEALDSBURG, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

CHEMICAL ANALYSES: Water years 1951-66.

WATER TEMPERATURES: Water years 1966 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1965 to current year.

INSTRUMENTATION.--Temperature recorder since October 1965.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 28.0°C July 13, 14, 1972; minimum recorded, 5.0°C Dec. 10, 11, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 26.5°C July 9, Aug. 6, 7; minimum, 7.5°C Nov. 20.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.5	18.0	17.0	13.5	14.5	13.0	11.5	10.5	12.0	11.0	14.0	13.0
2	21.5	18.0	18.0	14.0	14.0	12.0	11.0	10.5	11.5	11.0	14.0	13.5
3	21.5	18.5	16.0	14.0	14.5	12.5	11.5	10.5	12.5	11.0	13.5	12.5
4	21.0	17.0	14.5	11.5	15.0	12.5	12.0	11.5	12.5	11.5	13.5	13.0
5	19.5	17.0	15.0	12.5	14.5	13.0	11.5	11.5	11.5	11.0	14.0	12.5
6	20.5	15.5	15.5	12.0	14.0	12.0	11.5	11.0	11.5	11.0	14.0	12.0
7	21.0	15.5	15.5	13.0	14.0	12.5	12.0	10.5	12.0	11.5	14.0	13.0
8	21.5	16.0	15.0	12.0	12.5	11.0	12.5	11.5	11.5	11.0	13.0	13.0
9	21.0	15.5	14.5	11.5	12.0	10.0	12.5	12.5	11.5	10.0	14.0	12.5
10	21.5	15.5	14.5	11.5	11.5	9.5	12.5	12.0	11.0	10.0	14.0	12.5
11	21.5	15.5	14.0	12.5	12.0	10.5	12.0	11.5	10.5	9.0	14.0	12.0
12	21.0	16.0	15.5	13.0	12.5	11.5	12.5	12.0	10.5	10.0	13.0	11.5
13	21.5	15.5	15.0	12.0	13.0	12.0	12.5	12.0	11.0	10.0	13.5	11.5
14	21.5	15.5	15.0	12.0	13.5	12.5	12.0	12.0	11.5	10.0	14.5	12.0
15	20.5	15.5	16.0	12.5	13.0	11.5	12.0	11.5	11.5	10.5	15.5	12.5
16	20.0	15.0	16.0	12.5	11.5	10.0	12.0	11.5	11.0	10.5	16.0	13.0
17	19.0	16.0	14.5	13.0	10.5	10.0	12.5	11.5	12.0	10.5	16.5	13.5
18	17.0	15.5	13.5	10.0	10.0	9.0	12.5	11.5	13.5	11.5	16.5	14.0
19	16.5	15.5	10.0	8.0	9.5	8.0	12.5	11.5	14.0	12.5	16.5	14.0
20	18.5	15.5	10.5	7.5	9.5	8.5	12.0	11.0	14.0	12.5	16.0	14.0
21	18.5	13.5	11.5	8.5	10.5	9.5	11.5	11.0	14.0	12.0	15.5	14.0
22	19.0	13.5	12.0	11.0	10.5	9.0	11.0	10.0	15.0	12.5	16.5	14.5
23	17.5	15.0	12.5	11.0	11.0	10.5	11.0	10.0	15.0	13.0	16.5	15.0
24	20.0	17.0	13.5	12.5	11.0	10.0	10.5	9.0	15.0	13.5	16.5	13.5
25	21.0	18.5	14.0	12.5	10.5	10.0	11.0	9.5	14.0	13.0	17.5	14.0
26	19.5	16.5	15.5	13.5	11.0	10.5	11.5	10.0	14.0	12.5	17.0	15.0
27	16.5	15.5	15.0	14.0	12.0	11.0	11.5	10.5	13.5	11.5	18.0	15.5
28	15.5	14.5	14.5	12.5	13.0	12.0	12.0	10.5	14.0	11.5	18.0	16.0
29	17.0	15.0	15.0	13.0	13.0	12.5	12.0	10.5	---	---	17.0	15.5
30	18.0	15.5	15.0	14.0	13.0	12.0	12.0	11.0	---	---	17.5	14.5
31	17.0	14.0	---	---	12.0	10.5	12.0	11.0	---	---	17.0	15.5
MONTH	21.5	13.5	18.0	7.5	15.0	8.0	12.5	9.0	15.0	9.0	18.0	11.5



11464000 RUSSIAN RIVER NEAR HEALDSBURG, CA--Continued

## WATER-QUALITY RECORDS

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.5	14.0	16.5	13.5	22.0	19.5	24.0	20.0	25.0	22.5	25.5	22.5
2	15.5	12.5	18.0	15.0	21.5	19.0	24.0	20.5	24.5	21.5	25.5	23.0
3	15.0	13.0	18.0	16.0	22.0	18.5	24.0	20.0	24.0	21.5	24.5	22.5
4	13.5	11.0	18.0	15.5	24.0	19.5	25.0	20.5	25.0	22.0	24.5	23.0
5	13.0	11.5	16.5	14.0	24.5	20.5	25.5	21.5	26.0	23.0	24.0	21.5
6	12.5	11.0	17.0	14.5	25.0	21.0	25.0	21.5	26.5	24.0	22.5	20.5
7	13.0	11.0	18.0	15.5	24.5	21.0	25.0	21.0	26.5	23.5	22.0	20.5
8	15.0	11.5	19.0	16.5	25.5	21.0	26.0	21.0	25.5	23.0	22.5	20.0
9	17.0	12.5	19.0	16.5	23.5	21.0	26.5	22.5	26.0	23.5	22.5	20.0
10	17.5	14.0	20.0	16.0	23.0	19.0	25.0	21.5	25.5	23.0	21.5	19.5
11	18.0	15.5	19.5	15.5	23.5	19.5	24.5	21.0	24.0	22.0	22.5	20.0
12	18.0	16.0	20.5	16.0	22.0	20.0	24.0	20.5	24.0	21.5	22.5	19.0
13	17.5	15.5	21.5	17.5	23.5	19.5	25.0	20.5	24.0	21.5	23.0	20.0
14	17.0	14.5	20.0	18.0	23.0	19.0	25.0	22.5	25.0	22.0	23.0	19.5
15	14.5	11.5	19.5	17.0	23.0	19.0	25.0	22.5	25.0	22.5	23.5	20.0
16	13.5	11.0	20.0	15.5	23.5	19.5	25.5	22.5	24.5	22.0	24.0	20.5
17	14.0	11.5	21.5	16.5	24.5	20.5	26.0	23.5	24.0	21.5	23.0	19.0
18	14.5	11.5	22.5	18.0	24.5	20.5	25.5	23.0	24.5	22.0	19.5	16.5
19	14.5	13.0	23.0	18.5	24.5	20.5	25.5	22.5	24.5	22.0	20.5	16.5
20	14.0	12.5	22.0	18.5	24.0	20.0	24.5	21.5	24.5	22.5	21.0	17.0
21	14.0	11.5	20.5	18.0	24.5	20.0	25.0	21.5	24.5	22.0	21.5	18.0
22	15.0	12.0	21.0	17.0	23.5	20.0	25.0	22.5	23.0	21.0	22.0	18.0
23	15.0	13.0	19.0	15.5	24.5	20.0	24.5	22.0	22.5	21.0	23.0	20.0
24	15.0	13.5	19.0	15.5	23.5	20.0	24.5	22.0	22.5	21.0	24.0	21.0
25	15.0	13.5	19.5	15.5	24.0	19.5	24.0	22.0	22.5	21.5	23.5	21.0
26	16.0	14.0	20.5	17.0	23.0	20.0	24.5	21.5	24.0	21.0	22.5	20.5
27	17.0	14.0	22.0	18.0	21.5	19.5	24.5	21.5	24.0	21.5	22.0	19.0
28	17.0	14.5	22.5	19.0	20.5	19.5	24.0	21.5	24.5	22.0	22.5	19.5
29	17.0	14.5	23.5	20.0	22.5	18.5	24.0	21.0	25.0	22.5	24.0	20.0
30	17.0	14.5	24.0	20.5	24.0	19.5	24.5	21.5	24.5	22.5	23.5	19.5
31	---	---	23.5	20.5	---	---	25.0	22.5	24.5	22.0	---	---
MONTH	18.0	11.0	24.0	13.5	25.5	18.5	26.5	20.0	26.5	21.0	25.5	16.5

## RUSSIAN RIVER BASIN

11464400 DRY CREEK NEAR YORKVILLE, CA

LOCATION.--Lat 38°47'21", long 123°19'16", in SE¼NE¼ sec.23, T.11 N., R.12 W., Sonoma County, Hydrologic Unit 18010110, on right bank at downstream side of bridge on Hot Springs Road, 0.1 mi (0.2 km) downstream from Rail Creek, 7.5 mi (12.1 km) west of Cloverdale, and 8.2 mi (13.2 km) southeast of Yorkville.

DRAINAGE AREA.--56.0 mi<sup>2</sup> (145.0 km<sup>2</sup>).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 500 ft (152 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, Jan. 16-18, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--5 years, 121 ft<sup>3</sup>/s (3.427 m<sup>3</sup>/s), 87,660 acre-ft/yr (108 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,400 ft<sup>3</sup>/s (436 m<sup>3</sup>/s) Jan. 16, 1974, gage height, 13.50 ft (4.115 m); no flow many days in 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft<sup>3</sup>/s (85 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Nov. 21	2115	3030	85.8	7.71	2.350	Jan. 16	0600	*10700	303	11.58	3.530
Dec. 14	2200	4150	118	8.33	2.539	Feb. 7	0945	6730	191	9.72	2.963
Jan. 5	1845	3670	104	8.05	2.454	Mar. 8	0815	3640	103	8.03	2.448
Jan. 9	0445	8290	235	10.50	3.200						

Minimum daily discharge, 0.80 ft<sup>3</sup>/s (0.023 m<sup>3</sup>/s) Oct. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	3.3	14	102	126	115	85	62	14	5.2	2.0	2.0
2	.80	2.7	12	187	239	198	68	55	14	4.7	1.9	2.0
3	.80	2.1	11	187	145	457	76	53	12	4.6	1.7	2.0
4	.86	3.5	9.8	645	117	884	230	49	11	4.6	2.0	2.0
5	1.0	26	8.9	2620	1600	927	235	45	11	4.6	2.0	2.2
6	.96	6.7	8.2	1340	1280	543	446	42	11	4.1	2.0	2.3
7	1.2	4.0	7.7	448	3080	397	240	40	10	3.6	1.9	2.0
8	1.4	3.0	6.9	620	2020	2270	170	38	10	3.2	1.7	2.0
9	1.6	2.2	6.3	3910	1410	1340	140	35	8.2	3.1	1.7	13
10	1.5	1.7	6.2	1070	614	994	116	34	8.1	2.6	1.7	7.7
11	1.6	1.7	35	571	363	676	106	34	8.1	2.6	1.7	4.1
12	1.7	1.7	39	496	635	536	99	32	8.1	2.6	1.7	2.7
13	1.7	1.7	21	1370	440	452	89	29	8.1	2.7	1.7	2.2
14	1.7	1.7	1310	3230	400	390	85	29	8.1	3.3	1.7	2.3
15	1.7	1.7	1290	3030	330	343	209	32	8.1	2.9	1.4	2.3
16	1.7	1.7	346	7340	280	290	144	31	8.1	3.0	1.4	2.2
17	1.8	1.7	615	2000	230	250	124	26	7.3	3.3	1.4	2.0
18	1.7	1.7	224	1110	200	215	113	25	7.2	3.4	1.7	2.0
19	1.6	1.7	141	1030	170	190	109	24	7.2	3.4	1.7	2.0
20	1.5	1.8	104	599	150	170	124	24	6.8	3.2	1.7	2.0
21	1.6	1160	439	411	135	150	102	21	6.5	2.6	1.7	2.0
22	1.7	531	1020	306	87	135	102	21	6.5	2.6	1.7	2.0
23	1.7	135	854	254	129	120	95	20	5.8	2.6	1.7	2.0
24	2.0	75	291	220	132	110	89	19	5.8	2.6	1.7	2.0
25	1.6	52	160	193	141	98	148	17	5.4	2.5	1.7	2.0
26	1.3	39	144	166	135	88	120	17	5.2	2.3	1.7	2.0
27	1.1	30	284	142	127	80	106	17	5.2	2.3	1.7	2.0
28	2.7	24	205	120	121	70	90	17	5.2	2.1	1.7	2.1
29	8.1	19	167	108	---	60	79	15	5.2	2.0	1.7	2.3
30	7.4	16	143	100	---	60	60	15	5.2	2.0	1.7	2.4
31	5.2	---	115	86	---	68	---	14	---	2.0	2.0	---
TOTAL	62.22	2153.3	8038.0	34011	14836	12676	3999	932	242.4	96.3	53.7	81.8
MEAN	2.01	71.8	259	1097	530	409	133	30.1	8.08	3.11	1.73	2.73
MAX	8.1	1160	1310	7340	3080	2270	446	62	14	5.2	2.0	13
MIN	.80	1.7	6.2	86	87	60	60	14	5.2	2.0	1.4	2.0
AC-FT	123	4270	15940	67460	29430	25140	7930	1850	481	191	107	162
CAL YR 1977 TOTAL	11535.39			MEAN 31.6	MAX 1310	MIN 0	AC-FT 22880					
WTR YR 1978 TOTAL	77181.72			MEAN 211	MAX 7340	MIN .80	AC-FT 153100					

## 11464500 DRY CREEK NEAR CLOVERDALE, CA

LOCATION.--Lat 38°44'59", long 123°05'28", in NE&NE¼ sec.5, T.10 N., R.11 W., Sonoma County, Hydrologic Unit 18010110, on left bank 500 ft (152 m) downstream from Smith Creek, and 5 mi (8 km) southwest of Cloverdale.

DRAINAGE AREA.--87.8 mi<sup>2</sup> (227.4 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1395: 1942(M), 1943, 1946(M), 1951-54(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 304.04 ft (92.671 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good including those for period of no gage-height record, Jan. 21 to Feb. 21. No regulation or diversion above station.

AVERAGE DISCHARGE.--37 years, 161 ft<sup>3</sup>/s (4,560 m<sup>3</sup>/s), 116,600 acre-ft/yr (144 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,100 ft<sup>3</sup>/s (513 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 18.09 ft (5.514 m); minimum, 0.08 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Aug. 18, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in December 1937 reached a stage of about 18 ft (5.5 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,300 ft<sup>3</sup>/s (93 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 21	2030	3310 93.7	7.28 2.219	Jan. 14	1730	7640 216	11.25 3.429
Dec. 14	2030	4450 126	8.43 2.569	Jan. 16	0600	*9620 272	12.74 3.883
Jan. 5	1815	4060 115	8.05 2.454	Feb. 7	unknown	7290 206	10.96 3.341
Jan. 9	0445	9330 264	12.53 3.819	Mar. 8	0845	3820 108	7.81 2.380

Minimum daily discharge, 0.85 ft<sup>3</sup>/s (0.024 m<sup>3</sup>/s) Oct. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	3.7	30	245	173	121	155	83	15	8.8	1.9	1.5
2	2.4	3.0	24	371	300	262	102	78	18	8.3	1.8	1.4
3	1.7	2.6	20	372	242	608	108	74	19	8.1	1.7	1.4
4	1.3	3.9	18	882	156	1320	312	72	18	7.9	1.6	1.3
5	1.2	27	14	3240	2050	1290	240	69	16	7.1	1.6	2.1
6	1.1	11	11	2000	2000	813	648	67	15	6.8	1.5	2.5
7	1.0	6.7	9.8	850	3680	588	342	64	13	6.6	1.6	1.9
8	.99	4.9	9.2	953	2590	2670	237	60	13	6.5	1.5	1.6
9	.98	4.0	8.6	4490	1600	1700	195	56	13	6.1	1.4	1.9
10	.97	3.5	7.9	1600	1050	979	162	53	13	5.7	1.4	1.5
11	.90	3.5	50	880	690	701	142	50	13	5.6	1.4	7.1
12	.89	3.7	86	721	815	544	127	49	13	5.6	1.4	4.6
13	.89	3.4	53	1430	700	440	115	47	13	5.5	1.4	3.6
14	.87	3.0	1390	4010	595	367	107	48	13	4.8	1.4	3.0
15	.87	2.8	1650	3900	498	312	352	57	12	4.6	1.4	2.8
16	.86	2.6	713	6420	420	271	210	49	12	4.5	1.4	2.7
17	.87	2.5	951	2990	350	241	157	44	11	4.5	1.3	2.5
18	.89	2.4	425	1740	300	217	139	40	11	4.5	1.3	2.3
19	.90	2.3	299	1460	250	195	142	37	11	4.3	1.3	2.3
20	.94	2.3	243	1090	212	176	162	34	11	4.0	1.3	2.3
21	.85	1400	656	940	181	162	133	32	10	4.0	1.3	2.2
22	.95	747	1550	750	212	152	115	31	10	3.9	1.4	2.2
23	1.0	236	1350	625	190	152	107	28	9.7	3.7	1.3	2.1
24	1.3	147	616	545	176	127	110	26	9.5	3.3	1.4	2.1
25	1.4	109	401	465	166	113	184	26	9.3	3.3	1.9	2.1
26	1.2	88	374	405	152	106	127	25	8.8	2.9	2.0	2.2
27	1.2	75	569	350	139	100	107	23	9.1	2.7	1.8	2.3
28	3.0	59	419	300	127	91	97	21	9.3	2.5	1.6	2.3
29	7.9	47	349	263	---	87	91	19	9.8	2.4	1.6	2.3
30	7.0	36	311	238	---	83	88	18	9.4	2.2	1.5	2.2
31	5.2	---	265	192	---	113	---	16	---	1.9	1.5	---
TOTAL	54.92	3042.8	12872.5	44717	20014	15101	5313	1396	367.9	152.6	46.9	102.9
MEAN	1.77	101	415	1442	715	487	177	45.0	12.3	4.92	1.51	3.43
MAX	7.9	1400	1650	6420	3680	2670	648	83	19	8.8	2.0	1.9
MIN	.85	2.3	7.9	192	127	83	88	16	8.8	1.9	1.3	1.3
AC-FT	109	6040	25530	88700	39700	29950	10540	2770	730	303	93	204

CAL YR 1977	TOTAL	17898.78	MEAN	49.0	MAX	1650	MIN	.08	AC-FT	35500
WTR YR 1978	TOTAL	103181.52	MEAN	283	MAX	6420	MIN	.85	AC-FT	204700

## RUSSIAN RIVER BASIN

11464500 DRY CREEK NEAR CLOVERDALE, CA--Continued

## WATER-QUALITY RECORDS

## PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: May 1965 to current year.

INSTRUMENTATION.--Temperature recorder since May 1965.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 35.0°C Aug. 29, 1977; minimum recorded, 2.0°C Dec. 10, 1972.

## EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 31.0°C Aug. 5, 6, 9; minimum, 8.0°C Nov. 19, 20.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	---	---	16.5	12.5	14.5	12.0	12.0	11.0	11.0	10.5	14.0	12.0
2	---	---	17.0	12.5	14.5	11.0	12.0	11.5	12.0	10.5	14.0	13.0
3	---	---	15.5	13.0	15.0	11.5	13.0	12.0	13.5	11.5	13.5	12.0
4	---	---	14.5	11.0	15.5	12.0	12.5	11.0	12.5	11.5	14.0	12.5
5	22.5	17.0	15.5	12.5	15.0	11.5	13.0	12.0	12.0	11.5	14.5	12.5
6	22.0	16.0	15.5	11.5	14.5	11.0	13.0	12.5	12.5	11.5	15.0	12.0
7	22.0	15.5	15.5	11.5	14.5	12.5	13.5	12.0	12.5	12.0	14.5	12.5
8	22.5	15.5	15.0	11.0	13.5	11.0	13.0	12.5	12.5	11.5	13.5	13.0
9	22.5	15.5	14.5	10.5	12.5	9.5	13.0	12.5	12.5	11.5	15.0	12.5
10	23.0	15.5	14.5	10.5	12.0	9.0	13.5	12.5	12.5	10.5	15.0	12.5
11	22.5	15.0	13.0	11.5	11.5	10.5	13.0	12.5	12.0	9.5	14.5	12.0
12	21.5	14.5	15.0	12.5	13.0	11.5	13.0	12.5	12.0	10.5	14.0	10.0
13	22.0	14.5	14.5	11.0	13.0	12.0	13.0	12.5	13.0	11.0	15.0	10.5
14	20.5	14.0	15.0	11.5	13.0	12.5	13.0	12.5	13.0	11.0	15.5	10.5
15	21.5	14.5	15.0	12.0	14.0	13.0	12.5	12.5	13.0	11.0	15.5	10.5
16	21.0	14.5	15.0	12.0	13.5	12.0	13.0	12.5	12.0	10.5	16.0	11.5
17	20.0	15.0	14.5	11.5	13.0	11.5	13.5	12.0	13.0	11.0	16.5	11.5
18	19.5	15.5	13.0	10.0	12.0	10.5	13.5	12.5	15.0	12.0	15.5	12.5
19	18.5	16.0	11.0	8.0	11.0	9.0	13.5	12.5	15.5	12.0	17.0	12.5
20	20.0	15.5	11.0	8.0	11.0	10.0	13.5	11.5	15.5	12.5	15.5	12.5
21	19.0	13.0	11.5	8.5	12.0	11.0	13.5	12.0	15.5	12.5	15.0	13.5
22	19.0	12.5	13.5	11.5	11.5	11.0	12.0	10.0	15.5	12.0	17.5	13.5
23	18.0	15.0	13.5	13.0	12.5	11.5	11.5	10.0	15.5	11.5	17.0	13.5
24	19.5	17.0	14.5	12.5	13.0	12.0	11.0	8.5	15.0	13.5	17.5	12.5
25	21.5	17.0	16.0	13.0	12.5	12.0	11.5	9.0	14.5	13.0	18.5	12.0
26	19.0	14.5	16.0	13.0	12.5	12.0	11.5	9.0	14.0	11.5	18.0	13.0
27	16.5	14.5	15.0	13.0	13.0	12.0	12.0	9.5	14.0	10.5	20.0	13.5
28	15.0	14.5	14.5	11.0	13.0	12.5	12.0	10.0	14.5	10.0	20.0	13.5
29	16.5	15.0	15.5	11.5	14.0	13.0	12.0	9.5	---	---	16.0	14.5
30	17.0	14.5	14.5	12.5	13.0	12.0	12.0	10.0	---	---	19.0	13.5
31	16.5	12.5	---	---	12.5	11.0	12.0	10.0	---	---	15.5	12.5
MONTH	23.0	12.5	17.0	8.0	15.5	9.0	13.5	8.5	15.5	9.5	20.0	10.0
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	15.5	13.0	21.5	12.5	25.5	18.5	27.0	19.0	30.0	21.5	28.0	18.0
2	17.5	11.5	23.0	14.0	25.5	18.5	26.5	18.5	30.0	20.0	27.5	19.0
3	14.0	12.0	22.0	15.0	26.0	18.0	27.0	18.5	29.5	20.0	27.5	19.5
4	15.5	10.0	21.0	14.0	26.0	18.0	26.5	19.5	29.0	22.0	24.0	20.0
5	13.5	11.0	21.0	13.0	25.5	18.5	28.0	19.0	31.0	21.5	21.5	20.0
6	14.5	10.5	22.5	13.0	26.0	18.5	29.0	20.0	31.0	22.0	23.5	19.0
7	15.5	10.0	23.0	14.5	27.5	19.5	28.5	20.5	30.0	21.5	24.5	17.0
8	17.5	10.5	24.0	15.5	26.5	19.0	27.5	20.0	30.5	20.5	26.0	16.5
9	18.5	11.5	24.0	16.0	25.5	18.0	29.5	22.0	31.0	21.0	20.5	19.0
10	19.5	12.5	23.5	16.0	25.0	17.5	27.5	20.5	29.5	20.0	24.5	19.0
11	20.5	14.0	23.5	15.5	27.0	18.0	27.0	20.0	29.5	19.0	24.5	17.5
12	19.5	14.0	24.5	15.5	24.0	19.0	27.0	20.0	29.5	19.0	24.5	17.0
13	20.0	14.5	24.5	16.5	26.0	18.5	28.5	20.0	29.5	18.5	24.0	17.5
14	15.5	12.5	20.5	17.0	25.5	17.0	29.0	20.5	30.5	18.5	24.0	17.5
15	13.0	12.0	22.0	16.0	25.0	17.5	27.5	20.0	30.0	18.5	25.5	17.5
16	16.0	11.0	24.0	15.0	26.5	17.5	28.0	20.0	29.5	19.5	25.5	18.5
17	14.5	11.5	25.0	15.5	26.5	18.0	29.0	20.0	30.0	17.5	21.5	16.5
18	17.0	11.0	25.0	16.0	27.0	19.5	29.0	21.0	30.5	17.0	21.5	15.0
19	16.5	12.0	25.5	16.5	27.0	19.0	28.5	21.0	30.0	17.0	22.5	14.5
20	16.5	12.0	25.0	17.0	27.0	19.0	28.0	20.5	29.0	19.0	21.0	14.5
21	19.0	11.0	25.0	17.5	27.0	19.0	29.0	20.5	27.0	18.0	22.5	16.0
22	19.0	11.5	23.5	16.0	26.5	19.5	28.0	21.0	27.0	17.0	23.5	16.5
23	18.0	13.0	22.0	13.5	26.5	19.0	28.0	21.0	28.0	16.5	24.5	17.5
24	15.5	14.0	21.5	14.0	25.5	18.0	28.0	20.5	22.0	19.0	24.5	18.0
25	17.5	13.0	22.5	14.5	26.0	18.0	27.5	21.0	26.0	19.5	22.5	19.0
26	20.5	14.0	23.0	15.0	24.0	18.5	29.0	21.0	27.0	18.0	22.0	19.0
27	21.5	13.0	25.0	16.0	25.0	19.0	28.5	22.0	27.5	17.5	25.0	17.5
28	21.0	14.0	26.5	16.5	22.0	19.5	28.0	20.0	28.5	17.5	25.0	18.0
29	21.0	13.5	26.5	17.0	26.0	19.0	28.5	20.5	29.0	18.0	25.0	18.0
30	20.0	14.5	27.0	18.0	27.5	19.5	28.5	20.0	28.0	18.5	25.0	18.0
31	---	---	26.5	18.0	---	---	30.0	21.0	29.0	17.5	---	---
MONTH	21.5	10.0	27.0	12.5	27.5	17.0	30.0	18.5	31.0	16.5	28.0	14.5

11464860 WARM SPRINGS CREEK NEAR ASTI, CA

LOCATION.--Lat 38°41'46", long 123°05'44", in SW¼SE¼ sec.20, T.10 N., R.11 W., Sonoma County, Hydrologic Unit 18010110, on left bank 0.6 mi (1.0 km) upstream from Strawberry Creek, 7.9 mi (12.7 km) southwest of Asti.

DRAINAGE AREA.--12.2 mi<sup>2</sup> (31.6 km<sup>2</sup>).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 625 ft (191 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, June 8 to July 11, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--5 years, 28.8 ft<sup>3</sup>/s (0.816 m<sup>3</sup>/s), 20,870 acre-ft/yr (25.7 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,320 ft<sup>3</sup>/s (65.7 m<sup>3</sup>/s) Jan. 14, 1978, gage height, 9.82 ft (2.993 m); no flow many days in 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft<sup>3</sup>/s (25 m<sup>3</sup>/s), revised, and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Jan. 9	0345	1910	54.1	9.14	2.786
Jan. 14	1630	*2320	65.7	9.82	2.993
Feb. 7	0900	1400	39.6	8.18	2.493

Minimum daily discharge, 0.30 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Oct. 14-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.65	.78	2.7	34	46	20	21	20	5.1	2.4	.77	.64
2	.56	.70	2.4	42	73	63	17	17	5.1	2.3	.78	.63
3	.44	.70	2.2	50	48	172	29	16	5.1	2.3	.82	.65
4	.44	.68	2.1	136	41	354	40	15	4.9	2.2	.79	.74
5	.40	3.4	2.0	512	405	284	44	14	4.7	2.1	.74	1.3
6	.39	1.2	2.0	265	344	177	92	13	4.6	2.0	.67	1.1
7	.36	.90	1.9	134	601	127	62	12	4.5	2.0	.67	.92
8	.36	.79	1.8	214	375	460	49	11	4.5	1.9	.58	.84
9	.35	.74	1.8	887	309	257	42	11	4.4	1.8	.51	6.7
10	.34	.69	1.7	230	180	161	36	11	4.3	1.7	.51	2.1
11	.33	.84	5.6	136	120	119	32	10	4.2	1.7	.54	1.2
12	.32	.81	3.5	133	205	94	29	9.5	4.1	1.6	.59	1.0
13	.32	.74	2.4	311	269	79	26	9.2	4.0	1.6	.69	.93
14	.30	.72	218	1060	194	72	24	9.5	3.9	1.4	.62	.87
15	.30	.74	168	722	137	63	73	9.9	3.8	1.3	.56	.84
16	.30	.70	60	1080	109	55	49	8.5	3.7	1.4	.59	.83
17	.31	.70	106	468	89	49	40	8.1	3.6	1.3	.60	.84
18	.33	.70	53	274	69	43	35	7.6	3.5	1.2	.56	.82
19	.34	.69	34	261	55	39	35	7.3	3.4	1.2	.49	.81
20	.36	.74	25	187	47	35	34	7.0	3.3	1.1	.53	.81
21	.33	275	112	135	41	33	29	6.9	3.2	1.1	.61	.78
22	.33	83	265	113	39	30	26	6.7	3.2	1.1	.62	.79
23	.34	23	224	98	34	29	24	6.5	3.1	1.1	.62	.79
24	.45	13	100	94	31	25	27	6.4	3.0	1.0	.75	.71
25	.45	8.8	63	78	30	23	44	6.3	2.9	.94	.97	.67
26	.41	6.8	53	63	26	22	31	6.1	2.8	.93	.95	.67
27	.39	5.4	70	52	23	20	28	6.0	2.7	.95	.91	.71
28	3.5	4.2	59	42	21	19	25	5.7	2.7	.90	.80	.69
29	3.0	3.4	51	36	---	18	23	5.5	2.6	.95	.69	.61
30	1.9	3.1	44	31	---	17	21	5.3	2.5	.89	.64	.61
31	.99	---	38	27	---	20	---	5.1	---	.81	.63	---
TOTAL	19.59	443.66	1775.1	7905	3961	2979	1087	293.1	113.4	45.17	20.80	31.60
MEAN	.63	14.8	57.3	255	141	96.1	36.2	9.45	3.78	1.46	.67	1.05
MAX	3.5	275	265	1080	601	460	92	20	5.1	2.4	.97	6.7
MIN	.30	.68	1.7	27	21	17	17	5.1	2.5	.81	.49	.61
AC-FT	39	880	3520	15680	7860	5910	2160	581	225	90	41	63

CAL YR 1977 TOTAL 2553.20 MEAN 7.00 MAX. 275 MIN 0 AC-FT 5060  
WTR YR 1978 TOTAL 18674.42 MEAN 51.2 MAX 1080 MIN .30 AC-FT 37040

## 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 (0.5 km) downstream from Pena Creek, and 3 mi (5 km) west of Geyserville.

DRAINAGE AREA.--162 mi<sup>2</sup> (420 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 158.40 ft (48.280 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1964, at datum 2.00 ft (0.610 m) higher. Oct. 1, 1964, to Apr. 8, 1976, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records fair except those for period of indefinite stage-discharge relation, Aug. 9 to Sept. 18, which are poor. No regulation; small diversions above station for orchard irrigation of about 1,200 acres (4.86 km<sup>2</sup>) in summer.

AVERAGE DISCHARGE.--19 years, 318 ft<sup>3</sup>/s (9.006 m<sup>3</sup>/s), 230,400 acre-ft/yr (284 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,400 ft<sup>3</sup>/s (918 m<sup>3</sup>/s) Jan. 31, 1963, gage height, 18.50 ft (5.639 m) present datum; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8,200 ft<sup>3</sup>/s (232 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 9	0645	*18500 524	16.00 4.877
Jan. 16	0815	16200 459	15.17 4.624
Feb. 7	1115	10500 297	12.92 3.938

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	31	609	323	266	240	166	57	15	3.0	.39
2		0	29	805	553	460	193	156	50	13	2.4	.37
3		0	27	929	415	854	186	144	43	12	1.9	.37
4		0	26	1610	364	1980	419	136	43	11	1.7	.39
5		2.9	24	5640	2590	1860	271	130	38	9.6	1.7	.45
6		15	23	2820	2400	1190	841	125	33	8.1	1.5	.75
7		10	22	1490	5100	896	528	119	28	7.6	1.7	1.1
8		7.2	21	1670	3280	3760	394	113	25	7.4	1.5	.65
9		5.1	19	8630	2660	2130	329	108	24	7.5	1.4	25
10		4.1	19	2130	1520	1320	282	104	23	6.0	1.3	16
11		3.6	23	1340	1060	949	250	99	23	5.2	1.2	12
12		3.4	60	1220	1480	765	227	94	23	5.1	1.1	11
13		3.4	38	2220	1480	644	208	92	22	4.8	.95	10
14		3.4	1830	7970	1160	565	194	89	22	4.6	.88	9.5
15		3.1	2230	7070	951	510	501	101	22	4.1	.80	9.0
16		2.8	839	11600	811	459	390	92	22	3.9	.70	8.0
17		2.7	1400	5810	700	406	295	85	21	3.6	.65	7.8
18		2.5	809	3090	606	369	262	79	21	3.2	.60	7.5
19		2.3	526	2640	533	337	258	74	22	3.0	.54	7.3
20		2.2	370	1890	475	313	277	70	22	2.8	.50	6.3
21		2180	811	1410	424	294	246	68	22	2.5	.47	6.4
22		1280	2480	1080	392	277	219	66	21	2.6	.42	4.5
23		326	2670	854	370	268	204	63	20	2.7	.42	4.6
24		161	1450	677	356	243	205	61	19	2.5	.46	4.3
25		102	1070	547	342	225	308	59	18	2.4	.60	3.9
26		74	977	459	318	213	235	59	16	2.1	.72	4.4
27		58	1240	408	298	203	211	59	16	2.0	.62	3.8
28		46	988	371	280	193	194	58	15	2.3	.55	3.3
29		39	865	337	---	184	182	58	16	2.3	.50	3.0
30		35	777	311	---	175	175	58	16	3.0	.42	2.7
31		---	730	289	---	189	---	58	---	3.7	.40	---
TOTAL	0	4374.7	22424	77926	31241	22497	8724	2843	763	165.6	31.60	174.77
MEAN	0	146	723	2514	1116	726	291	91.7	25.4	5.34	1.02	5.83
MAX	0	2180	2670	11600	5100	3760	841	166	57	15	3.0	25
MIN	0	0	19	289	280	175	175	58	15	2.0	.40	.37
AC-FT	0	8680	44480	154600	61970	44620	17300	5640	1510	328	63	347
CAL YR 1977	TOTAL	29809.42		MEAN 81.7	MAX 2670	MIN 0	AC-FT 59130					
WTR YR 1978	TOTAL	171164.67		MEAN 469	MAX 11600	MIN 0	AC-FT 339500					

11465200 DRY CREEK NEAR GEYSERSVILLE, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.  
 CHEMICAL ANALYSES: Water years 1971 to current year.  
 WATER TEMPERATURES: Water years 1964 to current year.  
 SEDIMENT RECORDS: Water years 1964 to current year.  
 TURBIDITY: Water years 1964 to current year.

PERIOD OF DAILY RECORD.--  
 WATER TEMPERATURES: March 1964 to current year.  
 SEDIMENT RECORDS: March 1964 to current year.

INSTRUMENTATION.--Temperature recorder since November 1964.

REMARKS.--Differences between unadjusted recorder and field measurement values exceeded  $\pm 1.0^{\circ}\text{C}$  for water temperature, at times during calibration visits. Where no maximum or minimum is shown, temperature is once-daily reading.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded,  $26.5^{\circ}\text{C}$  Aug. 11, 1971, Aug. 23, 1974; minimum recorded,  $3.5^{\circ}\text{C}$  Jan. 3, 1974.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 15,000 mg/L (estimated) Dec. 22, 1964; minimum daily mean, no flow for many days in 1964, 1966, 1970-78.

SEDIMENT DISCHARGE: Maximum daily, 830,000 tons (753,000 metric tons), estimated, Dec. 22, 1964; minimum daily, 0 ton (0 metric ton) on many days in 1964, 1966, 1968-78.

## EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum,  $24.5^{\circ}\text{C}$  July 8, 9; minimum,  $8.0^{\circ}\text{C}$  Nov. 21.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 4,480 mg/L Jan. 16; minimum daily mean, no flow for many days.

SEDIMENT DISCHARGE: Maximum daily, 147,000 tons (133,000 metric tons) Jan. 16; minimum daily, 0 ton (0 metric ton) on many days.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, SATURATION (%)	HARDNESS, AS (MG/L CAC03)	HARDNESS, NONCARBONATE (MG/L CAC03)	CALCIUM, DIS-SOLVED (MG/L AS CA)
NOV 28...	1150	44	293	6.5	13.5	1.0	8.8	85	130	9	28
JAN 26...	1125	460	186	7.3	9.0	25	10.8	93	84	3	18
MAY 24...	1210	59	252	8.2	18.0	.40	11.1	117	110	4	23
AUG 24...	1000	.44	249	7.5	19.5	.50	6.6	72	120	0	26

DATE	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM, AD-SORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	BICARBONATE (MG/L AS HC03)	CARBONATE (MG/L AS C03)	ALKALINITY (MG/L AS CAC03)	SULFATE, DIS-SOLVED (MG/L AS S04)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)
NOV 28...	15	18	23	.7	1.1	150	0	120	28	7.5
JAN 26...	9.4	8.1	17	.4	.8	98	0	80	16	4.4
MAY 24...	13	12	19	.5	.8	130	0	110	18	5.8
AUG 24...	14	12	17	.5	.9	150	0	120	17	5.4

DATE	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)
NOV 28...	16	190	.26	.23	.22	.00	.00	.12	.15	.12	.00
JAN 26...	18	125	.17	.48	.40	.01	.01	.04	.03	.05	.01
MAY 24...	16	153	.21	.03	.01	.01	.00	.41	.14	.42	.28
AUG 24...	21	171	.23	.08	.08	.01	.02	.60	.34	.61	.25

## RUSSIAN RIVER BASIN

11465200 DRY CREEK NEAR GEYSERVILLE, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	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, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)
NOV 28...	.15	.35	.03	.01	.03	1	1	2	1000	<10	2
JAN 26...	.04	.53	.06	.01	.03	1	--	12	150	0	2
MAY 24...	.14	.45	.02	.01	.03	2	1	7	290	0	1
AUG 24...	.36	.69	.03	.02	.06	1	1	6	280	0	<1

DATE	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 28...	0	10	0	28	<10	1	2	40	4	3
JAN 26...	<1	10	0	30	20	0	11	40	2	4
MAY 24...	0	0	0	17	0	1	150	50	3	1
AUG 24...	0	0	0	30	0	1	50	20	8	0

DATE	TIME	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/L AS HG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
NOV 28...	1150	1	.1	.0	.02	0	--	22	1.1	.2
JAN 26...	1125	<10	.2	.0	.04	10	10	21	2.0	.3
MAY 24...	1210	8	.1	--	.03	10	0	18	.6	.5
AUG 24...	1000	14	.0	.0	.04	50	10	20	6.1	.2



11465200 DRY CREEK NEAR GEYSERVILLE, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCT			NOV			DEC			JAN			FEB			MAR		
	MAX	DAILY	MIN	MAX	DAILY	MIN	MAX	DAILY	MIN	MAX	DAILY	MIN	MAX	DAILY	MIN	MAX	DAILY	MIN
1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14.0	--	13.0
2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14.0	--	13.5
3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13.5	--	12.5
4	--	--	--	--	--	--	--	--	--	11.5	--	--	--	--	--	13.0	--	12.5
5	--	--	--	--	--	--	--	--	--	11.0	--	--	--	--	--	13.5	--	12.5
6	--	--	--	14.5	--	12.5	--	14.5	--	--	--	--	--	--	--	14.0	--	12.5
7	--	--	--	15.0	--	13.0	--	--	--	--	--	--	--	--	--	14.0	--	13.0
8	--	--	--	14.5	--	13.0	--	--	--	11.0	--	--	--	--	--	14.0	--	13.5
9	--	--	--	14.0	--	13.0	--	12.5	--	12.5	--	--	--	--	--	14.0	--	13.0
10	--	--	--	14.5	--	13.0	--	--	--	--	--	--	--	--	--	14.0	--	13.5
11	--	--	--	14.0	--	13.0	--	12.0	--	--	--	--	--	--	--	14.0	--	13.5
12	--	--	--	14.0	--	13.0	--	10.0	--	--	--	--	--	--	--	14.0	--	13.0
13	--	--	--	14.0	--	12.5	--	--	--	--	--	--	--	--	--	14.0	--	12.5
14	--	--	--	14.5	--	13.0	--	12.5	--	11.0	--	--	--	--	--	15.5	--	11.5
15	--	--	--	14.5	--	13.0	--	--	--	--	--	--	--	--	--	15.5	--	11.5
16	--	--	--	14.5	--	13.5	--	--	--	--	--	--	--	--	--	16.5	--	12.0
17	--	--	--	14.0	--	13.5	--	11.5	--	13.5	--	--	--	--	--	16.5	--	12.5
18	--	--	--	13.5	--	12.0	--	12.0	--	--	--	--	--	--	--	16.0	--	13.5
19	--	--	--	12.0	--	11.0	--	--	--	--	--	--	--	--	--	17.0	--	13.0
20	--	--	--	12.0	--	11.0	--	--	--	--	--	--	--	--	--	15.5	--	13.5
21	--	--	--	12.0	--	8.0	--	10.0	--	--	--	--	--	--	--	15.5	--	14.0
22	--	--	--	12.0	--	11.0	--	10.0	--	--	--	--	16.0	--	13.5	16.0	--	14.0
23	--	--	--	12.5	--	11.0	--	10.0	--	--	--	--	16.0	--	13.0	16.0	--	13.5
24	--	--	--	13.5	--	12.0	--	--	--	--	--	--	15.5	--	14.0	17.0	--	12.5
25	--	--	--	14.0	--	12.5	--	--	--	--	--	--	15.0	--	14.0	17.0	--	13.0
26	--	--	--	14.5	--	13.0	--	--	--	9.0	--	--	14.5	--	13.0	17.0	--	13.5
27	--	--	--	14.0	--	13.0	--	12.5	--	--	--	--	14.0	--	12.0	18.5	--	14.0
28	--	--	--	14.0	--	12.5	--	--	--	--	--	--	13.5	--	11.5	18.0	--	14.0
29	--	--	--	14.0	--	13.0	--	--	--	--	--	--	--	--	--	16.0	--	14.5
30	--	--	--	14.0	--	13.0	--	12.0	--	--	--	--	--	--	--	17.5	--	14.0
31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16.0	--	14.0
MONTH	--	--	--	15.0	--	8.0	--	--	--	--	--	--	--	--	--	18.5	--	11.5

DAY	APR			MAY			JUN			JUL			AUG			SEP		
	MAX	DAILY	MIN	MAX	DAILY	MIN	MAX	DAILY	MIN	MAX	DAILY	MIN	MAX	DAILY	MIN	MAX	DAILY	MIN
1	16.0	--	13.5	19.5	--	13.5	22.5	--	17.5	23.0	--	18.0	23.5	--	19.5	23.0	--	20.0
2	17.0	--	12.0	20.5	--	14.5	22.0	--	17.5	23.0	--	17.5	23.5	--	19.5	23.0	--	20.5
3	14.0	--	12.5	20.5	--	15.5	22.5	--	17.5	23.0	--	17.5	23.0	--	19.5	22.5	--	20.5
4	15.0	--	10.5	19.0	--	14.5	23.5	--	17.5	23.5	--	18.0	23.0	--	19.5	23.0	--	20.5
5	13.5	--	11.5	19.5	--	13.5	24.0	--	18.0	23.5	--	18.0	23.5	--	19.5	20.5	--	19.0
6	14.0	--	11.0	19.5	--	14.0	24.0	--	18.0	23.5	--	18.0	24.0	--	20.0	22.5	--	18.5
7	15.0	--	10.5	20.5	--	14.5	23.5	--	18.0	23.5	--	18.5	24.0	--	20.5	21.5	--	18.0
8	16.0	--	11.0	21.5	--	15.5	24.0	--	18.0	24.5	--	18.5	24.0	--	20.5	21.5	--	18.0
9	17.5	--	12.0	21.0	--	15.5	23.0	--	17.5	24.5	--	19.5	23.5	--	20.0	19.5	--	18.5
10	18.5	--	13.0	21.5	--	16.0	22.5	--	17.5	23.5	--	19.0	23.0	--	20.0	20.5	--	18.5
11	19.0	--	14.5	21.0	--	15.5	23.5	--	17.5	23.5	--	18.5	23.0	--	19.0	21.5	--	17.5
12	18.5	--	14.5	21.5	--	15.5	21.0	--	18.0	23.5	--	18.5	22.5	--	19.5	21.5	--	17.5
13	19.0	--	15.0	22.0	--	16.5	23.5	--	18.0	24.0	--	18.5	22.5	--	19.0	22.0	--	18.0
14	15.5	--	13.5	20.0	--	16.5	23.0	--	17.0	24.0	--	19.0	23.0	--	19.0	22.0	--	18.0
15	14.0	--	12.0	19.5	--	16.5	23.0	--	17.0	24.0	--	19.0	23.0	--	19.0	23.0	--	18.5
16	16.0	--	11.5	20.5	--	15.0	23.0	--	17.0	--	--	--	22.5	--	19.0	23.0	--	18.5
17	14.0	--	11.5	22.0	--	15.5	23.0	--	17.5	--	--	--	22.5	--	19.0	21.5	--	17.0
18	16.0	--	11.5	22.5	--	16.5	23.0	--	18.0	--	--	--	22.5	--	19.0	20.5	--	16.5
19	15.5	--	12.5	22.5	--	16.5	23.0	--	17.5	--	--	--	22.5	--	19.0	20.5	--	16.5
20	16.5	--	12.5	22.0	--	17.0	23.0	--	17.5	--	--	--	22.0	--	20.0	20.5	--	16.5
21	17.5	--	11.5	21.5	--	17.0	23.5	--	18.0	--	--	--	22.0	--	19.5	21.0	--	17.0
22	17.5	--	12.0	21.0	--	16.0	22.5	--	18.0	--	--	--	22.0	--	19.0	20.5	--	17.0
23	17.0	--	13.5	20.0	--	14.5	23.0	--	18.0	--	--	--	22.0	--	19.0	21.5	--	17.5
24	15.5	--	14.0	20.0	--	14.5	23.0	--	17.5	--	24.0	--	20.5	--	19.0	21.5	--	18.0
25	16.5	--	13.5	20.5	--	14.5	23.0	--	17.5	22.5	--	19.5	21.5	--	19.5	21.5	--	18.0
26	18.5	--	14.0	21.0	--	15.0	21.0	--	17.5	23.5	--	19.5	22.5	--	19.5	20.0	--	18.0
27	19.5	--	13.5	22.0	--	16.0	20.5	--	18.0	23.5	--	19.0	23.0	--	19.5	21.0	--	18.0
28	19.5	--	14.5	22.5	--	16.5	19.5	--	18.0	23.0	--	19.0	22.5	--	19.5	21.0	--	17.5
29	19.5	--	14.0	23.0	--	17.0	21.5	--	18.0	23.0	--	19.0	22.5	--	19.5	21.0	--	17.5
30	18.5	--	14.5	23.5	--	17.5	23.0	--	18.0	23.5	--	19.0	23.0	--	20.0	21.0	--	17.5
31	--	--	--	23.0	--	17.5	--	--	--	23.5	--	19.0	23.0	--	20.0	--	--	--
MONTH	19.5	--	10.5	23.5	--	13.5	24.0	--	17.0	--	--	--	24.0	--	19.0	23.0	--	16.5

## RUSSIAN RIVER BASIN

11465200 DRY CREEK NEAR GEYSERVILLE, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1				0	0	0	31	2	.17
2				0	0	0	29	2	.16
3				0	0	0	27	2	.15
4				0	0	0	26	2	.14
5				2.9	4	.14	24	2	.13
6				15	6	.24	23	2	.12
7				10	3	.08	22	2	.12
8				7.2	2	.04	21	2	.11
9				5.1	2	.03	19	5	.26
10				4.1	1	.01	19	6	.31
11				3.6	1	.01	23	9	.66
12				3.4	1	.01	60	22	3.7
13				3.4	2	.02	38	15	1.5
14				3.4	2	.02	1830	905	13000
15				3.1	2	.02	2230	734	6240
16				2.8	2	.02	839	60	145
17				2.7	2	.01	1400	578	2510
18				2.5	2	.01	809	103	237
19				2.3	2	.01	526	52	74
20				2.2	2	.01	370	40	40
21				2180	2420	25900	811	233	1520
22				1280	988	6290	2480	1010	8280
23				326	50	44	2670	709	5910
24				161	18	7.8	1450	270	1060
25				102	10	2.8	1070	145	419
26				74	7	1.4	977	112	295
27				58	4	.63	1240	178	596
28				46	2	.25	988	78	208
29				39	2	.21	865	50	117
30				35	2	.19	777	32	67
31				---	---	---	730	26	51
TOTAL	0	0	0	4374.70	---	32247.96	22424	---	40776.53

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	609	12	20	323	18	18	266	13	9.3
2	805	48	110	553	45	67	460	149	234
3	929	28	70	415	27	30	854	268	618
4	1610	1150	7800	364	16	16	1980	554	2960
5	5640	3620	57400	2590	1990	19200	1860	362	1820
6	2820	1360	11400	2400	1310	9000	1190	248	797
7	1490	620	2490	5100	2750	51000	896	170	411
8	1670	514	3380	3280	1930	21400	3760	2140	24600
9	8630	3920	124000	2660	1490	12100	2130	1030	6200
10	2130	800	4600	1520	243	1080	1320	500	1780
11	1340	318	1150	1060	45	129	949	201	515
12	1220	168	553	1480	932	4580	765	130	269
13	2220	393	2780	1480	607	2480	644	102	177
14	7970	3110	88900	1160	129	404	565	88	134
15	7070	2400	45800	951	102	262	510	74	102
16	11600	4480	147000	811	87	191	459	51	63
17	5810	1960	33000	700	79	149	406	42	46
18	3090	1190	9930	606	69	113	369	35	35
19	2640	750	5350	533	54	78	337	31	28
20	1890	480	2450	475	42	54	313	25	21
21	1410	308	1170	424	31	35	294	22	17
22	1080	177	516	392	21	22	277	24	18
23	854	109	251	370	20	20	268	24	17
24	677	71	130	356	18	17	243	13	8.5
25	547	55	81	342	16	15	225	8	4.9
26	459	45	56	318	12	10	213	7	4.0
27	408	35	39	298	11	8.9	203	6	3.3
28	371	26	26	280	14	11	193	4	2.1
29	337	21	19	---	---	---	184	3	1.5
30	311	17	14	---	---	---	175	3	1.4
31	289	13	10	---	---	---	189	6	3.1
TOTAL	77926	---	550495	31241	---	122489.9	22497	---	40900.1

11465200 DRY CREEK NEAR GEYSERVILLE, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	APRIL				MAY				JUNE			
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	240	10	6.5	166	5	2.2	57	4	.62			
2	193	7	3.6	156	4	1.7	50	4	.54			
3	186	7	3.5	144	3	1.2	43	3	.35			
4	419	50	58	136	3	1.1	43	3	.35			
5	271	46	35	130	3	1.1	38	3	.31			
6	841	112	261	125	3	1.0	33	3	.27			
7	528	90	128	119	2	.64	28	3	.23			
8	394	78	83	113	2	.61	25	3	.20			
9	329	66	59	108	2	.58	24	3	.19			
10	282	48	37	104	2	.56	23	2	.12			
11	250	33	22	99	2	.53	23	2	.12			
12	227	19	12	94	3	.76	23	2	.12			
13	208	9	5.1	92	4	.99	22	2	.12			
14	194	4	2.1	89	3	.72	22	2	.12			
15	501	49	85	101	8	2.2	22	3	.18			
16	390	40	42	92	7	1.7	22	4	.24			
17	295	21	17	85	5	1.1	21	5	.28			
18	262	12	8.5	79	4	.85	21	4	.23			
19	258	13	9.1	74	6	1.2	22	3	.18			
20	277	12	9.0	70	8	1.5	22	2	.12			
21	246	9	6.0	68	7	1.3	22	2	.12			
22	219	7	4.1	66	6	1.1	21	2	.11			
23	204	4	2.2	63	6	1.0	20	2	.11			
24	205	4	2.2	61	4	.66	19	2	.10			
25	308	69	58	59	3	.48	18	2	.10			
26	235	47	30	59	2	.32	16	2	.09			
27	211	29	17	59	2	.32	16	2	.09			
28	194	15	7.9	58	2	.31	15	2	.08			
29	182	6	2.9	58	3	.47	16	2	.09			
30	175	5	2.4	58	3	.47	16	2	.09			
31	---	---	---	58	3	.47	---	---	---			
TOTAL	8724	---	1019.1	2843	---	29.14	763	---	5.87			

DAY	JULY				AUGUST				SEPTEMBER			
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	15	2	.08	3.0	2	.02	.39	3	0			
2	13	2	.07	2.4	2	.01	.37	2	0			
3	12	2	.06	1.9	2	.01	.37	2	0			
4	11	3	.09	1.7	2	.01	.39	2	0			
5	9.6	3	.08	1.7	2	.01	.45	2	0			
6	8.1	3	.07	1.5	2	.01	.75	4	.01			
7	7.6	2	.04	1.7	3	.01	1.1	6	.02			
8	7.4	1	.02	1.5	3	.01	.65	5	.01			
9	7.5	1	.02	1.4	3	.01	25	15	1.0			
10	6.0	1	.02	1.3	3	.01	16	12	.52			
11	5.2	1	.01	1.2	3	.01	12	10	.32			
12	5.1	2	.03	1.1	3	.01	11	9	.27			
13	4.8	2	.03	.95	3	.01	10	8	.22			
14	4.6	2	.02	.88	3	.01	9.5	7	.18			
15	4.1	2	.02	.80	3	.01	9.0	6	.15			
16	3.9	3	.03	.70	3	.01	8.0	5	.11			
17	3.6	3	.03	.65	3	.01	7.8	4	.08			
18	3.2	3	.03	.60	4	.01	7.5	3	.06			
19	3.0	3	.02	.54	4	.01	7.3	3	.06			
20	2.8	3	.02	.50	4	.01	6.3	3	.05			
21	2.5	3	.02	.47	4	.01	6.4	3	.05			
22	2.6	3	.02	.42	5	.01	4.5	3	.04			
23	2.7	3	.02	.42	4	0	4.6	3	.04			
24	2.5	3	.02	.46	4	0	4.3	3	.03			
25	2.4	3	.02	.60	4	.01	3.9	2	.02			
26	2.1	3	.02	.72	4	.01	4.4	2	.02			
27	2.0	3	.02	.62	4	.01	3.8	2	.02			
28	2.3	3	.02	.55	3	0	3.3	2	.02			
29	2.3	3	.02	.50	3	0	3.0	2	.02			
30	3.0	3	.02	.42	3	0	2.7	2	.01			
31	3.7	3	.03	.40	3	0	---	---	---			
TOTAL	165.6	---	1.02	31.60	---	.26	174.77	---	3.33			

YEAR 171164.67

787968.21

## RUSSIAN RIVER BASIN

11465200 DRY CREEK NEAR GEYSERVILLE, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
NOV								
21...	0955	9.5	105	336	95	70	88	94
21...	1245	9.5	3360	3860	35000	42	53	68
DEC								
14...	2025	12.0	6170	3330	55500	--	34	45
JAN								
04...	1655	11.5	2560	3080	21300	--	35	42
09...	0755	11.0	16800	5540	251000	--	28	40
09...	1255	12.5	7180	2900	56200	--	26	34
14...	1540	11.0	9520	3420	87900	--	23	32
FEB								
22...	1530	15.5	400	20	22	--	--	--
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
NOV								
21...	98	99	99	100	--	--	--	--
21...	82	91	94	96	97	100	--	--
DEC								
14...	58	74	85	94	99	100	--	--
JAN								
04...	55	67	74	79	85	91	95	100
09...	51	65	76	87	94	97	98	99
09...	46	58	70	85	96	98	99	99
14...	42	54	64	81	95	100	--	--
FEB								
22...	--	--	85	90	97	100	--	--

11465200 DRY CREEK NEAR GEYSERVILLE, CA--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT  
CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SEDI- MENT, SUS- PENDED (MG/L)	TUR- BID- ITY (NTU)	DATE	TIME	SEDI- MENT, SUS- PENDED (MG/L)	TUR- BID- ITY (NTU)
NOV				FEB			
06...	--	4	1.0	22...	1645	34	8.0
08...	1040	3	1.0	24...	--	32	6.0
08...	1110	2	.00	26...	--	12	4.0
13...	--	2	.00	28...	--	14	2.0
18...	--	15	1.0	MAR			
21...	0800	27	2.0	02...	--	176	75
21...	0955	336	220	04...	--	494	240
21...	1225	3910	1900	07...	--	167	70
21...	1240	3780	1800	08...	--	1900	400
21...	1250	3920	1700	11...	--	177	70
22...	--	146	100	14...	--	82	21
24...	--	15	6.0	18...	--	36	7.0
26...	--	7	2.0	20...	--	24	3.0
28...	--	2	1.0	22...	--	24	3.0
30...	--	2	1.0	24...	--	10	1.0
DEC				27...	--	5	1.0
01...	--	2	1.0	30...	1440	3	1.0
06...	--	2	1.0	30...	1550	3	1.0
09...	--	4	1.0	APR			
11...	--	5	1.0	02...	--	7	2.0
12...	--	21	15	04...	--	50	23
14...	1340	19	2.0	07...	--	88	20
14...	1645	1740	650	09...	--	60	13
14...	1715	2040	650	13...	--	7	2.0
14...	2025	3330	900	16...	--	36	13
14...	2235	2660	1100	18...	--	12	4.0
17...	--	841	320	22...	--	6	2.0
18...	--	84	40	25...	--	82	33
21...	--	71	40	29...	--	6	2.0
22...	--	520	240	MAY			
23...	--	594	240	02...	1055	5	1.0
27...	--	178	95	02...	1405	5	1.0
30...	--	29	14	02...	1410	3	1.0
JAN				05...	--	3	1.0
02...	--	53	23	07...	--	2	1.0
04...	1145	3	70	09...	--	2	1.0
04...	1255	563	300	13...	--	4	1.0
04...	1435	2740	800	16...	--	6	1.0
04...	1650	3180	950	18...	--	4	1.0
05...	--	4290	1100	20...	--	8	1.0
08...	--	215	75	23...	--	6	1.0
09...	0755	5540	1300	24...	--	4	1.0
09...	0935	4090	1100	26...	--	2	1.0
09...	1250	2800	650	30...	--	3	1.0
09...	1505	2320	550	JUN			
11...	--	200	85	02...	--	4	1.0
13...	--	860	340	04...	--	3	1.0
14...	1000	5030	900	06...	--	3	1.0
14...	1540	3420	700	08...	--	3	1.0
17...	1205	1760	360	12...	--	2	1.0
17...	1240	1590	340	14...	--	2	1.0
17...	1250	1640	360	17...	--	5	1.0
17...	1630	1750	340	20...	--	2	1.0
19...	--	669	180	22...	--	2	1.0
21...	--	266	80	26...	--	2	1.0
24...	--	69	28	28...	--	2	1.0
26...	--	45	17	30...	--	2	1.0
29...	--	20	8.0	JUL			
31...	--	13	4.0	05...	--	3	1.0
FEB				08...	--	1	.00
03...	--	25	33	18...	--	3	1.0
05...	--	5400	1000	24...	1400	3	1.0
07...	--	7030	1200	24...	1430	26	2.0
10...	--	136	33	AUG			
17...	--	1600	280	22...	--	5	3.0
20...	--	40	15	SEP			
22...	1530	20	10	19...	--	3	2.0
22...	1600	28	10				

## 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 (0.3 km) downstream from Santa Rosa Creek, and 2 mi (3 km) northeast of Graton.

PERIOD OF RECORD.--February 1940 to September 1949 (contents only), October 1964 to current year in reports of Geological Survey. October 1949 to September 1964 available in files of district office.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Dec. 31, 1958, at site 75 ft (23 m) 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 Russian River. During floods directions of flow may be either to or from Russian River and the laguna acts as a natural regulator of floods on lower Russian River. Figures given herein represent elevations above 55.0 ft (16.76 m).

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 73.3 ft (22.34 m) Dec. 23, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 66.30 ft (20.208 m) Jan. 16.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	---	---	---	---						
2		---	---	---	---	---						
3		---	---	---	---	---						
4		---	---	---	---	56.20						
5		---	---	58.60	56.20	56.40						
6		---	---	56.60	56.80	---						
7		---	---	---	59.60	---						
8		---	---	---	59.80	56.80						
9		---	---	58.10	57.20	55.80						
10		---	---	56.10	55.10	---						
11		---	---	---	---	---						
12		---	---	---	56.00	---						
13		---	---	---	55.60	---						
14		---	56.00	61.00	---	---						
15		---	56.30	61.50	---	---						
16		---	---	66.30	---	---						
17		---	---	62.90	---	---						
18		---	---	58.60	---	---						
19		---	---	56.90	---	---						
20		---	---	55.20	---	---						
21		57.30	---	---	---	---						
22		56.20	---	---	---	---						
23		---	---	---	---	---						
24		---	---	---	---	---						
25		---	---	---	---	---						
26		---	---	---	---	---						
27		---	---	---	---	---						
28		---	---	---	---	---						
29		---	---	---	---	---						
30		---	---	---	---	---						
31		---	---	---	---	---						
MEAN		---	---	---	---	---						
MAX		---	---	---	---	---						
MIN		---	---	---	---	---						

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA  
(National stream-quality accounting network station)

LOCATION.--Lat 38°30'31", long 122°55'36", in NE&SE4 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 (0.2 km) upstream from Hobson Creek, and 3.8 mi (6.1 km) east of Guerneville.

DRAINAGE AREA.--1,338 mi<sup>2</sup> (3,465 km<sup>2</sup>).

## 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 (6.139 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1954, nonrecording gage at bridge 5.3 mi (8.5 km) downstream at datum 8.58 ft (2.615 m) lower. Oct. 1, 1954, to Oct. 23, 1974, at site 0.7 mi (1.1 km) downstream at datum 2.75 ft (0.838 m) lower. Supplementary water-stage recorder 2.1 mi (3.4 km) downstream used during periods of low flow 1948-54.

REMARKS.--Records good. Many diversions above station for irrigation of about 29,000 acres (117 km<sup>2</sup>). Flow also affected by diversion into basin (see REMARKS for East Fork Russian River stations), since November 1958 by storage in Lake Mendocino (station 11461800) 77 mi (124 km<sup>2</sup>) upstream and by diversion at Wohler pumping plant beginning in May 1959.

COOPERATION.--Three discharge measurements were furnished by Sonoma County Water Agency.

AVERAGE DISCHARGE.--39 years, 2,282 ft<sup>3</sup>/s (64.63 m<sup>3</sup>/s), 1,653,000 acre-ft/yr (2.04 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 93,400 ft<sup>3</sup>/s (2,650 m<sup>3</sup>/s) Dec. 23, 1964, gage height, 49.6 ft (15.12 m) site and datum then in use, from floodmarks; maximum gage height, 49.7 ft (15.15 m) Dec. 23, 1955, site and datum then in use, from floodmarks; minimum daily discharge, 0.75 ft<sup>3</sup>/s (0.021 m<sup>3</sup>/s) May 6, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 23,000 ft<sup>3</sup>/s (651 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 15	1045	26500 750	25.11 7.654	Jan. 17	0245	*65200 1850	40.73 12.415
Jan. 6	0230	36900 1050	29.97 9.135	Feb. 7	2300	41100 1160	31.76 9.680
Jan. 9	1945	42900 1210	32.49 9.903	Mar. 9	0245	29200 827	26.44 8.059

Minimum daily discharge, 13 ft<sup>3</sup>/s (0.37 m<sup>3</sup>/s) Oct. 19-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	35	272	2040	2830	2220	1880	1600	440	213	167	146
2	43	32	242	2220	4220	3480	2030	1490	427	217	164	150
3	40	32	224	3480	4390	7900	1690	1360	424	224	166	155
4	123	32	209	3240	3660	14000	3620	1320	415	230	164	159
5	59	57	180	23000	12000	17500	3200	1290	400	226	164	166
6	33	83	184	31600	22300	13000	6200	1250	380	228	169	179
7	28	57	162	13500	30700	9390	6370	1190	355	246	161	187
8	24	47	155	8200	32700	17700	4700	1130	344	172	164	187
9	20	41	150	31500	30200	24300	3700	1120	329	187	164	187
10	19	35	145	27300	18200	13700	2940	1080	324	184	158	256
11	18	33	150	11300	13500	10000	2380	987	319	184	158	300
12	16	32	246	8150	15100	7960	2100	831	309	180	166	251
13	16	28	213	10600	17100	6690	1980	766	311	177	170	195
14	15	20	1520	28500	13200	5270	1960	705	304	164	170	170
15	14	25	22000	50800	10100	4250	3230	668	299	170	169	142
16	14	23	8700	57500	7690	3750	4750	672	292	175	170	147
17	14	18	7420	59500	6460	3360	3300	625	292	180	172	152
18	14	18	5700	34500	5590	3030	2880	591	287	172	169	153
19	13	17	3180	24100	4910	2760	2600	532	306	180	172	155
20	13	16	2140	18000	4400	2540	2800	535	276	184	177	152
21	13	3230	1850	14400	4020	2340	2830	524	278	185	177	185
22	14	14800	10600	11300	3620	2190	2480	521	281	184	175	211
23	14	4790	15200	8090	3220	2070	2230	507	276	180	166	180
24	14	2140	8020	6890	2990	2010	2110	446	276	174	169	167
25	14	1170	4470	5480	2790	1840	2530	409	274	172	172	159
26	14	835	3180	4590	2670	1720	2550	486	272	169	170	153
27	14	660	4040	4120	2480	1610	2220	510	269	167	170	155
28	15	514	4150	3760	2330	1540	1990	507	254	162	164	146
29	17	374	3170	3440	---	1410	1820	496	240	161	161	136
30	38	267	2810	3190	---	1420	1690	469	217	167	158	127
31	38	---	2450	2980	---	1390	---	459	---	170	156	---
TOTAL	783	29461	113132	517270	283370	192340	86760	25076	9470	5784	5172	5208
MEAN	25.3	982	3649	16690	10120	6205	2892	809	316	187	167	174
MAX	123	14800	22000	59500	32700	24300	6370	1600	440	246	177	300
MIN	13	16	145	2040	2330	1390	1690	409	217	161	156	127
AC-FT	1550	58440	224400	1026000	562100	381500	172100	49740	18780	11470	10260	10330

CAL YR 1977	TOTAL	162563.75	MEAN	445	MAX	22000	MIN	.75	AC-FT	322400
WTR YR 1978	TOTAL	1273826.00	MEAN	3490	MAX	59500	MIN	13	AC-FT	2527000

## RUSSIAN RIVER BASIN

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

CHEMICAL ANALYSES: Water years 1951 to current year. Published as "at Guerneville" in 1961-65.

BIOLOGICAL DATA: Water years 1975 to current year.

SPECIFIC CONDUCTANCE: Water years 1974 to current year.

WATER TEMPERATURES: Water years 1964 to current year.

SEDIMENT RECORDS: Water years 1966 to current year.

TURBIDITY: Water years 1967 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1973 to current year.

WATER TEMPERATURES: January 1964 to current year.

SEDIMENT RECORDS: April to September 1967, October 1969 to current year.

INSTRUMENTATION.--Specific conductance recorder since October 1973, at site 0.7 mi (1.1 km) downstream.

Temperature recorder since January 1964.

REMARKS.--Where no maximum or minimum is shown, temperature is once-daily reading.

COOPERATION.--The letter "A" following a date indicates chemical-quality data furnished by California Department of Water Resources and "B" following a date indicates chemical-quality samples were collected by California Regional Water Quality Control Board, North Coast Region. Specific conductance data also furnished by California Department of Water Resources.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 605 micromhos Feb. 19, 20, 1977; minimum, 57 micromhos Nov. 4, 1973.

WATER TEMPERATURES: Maximum, 29.5°C June 26, 1973; minimum recorded, 4.5°C Dec. 15, 1967, Jan. 12, 1968.

SEDIMENT CONCENTRATIONS (water years 1970-78): Maximum daily mean, 2,350 mg/L Jan. 16, 1974; minimum daily mean, 3 mg/L on several days in 1972 and 1973.

SEDIMENT DISCHARGE (water years 1970-78): Maximum daily, 316,000 tons (287,000 metric tons) Jan. 16, 1974; minimum daily, 0.03 ton (0.03 metric ton) May 6, 1977.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 440 micromhos Nov. 6; minimum, 90 micromhos Nov. 21, 22.

WATER TEMPERATURES: Maximum observed, 24.0°C June 5; minimum, 9.0°C Nov. 20, Dec. 19.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,570 mg/L Dec. 15; minimum daily mean, 5 mg/L on several days during October, November, and September.

SEDIMENT DISCHARGE: Maximum daily, 203,000 metric tons (184,000 metric tons) Jan. 16; minimum daily, 0.20 ton (0.18 metric ton) Oct. 14.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW (CFS)	STREAM- INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT									
13...	1130	16	16	273	7.5	17.5	3.0	8.3	--
25...A	1250	14	13	355	7.4	19.0	--	9.4	--
NOV									
08...	1130	47	51	317	7.1	12.5	6.0	9.2	--
22...A	1050	14800	16700	117	7.2	12.0	--	9.1	--
DEC									
05...A	1500	180	155	377	7.3	14.0	--	9.2	--
06...	1045	184	187	365	6.9	13.0	6.0	8.9	--
15...	1210	22000	26400	96	7.0	14.5	750	--	--
28...A	1000	4150	4280	222	7.3	12.0	--	9.5	--
JAN									
10...	1330	27300	26400	136	7.9	13.0	240	9.5	--
FEB									
03...A	0855	4390	4580	201	7.5	11.0	--	10.2	--
15...	1245	10100	10100	168	7.5	11.5	100	10.2	--
21...A	1245	4020	3990	232	7.3	12.5	--	9.6	--
MAR									
16...	1240	3750	3730	230	7.6	14.0	60	9.7	--
20...A	1345	2540	2510	256	7.4	14.0	--	9.3	--
APR									
13...A	1230	1980	1990	256	7.6	17.0	10	9.0	--
18...	1305	2880	2860	220	7.9	12.5	25	9.9	--
MAY									
10...A	1415	1080	1070	252	7.6	18.0	--	9.2	--
16...B	1105	672	677	293	8.1	19.0	9.2	9.1	98
23...B	1325	507	507	278	--	20.5	5.2	8.9	99
29...B	1325	496	500	261	8.1	23.5	5.3	9.2	108
JUN									
06...B	0900	380	380	272	7.8	22.5	5.0	7.9	91
08...A	1050	344	344	262	7.8	23.0	--	7.8	--
15...B	1450	299	299	249	8.3	22.5	3.5	9.1	105
19...B	1420	306	532	268	8.0	23.0	6.0	8.8	102
28...B	1015	254	261	257	8.0	20.5	3.4	8.5	94
JUL									
06...B	1310	228	228	279	8.1	24.5	3.5	8.8	105
11...A	0930	184	184	264	7.6	22.0	--	7.8	--
12...B	0900	180	185	273	8.1	23.0	3.2	8.8	102
18...B	1305	172	158	247	8.3	27.0	4.0	9.2	115
25...B	1300	172	175	255	8.3	25.0	3.8	9.1	110
AUG									
01...B	1305	167	169	255	8.3	25.0	3.3	8.8	106



11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
AUG									
09...	B 1005	164	164	227	7.9	25.5	3.3	8.1	99
10...	A 0945	158	161	265	7.9	23.0	--	8.5	--
15...	B 1315	169	172	245	8.1	24.0	3.1	8.4	100
23...	B 0900	166	180	244	8.4	23.0	2.1	8.4	98
31...	B 1250	156	155	254	7.8	24.5	2.7	8.6	102
SEP									
06...	B 0915	179	177	227	8.0	21.5	1.5	8.0	91
08...	A 0700	187	195	249	7.4	19.0	1.0	9.0	--
12...	B 1400	251	207	239	8.2	21.0	2.8	9.1	102
20...	B 0900	152	155	255	8.1	18.0	1.8	9.4	99
26...	B 1210	153	154	271	7.9	22.0	1.2	8.9	--
26...	B 1255	153	161	273	8.2	21.5	2.9	9.2	105

DATE	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML)	PSEUDO- MONAS AERU- GINOSA IN H2O (MPN/ 100 ML)
OCT							
13...	--	--	--	--	K8	K7	--
25...	--	--	--	--	--	--	--
NOV							
08...	--	--	--	--	170	210	--
22...	--	--	--	--	--	--	--
DEC							
05...	--	--	--	--	--	--	--
06...	--	--	--	--	53	110	--
15...	130	--	--	--	4200	K33000	--
28...	--	--	--	--	--	--	--
JAN							
10...	--	--	--	--	K1500	900	--
FEB							
03...	--	--	--	--	--	--	--
15...	--	--	--	--	350	140	--
21...	--	--	--	--	--	--	--
MAR							
16...	--	--	--	--	150	150	--
20...	--	--	--	--	--	--	--
APR							
13...	3	1.1	--	--	--	--	--
18...	--	--	--	--	220	83	--
MAY							
10...	--	--	--	--	--	--	--
16...	--	--	1700	46	39	46	170
23...	--	--	--	49	13	K10	40
29...	--	--	--	140	25	14	20
JUN							
06...	--	--	--	11	22	21	50
08...	--	--	--	--	--	--	--
15...	--	--	--	--	K7	K6	--
19...	--	--	--	--	15	21	--
28...	--	--	--	--	10	31	--
JUL							
06...	--	--	--	--	11	K11	--
11...	--	--	--	--	--	--	--
12...	--	--	--	5	22	43	20
18...	--	--	--	23	28	19	40
25...	--	--	--	9	16	22	15
AUG							
01...	--	--	--	33	14	24	14
09...	--	--	--	110	29	62	14
10...	--	--	--	--	--	--	--
15...	--	--	--	23	20	30	7
23...	--	--	--	70	24	41	17
31...	--	--	--	23	12	24	5
SEP							
06...	--	--	--	49	26	52	49
08...	2	1.1	--	--	--	--	--
12...	--	--	--	49	K180	54	23
20...	--	--	--	11	K5	35	110
26...	--	--	--	--	K5	13	--
26...	--	--	--	11	10	12	22

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

## RUSSIAN RIVER BASIN

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

[illegible]

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

[illegible]

## RUSSIAN RIVER BASIN

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	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)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)
OCT											
13...	--	--	--	.04	--	.01	--	--	--	--	--
25...	.01	--	.07	--	--	.00	--	.10	--	.10	--
NOV											
08...	--	--	--	.07	--	.03	--	--	--	--	--
DEC											
05...	.36	--	.02	--	--	.65	--	.30	--	.95	--
06...	--	--	--	.48	--	.98	--	--	--	--	--
15...	--	.02	--	.39	--	.12	--	.98	--	1.1	--
28...	.63	--	.01	--	--	.12	--	.30	--	.42	--
JAN											
10...	--	--	--	.46	--	.12	--	--	--	--	--
FEB											
03...	.49	--	.01	--	--	.12	--	.50	--	.62	--
15...	--	--	--	.45	--	.04	--	.58	--	.62	.23
21...	.58	--	.01	--	--	.13	--	.30	--	.43	--
MAR											
16...	--	--	--	.71	--	.05	--	.56	--	.61	.35
20...	.37	--	.00	--	--	.06	--	.20	--	.26	--
APR											
13...	.50	--	.03	--	--	.06	--	.20	--	.26	--
18...	--	--	--	.51	--	.14	--	.61	--	.75	.38
MAY											
10...	.48	--	.02	--	--	.04	--	.30	--	.34	--
16...	--	--	--	.02	--	.01	--	.29	--	.30	.25
23...	.42	.01	.01	.40	.43	.00	.00	.71	.48	.71	--
JUN											
06...	.31	.01	.01	.30	.32	.00	.00	.70	.41	.70	--
08...	.25	--	.01	--	--	.00	--	.20	--	.20	--
19...	.33	.01	.01	--	.34	.01	.00	.38	.22	.39	.17
JUL											
06...	.19	.01	.01	.20	.20	.01	.01	.12	.08	.13	--
11...	.16	--	.04	--	--	.02	--	.20	--	.22	--
18...	.01	.01	.01	.01	.02	.00	.00	.24	.08	.24	.16
AUG											
01...	.00	.01	.00	.01	.00	.00	.00	.24	.21	.24	--
09...	--	--	--	.01	--	.00	--	.22	--	.22	.09
10...	.00	--	.00	--	--	.00	--	.20	--	.20	--
15...	.01	.00	.01	.02	.02	.00	.02	.20	.23	.20	--
31...	.00	.00	.00	.00	.00	.01	.01	.31	.26	.32	--
SEP											
08...	.02	--	.00	--	--	.00	--	.50	--	.50	--
12...	.03	.01	.02	.03	.05	.00	.00	.30	.21	.30	--
26...	--	--	--	.03	--	.01	--	.39	--	.40	.00
26...	.02	.01	.01	.01	.03	.01	.01	.30	.22	.31	--

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	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, ORTH0, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTH0, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTH0, DIS- SOLVED (MG/L AS P04)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDEO TOTAL (MG/L AS C)
OCT										
13...	.05	--	.14	.06	--	--	--	1.1	--	--
25...	--	--	.11	--	--	.10	.31	--	--	--
NOV										
08...	.21	--	.13	.13	--	--	--	--	2.0	.6
DEC										
05...	--	--	.38	--	--	.37	1.1	--	--	--
06...	.98	--	.63	.53	--	--	--	3.2	--	--
15...	--	1.5	.67	--	.05	--	--	--	--	--
28...	--	--	.26	--	--	.13	.40	--	--	--
JAN										
10...	1.1	--	.42	.12	--	--	--	6.9	--	--
FEB										
03...	--	--	.30	--	--	.06	.18	--	--	--
15...	.39	1.1	.25	.10	--	--	--	--	--	1.1
21...	--	--	.19	--	--	.06	.18	--	--	--
MAR										
16...	.26	1.3	.16	.05	--	--	--	4.2	--	--
20...	--	--	.14	--	--	.01	.03	--	--	--
APR										
13...	--	--	.12	--	--	.08	.25	2.4	--	--
18...	.37	1.3	.17	.11	--	--	--	3.3	--	--
MAY										
10...	--	--	.12	--	--	.07	.21	--	--	--
16...	.05	.32	.14	.11	--	--	--	--	5.1	.2
23...	.48	1.1	.06	--	--	.02	.06	--	--	--
JUN										
06...	.41	1.0	.07	--	--	.03	.09	--	--	--
08...	--	--	.03	--	--	.00	.00	--	--	--
19...	.22	--	.04	.02	--	.02	.06	2.3	--	--
JUL										
06...	.09	.33	.02	--	--	.01	.03	--	--	--
11...	--	--	.04	--	--	.04	.12	--	--	--
18...	.08	.25	.02	.01	--	.01	.03	2.9	--	--
AUG										
01...	.21	.25	.03	--	--	.01	.03	--	--	--
09...	.13	.23	.00	.00	--	--	--	--	2.8	.2
10...	--	--	.02	--	--	.01	.03	--	--	--
15...	.25	.22	.02	--	--	.01	.03	--	--	--
31...	.27	.32	.02	--	--	.00	.00	--	--	--
SEP										
08...	--	--	.03	--	--	.01	.03	1.6	--	--
12...	.21	.33	.07	--	--	.03	.09	--	--	--
26...	.49	.43	.02	.01	--	--	--	1.7	--	--
26...	.23	.32	.02	--	--	.02	.06	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, SUS- PENDE RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 08...	.0	0	0	0	<10	<10	0	40	20	20
FEB 15...	.0	0	0	0	0	0	0	30	20	10
APR 13...	--	--	--	0	--	--	--	--	--	--
MAY 16...	.0	0	0	0	0	0	0	20	10	10
AUG 09...	.0	0	0	0	0	0	0	10	0	10
SEP 08...	--	--	--	0	--	--	--	--	--	--

## 11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PHYTOPLANKTON

DATE TIME	OCT 13,77 1130	MAR 16,78 1240	MAY 16,78 1105	MAY 23,78 1325	JUN 19,78 1420
TOTAL CELLS/ML	1500	590	25000	4300	6500
DIVERSITY: DIVISION	1.7	1.0	0.4	1.1	1.3
..CLASS	1.8	1.0	0.4	1.2	1.3
..ORDER	2.5	1.8	0.4	1.6	1.7
...FAMILY	3.1	2.8	0.7	2.3	1.9
....GENUS	3.7	2.8	1.0	2.4	1.9

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
....COELASTRACEAE										
.....COELASTRUM	--	-	--	-	--	-	--	-	--	-
....HYDRODICTYACEAE										
.....PEDIASTRUM	--	-	--	-	--	-	--	-	--	-
....MICRACTINIACEAE										
.....MICRACTINIUM	--	-	120# 20		1200 5		430 10		--	-
....OOCYSTACEAE										
.....ANKISTRODESUS	35 2		33 6		--	-	--	-	180 3	
.....CHLORELLA	35 2		--	-	--	-	--	-	--	-
.....DICTYOSPHAERIUM	--	-	* 0		--	-	--	-	--	-
.....KIRCHNERIELLA	12 1		--	-	--	-	--	-	92 1	
....OOCYSTIS	--	-	--	-	--	-	65 1		--	-
....SELENASTRUM	--	-	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-	--	-
....SCENEDESMACEAE										
.....ACTINASTRUM	92 6		--	-	310 1		--	-	--	-
....SCENEDESMUS	69 5		110# 19		21000# 84		2400# 54		640 10	
....TETRASTRUM	--	-	--	-	610 2		--	-	--	-
..ULOTRICHALES										
....ULOTRICHACEAE										
.....ULOTHRIX	46 3		--	-	--	-	--	-	--	-
....VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CARTERIA	23 2		--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	46 3		87 15		--	-	43 1		1500# 23	
....CHLOROGONIUM	23 2		--	-	--	-	--	-	--	-
....VOLVOCAEEAE										
....PANDORINA	--	-	--	-	--	-	--	-	--	-
....CHLOROCOCCALES										
....OOCYSTACEAE										
....POLYEDRIOPSIS	--	-	--	-	--	-	* 0		--	-
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
....COSCINODISCACEAE										
.....CYCLOTELLA	160 11		150# 26		1200 5		520 12		3600# 56	
....MELOSIRA	--	-	--	-	--	-	--	-	--	-
....SKELETONEMA	100 7		--	-	--	-	--	-	--	-
....STEPHANODISCUS	12 1		--	-	--	-	--	-	--	-
...PENNALES										
....ACHNANTHACEAE										
.....ACHNANTHES	--	-	11 2		150 1		--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	--	-	--	-
....CYMBELLACEAE										
.....CYMBELLA	--	-	--	-	--	-	--	-	46 1	
....FRAGILARIACEAE										
.....FRAGILARIA	210 14		22 4		--	-	--	-	--	-
....SYNEDRA	--	-	--	-	150 1		110 2		--	-
....GOMPHONEMACEAE										
.....GOMPHONEMA	12 1		11 2		--	-	--	-	--	-
....NAVICULACEAE										
.....NAVICULA	92 6		22 4		--	-	110 2		--	-
....NEIDIUM	--	-	--	-	--	-	* 0		--	-
....PINNULARIA	--	-	--	-	--	-	--	-	--	-
....NITZSCHACEAE										
.....DENTICULA	--	-	11 2		--	-	--	-	--	-
....NITZSCHIA	23 2		11 2		150 1		330 7		46 1	
....SURIPELLACEAE										
.....SURIPELLA	12 1		--	-	--	-	* 0		--	-
..CHRYSOPHYCEAE										
...CHRYSONOMADALES										
....CHROMULINACEAE										
.....CHRYSOCOCCLUS	12 1		--	-	--	-	--	-	--	-
....OCHROMONADACEAE										
.....OCHROMONAS	--	-	--	-	--	-	--	-	--	-
..XANTHOPHYCEAE										
...HETEROCOCCALES										
....PLEUROCHLORIDACEAE										
.....PERONE	--	-	--	-	--	-	200 4		--	-

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

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

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PHYTOPLANKTON

DATE TIME	OCT 13,77 1130	MAR 16,78 1240	MAY 16,78 1105	MAY 23,78 1325	JUN 19,78 1420					
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT				
CRYPTOPHYTA (CRYPTOMONADS)										
..CRYPTOPHYCEAE										
...CRYPTOMONIDALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	35	2	--	--	--	--				
....RHODOMONAS	410#	27	--	--	--	--				
...CRYPTOMONODACEAE										
....CRYPTOMONAS	23	2	--	--	46	1				
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROCCOCCALES										
...CHROCCOCCAEAE										
....AGMENELLUM	--	--	--	--	--	--				
....ANACYSTIS	46	3	--	--	65	1				
...HORMOGONALES										
...OSCILLATORIAEAE	--	--	--	--	--	--				
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	--	--	--	* 0	--				
....TRACHELOMONAS	--	--	--	--	* 0	46	1			
PYRRHOPHYTA (FIRE ALGAE)										
..DINOPHYCEAE										
...GYMNODINIALES										
...GYMNODINIAEAE	--	--	--	--	--	--				
DATE TIME	JUL 18,78 1305	AUG 9,78 1005	AUG 15,78 1315	SEP 12,78 1400	SEP 26,78 1210					
TOTAL CELLS/ML	48000	3600	1900	740	1700					
DIVERSITY: DIVISION	1.0	1.5	1.3	1.4	1.7					
..CLASS	1.0	1.5	1.3	1.4	1.9					
...ORDER	1.2	2.0	2.1	2.1	2.4					
...FAMILY	1.3	2.4	2.6	2.5	3.3					
....GENUS	1.7	2.8	0.0	2.9	3.5					
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT				
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
...COELASTRACEAE										
....COELASTRUM	--	--	--	110	6	--				
...HYDRODICTYACEAE										
...PEDIASTRUM	--	--	--	--	--	180	10			
...MICRACTINIAEAE										
...MICRACTINIUM	--	--	--	--	--	--	--			
...OOCYSTACEAE										
....ANKISTRODESMUS	2600	5	1100#	29	240	13	66	4		
....CHLORELLA	--	--	--	--	--	--	--	--		
....DICTYOSPHAERIUM	860	2	--	--	--	--	--	--		
....KIRCHNERIELLA	16000#	33	310	9	86	5	--	--		
....OOCYSTIS	--	--	--	--	--	--	--	--		
....SELENASTRUM	--	--	--	43	2	--	44	3		
....TETRAEDRON	--	--	--	--	--	--	22	1		
...SCENEDESMACEAE										
....ACTINASTRUM	--	--	--	--	--	--	--	--		
....SCENEDESMUS	--	--	190	5	110	6	86	12	130	8
....TETRASTRUM	--	--	--	--	--	--	21	3	--	--
...ULOTRICHIALES										
...ULOTRICHACEAE										
....ULOTRIX	--	--	--	--	--	--	--	--	--	--
...VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CARTERIA	--	--	--	--	--	--	--	--	--	--
....CHLAMYDOMONAS	--	--	190	5	--	--	290#	39	--	--
....CHLOROGONIUM	--	--	--	--	--	--	27	4	--	--
...VOLVOCAEAE										
....PANDORINA	--	--	--	--	230	12	--	--	--	--
...CHLOROCOCCALES										
...OOCYSTACEAE										
....POLYEDRIOPSIS	--	--	--	--	--	--	--	--	--	--

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

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



11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PHYTOPLANKTON

DATE TIME	JUL 18,78 1305		AUG 9,78 1005		AUG 15,78 1315		SEP 12,78 1400		SEP 26,78 1210	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHRYSTOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
...COSCINODISCACEAE										
...CYCLOTELLA	26000#	54	140	4	--	-	54	7	310#	18
...MELOSIRA	--	-	220	6	--	-	--	-	--	-
...SKELETONEMA	--	-	--	-	--	-	--	-	--	-
...STEPHANODISCUS	430	1	--	-	--	-	--	-	--	-
...PENNALES										
...ACHNANTHACEAE										
...ACHNANTHES	1300	3	24	1	--	-	--	-	22	1
...RHOICOSPHEA	--	-	48	1	--	-	--	-	--	-
...CYMBELLACEAE										
...CYMBELLA	--	-	--	-	--	-	--	-	44	3
...FRAGILARIACEAE										
...FRAGILARIA	--	-	--	-	43	2	11	1	--	-
...SYNEORA	430	1	260	7	--	-	110	14	89	5
...GOMPHONEMATACEAE										
...GOMPHONEMA	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE										
...NAVICULA	--	-	72	2	86	5	21	3	89	5
...NEIDIUM	--	-	--	-	--	-	--	-	--	-
...PINNULARIA	--	-	--	-	--	-	--	-	110	6
...NITZSCHACEAE										
...DENTICULA	--	-	--	-	--	-	--	-	--	-
...NITZSCHIA	--	-	48	1	--	-	27	4	110	6
...SURIRELLACEAE										
...SURIRELLA	--	-	--	-	--	-	--	-	--	-
..CHRYSTOPHYCEAE										
..CHRYSONOMADALES										
..CHROMULINACEAE										
..CHRYSOCOCCLUS	--	-	--	-	--	-	--	-	--	-
..OCHROMONADACEAE										
..OCHROMONAS	430	1	--	-	--	-	--	-	66	4
..XANTHOPHYCEAE										
..HETEROCOCCALES										
..PLEUROCHLORIDACEAE										
..PERONE	--	-	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
..CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
..CRYPTOCHRYSIDACEAE										
..CHROOMONAS	--	-	--	-	--	-	--	-	--	-
..RHODOMONAS	--	-	--	-	--	-	--	-	--	-
..CRYPTOMONODACEAE										
..CRYPTOMONAS	--	-	--	-	--	-	--	-	66	4
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
..CHROCOCCOCCALES										
..CHROCOCCOCCAEAE										
..AGMENELLUM	--	-	--	-	--	-	--	-	350#	21
..ANACYSTIS	--	-	1100#	29	630#	34	64	9	--	-
..HORMOGONALES										
..OSCILLATORIACEAE	--	-	--	-	270	15	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
..EUGLENALES										
..EUGLENACEAE										
..EUGLENA	--	-	--	-	--	-	5	1	22	1
..TRACHELOMONAS	--	-	--	-	--	-	11	1	--	-
PYRRHOPHYTA (FIRE ALGAE)										
..DINOPHYCEAE										
..GYMNODINIALES										
..GYMNODINIACEAE	--	-	--	-	14	1	--	-	--	-

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

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

## RUSSIAN RIVER BASIN

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PHYTOPLANKTON

Date	Time	Potential algal growth bottle test (mg/L)	Biomass (mg/L)		Chlorophyll a (µg/L)	Chlorophyll b (µg/L)	Biomass pigment ratio
			Dry weight	Ash weight			
May 23	1325	17	103	101	3.66	0.000	546
June 19	1420	9.9	125	121	6.68	.000	599
July 18	1305	2.3	83.0	81.0	10.8	.000	185
Aug. 15	1315	3.2	120	117	3.54	.000	847
Sept. 12	1400	1.8	113	111	7.95	.000	252

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll a (mg/m <sup>2</sup> )	Chlorophyll b (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
Nov. 8	34	24.8	22.2	3.36	2.26	774	Polyethylene strip

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	410	360	380						
2	---	---	---	360	340	350						
3	---	---	---	340	330	330						
4	---	---	---	340	320	330						
5	---	---	---	370	320	330						
6	---	---	---	440	320	380						
7	---	---	---	320	310	310						
8	---	---	---	320	310	320						
9	---	---	---	320	320	320						
10	---	---	---	320	320	320						
11	---	---	---	330	320	320						
12	---	---	---	330	330	330						
13	---	---	---	340	330	340						
14	---	---	---	340	340	340						
15	---	---	---	350	340	350						
16	---	---	---	350	350	350						
17	---	---	---	350	350	350						
18	---	---	---	360	350	350						
19	---	---	---	360	360	360						
20	---	---	---	360	360	360						
21	---	---	---	360	90	220						
22	---	---	---	120	90	105						
23	---	---	---	---	---	---						
24	---	---	---	---	---	---						
25	---	---	---	---	---	---						
26	360	360	360	---	---	---						
27	360	360	360	---	---	---						
28	360	360	360	---	---	---						
29	360	350	360	---	---	---						
30	420	350	370	---	---	---						
31	420	410	420	---	---	---						
MONTH	420	350	372	440	90	325						

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1				---	---	---	290	270	280	265	265	265
2				---	---	---	280	270	275	270	265	265
3				---	---	---	280	275	280	275	270	270
4				---	---	---	285	195	230	275	270	270
5				---	---	---	240	205	220	270	270	270
6				---	---	---	240	155	190	270	270	270
7				---	---	---	190	155	175	270	265	265
8				185	110	150	205	190	200	270	265	265
9				150	110	130	225	205	215	265	265	265
10				170	150	160	245	225	235	265	265	265
11				190	170	180	260	245	250	275	265	270
12				200	190	195	265	260	260	310	275	285
13				205	200	205	270	265	270	300	285	295
14				235	205	220	270	260	265	310	300	310
15				245	235	240	260	180	220	320	310	315
16				250	245	250	220	175	200	310	310	310
17				255	250	255	240	225	235	315	310	310
18				260	255	260	240	235	240	315	310	310
19				265	260	260	245	240	240	320	310	315
20				270	265	270	245	230	240	315	315	315
21				270	270	270	230	230	230	315	310	310
22				280	275	280	240	230	235	310	310	310
23				280	280	280	245	240	245	310	310	310
24				280	280	280	250	245	245	320	310	310
25				285	280	285	250	235	245	330	310	325
26				290	285	290	240	235	240	310	305	310
27				295	290	295	250	245	245	305	290	300
28				295	295	295	250	250	250	290	285	290
29				300	295	300	260	255	255	290	285	290
30				310	290	300	265	260	265	290	285	285
31				310	290	305	---	---	---	285	285	285
MONTH				310	110	248	290	155	239	330	265	291
	JUNE			JULY			AUGUST			SEPTEMBER		
1	285	285	285	290	280	290	275	265	270	265	260	265
2	285	285	285	295	290	295	270	265	270	265	265	265
3	285	285	285	300	295	295	270	265	270	265	265	265
4	285	285	285	300	295	295	265	265	265	265	265	265
5	285	285	285	295	290	290	265	260	265	265	260	265
6	285	285	285	290	280	285	265	265	265	265	260	260
7	290	285	290	295	275	285	265	260	260	260	260	260
8	285	285	285	310	290	300	260	260	260	260	255	260
9	290	285	285	290	285	290	260	260	260	260	255	260
10	285	280	285	290	285	290	260	260	260	395	260	310
11	280	280	280	290	285	290	260	260	260	275	255	260
12	280	280	280	290	285	290	265	260	265	275	255	265
13	280	275	275	285	285	285	265	265	265	290	275	285
14	275	270	275	290	285	285	265	260	265	290	285	285
15	275	270	275	290	285	285	265	260	260	290	285	290
16	280	275	275	285	280	280	260	260	260	290	285	290
17	280	280	280	280	280	280	260	255	260	285	280	285
18	280	280	280	280	275	280	260	255	260	285	280	280
19	295	275	280	280	275	275	260	260	260	280	275	275
20	290	285	285	280	270	275	260	255	260	280	275	275
21	285	280	285	275	270	275	260	255	260	280	270	275
22	290	285	290	275	270	275	260	255	260	290	275	280
23	290	285	290	275	270	275	260	255	260	290	285	285
24	290	285	290	275	270	270	260	255	260	285	285	285
25	290	280	285	275	270	270	260	255	255	285	285	285
26	285	280	285	275	270	275	260	255	260	285	285	285
27	285	280	280	280	270	275	260	255	260	285	280	280
28	280	275	280	275	270	270	260	260	260	285	280	280
29	275	270	275	275	270	270	265	260	260	285	275	280
30	280	275	275	275	270	275	265	260	260	290	285	285
31	---	---	---	275	270	275	265	260	265	---	---	---
MONTH	295	270	283	310	270	282	275	255	262	395	255	276

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

[illegible]

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER				NOVEMBER				DECEMBER	
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	42	8	.91	35	8	.76	272	17	12	
2	43	8	.93	32	8	.69	242	14	9.1	
3	40	9	.97	32	8	.69	224	12	7.3	
4	123	14	4.6	32	8	.69	209	11	6.2	
5	59	10	1.6	57	13	2.0	180	10	4.9	
6	33	7	.62	83	13	2.9	184	10	5.0	
7	28	7	.53	57	10	1.5	162	10	4.4	
8	24	7	.45	47	9	1.1	155	10	4.2	
9	20	7	.38	41	7	.77	150	9	3.6	
10	19	7	.36	35	6	.57	145	9	3.5	
11	18	6	.29	33	6	.53	150	11	4.5	
12	16	6	.26	32	5	.43	246	19	13	
13	16	5	.22	28	5	.38	213	14	8.1	
14	15	5	.20	20	6	.32	1520	145	1850	
15	14	6	.23	25	6	.41	22000	1570	96000	
16	14	7	.26	23	6	.37	8700	745	19100	
17	14	8	.30	18	5	.24	7420	622	12600	
18	14	7	.26	18	5	.24	5700	331	5400	
19	13	6	.21	17	5	.23	3180	129	1110	
20	13	7	.25	16	5	.22	2140	72	416	
21	13	8	.28	3230	213	6030	1850	83	494	
22	14	7	.26	14800	1040	45500	10600	931	27900	
23	14	7	.26	4790	353	4840	15200	913	38200	
24	14	6	.23	2140	200	1160	8020	287	6560	
25	14	7	.26	1170	133	420	4470	139	1680	
26	14	8	.30	835	91	205	3180	80	687	
27	14	8	.30	660	54	96	4040	111	1210	
28	15	8	.32	514	40	56	4150	110	1230	
29	17	8	.37	374	28	28	3170	88	753	
30	38	15	1.5	267	21	15	2810	58	440	
31	38	12	1.2	---	---	---	2450	49	324	
TOTAL	783	---	19.11	29461	---	58365.04	113132	---	216039.8	
DAY	JANUARY				FEBRUARY				MARCH	
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	2040	39	215	2830	50	382	2220	65	390	
2	2220	55	330	4220	320	3650	3480	116	1090	
3	3480	89	836	4390	211	2500	7900	432	9210	
4	3240	70	655	3660	100	988	14000	528	20000	
5	23000	893	68400	12000	826	38400	17500	590	27900	
6	31600	795	70600	22300	1090	65400	13000	358	12600	
7	13500	301	11400	30700	1400	124000	9390	279	7070	
8	8200	204	4550	32700	848	77800	17700	822	51700	
9	31500	1400	136000	30200	940	79400	24300	990	65000	
10	27300	614	50100	18200	450	22100	13700	520	19200	
11	11300	294	8970	13500	310	11300	10000	360	9720	
12	8150	189	4160	15100	571	26200	7960	250	5370	
13	10600	659	19600	17100	580	26800	6690	182	3290	
14	28500	1500	122000	13200	305	10900	5270	174	2480	
15	50800	1400	193000	10100	272	7420	4250	175	2010	
16	57500	1290	203000	7690	242	5020	3750	158	1600	
17	59500	977	159000	6460	210	3660	3360	130	1180	
18	34500	610	58000	5590	178	2690	3030	107	875	
19	24100	520	33800	4910	150	1990	2760	91	678	
20	18000	440	21400	4400	138	1640	2540	76	521	
21	14400	360	14000	4020	122	1320	2340	67	423	
22	11300	312	9520	3620	118	1150	2190	55	325	
23	8090	271	5920	3220	110	956	2070	44	246	
24	6890	233	4330	2990	140	1130	2010	35	190	
25	5480	210	3110	2790	105	791	1840	29	144	
26	4590	172	2130	2670	81	584	1720	24	111	
27	4120	132	1470	2480	69	462	1610	22	96	
28	3760	100	1020	2330	68	428	1540	20	83	
29	3440	80	743	---	---	---	1410	19	72	
30	3190	71	612	---	---	---	1420	18	69	
31	2980	55	443	---	---	---	1390	18	68	
TOTAL	517270	---	1209314	283370	---	519061	192340	---	243711	

## RUSSIAN RIVER BASIN

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	APRIL				MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	1880	39	198	1600	28	121	440	12	14	
2	2030	37	203	1490	27	109	427	12	14	
3	1690	27	123	1360	26	95	424	12	14	
4	3620	142	1390	1320	32	114	415	11	12	
5	3200	98	847	1290	33	115	400	9	9.7	
6	6200	179	3000	1250	30	101	380	9	9.2	
7	6370	129	2220	1190	25	80	355	9	8.6	
8	4700	98	1240	1130	11	34	344	8	7.4	
9	3700	78	779	1120	22	67	329	8	7.1	
10	2940	62	492	1080	21	61	324	8	7.0	
11	2380	54	347	987	18	48	319	8	6.9	
12	2100	50	283	831	31	67	309	7	5.8	
13	1980	38	203	766	37	77	311	12	10	
14	1960	28	148	705	26	49	304	13	11	
15	3230	97	1150	668	20	36	299	12	9.7	
16	4750	138	1770	672	15	27	292	12	9.5	
17	3300	80	713	625	12	20	292	12	9.5	
18	2880	51	397	591	11	18	287	12	9.3	
19	2600	47	330	532	11	16	306	13	11	
20	2800	52	393	535	13	19	276	13	9.7	
21	2830	55	420	524	13	18	278	11	8.3	
22	2480	44	295	521	13	18	281	11	8.3	
23	2230	41	247	507	13	18	276	11	8.2	
24	2110	39	222	446	13	16	276	10	7.5	
25	2530	48	328	409	14	15	274	10	7.4	
26	2550	43	296	486	15	20	272	10	7.3	
27	2220	38	228	510	14	19	269	9	6.5	
28	1990	34	183	507	14	19	254	9	6.2	
29	1820	31	152	496	13	17	240	9	5.8	
30	1690	30	137	469	12	15	217	8	4.7	
31	---	---	---	459	12	15	---	---	---	
TOTAL	86760	---	18734	25076	---	1464	9470	---	265.6	
DAY	JULY				AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	213	8	4.6	167	8	3.6	146	6	2.4	
2	217	8	4.7	164	7	3.1	150	6	2.4	
3	224	7	4.2	166	7	3.1	155	7	2.9	
4	230	7	4.3	164	8	3.5	159	7	3.0	
5	226	7	4.3	164	8	3.5	166	8	3.6	
6	228	6	3.7	169	9	4.1	179	9	4.3	
7	246	12	8.0	161	9	3.9	187	11	5.6	
8	172	12	5.6	164	9	4.0	187	11	5.6	
9	187	10	5.0	164	9	4.0	187	12	6.1	
10	184	9	4.5	158	9	3.8	256	19	13	
11	184	8	4.0	158	8	3.4	300	22	18	
12	180	8	3.9	166	8	3.6	251	22	15	
13	177	7	3.3	170	10	4.6	195	13	6.8	
14	164	7	3.1	170	9	4.1	170	7	3.2	
15	170	8	3.7	169	9	4.1	142	7	2.7	
16	175	8	3.8	170	9	4.1	147	6	2.4	
17	180	7	3.4	172	10	4.6	152	5	2.1	
18	172	7	3.3	169	9	4.1	153	5	2.1	
19	180	7	3.4	172	9	4.2	155	5	2.1	
20	184	8	4.0	177	10	4.8	152	5	2.1	
21	185	8	4.0	177	10	4.8	185	8	4.0	
22	184	7	3.5	175	9	4.3	211	10	5.7	
23	180	7	3.4	166	8	3.6	180	8	3.9	
24	174	7	3.3	169	9	4.1	167	7	3.2	
25	172	7	3.3	172	9	4.2	159	6	2.6	
26	169	6	2.7	170	9	4.1	153	5	2.1	
27	167	6	2.7	170	8	3.7	155	5	2.1	
28	162	6	2.6	164	8	3.5	146	5	2.0	
29	161	6	2.6	161	7	3.0	136	7	2.6	
30	167	7	3.2	158	7	3.0	127	5	1.7	
31	170	8	3.7	156	6	2.5	---	---	---	
TOTAL	5784	---	119.8	5172	---	119.0	5208	---	135.3	
YEAR	1273826		2267347.65							

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
DEC									
15...	1640	10.5	24100	1340	87200	--	54	69	80
JAN									
05...	2215	11.5	36200	1100	108000	36	49	62	76
10...	1335	13.0	24300	516	33900	--	45	55	66
15...	1015	13.0	51500	1300	181000	--	53	69	79
16...	1900	12.0	63800	1530	264000	--	54	69	82
FEB									
15...	1245	11.5	10100	272	7420	23	31	38	47
MAR									
05...	1830	13.0	17400	460	21600	32	41	51	61
16...	1240	14.0	3730	158	1600	29	37	47	58
APR									
18...	1305	12.5	2860	51	397	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM
DEC									
15...	89	92	--	94	--	98	--	100	--
JAN									
05...	86	--	93	--	96	--	99	--	100
10...	78	--	88	--	93	--	97	--	100
15...	91	--	96	--	99	--	100	--	--
16...	95	--	98	--	99	--	100	--	--
FEB									
15...	58	--	70	--	90	--	99	--	100
MAR									
05...	72	--	80	--	92	--	100	--	--
16...	68	--	80	--	93	--	100	--	--
APR									
18...	--	--	80	--	91	--	100	--	--

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT  
CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SEDI- MENT, SUS- PENDE (MG/L)	TUR- BID- ITY (NTU)	DATE	TIME	SEDI- MENT, SUS- PENDE (MG/L)	TUR- BID- ITY (NTU)
OCT				FEB			
06...	--	7	3.0	01...	--	84	28
12...	--	8	4.0	03...	--	120	45
13...	--	5	2.0	06...	--	1050	310
17...	--	16	4.0	07...	--	1930	600
19...	--	6	2.0	08...	--	656	200
21...	--	8	4.0	10...	--	435	130
24...	--	6	3.0	14...	--	300	100
26...	--	8	3.0	15...	1210	272	85
28...	--	8	3.0	15...	1500	264	85
NOV				22...	--	118	38
08...	--	9	5.0	27...	--	69	22
DEC				MAR			
06...	--	10	4.0	01...	--	65	16
15...	--	1340	650	03...	--	460	170
19...	--	86	38	05...	--	460	180
20...	1000	66	27	08...	--	1810	500
20...	1620	79	38	13...	--	179	60
21...	1600	54	23	15...	--	175	65
21...	2120	202	50	16...	1225	150	60
22...	--	929	400	16...	1245	169	65
23...	--	834	340	21...	--	67	25
25...	--	112	41	24...	--	32	12
26...	--	70	28	APR			
29...	--	82	31	05...	--	80	26
30...	--	58	23	13...	--	35	12
JAN				18...	1155	52	20
05...	1615	1470	550	18...	1225	51	20
05...	2215	1100	450	21...	--	52	22
06...	0805	937	390	23...	--	41	14
06...	1520	731	320	27...	--	37	14
08...	--	169	80	MAY			
09...	1655	2190	850	01...	--	28	10
09...	2130	1430	650	06...	--	30	8.0
10...	1205	507	220	08...	--	21	8.0
10...	1320	504	180	12...	--	67	13
10...	1335	516	200	17...	--	12	4.0
10...	1530	479	180	23...	--	13	5.0
11...	--	252	85	31...	--	12	4.0
13...	--	1040	300	JUN			
14...	1545	1570	450	05...	--	9	3.0
14...	2215	1740	600	09...	--	8	3.0
15...	0300	1910	700	14...	1130	12	2.0
15...	1015	1300	550	14...	1200	14	3.0
15...	1800	1110	450	21...	--	11	4.0
16...	1505	1680	650	JUL			
16...	1900	1530	600	12...	--	8	3.0
18...	--	572	180	AUG			
19...	--	514	150	08...	--	9	5.0
21...	--	349	120	16...	--	8	4.0
25...	--	208	50	SEP			
28...	--	89	30	11...	--	18	3.0
30...	--	70	25	14...	1015	8	3.0
				14...	1115	7	1.0
				26...	--	5	2.0



## 11467600 GARCIA RIVER NEAR POINT ARENA, CA

LOCATION.--Lat 38°55'35", long 123°37'45", in SW¼SW¼ sec. 3, T.12 N., R.16 W., Mendocino County, Hydrologic Unit 18010108, on left bank 0.9 mi (1.4 km) downstream from North Fork, and 3.5 mi (5.6 km) northeast of town of Point Arena.

DRAINAGE AREA.--98.5 mi<sup>2</sup> (255.1 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1951-56, and annual maximum water years 1952-56, August 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 55.31 ft (16.858 m) National Geodetic Vertical Datum of 1929. July 17, 1951, to Jan. 31, 1956, crest-stage only, at site 15 ft (5 m) upstream at different datum.

REMARKS.--Records good including those for period of no gage-height record, Jan. 24 to Feb. 23. No regulation or diversion above station.

AVERAGE DISCHARGE.--16 years, 329 ft<sup>3</sup>/s (9.317 m<sup>3</sup>/s), 238,400 acre-ft/yr (294 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,300 ft<sup>3</sup>/s (858 m<sup>3</sup>/s) Jan. 16, 1974, gage height, 17.41 ft (5.307 m), from rating curve extended above 9,600 ft<sup>3</sup>/s (272 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 15.11 ft (4.606 m) and 16.63 ft (5.069 m); minimum daily, 2.3 ft<sup>3</sup>/s (0.065 m<sup>3</sup>/s) Sept. 16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft<sup>3</sup>/s (142 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 21	2300	5060 143	9.45 2.880	Jan. 16	0615	11400 323	11.89 3.624
Dec. 14	2115	*11900 337	12.07 3.679	Feb. 7	unknown	11100 314	11.80 3.597
Jan. 5	2145	5670 161	9.71 2.960	Mar. 8	1045	9670 274	11.30 3.444
Jan. 9	0515	10600 300	11.62 3.542				

Minimum daily discharge, 11 ft<sup>3</sup>/s (0.31 m<sup>3</sup>/s) Oct. 14-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	24	58	237	342	220	241	241	65	39	21	16
2	40	20	54	650	920	421	202	218	63	39	21	16
3	28	19	51	607	770	950	208	201	63	38	20	16
4	23	19	41	1080	620	1840	576	186	62	37	20	18
5	18	92	36	3550	1320	2900	545	170	60	36	19	22
6	17	68	34	3250	3200	1960	1740	159	58	36	19	24
7	16	46	34	1360	5250	1250	1030	149	56	35	19	22
8	16	36	32	975	4050	7000	706	143	55	34	18	20
9	15	31	29	6060	4200	3740	541	136	53	33	17	61
10	15	27	29	2100	2950	1850	434	130	52	33	17	93
11	13	25	48	964	1700	1220	361	124	52	31	17	44
12	13	24	150	752	2000	901	316	118	51	30	16	31
13	12	23	78	2390	2700	694	284	113	50	30	16	26
14	11	21	3780	5930	2100	561	257	114	49	30	16	24
15	11	20	3560	6760	1520	474	456	133	49	29	16	22
16	11	19	928	8970	1130	416	357	114	48	29	16	22
17	11	19	1180	5030	840	369	295	104	48	28	16	21
18	11	18	688	2430	630	334	267	99	47	28	16	20
19	11	17	420	2080	450	305	271	95	46	27	16	19
20	11	17	299	1550	365	281	316	91	45	26	15	18
21	11	1610	565	1110	335	264	288	88	45	25	15	18
22	11	1900	2090	825	315	248	261	85	42	25	15	18
23	11	527	2050	665	291	267	244	83	42	24	15	17
24	11	273	859	593	284	232	248	81	41	24	17	17
25	13	176	464	540	274	211	452	80	40	23	23	17
26	13	126	330	500	257	199	429	78	41	23	22	17
27	12	99	512	460	241	188	368	75	43	23	19	16
28	14	83	438	425	229	174	329	74	41	22	18	16
29	32	72	340	392	---	163	291	72	41	21	17	16
30	35	65	302	362	---	156	267	70	41	21	17	16
31	30	---	263	335	---	163	---	67	---	21	16	---
TOTAL	546	5516	19742	62932	39283	29951	12580	3691	1489	900	545	723
MEAN	17.6	184	637	2030	1403	966	419	119	49.6	29.0	17.6	24.1
MAX	50	1900	3780	8970	5250	7000	1740	241	65	39	23	93
MIN	11	17	29	237	229	156	202	67	40	21	15	16
AC-FT	1080	10940	39160	124800	77920	59410	24950	7320	2950	1790	1080	1430
CAL YR 1977 TOTAL	31914.1			MEAN 87.4	MAX 3780	MIN	2.3	AC-FT 63300				
WTR YR 1978 TOTAL	177898.0			MEAN 487	MAX 8970	MIN	11	AC-FT 352900				

11467600 GARCIA RIVER NEAR POINT ARENA, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water year 1977.

WATER TEMPERATURES: Water years 1964 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1963 to current year.

INSTRUMENTATION.--Temperature recorder since October 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 22.0°C June 22, 1964, Aug. 29, 1968, June 25, 1973, Aug. 1, 1975, July 8, 1976; minimum, 5.0°C Dec. 14-16, 1967, Dec. 11, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 21.5°C Aug. 6, 8; minimum, 9.0°C Jan. 25, 26.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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

11467600 GARCIA RIVER NEAR POINT ARENA, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.5	12.0	16.5	12.0	20.0	15.5	19.5	16.0	20.5	16.5	20.5	16.0
2	15.0	11.0	17.5	12.5	19.5	16.0	19.5	16.0	20.5	16.5	21.0	16.5
3	13.0	11.0	17.0	13.0	19.5	15.5	20.0	16.0	20.5	16.0	20.5	17.0
4	13.0	10.0	16.5	12.5	20.0	15.5	20.0	15.5	20.5	16.0	18.5	17.0
5	11.5	11.0	16.5	12.5	20.0	15.5	20.0	15.5	21.0	16.5	18.0	17.0
6	12.0	10.5	17.5	12.0	20.5	16.0	20.5	16.0	21.5	16.5	19.5	16.5
7	13.5	10.0	18.5	13.0	19.5	16.0	20.5	16.5	21.0	17.0	19.5	16.0
8	14.0	10.5	19.0	13.5	19.5	15.5	21.0	16.5	21.5	16.5	20.0	16.0
9	15.5	11.5	18.0	14.5	19.5	15.5	20.5	16.0	20.5	16.5	18.0	17.0
10	16.0	12.0	18.0	14.0	19.5	16.0	20.0	16.0	20.5	17.0	19.5	17.0
11	16.0	13.0	18.5	14.0	20.0	15.5	20.0	16.0	20.5	16.0	19.5	16.5
12	16.0	12.5	18.5	13.5	20.5	16.0	20.5	16.0	20.5	16.0	20.0	16.5
13	16.0	12.5	19.0	14.0	20.0	16.5	20.5	16.0	21.0	16.0	19.5	16.0
14	14.5	12.5	16.5	15.0	19.5	15.5	21.0	16.5	21.0	16.0	19.5	16.0
15	12.5	11.5	17.0	14.5	19.5	15.0	20.5	16.0	20.5	16.5	19.5	16.0
16	14.5	11.0	18.0	13.0	19.5	15.0	20.5	16.5	20.5	15.5	19.0	15.5
17	13.5	11.0	19.0	13.5	20.5	15.5	21.0	16.0	20.5	15.5	18.0	15.0
18	15.5	11.0	20.0	14.0	20.0	16.5	21.5	16.0	20.5	15.5	18.0	14.5
19	13.5	12.0	20.5	15.0	20.5	16.5	21.0	16.5	20.5	16.0	18.5	14.5
20	14.0	11.5	20.0	15.0	19.5	16.0	21.0	16.5	20.5	16.0	18.5	14.5
21	15.0	11.0	17.0	15.5	20.5	16.5	21.5	16.5	20.0	16.5	19.0	15.0
22	15.5	11.5	17.5	14.0	20.5	16.5	21.5	16.5	19.5	16.0	19.0	15.0
23	15.5	12.0	18.0	13.5	18.5	16.5	21.0	17.0	20.0	16.0	19.5	15.5
24	14.0	12.5	17.5	13.5	20.0	15.5	21.5	16.5	18.0	16.5	20.0	16.0
25	14.5	12.5	18.0	13.5	19.5	15.5	21.5	17.0	20.0	17.0	19.0	16.0
26	15.5	12.5	18.5	14.0	20.5	16.0	21.0	17.0	20.5	16.5	19.0	16.5
27	16.5	12.5	19.5	15.0	20.5	16.5	20.5	16.5	20.5	16.5	19.5	16.0
28	16.5	13.0	19.5	15.5	17.5	16.5	20.5	16.5	20.5	16.0	19.0	15.5
29	16.0	12.5	19.5	14.5	18.5	16.5	20.0	16.5	19.5	16.5	19.5	15.5
30	15.5	13.0	20.5	14.5	19.5	16.0	20.5	16.5	20.0	16.5	19.0	16.0
31	---	---	21.0	15.5	---	---	20.0	16.0	20.5	16.0	---	---
MONTH	16.5	10.0	21.0	12.0	20.5	15.0	21.5	15.5	21.5	15.5	21.0	14.5

## 11468000 NAVARRO RIVER NEAR NAVARRO, CA

LOCATION.--Lat 39°10'20", long 123°40'06", in SE¼ sec.7, T.15 N., R.16 W., Mendocino County, Hydrologic Unit 18010108, on right bank 2.9 mi (4.7 km) downstream from North Fork, 5.2 mi (8.4 km) upstream from mouth, and 6.8 mi (10.9 km) west of Navarro.

DRAINAGE AREA.--303 mi<sup>2</sup> (785 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1445: 1954(M). WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4.79 ft (1.460 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1969, at site 0.2 mi (0.3 km) upstream at datum 1.86 ft (0.567 m) higher.

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

AVERAGE DISCHARGE.--28 years, 522 ft<sup>3</sup>/s (14.78 m<sup>3</sup>/s), 378,200 acre-ft/yr (466 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,500 ft<sup>3</sup>/s (1,830 m<sup>3</sup>/s) Dec. 22, 1955, gage height, 40.60 ft (12.375 m) site and datum then in use, from rating curve extended above 19,000 ft<sup>3</sup>/s (538 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; minimum daily, 0.23 ft<sup>3</sup>/s (0.007 m<sup>3</sup>/s) July 13, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached a stage of 38.2 ft (11.64 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 7,000 ft<sup>3</sup>/s (198 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 15	0015	9240 262	16.18 4.932	Jan. 16	2315	*22500 637	25.35 7.727
Dec. 22	0345	7720 219	14.41 4.392	Feb. 7	1445	15100 428	21.20 6.462
Jan. 5	2200	10000 283	17.11 5.215	Mar. 8	1415	14500 411	20.78 6.334
Jan. 9	0830	16900 479	22.32 6.803				

Minimum daily discharge, 6.7 ft<sup>3</sup>/s (0.19 m<sup>3</sup>/s) Oct. 18-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	31	56	666	463	304	395	282	74	34	13	11
2	17	27	50	1180	1170	490	353	254	68	34	12	11
3	15	24	44	1410	978	1380	301	234	68	33	12	11
4	13	22	41	2150	811	2760	1010	217	67	33	12	12
5	12	30	37	7890	3500	4330	675	201	64	29	13	16
6	10	81	33	5920	5480	3240	2670	189	63	29	12	19
7	9.8	75	30	2740	8850	2170	1890	179	61	29	12	20
8	9.4	41	31	1930	6520	9810	1280	170	58	29	11	19
9	7.5	29	30	9870	7070	6390	967	158	57	29	9.8	22
10	7.8	24	29	4310	3750	3410	763	152	55	28	8.5	60
11	7.8	22	34	2420	2410	2270	625	145	52	27	8.1	46
12	7.8	23	136	1720	3170	1610	530	141	50	26	8.0	37
13	7.2	23	139	2940	4070	1200	458	135	47	24	8.0	30
14	6.9	22	1470	7750	3230	977	408	131	46	19	7.9	27
15	7.2	19	5140	11700	2370	818	662	145	45	19	11	19
16	7.2	18	1430	16500	1740	688	679	149	43	17	11	19
17	7.2	16	1890	12800	1360	604	561	131	42	17	11	19
18	6.7	15	1230	5550	1110	545	490	123	41	18	10	15
19	6.7	15	778	4750	931	493	479	115	41	16	11	15
20	6.7	14	572	3500	783	448	608	108	41	15	9.9	15
21	6.7	210	885	2470	668	414	592	105	38	17	9.6	15
22	7.2	1960	4740	1770	578	388	515	103	37	18	9.6	15
23	7.2	502	4440	1340	514	391	472	100	34	18	8.6	15
24	7.8	276	1890	1080	458	372	438	96	34	16	9.2	14
25	10	186	1120	893	427	314	490	95	32	15	10	12
26	11	138	847	759	395	291	455	91	30	15	12	15
27	11	106	1290	661	360	275	385	90	33	14	12	17
28	11	88	1160	588	328	260	342	86	34	13	13	15
29	23	74	921	530	---	248	314	83	33	13	13	14
30	28	64	853	480	---	242	298	82	34	13	12	15
31	34	---	738	443	---	242	---	79	---	13	11	---
TOTAL	351.8	4175	32084	118710	63494	47374	20105	4369	1422	670	331.2	590
MEAN	11.3	139	1035	3829	2268	1528	670	141	47.4	21.6	10.7	19.7
MAX	34	1960	5140	16500	8850	9810	2670	282	74	34	13	60
MIN	6.7	14	29	443	328	242	298	79	30	13	7.9	11
AC-FT	698	8280	63640	235500	125900	93970	39880	8670	2820	1330	657	1170
CAL YR 1977	TOTAL	44354.91	MEAN 122	MAX 5140	MIN .23	AC-FT 87980						
WTR YR 1978	TOTAL	293676.00	MEAN 805	MAX 16500	MIN 6.7	AC-FT 582500						

11468000 NAVARRO RIVER NEAR NAVARRO, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1959-66, 1973 to current year.

WATER TEMPERATURES: Water years 1966 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1965 to current year.

INSTRUMENTATION.--Temperature recorder since October 1965.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 26.5°C July 8, 1976; minimum recorded, 3.0°C Jan. 2, 1976.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 23.5°C May 31, July 18, Aug. 7; minimum, 6.5°C Feb. 11, 16.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)
NOV 03...	1500	24	277	8.0	13.0	1.0	10.0	--
JAN 05...	0745	6850	129	7.4	12.0	260	10.6	41
MAY 10...	1445	152	211	7.6	19.0	2.0	8.8	98
JUL 12...	1400	26	231	8.0	21.0	--	10.5	110
SEP 13...	1430	29	263	7.8	20.0	1.0	10.4	--

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	ALKA- LITY (MG/L AS CAC03)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + DIS- ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)
NOV 03...	--	--	--	--	--	--	--	--
JAN 05...	9.0	.6	43	4.5	.08	.60	.02	0
MAY 10...	10	.4	97	7.6	--	--	--	200
JUL 12...	14	.6	110	8.3	--	--	--	200
SEP 13...	--	--	--	--	--	--	--	--

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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

11468500 NOYO RIVER NEAR FORT BRAGG, CA

LOCATION.--Lat 39°25'42", long 123°44'12", in NE¼ sec.15, T.18 N., R.17 W., Mendocino County, Hydrologic Unit 18010108, on right bank 0.7 mi (1.1 km) downstream from South Fork, and 3.5 mi (5.6 km) east of Fort Bragg.

DRAINAGE AREA.--106 mi<sup>2</sup> (275 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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 (3.575 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--27 years, 217 ft<sup>3</sup>/s (6.145 m<sup>3</sup>/s), 157,200 acre-ft/yr (194 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,600 ft<sup>3</sup>/s (753 m<sup>3</sup>/s) Mar. 29, 1974, gage height, 27.14 ft (8.272 m), from rating curve extended above 4,500 ft<sup>3</sup>/s (127 m<sup>3</sup>/s) on basis of slope-conveyance study; minimum daily, 0.79 ft<sup>3</sup>/s (0.022 m<sup>3</sup>/s) Sept. 8, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,400 ft<sup>3</sup>/s (68 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 14	1745	4260 121	12.90 3.932	Jan. 16	1200	3550 101	11.86 3.615
Jan. 5	1830	2490 70.5	10.12 3.085	Feb. 7	1515	3110 88.1	11.18 3.408
Jan. 9	0730	2780 78.7	10.63 3.240	Mar. 8	1445	*4500 127	13.24 4.036

Minimum daily discharge, 2.6 ft<sup>3</sup>/s (0.074 m<sup>3</sup>/s) Oct. 13-15, 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	17	18	263	169	135	162	178	36	22	9.4	6.1
2	7.1	12	17	353	407	176	153	159	36	21	8.8	5.8
3	5.6	8.8	16	400	421	293	144	139	36	20	9.3	5.8
4	4.8	10	16	470	375	461	284	124	35	20	7.7	6.1
5	4.0	51	16	1560	634	1000	289	112	33	19	4.4	11
6	3.5	47	16	1670	1170	966	701	103	33	18	6.0	13
7	3.3	28	16	958	2120	732	646	95	31	18	7.1	12
8	3.3	21	14	766	1930	3240	506	88	30	17	6.6	9.4
9	2.9	14	14	2080	1750	2080	395	82	29	17	6.5	29
10	2.8	10	13	1240	1220	1160	312	78	29	16	6.0	40
11	2.8	10	85	774	817	809	255	74	28	16	5.6	22
12	2.7	15	132	545	792	617	218	69	28	16	5.6	16
13	2.6	14	84	636	952	484	191	66	28	16	5.7	12
14	2.6	11	1800	1240	888	400	172	68	27	15	5.8	11
15	2.6	9.6	1290	2600	728	332	243	90	26	14	5.6	9.4
16	2.7	8.5	595	3230	570	286	267	83	26	14	5.6	8.8
17	3.5	7.2	898	2580	464	252	291	69	25	20	5.6	8.1
18	2.6	6.7	517	1560	387	226	263	63	25	12	5.3	7.2
19	2.6	5.6	311	1350	332	203	258	59	25	13	5.2	6.9
20	2.7	5.2	213	1160	289	184	293	56	24	12	5.1	6.6
21	2.8	97	321	862	254	173	289	53	24	11	5.2	6.7
22	2.8	336	851	635	227	161	269	52	24	12	5.1	6.8
23	3.1	110	664	475	207	157	249	49	22	11	5.3	6.5
24	4.2	60	436	375	190	139	233	48	23	11	5.9	6.4
25	8.8	43	305	308	181	124	254	47	22	10	10	6.1
26	9.3	35	248	263	167	117	291	46	22	10	12	7.8
27	7.5	30	360	229	154	111	260	41	22	9.4	9.5	11
28	9.8	26	348	204	142	104	236	41	22	9.7	7.9	11
29	28	21	327	183	---	99	210	41	23	9.9	7.1	10
30	42	20	317	170	---	95	195	40	23	9.7	6.5	8.3
31	30	---	282	156	---	98	---	39	---	9.6	6.1	---
TOTAL	222.3	1089.6	10540	29295	17937	15414	8529	2352	817	449.3	207.5	326.8
MEAN	7.17	36.3	340	945	641	497	284	75.9	27.2	14.5	6.69	10.9
MAX	42	336	1800	3230	2120	3240	701	178	36	22	12	40
MIN	2.6	5.2	13	156	142	95	144	39	22	9.4	4.4	5.8
AC-FT	441	2160	20910	58110	35580	30570	16920	4670	1620	891	412	648
CAL YR 1977 TOTAL	15077.12			MEAN 41.3	MAX 1800	MIN .79	AC-FT 29910					
WTR YR 1978 TOTAL	87179.50			MEAN 239	MAX 3240	MIN 2.6	AC-FT 172900					

11468500 NOYO RIVER NEAR FORT BRAGG, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1959-66, 1977.

WATER TEMPERATURES: Water years 1966 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: December 1965 to current year.

INSTRUMENTATION.--Temperature recorder since December 1965.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 24.5°C July 14, 22, 23, 1976, July 30, 1977; minimum recorded, 2.0°C Dec. 17-21, 1965.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 22.0°C July 18, Aug. 6, 7; minimum, 5.0°C Nov. 20.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	13.5	12.0	10.0	12.0	11.0	---	---	11.0	10.5	11.0	9.5
2	18.5	13.0	12.5	10.0	12.0	10.5	---	---	11.0	10.5	11.5	10.5
3	18.5	13.5	12.0	9.5	12.5	10.5	---	---	11.0	10.5	11.0	10.5
4	17.0	13.5	11.0	8.5	13.0	11.5	---	---	11.5	11.0	11.0	11.0
5	16.5	14.0	11.5	10.0	12.5	10.5	---	---	11.0	10.5	11.5	11.0
6	17.0	12.5	11.0	10.0	12.0	10.5	---	---	---	---	11.5	11.0
7	17.0	13.0	11.0	10.0	12.5	10.0	---	---	---	---	11.5	11.5
8	16.0	13.0	10.5	9.0	10.5	8.5	---	---	---	---	12.0	11.5
9	17.0	13.5	10.0	7.5	9.5	8.0	---	---	---	---	12.0	11.5
10	17.0	12.5	9.0	7.0	9.0	7.5	---	---	---	---	12.0	11.0
11	17.5	12.5	10.5	9.0	10.0	9.0	---	---	---	---	11.5	10.5
12	16.5	12.5	11.0	9.0	10.0	9.0	---	---	---	---	11.5	10.5
13	15.5	12.0	11.0	9.0	10.5	10.0	---	---	---	---	12.0	10.0
14	16.0	13.5	10.5	8.0	11.5	10.5	---	---	---	---	12.0	10.0
15	14.0	12.0	11.5	10.0	11.5	10.5	---	---	---	---	12.5	10.0
16	14.0	11.5	11.5	9.5	10.5	10.5	---	---	---	---	13.0	10.5
17	14.0	12.0	10.5	8.5	11.0	10.0	---	---	---	---	13.5	11.0
18	13.5	12.0	9.0	6.0	10.0	8.5	---	---	---	---	14.0	11.0
19	13.5	12.0	7.0	5.5	8.5	8.0	---	---	---	---	13.5	11.5
20	14.5	12.0	7.0	5.0	9.5	8.0	---	---	---	---	13.5	12.0
21	14.0	10.5	9.0	6.5	10.5	9.5	---	---	---	---	14.5	12.5
22	13.5	9.5	10.5	8.5	11.5	10.0	---	---	---	---	14.5	12.5
23	13.5	11.5	11.0	9.5	11.5	11.0	---	---	12.0	10.5	14.0	12.5
24	15.5	13.5	11.5	10.0	11.0	10.0	---	---	12.5	11.0	14.0	11.5
25	15.5	14.0	12.5	11.5	10.5	10.0	10.5	9.5	12.5	11.0	14.0	12.0
26	15.0	12.0	13.0	12.0	---	---	10.5	9.5	11.0	9.5	15.0	12.5
27	13.5	11.5	13.0	12.0	---	---	10.5	9.5	10.5	8.5	13.5	12.5
28	13.0	11.5	12.5	11.5	---	---	10.5	9.5	10.0	8.5	---	---
29	13.5	12.0	12.0	10.5	---	---	10.0	9.5	---	---	---	---
30	13.5	11.5	12.5	11.5	---	---	11.0	10.0	---	---	14.5	12.0
31	12.0	10.5	---	---	---	---	11.5	10.5	---	---	13.5	12.0
MONTH	18.5	9.5	13.0	5.0	13.0	7.5	11.5	9.5	12.5	8.5	15.0	9.5



11468500 NOYO RIVER NEAR PORT BRAGG, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.0	11.5	14.5	11.0	19.0	15.0	18.5	15.5	20.5	16.0	21.5	16.5
2	13.0	10.5	15.5	11.0	17.5	15.0	18.5	16.0	21.0	15.0	21.5	18.0
3	12.0	10.0	15.5	11.5	17.5	15.0	19.0	15.5	21.0	15.5	21.5	18.0
4	12.0	9.5	15.0	11.5	19.0	15.0	19.0	15.5	21.0	16.0	20.0	17.0
5	11.0	9.5	14.5	10.5	19.0	15.0	19.0	15.5	21.0	16.0	17.5	16.0
6	11.0	10.5	15.5	10.0	19.5	15.0	19.5	16.0	22.0	16.0	19.5	16.0
7	11.5	9.5	16.0	11.0	19.0	15.0	20.0	16.5	22.0	17.0	20.0	15.5
8	12.5	10.5	17.0	12.0	19.0	15.5	20.5	16.0	21.5	16.0	19.5	15.0
9	13.5	11.0	16.5	13.0	19.0	15.5	20.0	16.5	21.0	16.5	17.5	16.5
10	14.0	11.5	16.5	13.0	18.5	16.0	20.0	15.5	20.5	16.0	18.5	16.0
11	15.0	12.0	16.5	12.5	19.0	14.0	20.0	16.0	20.5	15.0	18.5	15.5
12	15.0	11.5	17.0	12.5	19.0	16.0	20.0	16.0	20.0	15.5	19.0	15.0
13	14.5	11.5	16.5	12.0	19.0	16.5	20.5	16.0	20.5	15.5	19.0	15.0
14	12.5	11.0	15.5	13.5	19.0	15.0	20.5	16.5	21.5	14.5	19.0	14.5
15	11.5	10.5	15.5	12.5	18.5	14.0	20.0	17.0	21.5	15.5	19.0	14.5
16	10.5	9.0	16.5	11.5	19.0	14.0	21.5	16.0	21.0	16.0	18.5	14.0
17	11.5	9.5	17.0	11.5	19.5	15.0	21.0	16.5	20.5	14.5	18.0	13.5
18	12.5	10.0	18.0	12.0	19.0	16.5	22.0	16.5	20.5	14.5	16.0	12.5
19	12.0	10.5	18.0	13.5	19.0	15.0	21.0	17.0	20.5	14.0	16.0	11.0
20	12.0	10.5	18.0	14.0	19.0	16.0	21.0	17.0	20.5	14.5	17.0	11.0
21	12.5	9.5	16.0	13.5	18.5	16.5	21.5	16.5	19.0	14.0	16.5	12.0
22	12.5	9.5	16.0	12.0	19.0	15.5	21.0	16.5	19.5	15.0	18.0	13.0
23	13.0	10.0	16.0	12.0	18.0	16.0	21.0	16.5	20.5	16.0	18.5	12.5
24	12.5	11.0	16.0	12.5	19.0	15.0	21.5	17.0	18.5	16.0	19.0	14.0
25	13.5	11.5	16.0	11.5	19.0	15.0	21.0	16.5	19.0	17.5	18.5	15.0
26	14.5	11.5	16.0	12.0	19.5	15.5	20.5	17.5	20.5	16.5	18.5	15.5
27	15.0	12.0	18.0	13.5	19.0	16.0	21.0	17.0	20.5	16.0	18.5	15.5
28	15.0	12.5	18.5	14.5	17.0	16.5	21.0	17.0	21.0	15.0	17.5	13.5
29	14.5	11.5	18.5	13.5	17.0	16.0	20.0	16.5	20.0	16.5	17.5	12.5
30	13.5	11.5	19.0	13.0	17.5	16.0	21.5	16.5	21.0	16.5	18.5	13.0
31	---	---	19.0	15.0	---	---	21.5	16.5	21.5	16.5	---	---
MONTH	15.0	9.0	19.0	10.0	19.5	14.0	22.0	15.5	22.0	14.0	21.5	11.0

## MATTOLE RIVER BASIN

11469000 MATTOLE RIVER NEAR PETROLIA, CA

LOCATION.--Lat 40°18'42", long 124°15'48", in NW¼ sec.11, T.2 S., R.2 W., Humboldt County, Hydrologic Unit 18010107, on right bank 0.2 mi (0.3 km) upstream from Clear Creek, 1.5 mi (2.4 km) southeast of Petrolia, and 1.7 mi (2.7 km) upstream from North Fork.

DRAINAGE AREA.--240 mi<sup>2</sup> (622 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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.

GAGE.--Water-stage recorder. Altitude of gage is 40 ft (12 m), from topographic map. November 1911 to December 1913, nonrecording gages at several sites upstream within 0.3 mi (0.5 km) of present site at various datums. Dec. 11, 1950, to July 14, 1955, at site 0.3 mi (0.5 km) upstream at datum 7.48 ft (2.280 m) higher. July 15, 1955, to Oct. 26, 1967, at site 0.4 mi (0.6 km) downstream at different datum.

REMARKS.--Records good except those for periods of no gage-height record, Dec. 15 to Feb. 1, Feb. 4 to Mar. 3, which are poor. Diversions for irrigation of about 350 acres (1.42 km<sup>2</sup>) above station.

AVERAGE DISCHARGE.--30 years, 1,369 ft<sup>3</sup>/s (38.77 m<sup>3</sup>/s) 991,800 acre-ft/yr (1.22 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90,400 ft<sup>3</sup>/s (2,560 m<sup>3</sup>/s) Dec. 22, 1955, gage height, 29.60 ft (9.022 m) site and datum then in use, from rating curve extended above 26,000 ft<sup>3</sup>/s (736 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; minimum daily, 17 ft<sup>3</sup>/s (0.48 m<sup>3</sup>/s) Sept. 5, 15, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 15,000 ft<sup>3</sup>/s (425 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Dec. 14	1030	*41200	1170	19.81	6.038	Jan. 16	unknown	32100	909	17.66	5.383
Jan. 5	unknown	22200	629	unknown		Feb. 7	do	17000	481	unknown	
Jan. 9	do	20000	566	do							

Minimum daily discharge, 36 ft<sup>3</sup>/s (1.02 m<sup>3</sup>/s) Aug. 11-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	358	680	953	4300	1800	1080	690	749	218	116	50	52
2	267	560	845	7700	3660	1230	620	673	218	116	49	50
3	211	451	784	6200	5550	1450	555	625	211	116	49	49
4	179	952	715	10000	4350	2620	830	572	207	113	47	61
5	156	3000	651	17000	6000	4140	1650	544	193	107	45	119
6	138	1700	608	13500	8800	3050	3200	509	190	101	47	138
7	125	1140	627	11000	12500	3280	2450	483	180	99	43	116
8	116	865	552	9900	8400	9850	1800	457	174	96	42	91
9	107	678	509	15500	7100	6200	1470	433	170	91	40	961
10	96	548	471	11500	6300	3830	1270	416	170	89	38	961
11	91	567	2070	9000	5300	2750	1110	387	170	83	36	398
12	86	560	2400	7300	6000	2140	1010	376	167	80	36	249
13	84	448	3460	7800	7000	1770	930	360	161	77	36	190
14	79	387	28500	13500	5400	1580	890	387	158	75	36	158
15	75	347	21000	20000	4550	1440	2100	656	152	72	36	136
16	72	315	15500	24000	3850	1270	1410	551	150	70	37	122
17	70	286	17000	17500	3350	1160	1250	427	144	68	39	110
18	69	263	12500	12500	3050	1040	1180	382	141	66	39	101
19	68	242	9200	9500	2700	940	1680	360	141	64	37	94
20	67	225	7000	7900	2450	860	1930	345	141	62	37	89
21	76	2650	5900	6300	2200	794	1690	330	136	61	37	86
22	68	6890	8400	5100	1980	740	1550	315	133	60	37	84
23	71	3470	10200	4250	1790	982	1420	301	133	59	37	82
24	85	2910	6900	3500	1640	890	1270	297	133	57	70	77
25	150	2370	5600	2950	1500	870	1460	288	128	58	283	77
26	290	2040	5000	2600	1370	790	1190	279	125	56	167	75
27	255	1670	8300	2300	1250	700	1040	274	122	54	107	72
28	240	1400	6300	2050	1170	630	940	257	116	54	84	70
29	530	1220	5100	1800	---	570	851	245	113	54	68	63
30	1400	1070	5000	1650	---	510	794	233	116	52	61	61
31	950	---	4600	1550	---	520	---	230	---	50	54	---
TOTAL	6629	39904	196245	269650	121010	59676	40230	12741	4711	2376	1824	4992
MEAN	214	1330	6330	8698	4322	1925	1341	411	157	76.6	58.8	166
MAX	1400	6890	28500	24000	12500	9850	3200	749	218	116	283	961
MIN	67	225	471	1550	1170	510	555	230	113	50	36	49
AC-FT	13150	79150	389300	534900	240000	118400	79800	25270	9340	4710	3620	9900
CAL YR 1977	TOTAL	295798	MEAN	810	MAX	28500	MIN	17	AC-FT	586700		
WTR YR 1978	TOTAL	759988	MEAN	2082	MAX	28500	MIN	36	AC-FT	1507000		

WATER-QUALITY RECORDS

WATER TEMPERATURES: Maximum, 25.5°C July 17, 18.

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH  (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 12...	1115	--	89	257	8.0	17.0	.00	10.0	--	--	--	--
FEB 08...	1020	8400	--	100	7.5	11.0	320	10.8	40	1	12	2.3
SEP 12...	1010	--	253	234	7.7	18.0	1.0	9.4	--	--	--	--

[illegible]

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCT		NOV		DEC		JAN		FEB		MAR	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	DAILY		DAILY		DAILY		DAILY		DAILY		DAILY	
1	--	--	13.5	12.0	11.5	10.5	--	--	--	--	--	--
2	--	--	13.0	11.5	11.5	10.0	--	--	--	--	--	--
3	--	--	13.0	11.0	11.5	10.5	--	--	12.0	--	11.5	--
4	--	--	11.0	10.0	13.0	11.5	--	--	--	--	12.5	12.0
5	--	--	11.5	10.5	12.0	11.0	--	--	--	--	13.0	12.0
6	--	--	12.5	11.0	11.5	10.5	--	--	--	--	13.0	12.0
7	--	--	12.0	11.0	12.0	10.0	--	--	--	--	13.0	12.5
8	--	--	11.0	9.5	10.0	8.5	--	--	--	--	13.0	12.5
9	17.5	14.5	10.5	8.5	9.5	8.0	--	--	--	--	13.0	12.0
10	17.5	14.0	11.0	9.0	9.5	8.0	--	--	--	--	13.0	12.0
11	17.0	15.0	11.5	10.5	11.0	9.5	--	--	--	--	12.5	11.5
12	17.0	15.0	11.5	10.0	--	--	--	--	--	--	12.0	10.5
13	17.0	15.0	12.5	11.0	--	--	8.5	--	--	--	12.0	11.0
14	16.5	15.0	12.0	10.5	--	--	--	--	--	--	12.5	10.5
15	16.5	15.0	13.5	11.5	--	--	--	--	--	--	13.0	10.5
16	16.0	15.0	12.0	10.5	--	--	--	--	--	--	13.5	11.0
17	16.0	15.0	10.5	9.5	--	--	--	--	--	--	13.5	11.5
18	16.0	15.0	9.5	7.5	--	--	--	--	--	--	14.5	12.5
19	16.5	15.0	9.5	7.5	--	--	--	--	--	--	15.0	12.5
20	16.0	15.0	8.5	6.5	--	--	--	--	--	--	14.5	13.0
21	15.5	12.5	11.5	8.5	--	--	--	--	--	--	14.5	13.0
22	15.5	12.5	11.5	10.0	--	--	--	--	--	--	14.5	13.0
23	15.5	14.5	11.5	10.5	--	--	--	--	--	--	14.5	13.5
24	15.5	14.5	12.5	11.5	--	--	--	--	--	--	14.5	13.0
25	15.5	14.5	13.5	12.5	--	--	--	--	--	--	15.0	12.5
26	14.5	13.5	13.5	12.5	--	--	--	--	--	--	16.0	13.5
27	13.5	13.0	12.5	11.5	--	--	--	--	--	--	16.0	13.5
28	13.5	12.5	12.0	11.5	--	--	--	--	--	--	16.0	13.5
29	12.5	12.5	12.5	11.5	--	--	--	--	--	--	16.0	14.5
30	12.5	12.5	11.5	11.0	--	--	--	--	--	--	16.5	13.5
31	12.5	12.0	--	--	--	--	--	--	--	--	16.5	14.0
MONTH	17.5	12.0	13.5	6.5	--	--	--	--	--	--	16.5	10.0
DAY	APR		MAY		JUN		JUL		AUG		SEP	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	DAILY		DAILY		DAILY		DAILY		DAILY		DAILY	
1	14.0	13.0	17.0	13.5	22.5	17.5	21.0	19.0	23.5	19.0	23.5	18.5
2	14.5	12.5	17.5	14.5	21.5	18.0	19.0	18.0	23.5	19.0	23.5	19.0
3	14.0	11.5	17.5	14.5	22.5	18.0	22.0	17.0	23.0	18.5	22.0	19.5
4	13.0	10.5	16.5	13.5	23.5	18.0	23.5	18.0	24.0	19.5	20.5	18.5
5	12.5	12.0	16.5	12.5	24.0	20.0	22.5	18.0	24.0	19.5	19.0	18.0
6	12.0	11.5	17.5	13.0	24.5	20.0	23.5	18.0	24.5	19.5	21.5	17.5
7	13.0	11.0	18.5	14.5	24.0	19.5	24.0	19.0	24.5	20.5	21.0	17.5
8	14.0	12.0	19.5	15.5	24.5	19.5	24.5	19.0	24.5	20.0	20.0	18.0
9	15.0	12.0	20.0	16.5	23.0	19.5	24.0	19.5	25.0	20.5	--	--
10	16.0	13.0	19.5	16.5	21.5	19.5	22.5	17.5	24.0	20.0	--	--
11	16.0	13.5	20.0	17.0	23.5	18.0	24.0	19.5	25.0	20.5	--	--
12	15.5	12.5	20.0	16.5	22.0	19.5	23.0	19.0	22.5	20.0	--	--
13	15.0	12.5	19.0	17.0	22.5	19.0	23.5	19.0	23.5	19.0	--	--
14	12.5	12.0	19.0	17.5	21.5	17.5	24.5	19.5	23.5	18.5	--	--
15	12.0	11.0	17.5	16.0	22.0	17.0	24.0	20.0	25.0	20.0	--	--
16	12.0	10.5	19.0	15.0	24.0	17.5	24.0	19.0	23.5	19.0	--	--
17	13.0	10.5	20.0	16.0	23.5	18.0	25.5	19.0	22.5	17.0	--	--
18	14.0	12.0	21.5	16.5	22.5	19.5	25.5	19.5	23.5	18.0	--	--
19	14.0	12.0	21.5	17.0	22.5	18.5	24.0	20.0	24.0	18.0	--	--
20	12.5	10.5	21.5	17.5	24.5	19.0	24.0	20.0	24.0	19.0	--	--
21	13.5	11.0	21.0	17.5	24.5	19.0	25.0	19.0	22.0	19.5	--	--
22	13.0	11.5	19.0	14.5	24.5	18.5	23.5	20.0	22.5	18.0	--	--
23	13.5	12.0	17.5	14.5	21.0	18.0	24.0	20.0	22.0	18.0	--	--
24	13.5	12.5	19.0	15.0	20.0	17.0	24.0	20.0	20.5	18.5	--	--
25	15.0	12.5	19.0	15.0	22.0	17.0	24.0	19.5	21.5	18.0	--	--
26	16.0	13.5	18.5	15.5	23.5	17.5	24.0	20.0	22.5	18.5	--	--
27	16.5	13.5	21.5	16.5	24.5	18.5	24.5	19.0	22.5	18.0	--	--
28	15.5	14.0	22.5	17.0	22.5	19.0	24.0	19.0	23.0	18.0	--	--
29	16.5	13.5	21.5	16.5	20.0	18.5	23.5	19.0	23.0	18.5	--	--
30	15.5	14.0	21.5	16.0	22.5	18.0	24.5	19.0	23.5	19.0	--	--
31	--	--	22.5	17.0	--	--	24.5	18.5	23.5	19.0	--	--
MONTH	16.5	10.5	22.5	12.5	24.5	17.0	25.5	17.0	25.0	17.0	--	--

## 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 (0.5 km) downstream from Rice Fork, and 10.2 mi (16.4 km) northeast of town of Potter Valley.

DRAINAGE AREA.--289 mi<sup>2</sup> (749 km<sup>2</sup>).

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 (24.90 m) 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. Usable capacity, 86,400 acre-ft (107 hm<sup>3</sup>) between gage heights 1,822.4 ft (555.47 m), sill of outlet gate and 1,910.0 ft (582.17 m), top of spillway gates; dead storage, 397 acre-ft (490,000 m<sup>3</sup>); spillway at gage height 1,900.0 ft (579.12 m). Water is released down Eel River to Van Arsdale Reservoir, from which it is diverted through tunnel to Potter Valley powerhouse; part is then used for irrigation and remainder flows into East Fork Russian River. Records given herein represent total contents.

COOPERATION.--Records furnished by Pacific Gas and Electric Co. in connection with a Federal Energy Regulatory Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 95,600 acre-ft (118 hm<sup>3</sup>) May 13, 16, 1925, gage height, 1,910.8 ft (582.41 m); maximum gage height, 1,911.84 ft (582.729 m) Dec. 22, 1964, from floodmarks; minimum contents, 10 acre-ft (12,300 m<sup>3</sup>) Dec. 9, 10, 1931, gage height, 1,822.5 ft (555.50 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 86,900 acre-ft (107 hm<sup>3</sup>) May 17, gage height, 1,910.05 ft (582.183 m); minimum, 8,900 acre-ft (11.0 hm<sup>3</sup>) Oct. 28, gage height, 1,850.35 ft (563.987 m).

Capacity table (gage height, in feet, and contents, in acre-feet)

1822.4	397	1840	3990	1865	19100	1890	48400
1824	534	1845	6080	1870	23500	1895	56700
1827	864	1850	8690	1875	28700	1900	65800
1830	1310	1855	11800	1880	34500	1905	75800
1835	2410	1860	15200	1885	41100	1910	86800

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9857	9411	20518	67461	67205	67597	69275	83348	86110	76880	69715	60437
2	9857	9393	20650	67969	68381	67697	70477	83370	85995	76740	69415	60167
3	9839	9405	20764	68342	68481	68915	71322	83194	85885	76656	69115	59789
4	9821	9675	20852	68500	68127	70557	73120	83748	85770	76466	68915	59467
5	9796	9968	20940	73326	69875	71080	74507	84535	85995	76255	68639	59145
6	9796	10098	20112	71890	71869	70456	79243	84985	85816	75833	68361	58967
7	9796	10166	21083	69775	73946	69335	80114	85435	85660	75622	68205	58629
8	9796	10204	21146	69375	72094	72851	80768	86423	85435	75411	67873	58435
9	9796	10222	21218	74341	71686	71686	81204	86670	84535	75200	67441	58081
10	9796	10247	21272	70255	70075	70396	82128	86785	84310	75137	67090	58081
11	9796	10247	21497	69475	69395	69535	82750	86785	84085	74948	66740	58064
12	9796	10278	21942	69075	69135	69295	82528	86785	83814	74570	66145	57504
13	9796	10296	22163	70537	69335	68679	82750	86785	83504	74362	65953	56929
14	9585	10296	31460	72914	69035	68659	82860	86785	82972	74154	65741	56359
15	9531	10296	39347	74154	68698	68225	83194	86785	82528	73946	65472	55793
16	9495	10316	42172	77736	68342	68089	83860	86785	82084	73738	65013	55263
17	9459	10302	48228	74633	68185	68089	83926	86785	81640	73552	64841	54583
18	9429	10290	50624	71484	68285	67793	83993	86110	81204	73366	64462	54244
19	9399	10284	51935	71140	68285	67697	83726	86220	81050	73120	64048	54142
20	9357	10322	53119	70276	68185	67637	84173	86200	80571	72914	63784	53957
21	9321	14524	54617	69415	68539	67637	84668	86335	80222	72298	63410	53891
22	9291	17017	55622	68877	68165	67697	84557	86514	79678	71990	63151	53840
23	9261	17993	63577	68481	68165	67735	84376	86582	79133	71686	62930	53806
24	9255	18535	67285	68205	67989	67597	83504	86560	78594	71402	62484	53521
25	9237	19082	67657	67893	67989	67501	83993	86560	78164	71564	62318	53119
26	9219	19543	67501	67697	67697	67401	84173	86560	77841	71382	62007	52427
27	9195	19838	68342	69575	67912	67813	84151	86560	77649	71039	61841	51983
28	9201	20064	68323	67501	67853	67793	84085	86445	77415	70738	61693	51445
29	9237	20236	67969	67501	---	67305	84085	86401	77204	70477	61291	50816
30	9309	20390	68049	67461	---	67305	83860	86648	76993	70235	60963	50288
31	9363	---	67893	67381	---	67501	---	86335	---	70015	60708	---
MAX	9857	20390	68342	77736	73946	72851	84668	86785	86110	76880	69715	60437
MIN	9195	9393	20112	67381	67205	67305	69275	83194	76993	70015	60708	50288
(†)	1851.14	1866.58	1901.10	1900.84	1901.08	1900.90	1908.70	1909.80	1905.55	1902.17	1897.29	1891.18
(‡)	-482	+11000	+47500	-512	+472	-352	+16400	+2480	-9340	-6980	-9310	-10400

CAL YR 1977 † +57900

WTR YR 1978 ‡ +40400

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet, rounded to Geological Survey standards.

## EEL RIVER BASIN

11470500 EEL RIVER BELOW SCOTT DAM, NEAR POTTER VALLEY, CA

LOCATION.--Lat 39°24'29", long 122°58'13", in SE¼ sec.15, T.18 N., R.10 W., Lake County, Hydrologic Unit 18010103, Mendocino National Forest, on left bank 0.4 mi (0.6 km) upstream from Soda Creek, 0.7 mi (1.1 km) downstream from Scott Dam, and 9.7 mi (15.6 km) northeast of town of Potter Valley.

DRAINAGE AREA.--290 mi<sup>2</sup> (751 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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 as "at Hullville."

REVISED RECORDS.--WSP 1315-B: 1923(M), 1938(M). WSP 1395: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,740 ft (530 m), from topographic map. Prior to Dec. 15, 1930, at datum 3.00 ft (0.914 m) higher.

REMARKS.--Flow regulated by Lake Pillsbury (station 11470000) 0.7 mi (1.1 km) upstream. No diversion above station.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--56 years, 547 ft<sup>3</sup>/s (15.49 m<sup>3</sup>/s), 396,300 acre-ft/yr (489 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,300 ft<sup>3</sup>/s (1,590 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 24.24 ft (7.388 m), from floodmarks, from rating curve extended above 9,400 ft<sup>3</sup>/s (266 m<sup>3</sup>/s) on basis of computed flow over Scott Dam at gage heights 18.50 ft (5.639 m) and 21.85 ft (6.660 m); minimum daily, 0.1 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Sept. 8, 1924.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,800 ft<sup>3</sup>/s (447 m<sup>3</sup>/s) Jan. 16, gage height, 14.48 ft (4.414 m); minimum daily, 15 ft<sup>3</sup>/s (0.42 m<sup>3</sup>/s) Dec. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	20	18	840	622	691	418	835	310	165	145	153
2	20	20	18	1120	1230	821	240	646	311	163	147	157
3	20	20	15	1570	1400	1680	211	416	311	162	146	157
4	21	21	19	1890	1140	3350	181	248	311	160	147	157
5	20	21	19	6890	2320	4190	150	193	312	160	146	158
6	18	21	19	6200	4640	3470	2080	207	330	159	145	158
7	16	20	19	3240	7050	2480	2890	223	353	159	145	157
8	16	20	19	2560	6120	5170	1000	224	353	158	147	156
9	16	21	19	7590	5160	5180	826	223	345	153	151	158
10	16	21	19	4370	3510	3460	713	355	341	148	150	157
11	16	21	19	2980	2490	2530	726	444	346	147	150	230
12	16	21	19	2530	2220	1970	733	444	344	147	150	300
13	18	21	19	3790	2440	1570	738	439	343	149	150	301
14	20	21	33	6740	1990	1300	738	441	340	151	150	301
15	20	21	34	10200	1640	1120	750	508	341	151	152	300
16	20	21	28	13800	1390	997	762	563	341	150	154	299
17	20	22	32	10700	1230	915	762	558	343	150	154	298
18	20	20	25	5600	1160	859	760	459	344	149	154	179
19	20	20	24	4630	1150	807	761	349	341	149	154	85
20	20	20	23	3540	1130	767	772	307	339	149	154	85
21	20	25	24	2600	1100	740	867	281	335	148	154	85
22	20	29	29	1990	1060	718	956	282	328	148	152	85
23	20	25	18	1570	1010	722	943	285	325	147	152	84
24	20	25	263	1260	959	716	933	289	322	147	152	181
25	20	24	914	1070	900	653	942	291	317	147	151	299
26	20	24	894	948	859	616	951	298	241	147	151	302
27	20	24	1360	850	800	588	949	304	171	146	151	304
28	20	24	1490	772	738	574	948	305	169	146	151	305
29	20	24	1250	712	---	566	936	306	167	145	151	306
30	20	24	1200	662	---	550	930	309	165	145	151	305
31	20	---	1000	616	---	493	---	309	---	144	151	---
TOTAL	593	661	8882	113830	57458	50263	25566	11341	9239	4689	4658	6202
MEAN	19.1	22.0	287	3672	2052	1621	852	366	308	151	150	207
MAX	21	29	1490	13800	7050	5180	2890	835	353	165	154	306
MIN	16	20	15	616	622	493	150	193	165	144	145	84
AC-FT	1180	1310	17620	225800	114000	99700	50710	22490	18330	9300	9240	12300
CAL YR 1977 TOTAL	20462.0		MEAN 56.1	MAX 1490	MIN 4.9	AC-FT 40590						
WTR YR 1978 TOTAL	293382.0		MEAN 804	MAX 13800	MIN 15	AC-FT 581900						

11470500 EEL RIVER BELOW SCOTT DAM, NEAR POTTER VALLEY, CA--Continued

## WATER-QUALITY RECORDS

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

WATER TEMPERATURES: Water years 1964 to current year.

SEDIMENT RECORDS: Water years 1966-67.

TURBIDITY: Water years 1966-67, 1969-71.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1963 to current year.

INSTRUMENTATION.--Temperature recorder since October 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 24.0 Sept. 5-8, 1977; minimum recorded, 4.5°C on several days in 1969.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 21.5°C Sept. 16, 18; minimum, 7.0°C Jan. 4-8.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.0	18.0	15.5	14.5	8.5	8.5	8.5	8.0	8.0	8.0	10.0	9.0
2	19.5	17.0	15.5	14.5	9.0	8.5	8.5	8.0	8.0	8.0	10.0	9.5
3	19.5	17.0	15.0	14.0	9.5	8.5	8.5	8.0	8.0	8.0	9.5	8.5
4	19.5	17.0	14.5	14.0	9.5	9.5	8.0	7.0	8.0	8.0	9.0	8.5
5	19.0	16.5	14.5	14.0	9.5	9.0	8.0	7.0	8.0	8.0	9.0	8.0
6	19.0	16.5	14.5	14.0	9.5	9.0	8.0	7.0	8.0	8.0	8.5	8.0
7	19.0	16.0	14.5	13.5	9.5	9.0	8.0	7.0	8.0	8.0	8.5	8.5
8	19.0	15.5	14.5	13.5	9.0	8.5	8.0	7.0	8.0	8.0	9.0	8.5
9	19.0	15.5	14.0	13.0	9.5	9.0	8.5	8.0	8.0	8.0	9.0	8.5
10	19.0	15.5	14.0	12.0	9.0	8.5	8.5	8.0	8.0	8.0	9.0	8.5
11	19.0	15.5	13.5	12.0	9.0	9.0	8.5	8.0	8.5	8.0	9.5	9.0
12	19.0	15.5	13.0	12.0	9.5	9.0	8.5	8.0	8.5	8.5	9.5	9.0
13	18.5	15.5	13.0	12.0	9.5	9.5	8.5	8.5	8.5	8.5	9.5	9.0
14	18.5	15.5	13.0	11.5	10.0	9.0	9.0	8.5	8.5	8.0	9.0	9.0
15	18.5	15.5	13.0	11.5	10.0	9.5	9.0	8.5	8.5	8.0	9.0	9.0
16	18.0	15.5	13.0	11.5	9.5	9.0	9.0	8.5	8.5	8.0	10.5	9.0
17	18.0	15.5	12.0	11.0	9.5	9.0	8.5	8.5	8.0	8.0	10.0	9.0
18	18.0	15.5	11.0	10.5	9.5	9.0	9.0	8.5	8.0	8.0	10.5	9.0
19	18.0	15.5	10.5	10.0	9.0	8.5	9.0	9.0	8.0	8.0	10.0	9.5
20	18.0	15.5	10.0	9.5	9.0	8.5	9.0	9.0	8.0	8.0	10.5	10.0
21	17.0	15.0	9.5	9.0	9.0	8.5	9.0	9.0	8.5	8.0	11.0	10.5
22	17.0	15.0	9.0	9.0	8.5	8.0	9.0	9.0	9.0	8.5	11.5	11.0
23	16.5	15.0	9.0	8.5	9.0	8.5	9.0	9.0	9.0	8.5	11.0	10.5
24	16.5	15.0	9.0	8.5	8.5	8.5	9.0	8.5	9.0	8.5	11.0	10.0
25	16.0	15.0	9.0	8.5	8.5	8.0	8.5	8.5	9.0	8.5	11.5	11.0
26	16.5	15.5	9.0	8.5	8.5	8.0	8.5	8.5	9.0	8.5	13.0	11.5
27	17.0	15.5	8.5	8.5	8.5	8.0	8.5	8.5	9.5	8.5	13.0	11.0
28	17.0	15.0	8.5	8.0	8.5	8.0	8.5	8.5	10.0	9.0	13.0	11.0
29	16.0	15.0	8.5	8.0	8.5	8.0	8.5	8.5	---	---	13.0	11.5
30	15.5	15.0	8.5	8.0	8.5	8.0	8.5	8.0	---	---	13.5	12.0
31	15.5	15.0	---	---	8.5	8.0	8.5	8.0	---	---	13.0	13.0
MONTH	20.0	15.0	15.5	8.0	10.0	8.0	9.0	7.0	10.0	8.0	13.5	8.0

## EEL RIVER BASIN

11470500 EEL RIVER BELOW SCOTT DAM, NEAR POTTER VALLEY, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.0	10.0	14.5	14.0	14.5	14.0	13.5	13.0	15.5	15.0	18.5	18.5
2	10.5	10.0	14.5	14.5	14.5	14.0	13.5	13.0	16.0	15.5	18.5	18.0
3	10.5	10.0	14.5	13.0	14.5	14.0	13.5	13.0	16.0	15.5	19.0	18.5
4	10.5	10.0	13.0	12.0	14.5	14.0	13.5	13.0	16.0	15.5	19.0	18.5
5	10.5	10.5	13.0	12.0	14.5	14.0	14.0	13.5	16.0	15.5	19.0	18.5
6	10.5	10.5	13.0	12.0	14.0	14.0	14.5	14.0	16.0	15.5	18.5	18.5
7	11.0	10.5	13.0	12.0	14.0	14.0	15.0	14.0	16.5	15.5	19.0	18.5
8	11.0	11.0	13.0	12.0	14.0	13.5	15.0	14.5	16.5	15.5	19.0	18.5
9	11.5	11.0	13.0	12.0	13.5	13.5	15.0	14.5	16.5	16.0	19.0	18.5
10	11.5	11.0	14.5	12.0	13.5	13.5	15.5	15.0	16.5	16.0	19.0	19.0
11	11.5	11.0	15.0	14.0	13.5	13.5	15.5	15.0	16.5	15.5	20.0	19.0
12	11.5	11.0	15.0	14.5	13.5	13.5	15.5	15.0	16.5	16.0	20.5	20.0
13	12.0	11.5	15.0	14.0	14.0	13.5	16.0	15.0	16.5	16.0	20.5	20.0
14	12.0	11.5	14.5	14.5	14.0	13.5	16.0	15.5	17.0	16.5	21.0	20.5
15	12.0	11.5	14.5	14.0	14.5	14.0	16.0	15.5	17.0	16.5	21.0	21.0
16	13.0	12.0	14.5	14.0	14.5	14.0	16.5	16.0	17.0	16.5	21.5	21.0
17	13.0	13.0	14.5	14.0	14.5	14.0	16.5	16.0	17.0	16.5	21.0	21.0
18	13.0	12.0	14.5	13.0	14.5	14.0	16.5	16.0	17.0	16.5	21.5	21.0
19	12.0	12.0	13.5	13.0	14.5	14.0	16.5	16.0	17.0	16.5	21.0	20.5
20	12.0	12.0	13.5	13.0	14.5	14.0	16.5	16.0	17.0	16.5	21.0	20.0
21	13.0	12.0	13.5	13.0	14.5	13.5	16.5	16.0	17.0	16.5	21.0	20.0
22	13.0	12.0	13.0	13.0	14.0	13.5	16.0	15.5	17.0	16.5	21.0	20.0
23	13.0	13.0	13.0	13.0	14.0	13.5	16.0	15.5	17.0	16.5	21.0	20.5
24	13.0	12.0	13.0	13.0	14.0	13.5	16.0	15.5	18.0	17.0	21.0	20.5
25	13.0	12.0	13.5	13.0	13.5	13.5	16.0	15.5	18.0	17.0	20.5	20.5
26	13.5	13.0	13.5	13.0	14.0	13.5	16.0	15.5	18.0	17.0	20.5	20.5
27	13.5	13.0	14.0	13.0	14.0	13.5	16.0	15.5	18.0	17.0	20.5	20.5
28	14.5	13.5	14.0	13.0	14.0	13.5	16.0	15.0	18.5	18.0	20.5	20.5
29	14.5	13.5	14.0	13.5	14.0	13.5	15.5	15.0	18.5	18.0	20.5	20.5
30	14.5	13.5	14.0	13.5	14.0	13.5	15.5	15.0	18.5	18.5	20.5	20.5
31	---	---	14.0	13.5	---	---	15.5	15.0	18.5	18.5	---	---
MONTH	14.5	10.0	15.0	12.0	14.5	13.5	16.5	13.0	18.5	15.0	21.5	18.0



## 11471000 POTTER VALLEY POWERHOUSE TAILRACE NEAR POTTER VALLEY, CA

LOCATION.--Lat 39°21'42", long 123°07'38", in SW¼NW¼ sec.6, T.17 N., R.11 W., Mendocino County, Hydrologic Unit 18010103 on right bank 100 ft (30 m) downstream from powerhouse of Pacific Gas and Electric Co., 1.8 mi (2.9 km) southwest of Van Arsdale Dam, and 2.9 mi (4.7 km) northwest of town of Potter Valley.

## WATER-DISCHARGE RECORDS

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 tailrace near Potter Valley.

REVISED RECORDS.--WSP 1395: 1950.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 1,020 ft (311 m), from topographic map. No gage prior to Dec. 1, 1922. Dec. 1, 1922, to Sept. 30, 1923, nonrecording gage and Oct. 1, 1923, to Apr. 12, 1950, water-stage recorder, at site 50 ft (15 m) upstream at different datum.

REMARKS.--Water is diverted from Eel River above Van Arsdale Dam. After passing through powerhouse, part of it is used for irrigation in Potter Valley and remainder flows into East Fork Russian River. Water for irrigation diverted from tailrace is included in figures of discharge.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--68 years (water years 1911-78), 201 ft<sup>3</sup>/s (5.692 m<sup>3</sup>/s), 145,600 acre-ft/yr (180 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD (1922 TO CURRENT YEAR).--Maximum daily discharge, 348 ft<sup>3</sup>/s (9.86 m<sup>3</sup>/s) Apr. 24, 1953; no flow at times in several years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	19	20	277	290	290	289	305	299	165	148	149
2	21	16	25	291	289	290	290	306	298	157	141	149
3	19	18	16	268	289	290	294	306	298	156	139	149
4	17	18	22	241	289	269	293	306	298	157	146	150
5	17	41	24	194	277	278	293	291	279	158	146	147
6	18	25	22	280	285	286	291	296	298	162	146	145
7	18	25	20	273	289	288	293	309	299	155	148	154
8	17	23	18	289	290	284	298	310	298	152	149	159
9	17	20	21	263	293	289	297	302	298	152	148	212
10	12	19	23	283	278	289	298	303	298	154	152	178
11	13	21	25	278	287	289	298	311	299	153	151	188
12	12	21	42	282	288	289	298	313	298	151	151	315
13	14	21	29	276	292	289	299	313	298	150	152	320
14	15	21	104	264	293	289	299	313	298	150	150	321
15	16	21	243	253	297	290	299	310	296	147	149	321
16	17	19	289	293	297	289	299	310	298	146	150	320
17	17	18	294	292	297	289	300	310	298	145	151	320
18	17	19	285	292	297	289	300	309	297	145	152	239
19	16	20	188	287	297	288	300	311	298	148	152	60
20	15	18	128	282	297	289	300	311	301	151	153	55
21	15	117	110	293	295	289	301	298	298	148	154	51
22	15	188	248	292	293	289	301	298	319	147	151	55
23	16	140	274	288	289	289	301	303	320	146	148	58
24	19	73	297	279	290	289	301	298	316	152	148	104
25	18	55	285	293	290	289	302	298	315	148	148	308
26	16	44	293	290	289	289	302	300	293	147	148	313
27	15	40	272	291	290	289	302	306	143	145	148	320
28	16	35	284	291	289	289	303	298	162	146	148	315
29	22	31	294	291	---	291	304	297	179	147	147	321
30	24	33	293	288	---	293	305	298	158	147	148	320
31	24	---	276	291	---	293	---	298	---	147	149	---
TOTAL	528	1179	4764	8645	8136	8932	8950	9437	8447	4674	4611	6216
MEAN	17.0	39.3	154	279	291	288	298	304	282	151	149	207
MAX	24	188	297	293	297	293	305	313	320	165	154	321
MIN	12	16	16	194	277	269	289	291	143	145	139	51
AC-FT	1050	2340	9450	17150	16140	17720	17750	18720	16750	9270	9150	12330

CAL YR 1977 TOTAL 17214.3 MEAN 47.2 MAX 297 MIN 2.0 AC-FT 34140  
WTR YR 1978 TOTAL 74519.0 MEAN 204 MAX 321 MIN 12 AC-FT 147800

## EEL RIVER BASIN

11471000 POTTER VALLEY POWERHOUSE TAILRACE NEAR POTTER VALLEY, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1952-66. Published as "East Fork Russian River at Potter Valley" in 1952-59.

WATER TEMPERATURES: Water years 1964 to current year.

SEDIMENT RECORDS: Water years 1964-68.

TURBIDITY: Water years 1964-71.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: September 1965 to current year.

SEDIMENT RECORDS: March 1964 to May 1968.

INSTRUMENTATION.--Temperature recorder since September 1965.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 27.0°C July 30, 31, 1977; minimum, 2.0°C Jan. 9, 1977.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 22.5°C Aug. 8, 9; minimum, 6.0°C Dec. 19.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	17.0	---	---	10.5	8.5	8.0	7.5	8.5	7.5	10.5	9.0
2	19.0	17.0	---	---	9.5	8.5	8.5	8.0	9.0	8.0	11.0	10.0
3	19.0	17.0	---	---	9.5	8.5	8.5	8.0	9.0	8.5	10.5	9.0
4	18.5	17.0	---	---	10.5	9.5	9.0	8.5	9.0	8.5	10.0	9.0
5	18.5	17.0	---	---	11.5	10.5	8.5	8.5	9.0	9.0	10.0	8.5
6	18.0	16.5	---	---	11.5	10.5	9.0	8.5	9.0	9.0	10.0	8.5
7	18.0	16.0	---	---	11.0	10.5	9.0	8.5	9.0	9.0	10.0	9.5
8	18.0	16.0	---	---	11.0	9.5	9.5	9.0	9.0	9.0	10.5	10.0
9	18.0	16.0	11.0	10.0	9.5	7.5	9.5	9.0	9.0	8.5	10.5	9.5
10	18.0	16.0	11.0	9.5	8.0	6.5	9.0	8.5	9.0	8.5	10.5	10.0
11	18.0	16.5	10.5	10.0	7.5	7.0	9.0	9.0	8.5	8.0	10.5	9.5
12	17.5	16.0	11.5	10.0	8.0	7.0	9.0	9.0	8.0	8.0	11.0	9.5
13	17.5	16.0	11.5	10.5	9.0	8.0	9.0	8.5	8.5	8.0	10.5	9.5
14	17.0	16.0	11.5	10.5	11.0	9.0	8.5	8.5	8.5	8.0	10.5	9.0
15	17.0	15.5	12.0	10.5	10.5	9.0	8.5	8.5	8.5	7.5	10.5	8.5
16	17.0	15.0	12.0	10.5	9.0	8.0	9.0	8.5	8.0	8.0	11.5	8.5
17	17.0	15.0	11.5	10.0	9.0	8.0	9.0	8.5	8.5	8.0	11.0	8.5
18	17.0	15.0	11.0	10.0	9.0	7.5	9.0	9.0	9.5	8.5	11.5	9.0
19	16.5	15.0	10.0	8.5	7.5	6.0	9.0	9.0	9.5	8.0	11.5	9.0
20	16.0	14.5	8.5	7.0	7.0	6.5	9.0	8.5	9.5	8.0	12.0	10.0
21	15.5	14.0	7.5	6.5	8.5	7.0	9.0	8.5	9.5	8.0	11.5	10.5
22	15.0	14.0	8.5	6.5	9.0	8.0	9.0	8.5	10.5	8.5	12.5	11.0
23	15.0	14.5	9.0	8.5	9.5	9.0	8.5	8.0	11.0	8.5	12.0	10.5
24	16.0	15.0	10.5	9.0	9.5	8.0	8.5	7.5	11.0	9.0	12.5	9.5
25	16.5	16.0	11.5	10.0	8.5	8.0	8.5	7.5	11.0	9.5	13.0	10.5
26	---	---	12.5	11.0	8.5	8.0	8.5	7.5	11.0	8.5	13.5	11.5
27	---	---	12.5	11.5	9.0	8.5	8.5	7.0	10.5	8.5	14.5	11.5
28	---	---	12.0	10.0	8.5	8.0	8.5	7.0	11.0	8.5	14.0	11.0
29	---	---	11.0	9.0	8.5	8.0	8.5	7.0	---	---	13.5	11.5
30	---	---	10.5	9.5	8.5	8.0	8.0	7.0	---	---	14.5	12.5
31	---	---	---	---	8.0	7.5	8.0	7.5	---	---	13.5	12.5
MONTH	19.0	14.0	12.5	6.5	11.5	6.0	9.5	7.0	11.0	7.5	14.5	8.5

11471000 POTTER VALLEY POWERHOUSE TAILRACE NEAR POTTER VALLEY, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.5	11.0	14.5	12.0	17.5	14.0	20.0	17.5	22.0	19.0	21.0	18.5
2	11.0	9.0	15.5	12.0	18.0	14.5	19.0	17.0	22.0	19.0	21.0	18.5
3	10.5	9.5	16.0	12.5	18.0	15.0	19.5	16.5	22.0	19.0	20.5	18.5
4	10.5	8.5	14.0	11.5	18.5	15.0	20.0	17.5	22.0	19.5	20.5	19.0
5	10.0	9.0	14.0	11.5	18.5	15.0	20.5	17.5	22.0	19.5	20.0	18.0
6	10.5	8.5	14.5	11.5	18.5	15.0	20.5	18.0	22.0	19.5	18.5	17.5
7	11.5	9.5	15.0	12.0	18.5	14.5	21.0	18.0	22.0	19.5	19.5	17.5
8	12.0	10.0	15.5	12.0	18.5	15.0	21.5	18.5	22.5	19.5	19.5	17.5
9	13.0	9.5	15.5	12.5	18.5	15.0	21.5	19.5	22.5	19.5	19.5	17.5
10	13.5	10.0	15.5	13.0	18.0	15.0	21.5	19.5	22.0	19.0	19.5	17.0
11	14.0	10.5	16.5	12.5	18.5	14.5	21.5	19.0	21.0	18.5	19.5	17.0
12	14.0	11.0	17.0	13.0	18.5	15.0	21.0	18.5	20.5	18.5	20.5	17.5
13	14.0	11.0	17.0	13.0	18.0	14.5	21.0	18.5	20.5	18.5	20.5	17.5
14	12.5	11.0	16.0	13.5	17.5	14.5	21.5	18.5	21.0	18.5	20.5	17.5
15	11.5	11.0	14.5	13.5	17.5	14.0	21.5	19.0	21.0	18.5	20.5	18.0
16	12.0	11.0	16.5	12.5	18.0	14.0	21.5	18.5	21.0	18.5	20.5	18.5
17	12.5	10.5	16.5	13.0	18.0	14.5	21.5	18.5	21.0	18.5	20.5	17.5
18	13.5	11.0	16.5	13.0	18.5	15.0	21.5	19.0	20.0	17.5	20.0	17.5
19	11.5	11.0	16.0	12.5	18.5	15.0	21.5	19.5	20.0	17.5	20.5	17.0
20	12.0	11.0	16.0	12.5	18.5	15.0	21.5	19.0	20.5	18.0	20.0	17.0
21	13.0	10.5	16.5	13.5	19.0	15.5	21.5	19.0	19.5	18.0	20.0	17.0
22	13.0	10.5	16.0	13.5	18.5	15.0	22.0	19.5	18.5	16.5	20.5	17.0
23	13.0	11.0	15.5	12.5	18.5	15.5	22.0	19.5	19.0	16.5	21.0	17.5
24	12.0	11.5	14.5	12.0	18.5	15.5	22.0	19.5	18.5	17.5	21.0	17.5
25	13.0	11.5	15.0	12.0	18.5	15.0	22.0	19.5	18.5	16.5	20.0	18.0
26	13.5	11.5	16.5	13.0	18.5	15.5	21.5	19.0	19.5	17.5	20.0	18.5
27	14.0	11.0	17.5	13.5	18.5	16.0	21.5	19.0	20.0	17.5	20.0	17.5
28	14.0	11.5	17.5	14.0	18.5	17.0	21.5	18.5	21.0	18.0	20.0	17.5
29	14.5	12.0	17.5	14.5	19.5	17.5	21.0	18.5	21.0	18.5	20.0	17.5
30	14.0	11.5	18.0	14.5	20.0	17.5	21.5	18.5	21.0	19.0	20.0	17.5
31	---	---	17.5	14.0	---	---	21.5	18.5	21.0	18.5	---	---
MONTH	14.5	8.5	18.0	11.5	20.0	14.0	22.0	16.5	22.5	16.5	21.0	17.0

## EEL RIVER BASIN

## 11471500 EEL RIVER AT VAN ARSDALE DAM, NEAR POTTER VALLEY, CA

LOCATION.--Lat 39°23'19", long 123°06'54", in NE¼ sec.30, T.18 N., R.11 W., Mendocino County, Hydrologic Unit 18010103, on left bank 1,000 ft (305 m) downstream from Van Arsdale Dam, and 4.6 mi (7.4 km) north of town of Potter Valley.

DRAINAGE AREA.--349 mi<sup>2</sup> (904 km<sup>2</sup>).

PERIOD OF RECORD.--November 1909 to September 1922 (combined monthly discharge only, of Eel River at this station and Snow Mountain Water and Power Co.'s tailrace near Potter Valley), 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 Van Arsdale Dam, near Potter Valley.

REVISED RECORDS.--WSP 1315-B: 1913, 1920-23, 1925-27. WSP 1395: 1923(M), 1938.

GAGE.--Water-stage recorder. Altitude of gage is 1,400 ft (427 m), from topographic map. Nov. 18, 1909, to Mar. 3, 1927, recorder in reservoir 800 ft (244 m) upstream from Van Arsdale Dam at different datum. Oct. 1, 1927, to Feb. 28, 1937, nonrecording gage at present site and datum.

REMARKS.--Flow regulated by Lake Pillsbury (station 11470000) 11 mi (18 km) upstream. Water is diverted from Van Arsdale Reservoir through tunnel to Potter Valley powerhouse (station 11471000) after which part is used for irrigation and remainder flows into East Fork Russian River. Records given herein show only flow passing dam down Eel River.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE (combined flow of Eel River at Van Arsdale Dam and Potter Valley powerhouse tailrace).--68 years (water years 1910-78), 640 ft<sup>3</sup>/s (18.12 m<sup>3</sup>/s), 463,700 acre-ft/yr (572 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,100 ft<sup>3</sup>/s (1,820 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 33.9 ft (10.33 m), from floodmarks; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,000 ft<sup>3</sup>/s (595 m<sup>3</sup>/s) Jan. 16, gage height, 20.38 ft (6.212 m); minimum daily, 0.92 ft<sup>3</sup>/s (0.026 m<sup>3</sup>/s) Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.2	1.7	682	369	416	301	651	3.8	1.2	1.5	1.8
2	1.1	1.6	1.7	1050	1220	609	79	420	2.1	1.2	1.6	1.9
3	1.1	1.7	1.8	1700	1500	1750	41	211	2.4	1.2	1.6	2.0
4	1.1	1.9	2.0	2280	1100	3410	98	62	2.0	1.2	1.6	2.1
5	1.1	19	1.9	10300	2450	4640	145	9.8	1.5	1.2	1.6	2.4
6	1.1	1.6	1.8	8500	5350	3750	1490	3.8	1.8	1.2	1.4	2.7
7	1.1	1.7	1.7	3750	8950	2650	1720	7.6	4.0	1.1	1.2	2.7
8	1.4	1.5	1.9	2720	7760	6140	1120	3.0	3.5	1.1	1.1	2.3
9	2.4	1.4	2.0	9840	6250	6250	845	2.9	3.3	1.1	1.2	2.1
10	2.2	1.6	1.9	6340	3860	3750	574	55	2.6	1.1	1.2	1.4
11	2.1	1.7	2.0	3360	2680	2690	549	143	2.2	1.1	1.1	1.3
12	2.0	1.7	13	2720	2400	2120	527	139	2.1	1.1	1.1	1.6
13	2.0	1.7	1.7	4120	2690	1720	510	132	2.1	1.1	1.1	1.7
14	1.8	1.6	899	8430	2220	1410	494	135	2.0	1.1	1.1	1.6
15	2.0	1.6	945	14500	1860	1100	615	195	1.9	1.1	1.3	1.5
16	2.0	1.6	51	18600	1600	889	592	234	1.7	1.2	1.4	1.3
17	1.9	1.6	495	14600	1360	754	566	225	1.7	1.2	1.4	1.2
18	1.7	1.7	48	7140	1210	660	547	175	1.7	1.2	1.4	1.1
19	1.6	1.5	2.7	5550	1160	582	624	61	2.7	1.3	1.5	.93
20	1.6	1.4	2.2	3960	1100	519	713	40	3.0	1.3	1.6	.92
21	1.8	144	18	2850	1040	477	779	5.7	3.0	1.2	1.7	5.6
22	1.9	189	149	2200	968	446	883	2.5	3.7	1.2	1.7	1.2
23	1.9	1.8	333	1760	877	452	833	2.4	2.3	1.2	1.7	1.1
24	2.1	1.6	176	1400	789	444	810	3.8	2.0	1.2	1.7	4.3
25	1.8	1.7	767	1060	699	364	918	2.1	1.8	1.2	1.7	1.5
26	1.7	1.7	729	856	635	318	895	4.4	1.5	1.2	1.7	1.3
27	1.8	1.7	1390	689	556	288	849	7.5	1.5	1.2	2.0	1.3
28	2.0	1.7	1530	570	477	267	816	6.6	1.6	1.2	2.0	1.1
29	2.3	1.7	1210	477	---	255	781	5.5	1.4	1.4	2.0	2.2
30	2.1	1.7	1180	414	---	240	757	7.1	1.2	1.4	1.9	1.1
31	1.8	---	912	355	---	267	---	5.5	---	1.5	1.8	---
TOTAL	53.6	395.9	10872.0	142773	63130	49627	20471	2958.2	68.1	37.2	46.9	55.25
MEAN	1.73	13.2	351	4606	2255	1601	682	95.4	2.27	1.20	1.51	1.84
MAX	2.4	189	1530	18600	8950	6250	1720	651	4.0	1.5	2.0	5.6
MIN	1.1	1.2	1.7	355	369	240	41	2.1	1.2	1.1	1.1	.92
AC-FT	106	785	21560	283200	125200	98440	40600	5870	135	74	93	110
CAL YR 1977 TOTAL	12229.90			MEAN 33.5	MAX 1530	MIN 1.1	AC-FT 24260					
WTR YR 1978 TOTAL	290488.15			MEAN 796	MAX 18600	MIN .92	AC-FT 576200					

11472150 EEL RIVER NEAR DOS RIOS, CA

LOCATION.--Lat 39°37'30", long 123°20'25", in SW¼SW¼ sec.32, T.21 N., R.13 W., Mendocino County, Hydrologic Unit 18010103, on left bank 1,100 ft (335 m) upstream from Outlet Creek, and 6.3 mi (10.1 km) south of Dos Rios.

DRAINAGE AREA.--528 mi<sup>2</sup> (1,368 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,001.28 ft (305.190 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow partly regulated by Lake Pillsbury (station 11470000) 40 mi (64 km) upstream and by diversion through Potter Valley powerhouse (station 11471000).

AVERAGE DISCHARGE.--12 years, 999 ft<sup>3</sup>/s (28.29 m<sup>3</sup>/s), 723,800 acre-ft/yr (892 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65,500 ft<sup>3</sup>/s (1,850 m<sup>3</sup>/s) Jan. 16, 1974, gage height, 33.64 ft (10.253 m), from rating curve extended above 26,000 ft<sup>3</sup>/s (736 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; no flow many days in 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 45.52 ft (13.874 m) from information by local resident, discharge, 100,000 ft<sup>3</sup>/s (2,830 m<sup>3</sup>/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31,800 ft<sup>3</sup>/s (901 m<sup>3</sup>/s) Jan. 16, gage height, 21.60 ft (6.584 m); minimum daily, 1.7 ft<sup>3</sup>/s (0.048 m<sup>3</sup>/s) Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	31	41	1540	1010	765	1110	1200	73	26	6.4	4.5
2	11	24	37	2120	2840	1190	642	950	66	24	6.9	4.1
3	7.2	17	34	2690	2290	3050	533	706	64	23	7.1	4.1
4	5.3	19	32	3720	1810	4660	1350	445	58	22	6.3	4.1
5	4.1	133	31	13200	4530	7100	1620	327	55	21	6.0	6.4
6	3.4	107	30	13000	8980	5490	3530	257	51	19	6.3	9.6
7	2.8	56	28	6270	14300	3830	3050	232	50	18	6.0	11
8	2.6	36	27	4420	9500	10600	2050	219	47	16	5.7	11
9	2.5	26	26	14100	6300	9260	1710	200	49	15	4.5	21
10	2.3	20	24	9260	4100	5690	1300	188	49	13	3.4	34
11	2.3	16	394	5170	3000	3910	1180	293	50	12	2.3	23
12	2.3	16	377	3990	4500	2980	1100	345	49	12	1.7	14
13	2.2	16	185	5310	7000	2440	1020	332	48	12	2.0	9.8
14	2.0	15	7920	10900	4900	2070	967	318	45	11	2.0	7.2
15	2.0	13	8950	21400	4000	1730	1560	422	40	9.7	2.3	5.9
16	2.2	11	2870	27600	3300	1500	1510	493	40	9.0	2.7	5.2
17	2.3	10	4440	23600	2800	1330	1390	443	39	11	2.5	4.6
18	2.3	8.7	1800	11500	2400	1200	1220	412	39	11	2.7	4.4
19	2.3	8.1	879	9750	2100	1100	1380	275	38	11	3.2	4.4
20	2.3	7.9	619	7060	1850	1000	1790	196	39	10	3.1	4.4
21	2.3	1980	705	4930	1650	935	1670	158	37	10	3.3	4.4
22	2.3	2210	2650	3540	1480	886	1620	114	33	9.5	3.5	4.3
23	2.3	522	3790	2710	1350	875	1480	105	30	9.5	3.9	4.1
24	2.6	199	1670	2170	1240	879	1390	100	30	9.7	4.1	4.1
25	3.3	119	1420	1770	1140	769	1680	98	30	9.3	6.4	4.7
26	3.8	89	1450	1440	1040	688	1930	96	27	8.3	8.0	5.6
27	5.1	73	2220	1200	951	637	1580	92	27	7.8	9.1	5.0
28	6.4	62	2280	1030	851	593	1440	89	27	8.3	9.0	4.3
29	16	53	2120	892	---	564	1340	84	26	8.8	7.4	4.7
30	43	46	2140	796	---	543	1270	78	25	8.3	6.3	4.7
31	36	---	1810	706	---	638	---	76	---	6.7	5.2	---
TOTAL	203.5	5943.7	50999	217784	101212	78902	45412	9343	1281	401.9	149.3	238.6
MEAN	6.56	198	1645	7025	3615	2545	1514	301	42.7	13.0	4.82	7.95
MAX	43	2210	8950	27600	14300	10600	3530	1200	73	26	9.1	34
MIN	2.0	7.9	24	706	851	543	533	76	25	6.7	1.7	4.1
AC-FT	404	11790	101200	432000	200800	156500	90070	18530	2540	797	296	473

CAL YR 1977 TOTAL 63038.35 MEAN 173 MAX 8950 MIN 0 AC-FT 125000  
WTR YR 1978 TOTAL 511870.00 MEAN 1402 MAX 27600 MIN 1.7 AC-FT 1015000

## EEL RIVER BASIN

11472150 EEL RIVER NEAR DOS RIOS, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958 to current year.  
 CHEMICAL ANALYSES: Water years 1958 to current year.  
 WATER TEMPERATURES: Water years 1967-77.  
 SEDIMENT RECORDS: Water years 1967-77.  
 TURBIDITY: Water years 1967-68.

PERIOD OF DAILY RECORD.--  
 WATER TEMPERATURES: October 1966 to September 1977.  
 SEDIMENT RECORDS: October 1966 to September 1977.

REMARKS.--During period 1958 to September 1966, chemical-quality station located at lat 39°37'36", long 123°20'36".  
 Flow partly regulated by Lake Pillsbury and by diversion through Potter Valley powerhouse.

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

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT 13...	0800	--	2.0	335	7.6	14.5	.00	7.7	140	19	.7
NOV 03...	0830	--	18	309	7.9	12.5	1.0	9.1	--	--	--
DEC 08...	1000	--	26	277	7.8	9.0	1.0	10.5	--	--	--
JAN 05...	1230	--	12100	132	7.4	9.0	200	11.5	50	7.0	.4
FEB 09...	1345	6300	--	93	7.6	8.5	130	11.7	--	--	--
MAR 08...	1130	--	11500	--	7.5	10.0	190	10.3	--	5.0	--
APR 05...	0845	--	832	137	7.4	9.0	18	10.4	--	--	--
MAY 10...	0800	--	191	195	8.2	16.0	1.0	9.0	--	--	--
JUN 07...	0900	--	52	218	8.0	22.0	1.0	8.7	--	--	--
JUL 12...	0810	--	12	234	8.2	22.0	1.0	7.6	--	--	--
AUG 09...	0800	--	4.8	242	7.9	24.0	1.0	6.8	--	--	--
SEP 13...	0730	--	10	--	7.9	17.0	.00	8.1	110	11	.5

DATE	ALKA- LITY (MG/L AS CAC03)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (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, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)	BORON, DIS- SOLVED (UG/L AS B)
OCT 13...	100	18	.01	.04	.30	.34	.02	.00	.00	1500
NOV 03...	--	--	.04	.00	.00	.00	.00	.00	.00	--
DEC 08...	--	--	.02	.01	.10	.11	.01	.01	.03	--
JAN 05...	51	2.2	.10	.04	.90	.94	.83	.04	.12	200
FEB 09...	--	--	.02	.02	.20	.22	.16	.02	.06	--
MAR 08...	20	.7	.03	.01	.50	.51	.04	.01	.03	100
APR 05...	--	--	.02	.01	.20	.21	.03	.01	.03	--
MAY 10...	--	--	.00	.00	.20	.20	.02	.02	.06	--
JUN 07...	--	--	.00	.00	.30	.30	.01	.01	.03	--
JUL 12...	--	--	.01	.00	.30	.30	.01	.00	.00	--
AUG 09...	--	--	.02	.02	.40	.42	.01	.00	.00	--
SEP 13...	95	7.9	.02	.00	.40	.40	.01	.00	.00	500

## 11472200 OUTLET CREEK NEAR LONGVALE, CA

LOCATION.--Lat 39°37'05", long 123°21'20", in NE¼ sec.1, T.20 N., R.14 W., Mendocino County, Hydrologic Unit 18010103, on right bank 0.2 mi (0.3 km) downstream from Bloody Run Creek, 0.9 mi (1.4 km) upstream from mouth, and 6.9 mi (11.1 km) northeast of Longvale.

DRAINAGE AREA.--161 mi<sup>2</sup> (417 km<sup>2</sup>).

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

REVISED RECORDS.--WSP 1929: 1958(M), 1960.

GAGE.--Water-stage recorder. Datum of gage is 1,018.14 ft (310.329 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--22 years, 429 ft<sup>3</sup>/s (12.15 m<sup>3</sup>/s), 310,800 acre-ft/yr (383 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 77,900 ft<sup>3</sup>/s (2,210 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 30.6 ft (9.33 m) from floodmarks, from rating curve extended above 17,000 ft<sup>3</sup>/s (481 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow at times in 1959, 1967, and 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 7,000 ft<sup>3</sup>/s (198 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 14	1900	*15500 439	15.12 4.609	Jan. 9	0430	9770 277	11.90 3.627
Dec. 17	0100	7110 201	10.28 3.133	Jan. 16	1815	10800 306	12.51 3.813
Jan. 5	1730	7230 205	10.36 3.158	Feb. 7	0930	9510 269	11.74 3.578

Minimum daily discharge, 0.28 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	32	41	764	582	188	479	281	33	8.6	1.5	1.7
2	6.2	25	36	1500	2010	621	432	244	31	8.6	1.2	1.6
3	4.9	19	33	1220	1120	1540	375	211	30	8.6	1.1	1.5
4	4.0	27	30	1920	661	1940	926	186	28	8.6	1.0	1.6
5	3.3	285	29	5020	2410	2840	1370	168	26	8.1	1.1	3.5
6	2.9	96	27	3840	3380	1760	1950	150	23	7.6	.92	6.1
7	2.7	54	27	2120	6090	1270	1400	135	21	7.2	.97	4.8
8	2.5	37	27	1740	4740	5280	856	125	19	6.7	.77	3.6
9	2.5	28	24	5100	3450	2970	564	115	18	6.4	.52	8.1
10	2.3	22	22	2440	2010	1760	429	108	17	6.1	.43	24
11	2.2	19	766	1580	1260	1060	349	103	16	5.7	.36	15
12	2.1	35	591	1220	1730	693	298	100	15	5.6	.28	9.4
13	2.0	31	356	1870	2220	553	258	98	15	5.5	.34	6.6
14	1.9	25	7110	3840	1570	467	216	96	15	5.0	.71	5.4
15	1.8	21	6600	7060	1160	387	485	170	15	4.9	.94	4.4
16	1.7	17	3090	8780	839	333	628	250	15	4.6	.81	3.8
17	1.8	14	3740	6310	747	294	639	220	15	4.7	.62	3.4
18	1.7	12	1620	3390	610	264	466	180	14	4.2	.56	2.9
19	1.7	10	882	3320	503	238	577	130	14	4.1	.50	2.5
20	1.7	10	491	2150	431	215	794	100	13	3.6	.63	2.3
21	1.6	2400	683	1440	374	201	744	84	12	3.4	.84	2.1
22	1.5	1530	2270	951	331	191	538	72	12	3.0	.89	2.1
23	1.7	725	2480	672	296	208	425	63	11	2.4	.82	2.2
24	3.0	265	1430	516	268	200	369	57	11	2.2	1.0	2.2
25	5.1	163	840	427	257	168	656	54	11	2.2	2.1	2.1
26	7.3	115	604	365	238	151	758	49	10	2.1	3.4	2.0
27	6.3	87	1520	318	216	140	565	45	9.7	1.9	3.1	2.1
28	7.8	69	922	282	198	130	419	42	9.1	1.7	2.7	2.1
29	36	56	925	254	---	122	348	39	9.1	1.8	2.2	2.0
30	129	47	997	230	---	116	311	37	8.6	1.8	1.9	1.9
31	49	---	718	209	---	165	---	35	---	1.8	1.8	---
TOTAL	306.5	6276	38931	70848	39701	26465	18624	3747	496.5	148.7	36.11	133.0
MEAN	9.89	209	1256	2285	1418	854	621	121	16.6	4.80	1.16	4.43
MAX	129	2400	7110	8780	6090	5280	1950	281	33	8.6	3.4	24
MIN	1.5	10	22	209	198	116	216	35	8.6	1.7	.28	1.5
AC-FT	608	12450	77220	140500	78750	52490	36940	7430	985	295	72	264
CAL YR 1977	TOTAL	53158.37	MEAN 146	MAX 7110	MIN 0	AC-FT 105400						
WTR YR 1978	TOTAL	205712.81	MEAN 564	MAX 8780	MIN .28	AC-FT 408000						

## EEL RIVER BASIN

11472500 EEL RIVER ABOVE DOS RIOS, CA

LOCATION.--Lat 39°41'20", long 123°21'30", in SW¼ sec.7, T.21 N., R.13 W., Mendocino County, Hydrologic Unit 18010103, temperature recorder at site of former gaging station on left bank, 1.8 mi (2.9 km) upstream from Middle Fork, and 2.1 mi (3.4 km) south of Dos Rios.

DRAINAGE AREA.--705 mi<sup>2</sup> (1,826 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1957 to current year.

WATER TEMPERATURES: Water years 1958-59, 1961 to current year.

SEDIMENT RECORDS: Water years 1957-65.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1957 to September 1959, October 1960 to September 1965, May 1966 to current year.

SEDIMENT RECORDS: October 1957 to September 1965.

INSTRUMENTATION.--Temperature recorder since May 1961.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 31.5°C June 29, 1977; minimum recorded, 1.0°C on several days in 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 28.5°C July 21, Aug. 6,7,9; minimum, 4.0°C Jan. 2.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	15.0	13.5	11.5	11.0	10.0	8.0	6.0	13.0	12.0	10.5	10.0
2	19.0	16.0	14.0	13.0	10.5	9.5	9.0	4.0	13.0	12.5	11.5	10.5
3	19.5	16.0	13.0	11.5	11.0	10.0	9.5	6.5	13.5	11.5	11.5	10.0
4	19.0	16.5	11.5	10.5	11.5	10.5	10.0	5.5	13.0	11.5	11.5	11.0
5	18.5	16.5	11.0	10.0	12.0	11.0	10.0	9.5	12.5	8.0	11.5	10.0
6	18.5	16.0	11.5	10.0	11.0	10.5	10.0	9.5	10.5	8.0	12.5	9.0
7	18.0	15.5	11.0	10.0	11.5	10.5	10.0	8.0	10.5	9.5	12.0	11.5
8	18.0	15.0	11.0	10.0	10.5	8.5	11.0	9.0	10.0	9.0	12.0	9.0
9	18.0	15.0	11.0	9.0	9.0	8.0	11.0	10.5	10.0	9.0	12.0	10.0
10	18.5	14.5	11.0	9.5	9.0	8.0	10.5	9.0	10.0	8.5	12.5	11.0
11	18.5	15.5	10.5	10.0	9.0	8.5	10.0	6.5	9.5	9.0	12.0	10.5
12	18.5	15.5	12.0	10.0	9.5	8.5	10.5	8.0	9.5	8.5	12.0	10.0
13	18.5	15.5	12.0	10.5	10.0	9.5	10.5	7.0	10.5	9.0	11.5	10.5
14	18.5	16.0	11.0	10.0	11.5	10.5	10.5	10.0	11.0	9.5	13.0	10.5
15	18.5	16.0	12.0	10.5	11.5	10.0	10.5	10.0	11.0	10.0	13.0	11.5
16	18.5	15.5	12.0	10.5	10.0	9.0	10.5	10.5	10.0	8.5	13.5	11.0
17	18.0	15.5	11.0	10.0	10.0	5.5	11.0	10.5	10.5	9.0	13.0	11.0
18	18.5	15.5	10.0	8.5	9.0	6.0	10.5	10.5	12.0	10.0	12.5	11.0
19	18.0	15.5	9.0	7.5	7.0	5.5	11.0	10.5	12.5	11.0	13.0	10.5
20	17.5	15.5	7.5	6.5	7.5	6.5	11.0	10.5	12.5	11.0	13.0	11.5
21	16.5	14.0	9.5	6.5	8.0	6.0	11.0	10.5	12.0	11.0	12.0	11.5
22	15.5	14.0	9.5	9.0	9.5	5.5	10.5	9.5	12.0	10.5	12.0	11.0
23	15.0	14.5	9.5	9.0	10.0	6.5	10.0	9.0	11.0	10.5	12.5	11.5
24	16.0	14.5	10.5	9.5	10.0	7.5	9.5	8.5	11.5	10.0	13.0	11.5
25	16.5	15.5	12.0	10.5	7.5	6.5	10.0	8.5	13.0	11.0	14.5	11.5
26	16.5	14.5	13.0	11.5	7.0	6.5	11.0	9.5	12.0	10.5	14.5	13.0
27	15.0	14.0	12.5	11.5	10.0	7.0	11.0	9.5	12.0	10.0	16.0	13.5
28	14.0	13.0	11.5	10.5	10.0	6.5	12.0	10.5	12.0	10.0	16.5	13.0
29	13.0	12.5	11.0	10.0	10.0	6.5	12.5	11.0	---	---	15.0	14.0
30	14.0	12.5	11.5	10.5	9.0	7.0	13.0	11.0	---	---	16.5	13.5
31	13.0	12.0	---	---	9.5	6.0	13.0	11.5	---	---	15.5	13.5
MONTH	19.5	12.0	14.0	6.5	12.0	5.5	13.0	4.0	13.5	8.0	16.5	9.0



11472500 EEL RIVER ABOVE DOS RIOS, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.5	12.0	14.5	11.0	23.5	20.0	24.0	21.5	26.5	22.5	23.0	19.5
2	13.5	11.5	16.0	12.5	23.5	20.0	24.5	21.0	27.0	23.0	23.0	20.5
3	12.0	10.5	16.5	13.5	24.5	20.5	24.5	21.0	27.0	24.0	22.5	20.0
4	11.0	9.5	15.5	13.0	25.0	21.0	24.5	21.0	27.5	24.0	22.0	20.0
5	10.5	9.0	16.0	12.5	26.0	21.5	24.5	21.0	28.0	24.5	20.0	18.5
6	10.0	9.0	16.5	12.5	26.0	22.0	25.0	21.5	28.5	25.0	18.5	17.5
7	11.5	9.5	18.0	13.5	25.0	22.5	27.0	22.5	28.5	24.5	18.5	17.0
8	12.5	10.5	19.5	15.0	25.0	21.0	27.0	23.5	27.0	24.5	20.5	16.0
9	14.5	11.0	20.0	16.0	24.5	21.5	27.0	24.0	28.5	24.5	19.0	15.5
10	15.0	12.0	20.0	17.0	24.0	21.0	26.0	22.5	27.0	24.5	15.5	15.5
11	15.5	12.5	18.5	16.0	23.5	20.0	25.5	22.0	27.0	23.0	18.0	15.5
12	15.5	12.5	20.0	16.0	24.0	20.5	26.5	22.5	25.5	23.0	19.0	14.5
13	15.5	13.5	19.5	16.5	24.5	21.0	27.0	23.0	25.5	21.5	18.5	15.5
14	15.0	12.0	18.0	16.5	23.0	19.5	27.5	23.5	24.5	21.0	18.5	15.5
15	12.0	9.0	16.5	15.0	22.0	18.5	27.0	24.0	25.5	21.5	19.0	16.0
16	10.5	9.0	17.0	14.5	22.5	19.0	26.0	22.5	24.0	21.5	18.5	15.5
17	11.5	10.0	19.0	14.5	24.5	20.5	27.5	22.0	23.5	20.0	17.5	14.5
18	12.5	10.0	20.5	16.5	24.5	21.5	27.5	23.0	24.0	20.0	16.5	14.0
19	12.0	10.0	20.5	17.0	25.0	21.5	27.5	24.0	23.0	19.5	17.0	13.5
20	10.5	9.5	22.0	17.5	24.5	21.0	27.5	24.0	23.5	20.0	17.5	14.0
21	11.5	9.0	22.0	18.0	25.5	22.0	28.5	24.5	21.5	20.0	17.5	15.0
22	11.5	9.5	19.5	15.5	25.0	22.5	28.0	25.0	21.5	17.5	18.5	15.0
23	12.0	10.0	18.5	15.5	24.0	21.0	27.5	24.5	22.0	18.0	18.5	14.0
24	12.0	10.5	17.0	15.5	23.5	20.5	27.5	24.0	20.0	19.0	19.0	13.5
25	12.0	10.0	17.5	14.5	23.5	20.0	26.5	24.5	21.5	18.5	18.5	17.5
26	13.0	11.0	18.5	16.5	23.5	21.0	26.5	23.5	22.0	19.0	18.5	17.0
27	14.5	12.0	21.5	16.0	25.0	21.5	26.0	23.0	22.5	18.0	18.0	16.0
28	15.0	12.5	20.0	18.0	24.5	23.0	26.0	22.5	22.0	18.5	18.0	16.0
29	14.5	12.0	22.5	18.5	23.5	22.5	26.0	22.5	22.5	19.0	18.5	15.5
30	13.5	12.5	23.5	18.5	25.0	21.0	25.5	22.0	23.5	20.0	19.0	16.0
31	---	---	22.5	19.5	---	---	25.5	22.0	23.0	20.0	---	---
MONTH	15.5	9.0	23.5	11.0	26.0	18.5	28.5	21.0	28.5	17.5	23.0	13.5

## EEL RIVER BASIN

11473000 MIDDLE FORK EEL RIVER BELOW BLACK BUTTE RIVER, NEAR COVELO, CA

LOCATION.--Lat 39°49'35", long 123°05'30", in NW¼ sec.28, T.23 N., R.11 W., Mendocino County, Hydrologic Unit 18010104, temperature recorder at site of former gaging station, 0.2 mi (0.3 km) downstream from Black Butte River, and 8.6 mi (13.8 km) east of Covelo.

DRAINAGE AREA.--367 mi<sup>2</sup> (951 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1961 to current year.

CHEMICAL ANALYSES: Water years 1965-66.

WATER TEMPERATURES: Water years 1961 to current year

SEDIMENT RECORDS: Water years 1963-67.

TURBIDITY: Water years 1965-67.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July to November 1961, October 1962 to current year.

SEDIMENT RECORDS: October 1962 to September 1967.

INSTRUMENTATION.--Temperature recorder since October 1967.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 29.5°C July 15, 1972; minimum recorded, 0.5°C Dec. 14, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 28.5°C Aug. 9; minimum, 4.0°C Apr. 15, 16.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.0	14.0	14.0	10.0	10.0	7.0	8.0	5.5	6.5	5.5	9.0	5.5
2	21.0	13.5	16.0	10.0	10.0	7.0	6.5	5.0	7.5	5.5	9.5	6.5
3	21.5	14.0	12.0	10.0	9.5	7.0	6.5	5.5	7.5	7.0	9.0	6.0
4	21.5	14.0	10.0	9.0	10.0	8.5	7.5	6.5	7.0	6.0	8.5	7.0
5	19.5	14.0	10.0	8.0	11.0	8.0	8.5	6.5	7.0	6.0	9.0	6.5
6	20.0	13.0	12.5	7.5	9.0	8.0	8.5	7.5	8.0	6.5	9.5	7.5
7	19.0	14.0	12.0	7.5	11.0	7.0	9.5	7.5	7.5	6.5	8.0	6.0
8	20.0	14.0	12.0	7.0	10.0	5.5	10.0	7.5	7.0	6.5	8.0	6.0
9	20.5	14.5	11.5	6.5	8.0	5.0	10.0	9.5	7.5	6.5	9.0	6.0
10	21.0	14.0	11.5	6.5	9.0	5.5	10.5	7.0	7.5	7.0	9.0	6.0
11	21.0	14.0	9.0	7.0	8.0	6.0	9.5	9.0	8.0	7.0	9.0	6.0
12	21.0	14.5	12.0	7.0	8.0	6.0	9.5	9.0	7.0	6.5	8.5	6.0
13	21.0	14.0	12.0	7.5	8.5	7.0	9.5	8.5	6.5	6.5	9.0	5.0
14	20.0	14.0	12.0	8.0	9.5	8.0	9.0	8.5	7.5	6.5	9.0	5.0
15	19.5	14.0	12.0	7.5	9.0	7.0	9.0	8.0	7.5	7.5	9.0	5.0
16	20.0	14.0	12.0	8.0	7.0	6.0	9.5	8.0	7.5	6.5	10.0	6.0
17	20.0	13.5	12.0	7.0	6.5	6.0	8.5	8.5	6.5	5.5	10.0	6.0
18	20.0	14.0	10.0	5.0	8.0	5.5	9.5	6.5	6.5	5.0	9.5	6.5
19	20.0	13.0	9.0	5.0	7.5	5.0	7.0	5.0	6.0	5.0	10.5	6.5
20	18.0	12.0	8.5	5.0	6.0	4.5	7.0	5.0	7.0	5.5	10.0	6.5
21	18.0	12.0	7.0	6.0	7.0	5.0	7.5	4.5	6.5	5.5	8.5	6.5
22	18.0	12.0	8.0	6.0	8.0	5.5	7.5	5.5	9.0	6.0	9.5	6.5
23	15.0	13.5	8.0	5.5	7.0	6.0	7.0	5.0	10.0	6.0	9.0	6.5
24	18.0	14.0	10.0	7.0	7.5	5.5	7.0	5.5	9.5	7.0	10.0	4.5
25	16.0	14.0	10.0	7.0	8.0	5.5	7.0	6.0	10.5	7.0	10.5	5.0
26	16.5	13.0	12.0	8.5	8.0	5.5	6.5	4.5	9.5	5.5	11.0	6.0
27	15.0	13.0	10.0	7.0	6.5	5.5	7.0	4.5	8.5	5.5	11.0	6.0
28	13.0	12.5	10.0	7.0	7.5	6.0	7.0	4.5	8.5	5.5	11.0	6.0
29	13.0	10.0	10.5	8.0	8.5	6.5	7.0	5.5	---	---	10.0	8.0
30	12.0	10.0	9.0	7.0	8.5	5.5	7.0	5.0	---	---	11.0	8.0
31	14.0	10.0	---	---	8.5	6.5	8.0	5.0	---	---	9.0	8.0
MONTH	21.5	10.0	16.0	5.0	11.0	4.5	10.5	4.5	10.5	5.0	11.0	4.5

11473000 MIDDLE FORK EEL RIVER BELOW BLACK BUTTE RIVER, NEAR COVELO, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	5.0	12.0	7.0	18.0	12.0	20.5	15.5	27.0	22.0		
2	8.0	5.0	13.0	9.0	18.0	11.0	21.0	15.5	27.5	22.0		
3	7.5	4.5	13.0	10.0	16.0	11.5	22.5	15.5	27.5	22.0		
4	8.5	5.5	13.0	8.0	16.0	12.0	22.5	15.5	28.0	22.5		
5	7.0	6.0	13.0	8.0	16.5	12.0	23.5	16.5	28.0	22.5		
6	7.5	5.5	12.5	8.0	17.0	12.0	23.0	17.0	28.0	22.5		
7	9.5	5.5	13.0	9.0	17.0	12.0	23.0	19.0	28.0	22.5		
8	9.5	5.5	14.5	10.0	17.5	13.0	25.5	18.5	28.0	22.5		
9	10.5	7.0	14.0	9.0	17.0	13.0	25.0	19.0	28.5	23.5		
10	11.5	7.5	14.0	10.0	17.0	12.5	24.0	19.0	28.0	22.5		
11	11.5	8.5	14.0	9.0	18.0	12.5	25.0	19.5	27.5	22.0		
12	10.5	8.5	14.5	9.0	17.5	13.5	24.5	19.0	26.5	22.0		
13	11.5	7.5	14.0	9.0	17.5	12.0	24.5	19.0	27.0	21.5		
14	8.5	7.5	11.0	8.0	17.5	11.5	25.5	19.5	26.5	21.0		
15	9.0	4.0	10.0	7.0	17.5	11.5	25.0	20.0	26.0	22.0		
16	7.0	4.0	13.0	7.0	17.5	11.5	24.5	19.5	26.0	22.0		
17	7.5	6.0	14.0	9.0	18.5	13.5	26.0	20.0	25.5	20.0		
18	11.0	7.0	15.0	10.0	19.5	14.5	26.0	20.0	25.5	20.0		
19	9.0	7.0	15.0	10.0	19.5	14.5	26.5	21.0	25.5	20.0		
20	8.0	6.0	15.0	11.0	19.5	14.5	26.5	21.0	26.0	20.0		
21	10.0	5.0	15.5	10.5	20.0	15.5	27.0	21.5	24.5	20.0		
22	10.0	6.0	14.0	10.0	20.5	16.0	27.0	21.5	24.0	18.0		
23	10.5	7.0	13.0	8.0	20.5	15.5	27.0	22.0	24.5	19.5		
24	10.0	8.0	12.0	7.0	19.5	14.5	27.0	22.0	25.0	19.5		
25	10.5	8.0	14.0	7.0	20.0	16.5	25.5	22.0	22.0	20.0		
26	11.0	8.0	13.0	8.5	20.5	15.5	27.0	22.0	24.0	20.5		
27	12.0	8.0	16.0	10.0	20.0	15.0	27.0	21.5	26.0	20.5		
28	12.0	9.0	16.0	12.0	22.5	16.5	26.5	21.5	27.0	21.5		
29	12.0	9.0	17.0	12.0	22.5	15.5	26.5	21.0	27.0	21.5		
30	11.0	8.0	17.5	13.5	22.5	15.5	26.0	21.0	27.5	21.5		
31	---	---	16.5	13.0	---	---	27.0	22.0	28.0	21.0		
MONTH	12.0	4.0	17.5	7.0	22.5	11.0	27.0	15.5	28.5	18.0		

## EEL RIVER BASIN

11473900 MIDDLE FORK EEL RIVER NEAR DOS RIOS, CA

LOCATION.--Lat 39°42'23", long 123°19'27", in NE¼SE¼ sec.5, T.21 N., R.13 W., Mendocino County, Hydrologic Unit 18010104, on right bank 0.6 mi (1.0 km) upstream from Eastman Creek, 1.7 mi (2.7 km) southeast of Dos Rios, and 1.9 mi (3.1 km) upstream from mouth.

DRAINAGE AREA.--745 mi<sup>2</sup> (1,930 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 901.58 ft (274.802 m) National Geodetic Vertical Datum of 1929..

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

AVERAGE DISCHARGE.--13 years, 1,705 ft<sup>3</sup>/s (48.29 m<sup>3</sup>/s), 1,235,000 acre-ft/yr (1.52 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90,500 ft<sup>3</sup>/s (2,560 m<sup>3</sup>/s) Jan. 23, 1970, gage height, 27.15 ft (8.275 m); minimum daily, 3.3 ft<sup>3</sup>/s (0.093 m<sup>3</sup>/s) Aug. 21-23, Sept. 12-14, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 35,800 ft<sup>3</sup>/s (1,010 m<sup>3</sup>/s) Jan. 9 (1030 hours), gage height, 19.81 ft (6.038 m), no other peak above base of 35,000 ft<sup>3</sup>/s (991 m<sup>3</sup>/s); minimum daily, 19 ft<sup>3</sup>/s (0.54 m<sup>3</sup>/s) Oct. 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	191	645	2890	1590	2260	3840	2050	813	204	36	25
2	87	138	539	4980	3760	2810	2960	1960	777	194	34	23
3	64	112	456	6250	3410	5120	2530	2010	753	172	32	22
4	52	111	388	6250	2890	6780	3000	1990	747	169	30	22
5	45	456	364	15500	5940	8720	3230	1850	747	169	28	23
6	39	390	297	10600	9940	6430	6100	1670	753	162	27	25
7	35	270	291	5400	16500	4280	3600	1570	719	147	26	28
8	34	226	261	6700	9050	14200	2810	1540	668	145	26	30
9	32	189	225	22300	7060	9290	2520	1630	636	138	23	35
10	29	159	198	8950	4330	5330	2630	1640	594	129	23	44
11	27	140	466	5600	3180	4040	2710	1570	554	123	26	37
12	27	162	2000	5040	3470	3280	2560	1470	510	116	25	31
13	25	184	981	7450	3900	2810	2340	1490	485	110	26	26
14	24	151	12500	13600	2970	2610	2180	1500	460	104	26	25
15	23	129	19600	19500	2760	2370	2440	1780	437	98	25	24
16	22	118	5430	21500	2390	2260	2390	1580	410	92	25	24
17	22	107	8850	16100	2270	2200	2160	1390	387	88	25	24
18	21	96	4480	8870	2280	2180	2000	1270	358	84	23	23
19	21	86	2700	8620	2430	2180	2170	1250	334	79	23	23
20	20	80	1950	6170	2520	2110	2830	1250	314	73	23	23
21	20	1720	1600	4600	2660	2100	2520	1270	294	69	23	23
22	19	7160	2710	3730	3240	2060	2260	1230	286	66	23	23
23	19	2930	7350	3010	2840	2100	2130	1150	265	62	25	22
24	20	2280	4640	2560	2790	2130	2090	1030	255	59	25	22
25	21	2430	3030	2220	2720	2120	2870	946	244	56	26	24
26	26	1900	2390	2000	2660	2290	2810	844	231	52	27	26
27	66	1530	5000	1800	2470	2290	2440	825	220	49	28	24
28	56	1150	5000	1640	2280	2290	2340	844	217	44	28	23
29	64	911	4390	1530	---	2280	2230	863	244	42	28	24
30	398	762	4540	1450	---	2180	2170	881	225	39	27	24
31	321	---	3470	1380	---	2360	---	856	---	38	26	---
TOTAL	1809	26268	106741	228190	114300	115460	80860	43199	13937	3172	818	772
MEAN	58.4	876	3443	7361	4082	3725	2695	1394	465	102	26.4	25.7
MAX	398	7160	19600	22300	16500	14200	6100	2050	813	204	36	44
MIN	19	80	198	1380	1590	2060	2000	825	217	38	23	22
AC-FT	3590	52100	211700	452600	226700	229000	160400	85690	27640	6290	1620	1530
CAL YR 1977 TOTAL	175978.1			482	19600	MIN	3.3	AC-FT	349100			
WTR YR 1978 TOTAL	735526.0			2015	22300	MIN	19	AC-FT	1459000			

WATER-QUALITY RECORDS

TURBIDITY: Water years 1965-68.

SEDIMENT RECORDS: October 1965 to September 1976.

WATER TEMPERATURES: Maximum, 29.0°C July 21.

[illegible]

11473900 MIDDLE FORK EEL RIVER NEAR DOS RIOS, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	APR DAILY	MIN	MAX	MAY DAILY	MIN	MAX	JUN DAILY	MIN	MAX	JUL DAILY	MIN	MAX	AUG DAILY	MIN	MAX	SEP DAILY	MIN
1	10.0	--	8.5	13.0	--	8.5	19.5	--	15.5	24.0	--	20.0	27.5	--	24.5	23.5	--	21.5
2	12.0	--	7.5	14.5	--	10.5	20.0	--	15.5	24.0	--	20.0	27.5	--	24.5	24.0	--	21.5
3	10.5	--	7.5	14.5	--	11.5	20.5	--	16.0	24.5	--	20.0	28.0	--	25.0	24.0	--	21.5
4	9.0	--	7.0	13.5	--	10.5	21.5	--	16.5	25.0	--	20.5	28.5	--	25.0	23.0	--	21.5
5	9.0	--	7.0	13.5	--	9.5	22.0	--	17.0	25.5	--	21.0	28.0	--	25.5	21.5	--	20.5
6	9.5	--	5.5	14.0	--	9.5	22.0	--	17.5	25.5	--	22.0	28.0	--	25.5	21.0	--	19.5
7	9.5	--	6.5	15.0	--	10.5	22.0	--	17.5	27.0	--	22.5	27.5	--	25.0	21.0	--	19.0
8	10.5	--	7.0	16.0	--	11.5	22.5	--	18.0	27.0	--	23.0	28.0	--	25.5	21.5	--	19.0
9	11.5	--	8.0	16.0	--	12.0	22.0	--	18.0	27.0	--	24.0	27.5	--	25.0	21.0	--	20.0
10	12.5	--	9.0	15.5	--	12.5	21.0	--	17.5	26.5	--	23.0	27.0	--	24.0	22.5	--	19.5
11	13.0	--	9.5	15.0	--	12.0	22.0	--	17.0	26.0	--	22.5	26.0	--	22.5	22.5	--	19.0
12	12.0	--	9.5	16.0	--	12.0	21.5	--	17.5	26.5	--	23.0	25.5	--	23.5	23.0	--	19.5
13	12.0	--	9.0	16.0	--	12.5	22.0	--	17.5	27.0	--	23.5	25.0	--	21.5	23.5	--	20.0
14	10.5	--	9.0	15.0	--	12.5	21.5	--	17.0	27.5	--	24.0	25.0	--	22.0	23.5	--	19.5
15	13.5	--	7.5	13.0	--	11.0	21.5	--	16.5	27.5	--	24.0	25.0	--	22.5	23.0	--	20.0
16	11.0	--	6.5	14.5	--	9.5	22.5	--	16.5	27.5	--	24.0	24.5	--	22.0	23.0	--	20.5
17	9.0	--	5.5	16.0	--	11.5	23.5	--	17.5	28.0	--	24.5	23.5	--	20.5	21.5	--	18.5
18	10.5	--	5.0	17.0	--	12.5	23.0	--	18.0	28.5	--	25.5	24.0	--	20.5	20.5	--	17.5
19	9.5	--	8.0	17.5	--	13.0	23.5	--	18.0	28.0	--	25.5	24.0	--	21.0	20.5	--	17.5
20	8.5	--	7.0	18.0	--	13.5	23.5	--	18.0	28.5	--	25.5	24.0	--	21.0	20.5	--	17.0
21	9.5	--	6.0	18.0	--	14.0	24.0	--	19.0	29.0	--	25.5	22.5	--	20.5	21.0	--	18.5
22	10.0	--	6.5	17.0	--	13.5	24.0	--	19.0	28.5	--	25.5	21.0	--	18.5	21.5	--	18.0
23	10.0	--	7.5	15.5	--	12.5	23.5	--	18.5	28.5	--	25.0	21.5	--	18.5	22.0	--	19.0
24	10.0	--	9.0	14.5	--	12.0	23.0	--	18.5	28.5	--	25.0	20.5	--	19.0	23.0	--	20.0
25	10.5	--	9.0	15.5	--	11.5	23.0	--	18.5	28.0	--	26.0	21.5	--	20.0	22.5	--	21.0
26	12.0	--	9.0	16.0	--	12.5	24.0	--	20.0	27.5	--	24.5	22.0	--	19.5	22.5	--	20.5
27	13.5	--	9.5	18.5	--	13.0	24.5	--	20.0	27.5	--	24.5	22.0	--	19.5	22.5	--	20.0
28	13.0	--	10.0	19.5	--	15.0	24.5	--	20.5	27.5	--	24.0	23.0	--	20.0	22.5	--	20.0
29	13.0	--	10.0	20.0	--	15.5	24.0	--	20.5	27.0	--	23.5	23.0	--	20.0	22.5	--	20.0
30	12.0	--	10.0	20.5	--	16.0	25.0	--	20.5	27.5	--	24.5	23.0	--	21.5	23.0	--	20.5
31	--	--	--	20.0	--	15.5	--	--	--	27.5	--	24.0	23.5	--	21.0	--	--	--
MONTH	13.5	--	5.0	20.5	--	8.5	25.0	--	15.5	29.0	--	20.0	28.5	--	18.5	24.0	--	17.0

## 11475000 EEL RIVER AT FORT SEWARD, CA

LOCATION.--Lat 40°13'05", long 123°37'54", in SE¼NE¼ sec.8, T.3 S., R.5 E., Humboldt County, Hydrologic Unit 18010105, on right bank at downstream side of bridge, 1.0 mi (1.6 km) southeast of Fort Seward, 1.9 mi (3.1 km) upstream from Dobbys Creek, and 11.8 mi (19.0 km) northeast of Garberville.

DRAINAGE AREA.--2,107 mi<sup>2</sup> (5,457 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1955 to current year. Prior to October 1965, published as "at Alderpoint."

GAGE.--Water-stage recorder. Datum of gage is 217.26 ft (66.221 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 22, 1964, at site 7.5 mi (12.1 km) upstream at datum 46.55 ft (14.188 m) higher. Feb. 2 to Sept. 30, 1965, at site 7.7 mi (12.4 km) upstream at datum 49.42 ft (15.063 m) higher.

REMARKS.--Records good. Flow slightly regulated by Lake Pillsbury (station 11470000) 99 mi (159 km) upstream and by diversion through Potter Valley powerhouse (station 11471000).

AVERAGE DISCHARGE.--23 years, 4,731 ft<sup>3</sup>/s (134.0 m<sup>3</sup>/s), 3,428,000 acre-ft/yr (4.23 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 561,000 ft<sup>3</sup>/s (15,900 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 87.2 ft (26.58 m), from floodmarks, site and datum then in use, from rating curve extended above 110,000 ft<sup>3</sup>/s (3,120 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 72.5 ft (22.10 m); minimum daily, 1.2 ft<sup>3</sup>/s (0.034 m<sup>3</sup>/s) Sept. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 41,000 ft<sup>3</sup>/s (1,160 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Dec. 15	unknown	90800	2570	32.77	9.988	Jan. 16	2315	*112000	3170	34.79	10.604
Jan. 6	0415	61800	1750	26.29	8.013	Feb. 7	1900	87100	2470	30.83	9.397
Jan. 9	1515	82200	2330	30.00	9.144	Mar. 8	1815	66700	1890	27.23	8.300

Minimum daily discharge, 21 ft<sup>3</sup>/s (0.59 m<sup>3</sup>/s) Oct. 21-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	362	557	1020	7260	4670	4470	6530	5030	996	308	69	57
2	240	365	893	12000	10900	4650	6370	4560	935	281	69	52
3	165	269	785	16100	11600	9370	4990	4170	870	265	66	50
4	120	258	710	13400	9030	14000	7280	3860	824	258	63	48
5	88	1420	658	44300	14400	23500	8710	3420	807	250	57	69
6	66	1730	633	49800	32100	21700	18800	3070	802	243	54	83
7	54	990	608	25700	62300	15200	14800	2800	752	236	52	88
8	45	643	589	19600	53700	44800	10900	2640	731	226	50	85
9	38	485	557	59800	41500	43500	8680	2610	673	216	47	119
10	34	429	522	39800	24300	23600	7500	2620	628	216	43	247
11	31	335	1210	22900	17300	17000	6890	2540	579	206	40	435
12	29	304	5150	18300	15900	13200	6390	2550	540	192	38	389
13	28	300	4250	20300	20200	10900	5790	2470	501	184	36	280
14	27	335	24000	37300	15900	9250	5290	2490	470	180	36	208
15	26	288	68000	85000	13100	7860	5940	2860	447	172	36	160
16	24	247	22100	99000	10800	6800	7710	3360	432	165	36	136
17	23	219	29300	90000	9690	6130	6950	2540	414	161	36	119
18	22	202	22000	48300	8810	5690	6180	2200	396	154	36	108
19	22	184	13800	44600	8120	5350	5920	2030	382	151	36	99
20	22	169	8000	30700	7670	5090	8570	1820	368	144	36	94
21	21	5180	8800	21400	7330	4920	8590	1720	362	138	36	88
22	21	18300	10000	16600	7010	4890	7130	1670	351	138	36	85
23	21	8280	19000	13300	6680	4910	6440	1550	338	131	36	83
24	22	4960	14800	11100	6340	5510	5930	1410	328	125	36	80
25	25	4880	9370	9420	6000	4710	6820	1290	317	120	43	78
26	28	3370	7630	8190	5690	4310	7970	1170	308	107	53	76
27	29	2790	11100	7190	5270	4160	6780	1080	300	99	57	73
28	40	2070	13100	6440	4830	4040	6050	1010	296	91	59	71
29	120	1530	10200	5810	---	3960	5570	1050	292	84	57	67
30	436	1220	10900	5320	---	3840	5220	1050	308	80	59	65
31	858	---	9050	4930	---	3930	---	1060	---	73	59	---
TOTAL	3087	62309	328735	893860	441140	341240	226690	73700	15747	5394	1467	3692
MEAN	99.6	2077	10600	28830	15760	11010	7556	2377	525	174	47.3	123
MAX	858	18300	68000	99000	62300	44800	18800	5030	996	308	69	435
MIN	21	169	522	4930	4670	3840	4990	1010	292	73	36	48
AC-FT	6120	123600	652000	1773000	875000	676800	449600	146200	31230	10700	2910	7320

CAL YR 1977	TOTAL	483642.4	MEAN	1325	MAX	68000	MIN	1.2	AC-FT	959300
WTR YR 1978	TOTAL	2397061.0	MEAN	6567	MAX	99000	MIN	21	AC-FT	4755000

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

CHEMICAL ANALYSES: Water years 1972-75, 1977.

WATER TEMPERATURES: Water years 1961 to current year.

SEDIMENT RECORDS: Water years 1966-76.

TURBIDITY: Water years 1966-68, 1971-73.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1960 to current year.

SEDIMENT RECORDS: October 1965 to September 1976.

INSTRUMENTATION.--Temperature recorder since November 1960.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 34.5°C June 25, 1968; minimum recorded, 0.0°C Dec. 14-17, 1967.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 30.5°C Aug. 7, 9; minimum, 7.0°C Jan. 23, 24.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.5	18.5	15.0	14.0	12.0	11.0	9.0	8.0	9.0	9.0	10.0	9.0
2	21.5	19.5	15.5	14.0	12.0	11.0	9.5	8.0	10.0	9.0	10.5	9.5
3	21.5	19.5	14.0	12.0	12.0	11.0	10.0	9.0	10.0	10.0	10.5	10.0
4	22.5	19.5	12.5	11.0	12.0	11.0	10.0	9.0	10.5	10.0	10.5	10.0
5	21.5	18.5	11.0	10.5	12.5	11.0	10.0	10.0	10.5	10.0	10.5	10.0
6	21.0	18.0	12.0	10.5	11.5	11.0	10.0	10.0	10.0	9.5	10.5	10.0
7	21.5	17.5	12.0	11.0	12.5	11.0	11.0	10.0	9.5	9.5	10.5	10.5
8	21.5	18.5	12.5	11.0	11.0	10.0	11.0	9.5	9.5	8.5	10.5	10.5
9	22.0	18.0	13.0	11.0	10.5	9.0	11.0	10.5	9.0	8.0	11.0	9.5
10	21.5	18.0	13.5	11.0	10.0	8.0	11.0	10.0	8.5	7.5	11.5	11.0
11	22.5	18.5	12.5	11.0	---	---	10.0	10.0	8.0	7.5	11.5	10.0
12	22.0	18.5	13.5	11.0	---	---	11.0	10.0	7.5	7.5	11.0	9.0
13	21.5	18.5	14.0	12.0	---	---	11.0	10.0	8.5	7.5	10.5	9.5
14	22.0	18.5	13.5	12.0	---	---	10.5	9.5	8.5	8.0	10.5	9.0
15	21.5	18.5	14.0	13.0	---	---	10.0	9.5	9.5	8.0	11.0	9.5
16	20.0	17.5	15.0	13.0	---	---	10.5	10.0	8.5	8.0	11.0	10.0
17	20.0	17.5	14.5	12.0	---	---	11.0	10.0	9.0	8.0	12.5	10.0
18	20.0	17.5	13.0	10.5	---	---	10.0	10.0	10.5	9.0	13.0	11.5
19	19.0	17.0	12.5	10.0	---	---	10.5	10.0	11.5	10.5	13.0	11.5
20	19.0	16.0	11.0	9.0	---	---	10.5	10.0	11.5	10.5	13.5	12.0
21	19.0	16.0	10.0	8.5	---	---	10.5	9.0	11.5	10.5	13.5	12.5
22	18.5	15.5	10.0	9.0	---	---	10.0	8.0	11.5	10.5	13.0	12.0
23	16.5	16.0	10.0	9.0	---	---	9.0	7.0	11.5	9.5	12.5	12.0
24	17.5	16.0	11.0	9.5	---	---	8.0	7.0	11.0	10.0	13.0	12.0
25	17.5	16.0	11.0	11.0	9.0	8.5	8.0	7.5	11.5	10.5	13.0	12.0
26	17.0	15.5	12.0	11.0	9.0	8.5	9.0	7.5	12.0	10.0	13.5	12.5
27	16.0	15.0	12.5	12.0	10.0	9.0	9.0	8.0	11.0	9.5	14.5	12.5
28	15.0	15.0	12.0	11.0	10.5	10.0	10.0	8.0	10.5	9.5	15.5	13.5
29	15.0	14.5	12.0	11.0	11.0	10.0	9.5	8.0	---	---	16.0	14.0
30	16.0	14.0	12.0	11.0	10.5	10.0	10.0	9.0	---	---	15.5	14.0
31	15.0	13.5	---	---	11.0	9.0	10.0	9.0	---	---	15.0	13.0
MONTH	22.5	13.5	15.5	8.5	12.5	8.0	11.0	7.0	12.0	7.5	16.0	9.0



11475000 EEL RIVER AT FORT SEWARD, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.5	14.0	16.5	14.0	24.0	19.5	---	---	28.0	23.0	26.5	21.5
2	14.0	12.0	17.5	15.0	24.0	20.5	---	---	28.0	23.0	26.5	22.5
3	12.0	10.5	18.0	16.0	24.5	20.5	---	---	28.0	23.0	26.5	22.5
4	11.5	10.5	17.5	15.0	25.0	20.5	---	---	27.5	23.0	22.5	20.5
5	11.5	9.5	16.5	14.0	26.0	22.0	---	---	28.5	23.0	20.5	19.5
6	9.5	9.5	17.0	14.5	26.0	22.5	---	---	30.0	24.5	21.5	19.5
7	9.5	9.0	19.0	15.0	25.0	21.5	---	---	30.5	25.0	22.5	19.0
8	---	---	20.5	16.0	24.0	21.5	---	---	30.0	25.5	21.5	19.5
9	---	---	20.0	17.5	---	---	---	---	30.5	25.0	25.0	19.5
10	---	---	19.5	16.5	---	---	---	---	29.0	25.0	19.5	18.5
11	---	---	19.5	16.0	---	---	---	---	28.0	23.5	20.5	18.5
12	---	---	20.0	16.0	---	---	25.5	23.0	25.5	22.5	21.0	18.5
13	---	---	22.0	17.0	---	---	26.0	23.0	25.5	22.0	21.5	20.0
14	---	---	18.0	17.0	---	---	27.5	23.0	26.5	21.5	22.0	19.5
15	---	---	17.0	16.5	---	---	27.0	23.5	26.5	21.5	22.5	20.0
16	---	---	17.0	16.0	---	---	27.0	23.0	26.0	21.0	22.0	19.0
17	---	---	17.0	16.5	---	---	27.5	22.5	25.5	21.0	20.0	17.0
18	---	---	19.0	17.0	---	---	27.5	23.0	25.5	20.5	19.0	16.0
19	---	---	19.5	18.5	---	---	28.0	23.5	25.5	20.5	19.5	16.5
20	12.5	11.5	22.0	18.5	---	---	28.0	23.0	26.0	21.0	20.0	17.0
21	12.5	11.0	20.0	17.5	---	---	29.5	24.5	22.5	20.5	20.0	17.0
22	13.5	12.0	20.0	17.0	---	---	29.5	25.0	24.0	19.5	20.5	17.0
23	14.0	12.5	19.0	16.5	---	---	29.0	25.0	24.5	19.5	21.5	18.0
24	14.5	13.5	18.0	16.5	---	---	29.5	25.0	22.0	20.5	22.0	19.0
25	15.0	14.0	18.5	16.5	---	---	29.0	26.0	22.5	20.5	21.5	19.5
26	15.0	13.5	19.0	16.5	---	---	29.0	24.0	25.5	20.0	22.5	19.0
27	16.5	14.5	21.5	17.0	---	---	28.0	24.0	25.5	20.0	23.0	20.0
28	17.0	15.0	22.0	19.0	---	---	28.0	24.0	25.5	20.5	22.5	19.0
29	16.5	14.5	23.0	19.0	---	---	28.5	23.5	25.0	21.0	22.0	19.0
30	16.0	14.5	23.0	18.5	---	---	28.0	23.0	24.0	21.5	22.5	19.5
31	---	---	23.5	19.0	---	---	28.0	23.0	26.0	21.5	---	---
MONTH	17.0	9.0	23.5	14.0	26.0	19.5	29.5	22.5	30.5	19.5	26.5	16.0

## EEL RIVER BASIN

11475250 EEL RIVER AT SOUTH FORK, CA

LOCATION.--Lat 40°21'04", long 123°54'48", in SE¼NE¼ sec.2, T.1 S., R.2 E., Humboldt County, Hydrologic Unit 18010105, 0.2 mi (0.3 km) upstream from Northwestern Pacific Railroad Bridge, 0.4 mi (0.6 km) north of town of South Fork, and 0.5 mi (0.8 km) upstream from South Fork.

DRAINAGE AREA.--2,266 mi<sup>2</sup> (5,869 km<sup>2</sup>).

## PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1952 to current year. Published as "near McCann" in 1952-53, and as "at McCann" in 1954-67.

REMARKS.--Exact sampling location subject to change due to seasonal accessibility to river. Records of discharge given for station 11475000 Eel River at Fort Seward.

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

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)			
OCT										
12...	1445	29	320	8.1	18.0	1.0	9.7			
NOV										
02...	1145	365	275	7.9	15.0	2.0	9.8			
DEC										
07...	1200	608	219	8.3	12.0	3.0	10.2			
JAN										
04...	1350	13400	144	7.7	10.0	95	11.3			
FEB										
08...	1445	53700	111	8.2	9.5	360	11.3			
MAR										
07...	1200	15200	248	7.8	10.5	150	10.7			
APR										
04...	1315	7280	141	7.6	11.0	85	10.5			
MAY										
09...	1215	2610	164	8.4	17.5	7.0	9.0			
JUN										
06...	1245	802	177	8.0	25.0	1.0	8.5			
JUL										
11...	1130	206	229	8.1	20.0	1.0	9.0			
AUG										
08...	1145	50	260	8.0	25.0	.00	7.9			
SEP										
12...	1415	389	262	8.2	21.0	1.0	9.5			

DATE	TIME	HARD- NESS (MG/L AS CAC03)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	ALKA- LINEITY (MG/L AS CAC03)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)
JAN										
04...	1350	56	5.0	.3	56	1.2	.04	.02	.01	0
FEB										
08...	1445	53	5.0	.3	51	1.2	--	--	--	100
MAR										
07...	1200	59	5.0	.3	54	.7	--	--	--	0
AUG										
08...	1145	130	7.6	.3	120	5.0	--	--	--	200
SEP										
12...	1415	120	8.2	.3	91	7.4	--	--	--	200

11475560 ELDER CREEK NEAR BRANSCOMB, CA  
(Hydrologic bench-mark station)

LOCATION.--Lat 39°43'47", long 123°38'34", in NW¼NE¼ sec.29, T.22 N., R.16 W., Mendocino County, Hydrologic Unit 18010106, on right bank 0.2 mi (0.3 km) upstream from mouth, and 5.3 mi (8.5 km) north of Branscomb.  
Rain gage No. 1: Lat 39°43'50", long 123°38'07", in NW¼NW¼ sec.28, T.22 N., R.16 W., altitude, 1,440 ft (439 m) at site 0.5 mi (0.8 km) east of gaging station.

DRAINAGE AREA.--6.50 mi<sup>2</sup> (16.84 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and one recording and storage-type precipitation gage. Datum of gage is 1,391.08 ft (424.001 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. No regulation; small diversion above station for domestic use.

AVERAGE DISCHARGE.--11 years, 27.7 ft<sup>3</sup>/s (0.784 m<sup>3</sup>/s), 20,070 acre-ft/yr (24.7 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,280 ft<sup>3</sup>/s (64.6 m<sup>3</sup>/s) Mar. 29, 1974, gage height, 9.77 ft (2.978 m), from rating curve extended above 660 ft<sup>3</sup>/s (18.7 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 9.40 ft (2.865 m) and 11.41 ft (3.478 m); minimum daily, 0.39 ft<sup>3</sup>/s (0.011 m<sup>3</sup>/s) Aug. 13-23, Sept. 7-15, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 11.41 ft (3.478 m), from floodmarks, discharge, 3,660 ft<sup>3</sup>/s (104 m<sup>3</sup>/s) by slope-area measurement of maximum flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft<sup>3</sup>/s (11 m<sup>3</sup>/s), revised, and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 14	2130	*687 19.5	7.15 2.179
Jan. 16	1900	650 18.4	7.06 2.152

Minimum daily discharge, 0.87 ft<sup>3</sup>/s (0.025 m<sup>3</sup>/s) Oct. 19-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	3.9	10	64	31	17	13	25	6.7	3.5	1.6	1.4
2	1.8	3.2	9.0	78	48	21	15	23	6.5	3.5	1.5	1.4
3	1.5	2.6	8.4	78	49	31	15	22	6.4	3.4	1.5	1.4
4	1.4	5.7	7.8	96	47	42	21	20	6.1	3.3	1.5	1.4
5	1.3	19	7.0	164	68	115	58	19	5.7	3.0	1.4	2.4
6	1.2	11	6.7	196	130	120	104	18	5.5	2.7	1.5	2.3
7	1.2	7.9	6.5	156	250	87	70	17	5.3	2.7	1.4	1.8
8	1.1	5.9	6.0	114	195	285	58	16	5.1	2.7	1.4	1.7
9	1.2	4.9	5.5	168	145	235	46	15	5.1	2.7	1.3	5.7
10	1.1	4.1	5.3	138	143	144	39	14	5.1	2.6	1.2	7.3
11	1.1	3.9	21	101	89	89	34	14	4.9	2.6	1.2	4.0
12	1.1	4.0	23	75	85	65	30	13	4.7	2.7	1.2	2.9
13	1.1	3.5	23	78	88	54	27	12	4.7	2.6	1.3	1.7
14	1.1	3.2	316	111	88	46	24	13	4.6	2.5	1.3	1.5
15	1.1	3.1	332	381	74	41	28	17	4.3	2.4	1.3	1.4
16	1.1	2.9	163	553	62	35	25	14	4.1	2.4	1.3	1.4
17	1.1	2.7	207	488	54	31	23	12	4.1	2.4	1.4	1.4
18	.95	2.5	124	269	49	28	23	11	4.1	2.3	1.4	1.4
19	.87	2.4	63	240	43	26	27	11	4.1	2.0	1.4	1.4
20	.87	2.3	47	217	39	23	31	10	4.0	1.9	1.4	1.4
21	.87	64	46	150	35	21	31	9.9	3.9	1.9	1.4	1.2
22	.87	72	64	97	31	20	30	9.3	3.9	1.9	1.4	1.2
23	.91	42	206	68	28	22	29	9.2	3.8	1.8	1.4	1.2
24	1.2	31	143	58	25	19	28	8.9	3.8	1.7	1.5	1.2
25	1.9	24	97	51	23	17	32	8.4	3.7	1.7	2.2	1.2
26	2.1	21	65	45	21	16	35	8.2	3.6	1.8	2.1	1.2
27	1.9	18	84	41	20	14	33	7.8	3.5	1.8	1.8	1.2
28	2.2	15	72	37	18	13	31	7.7	3.5	1.8	1.6	1.2
29	7.1	13	75	34	---	12	29	7.4	3.5	1.7	1.4	1.2
30	13	11	80	31	---	11	27	7.2	3.5	1.7	1.4	1.2
31	6.0	---	77	29	---	12	---	6.8	---	1.6	1.4	---
TOTAL	62.54	409.7	2400.2	4406	1978	1712	1016	406.8	137.8	73.3	45.1	57.3
MEAN	2.02	13.7	77.4	142	70.6	55.2	33.9	13.1	4.59	2.36	1.45	1.91
MAX	13	72	332	553	250	285	104	25	6.7	3.5	2.2	7.3
MIN	.87	2.3	5.3	29	18	11	13	6.8	3.5	1.6	1.2	1.2
AC-FT	124	813	4760	8740	3920	3400	2020	807	273	145	89	114
(†)	5.23	9.00	17.04	18.39	9.51	7.26	7.63	1.66	.02	0	1.07	3.93
CAL YR 1977 TOTAL	3544.63			MEAN 9.71	MAX 332	MIN .39	AC-FT 7030					
WTR YR 1978 TOTAL	12704.74			MEAN 34.8	MAX 553	MIN .87	AC-FT 25200					

† Precipitation, in inches, at rain gage No. 1.

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

CHEMICAL ANALYSES: Water years 1968 to current year.

WATER TEMPERATURES: Water years 1968 to current year.

SEDIMENT RECORDS: Water years 1969 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1967 to current year.

SEDIMENT RECORDS: October 1973 to September 1975.

INSTRUMENTATION.--Temperature recorder since October 1967.

REMARKS.--Chemical-quality samples collected 0.2 mi (0.3 km) downstream from gaging station.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 21.5°C July 31, Aug. 2, 1977; minimum recorded, 2.0°C on several days in 1976 and 1977.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 18.5°C Aug. 8, 9; minimum, 5.5°C Dec. 21, 22.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)
OCT 18...	1150	.87	157	7.7	9.0	10.4	K3	K16	58	0
NOV 03...	1130	2.7	129	7.8	9.0	10.3	K7	20	50	0
DEC 28...	1600	69	97	7.3	10.5	10.7	K4	130	41	2
JAN 12...	1550	72	56	7.9	10.5	10.5	K4	23	38	0
FEB 21...	1630	34	92	7.7	10.0	10.5	K3	--	38	0
MAR 28...	1115	14	115	8.0	10.0	10.3	22	K2	43	0
APR 20...	1215	31	89	8.1	8.0	11.1	100	K5	40	0
MAY 31...	1510	7.0	105	8.0	15.5	9.0	K730	100	46	0
JUN 20...	1805	4.0	121	7.9	15.0	9.2	K2	33	46	0
JUL 18...	1145	2.2	106	8.1	15.5	9.2	53	38	55	0
AUG 22...	1515	1.4	116	7.8	15.0	9.4	K3	K6	46	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)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)
OCT 18...	15	5.0	8.3	23	.5	.7	82	0	67
NOV 03...	13	4.3	7.5	24	.5	.6	72	0	59
DEC 28...	11	3.3	5.3	22	.4	.6	48	0	39
JAN 12...	10	3.2	5.2	23	.4	.6	48	0	39
FEB 21...	10	3.2	5.6	24	.4	.5	54	0	44
MAR 28...	11	3.7	5.9	23	.4	.6	58	0	48
APR 20...	9.4	3.9	5.3	22	.4	.5	54	0	44
MAY 31...	12	4.0	6.8	24	.4	.5	--	--	52
JUN 20...	12	3.9	7.1	25	.5	.7	--	--	56
JUL 18...	15	4.2	7.7	23	.5	.7	--	--	60
AUG 22...	12	3.9	6.7	24	.4	.7	--	--	61

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

11475560 ELDER CREEK NEAR BRANSCOMB, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 18...	5.0	3.2	.1	14	86	92	.12	.01	.02
NOV 03...	3.4	2.9	.1	14	75	81	.10	.06	.03
DEC 28...	3.8	3.2	.1	15	63	66	.09	.01	.03
JAN 12...	4.1	2.8	.1	18	60	68	.08	.03	.03
FEB 21...	3.2	2.3	.1	16	63	68	.09	.01	.03
MAR 28...	6.8	2.8	.1	15	62	75	.08	.02	.03
APR 20...	8.5	3.0	.1	14	64	71	.09	.04	.02
MAY 31...	1.8	2.5	.1	14	72	73	.07	.02	.01
JUN 20...	4.8	2.5	.1	15	78	80	.11	.01	.02
JUL 18...	3.3	2.5	.1	17	78	87	.11	.01	.03
AUG 22...	3.7	2.7	.0	13	77	79	.10	.03	.04

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	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, TOTAL RECOV- ERABLE (UG/L AS FE)
MAR 28...	1115	1	100	1	10	6	50

DATE	TIME	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
MAR 28...	15	15	10	.0	6	1	20

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 18...	1040	--	.87	2	.00
NOV 03...	1130	9.0	2.7	1	.01
DEC 28...	1555	10.5	69	7	1.3
JAN 12...	1555	10.5	72	12	2.3
MAR 28...	1115	10.0	14	3	.11
APR 20...	1215	8.0	31	4	.33
MAY 31...	1510	15.5	7.0	4	.08
JUN 20...	1805	15.0	4.0	4	.04
AUG 22...	1515	15.0	1.4	5	.02

11475560 ELDER CREEK NEAR BRANSCOMB, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.0	11.5	9.0	9.0	8.5	8.5	9.5	9.5	10.0	9.5	8.5	8.0
2	11.5	11.0	9.0	9.0	8.5	8.5	10.0	10.0	10.0	10.0	9.0	8.5
3	11.0	11.0	9.0	8.0	8.5	8.5	10.0	10.0	10.0	10.0	9.0	9.0
4	11.0	11.0	8.0	7.5	8.5	8.5	10.0	10.0	10.0	10.0	9.0	9.0
5	11.0	10.5	7.5	7.5	8.5	8.5	10.0	10.0	10.5	10.0	9.0	9.0
6	10.5	10.5	7.5	7.5	8.5	8.5	10.0	10.0	10.5	10.5	9.5	9.0
7	10.5	10.5	7.5	7.5	8.5	8.5	10.5	10.0	10.5	10.5	9.5	9.5
8	10.5	10.5	7.5	7.0	8.5	7.5	11.0	10.5	11.0	10.5	9.5	9.5
9	10.5	10.5	7.5	6.5	7.5	7.0	11.0	11.0	11.0	11.0	10.0	9.5
10	10.5	10.5	6.5	6.5	7.0	6.5	11.0	10.5	11.0	11.0	10.0	9.5
11	10.5	10.5	6.5	6.5	7.5	7.0	11.0	10.5	11.0	10.0	10.0	9.5
12	10.5	10.5	7.0	6.5	7.5	7.5	10.5	10.5	10.0	10.0	9.5	9.0
13	10.5	10.5	8.5	7.5	8.0	7.5	10.5	10.5	10.0	10.0	9.0	9.0
14	10.5	10.5	9.0	8.5	8.0	7.5	10.5	10.5	10.0	10.0	9.0	8.5
15	10.5	10.5	8.5	8.5	7.5	7.5	10.5	10.5	10.0	10.0	9.5	8.5
16	10.5	10.5	8.5	8.5	7.5	7.5	10.5	10.5	10.0	10.0	10.0	9.0
17	10.5	10.5	8.5	8.0	7.5	7.5	11.0	10.5	10.0	10.0	10.0	9.5
18	10.5	10.5	8.5	8.0	7.5	7.5	11.5	10.5	10.0	10.0	10.5	10.0
19	10.5	10.5	8.0	8.0	7.5	7.0	11.0	11.0	10.0	10.0	10.5	10.0
20	10.5	10.5	8.0	8.0	7.0	6.0	11.0	11.0	10.0	10.0	10.5	10.0
21	10.5	10.0	8.0	8.0	6.0	5.5	11.0	11.0	10.5	10.0	10.5	10.5
22	10.0	10.0	8.5	8.0	8.0	8.0	11.0	11.0	10.5	9.5	10.5	10.5
23	10.0	9.5	8.0	8.0	8.0	8.0	11.0	11.0	10.0	9.5	10.5	10.5
24	9.5	9.5	8.0	8.0	8.0	8.0	11.0	10.5	9.5	9.5	10.5	10.5
25	9.5	9.5	8.0	8.0	9.0	8.5	10.5	10.5	9.5	9.5	10.5	9.5
26	9.5	9.5	8.5	8.0	9.0	8.5	10.5	10.5	9.5	9.0	11.0	9.5
27	9.5	9.5	8.5	8.5	9.5	9.0	10.5	10.5	9.0	8.5	11.5	10.5
28	9.5	9.5	8.5	8.0	10.5	10.0	10.5	9.5	8.5	8.0	11.5	9.5
29	9.5	9.0	8.0	8.0	10.0	10.0	9.5	9.5	---	---	11.0	11.0
30	9.0	9.0	8.0	8.0	10.0	10.0	9.5	9.5	---	---	11.0	11.0
31	9.0	9.0	---	---	10.0	9.5	9.5	9.5	---	---	11.0	11.0
MONTH	12.0	9.0	9.0	6.5	10.5	5.5	11.5	9.5	11.0	8.0	11.5	8.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.0	10.5	9.5	8.5	14.0	12.0	---	---	17.0	16.0	---	---
2	10.5	9.5	9.5	9.5	14.0	12.0	---	---	17.0	16.0	---	---
3	9.5	9.0	9.5	9.5	16.0	12.5	---	---	17.0	16.5	---	---
4	9.0	9.0	9.5	9.5	16.5	13.0	---	---	18.0	17.0	---	---
5	9.0	9.0	9.5	8.5	17.0	14.0	---	---	17.5	16.5	---	---
6	9.0	9.0	9.5	8.5	17.0	14.0	---	---	17.5	17.5	---	---
7	9.0	9.0	10.5	9.5	17.0	14.0	---	---	18.0	17.5	---	---
8	9.5	9.0	11.0	9.5	17.0	14.0	---	---	18.5	17.5	---	---
9	10.5	9.5	11.0	10.5	15.5	14.0	---	---	18.5	17.5	---	---
10	11.0	10.5	---	---	14.0	13.5	---	---	17.5	17.5	---	---
11	11.0	10.5	---	---	15.0	13.0	---	---	17.5	17.0	---	---
12	10.5	10.5	---	---	14.5	13.0	---	---	17.0	15.5	---	---
13	10.5	10.0	---	---	14.5	12.5	---	---	15.5	15.0	12.0	12.0
14	10.0	9.5	---	---	14.0	12.0	---	---	16.0	15.5	12.0	12.0
15	9.5	8.5	---	---	13.5	11.0	---	---	16.0	16.0	12.0	12.0
16	8.5	7.0	---	---	14.5	12.5	---	---	16.0	16.0	12.0	12.0
17	7.5	7.0	---	---	15.0	12.5	---	---	16.0	15.5	12.0	12.0
18	8.0	7.5	---	---	14.5	13.5	---	---	15.5	15.5	12.0	11.5
19	8.0	8.0	---	---	15.0	13.5	17.5	16.5	15.5	15.0	11.5	11.5
20	8.0	8.0	---	---	15.5	13.5	17.5	17.0	15.0	14.5	11.5	11.0
21	8.0	8.0	---	---	---	---	18.0	17.0	15.0	14.5	11.0	11.0
22	8.0	8.0	---	---	---	---	18.0	16.0	---	---	11.0	11.0
23	9.0	8.0	---	---	---	---	17.0	16.0	---	---	11.0	11.0
24	9.0	9.0	---	---	---	---	17.5	16.5	---	---	11.5	11.0
25	9.0	9.0	---	---	---	---	17.0	16.5	---	---	12.0	11.5
26	9.0	9.0	---	---	---	---	17.0	16.0	---	---	12.0	12.0
27	9.5	9.0	---	---	---	---	17.0	16.0	---	---	12.0	12.0
28	9.5	9.0	---	---	---	---	16.0	15.5	---	---	12.0	11.5
29	9.5	9.0	---	---	---	---	16.0	15.0	---	---	11.5	11.5
30	9.0	9.0	---	---	---	---	16.0	15.0	---	---	11.5	11.5
31	---	---	---	---	---	---	17.0	16.0	---	---	---	---
MONTH	11.0	7.0	11.0	8.5	17.0	11.0	18.0	15.0	18.5	14.5	12.0	11.0

## 11475800 SOUTH FORK EEL RIVER AT LEGGETT, CA

LOCATION.--Lat 39°52'29", long 123°43'10", in NE¼SE¼ sec.3, T.23 N., R.17 W., Mendocino County, Hydrologic Unit 18010106, on right bank near Standish-Hickey State Park, 0.2 mi (0.3 km) upstream from Rock Creek, and 0.7 mi (1.1 km) northwest of Leggett.

DRAINAGE AREA.--248 mi<sup>2</sup> (642 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 693.32 ft (211.324 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--13 years, 915 ft<sup>3</sup>/s (25.91 m<sup>3</sup>/s), 662,900 acre-ft/yr (817 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 72,700 ft<sup>3</sup>/s (2,060 m<sup>3</sup>/s) Jan. 4, 1966, gage height, 25.4 ft (7.74 m), from floodmarks, from rating curve extended above 21,000 ft<sup>3</sup>/s (595 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 26.13 ft (7.964 m); minimum daily, 7.3 ft<sup>3</sup>/s (0.21 m<sup>3</sup>/s) Aug. 4-6, 12, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 26.13 ft (7.964 m), from floodmarks, discharge, 78,700 ft<sup>3</sup>/s (2,230 m<sup>3</sup>/s), by slope-area measurement of maximum flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8,500 ft<sup>3</sup>/s (241 m<sup>3</sup>/s) and maximum(\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 21	2145	9330 264	10.29 3.136	Jan. 16	2200	19600 555	14.00 4.267
Dec. 14	2300	*25100 711	15.58 4.749	Feb. 7	1230	12100 343	11.44 3.487
Dec. 17	0315	11100 314	11.06 3.371	Mar. 8	1215	14200 402	12.24 3.731
Jan. 9	0615	11100 314	11.06 3.371				

Minimum daily discharge, 19 ft<sup>3</sup>/s (0.54 m<sup>3</sup>/s) Oct. 20-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	136	239	1300	966	730	668	826	177	91	41	33
2	62	105	209	2900	2150	853	621	746	173	88	40	31
3	54	84	187	2410	1640	1330	592	684	169	86	39	30
4	49	138	170	2750	1310	1660	1340	629	165	84	39	32
5	45	859	156	6340	3280	3520	2350	578	160	80	37	45
6	41	403	146	6090	4530	2920	4430	550	155	77	37	75
7	38	252	150	3790	8220	2120	2740	516	150	75	36	55
8	35	178	136	3320	6470	10500	1920	484	144	73	33	47
9	32	138	126	7390	5760	6460	1550	458	138	71	32	44
10	30	116	118	3930	3750	3660	1340	431	134	66	31	300
11	28	105	1030	2850	2730	2510	1170	407	133	66	31	173
12	26	110	1080	2380	3010	1920	1060	389	130	65	31	101
13	25	98	913	3150	3490	1600	947	371	130	63	31	75
14	24	85	11600	4750	2850	1390	868	377	124	63	31	65
15	23	77	12800	12800	2350	1220	1190	556	118	60	31	58
16	22	71	5130	15900	1960	1060	1210	503	115	60	31	54
17	21	66	7680	10500	1720	929	1090	394	112	58	31	50
18	20	62	3460	7300	1490	826	983	353	109	57	31	47
19	20	58	2050	7510	1330	753	1090	322	106	55	31	45
20	19	55	1430	5250	1230	684	1430	298	104	54	31	43
21	19	3420	1350	3730	1140	637	1350	281	106	52	30	42
22	19	3720	2560	2740	1050	599	1180	270	101	50	31	41
23	19	1500	4680	2030	986	777	1090	255	97	47	32	39
24	26	906	2660	1620	922	723	1010	250	97	46	33	38
25	53	696	1770	1370	894	578	1270	245	95	44	54	37
26	64	550	1370	1190	832	523	1440	235	95	44	63	36
27	53	445	2510	1060	793	484	1170	225	93	43	55	36
28	52	373	1760	953	755	451	1050	216	91	44	46	35
29	181	316	1610	871	---	419	956	206	91	43	41	35
30	435	272	1760	807	---	400	885	198	93	43	39	34
31	219	---	1460	755	---	438	---	185	---	42	36	---
TOTAL	1829	15394	72300	129736	67608	52674	39990	12438	3705	1890	1135	1776
MEAN	59.0	513	2332	4185	2415	1699	1333	401	124	61.0	36.6	59.2
MAX	435	3720	12800	15900	8220	10500	4430	826	177	91	63	300
MIN	19	55	118	755	755	400	592	185	91	42	30	30
AC-FT	3630	30530	143400	257300	134100	104500	79320	24670	7350	3750	2250	3520
CAL YR 1977	TOTAL	111726.3	MEAN	306	MAX	12800	MIN	7.3	AC-FT	221600		
WTR YR 1978	TOTAL	400475.0	MEAN	1097	MAX	15900	MIN	19	AC-FT	794300		

11475800 SOUTH FORK EEL RIVER AT LEGGETT, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water year 1977.

WATER TEMPERATURES: Water years 1966 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1965 to current year.

INSTRUMENTATION.--Temperature recorder since October 1965.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 26.5°C July 27, 1973; minimum recorded, 2.5°C Dec. 11-14, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.0°C July 19-25; minimum, 7.0°C Jan. 24-31.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	16.0	12.5	11.0	11.0	10.5	8.5	8.0	7.5	7.5	9.5	9.0
2	18.0	16.0	13.0	11.0	10.5	10.0	9.0	8.5	8.5	7.5	10.0	9.0
3	18.0	16.0	12.0	11.0	11.0	10.0	9.5	9.0	9.0	8.5	10.5	9.5
4	18.0	16.0	11.0	10.0	11.0	11.0	9.5	9.5	9.0	9.0	10.5	10.5
5	18.0	16.0	10.0	10.0	12.0	11.0	9.5	9.5	9.5	9.0	10.5	10.5
6	18.0	16.0	10.5	10.0	11.0	11.0	9.5	8.5	9.5	9.0	10.5	10.5
7	18.0	16.0	10.5	9.5	11.5	11.0	9.5	9.5	9.5	9.5	10.5	10.5
8	18.0	16.0	10.0	9.0	11.5	11.5	9.5	8.5	9.5	9.0	10.5	10.5
9	18.0	16.0	10.0	9.0	12.0	11.5	8.5	8.0	9.0	9.0	10.5	10.5
10	18.0	16.0	10.0	9.0	11.5	11.0	8.0	7.5	9.0	8.5	11.0	10.5
11	18.0	16.0	9.5	9.0	11.0	10.5	8.0	7.5	8.5	8.0	11.0	11.0
12	18.0	16.0	10.0	9.0	10.5	10.5	8.5	8.0	8.0	8.0	11.0	10.5
13	18.0	16.0	10.0	9.0	10.5	10.5	9.5	8.5	8.0	8.0	10.5	10.0
14	18.0	16.0	10.0	9.0	10.5	10.5	10.5	9.5	8.0	8.0	11.0	10.0
15	18.0	16.0	10.5	9.5	10.5	9.5	10.5	9.5	9.0	8.0	11.0	10.0
16	17.5	16.0	11.0	9.5	9.5	9.5	9.5	9.0	8.5	8.5	12.0	10.5
17	16.5	15.5	10.5	9.5	10.5	9.5	9.5	9.5	9.0	8.5	12.0	11.0
18	16.5	15.5	9.5	7.5	9.5	9.0	9.5	9.5	10.0	9.0	12.0	11.5
19	16.5	15.5	9.0	7.5	9.5	8.5	9.5	9.0	10.0	10.0	13.0	11.5
20	16.5	14.5	8.5	7.5	9.0	8.0	9.0	9.0	10.5	10.0	13.0	12.0
21	16.5	14.5	10.0	7.5	9.5	8.5	9.0	9.0	10.5	10.0	12.5	12.0
22	15.5	14.5	9.5	8.5	9.5	9.0	9.0	8.0	10.5	10.5	13.5	12.5
23	15.5	14.5	10.0	10.0	10.5	9.5	8.0	7.5	10.5	10.0	13.0	11.5
24	15.5	15.0	10.5	10.0	10.0	9.5	7.5	7.0	10.0	10.0	13.5	12.5
25	15.5	14.5	11.5	10.5	9.5	9.0	7.0	7.0	11.0	10.0	14.0	12.5
26	15.5	14.5	12.0	11.0	9.0	9.0	7.5	7.0	11.0	10.0	14.5	13.0
27	14.5	14.0	11.5	11.5	10.0	9.0	7.5	7.0	10.5	9.5	15.5	13.5
28	14.0	13.5	11.5	10.5	10.0	9.5	7.5	7.0	10.0	9.0	15.5	13.5
29	13.5	12.5	11.0	11.0	10.0	10.0	7.0	7.0	---	---	14.5	13.5
30	12.5	11.5	11.0	11.0	10.0	9.0	7.0	7.0	---	---	15.0	13.5
31	12.5	11.5	---	---	9.0	8.0	7.5	7.0	---	---	14.5	13.5
MONTH	18.0	11.5	13.0	7.5	12.0	8.0	10.5	7.0	11.0	7.5	15.5	9.0



11475800 SOUTH FORK EEL RIVER AT LEGGETT, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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

## EEL RIVER BASIN

11476500 SOUTH FORK EEL RIVER NEAR MIRANDA, CA

LOCATION.--Lat 40°10'55", long 123°46'30", in NW¼ sec.30, T.3 S., R.4 E., Humboldt County, Hydrologic Unit 18010106, on right bank at Sylvandale Campgrounds on U.S. Highway 101, 0.5 mi (0.8 km) upstream from Rocky Glen Creek, 4.3 mi (6.9 km) southeast of Miranda, and 20 mi (32 km) upstream from mouth.

DRAINAGE AREA.--537 mi<sup>2</sup> (1,391 km<sup>2</sup>).

## 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 1395: Drainage area. WSP 2129: 1955.

GAGE.--Water-stage recorder. Datum of gage is 217.57 ft (66.315 m) National Geodetic Vertical Datum of 1929.

Prior to Nov. 2, 1940, nonrecording gage at site 200 ft (61 m) upstream at datum 0.8 ft (0.24 m) higher.

Nov. 2, 1940, to Oct. 31, 1944, nonrecording gage at present site and datum.

REMARKS.--Records good including those for period of no gage-height record, Jan. 12-24. Occasional storage and release for recreation use during summer months at Benbow Dam. No diversion above station.

AVERAGE DISCHARGE.--39 years, 1,911 ft<sup>3</sup>/s (54.12 m<sup>3</sup>/s), 1,385,000 acre-ft/yr (1.71 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 199,000 ft<sup>3</sup>/s (5,640 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 46.0 ft (14.02 m), from floodmarks, from rating curve extended above 53,000 ft<sup>3</sup>/s (1,500 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 42.7 ft (13.01 m); minimum observed, 9 ft<sup>3</sup>/s (0.25 m<sup>3</sup>/s) Oct. 17, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 15,000 ft<sup>3</sup>/s (425 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 22	0300	16800 476	13.43 4.093	Jan. 9	1215	20300 575	14.46 4.407
Dec. 15	0315	50700 1440	21.82 6.651	Jan. 16	unknown	*52900 1500	22.29 6.794
Dec. 17	0745	21600 612	14.84 4.523	Feb. 7	do	22500 637	unknown
Jan. 5	0515	17700 501	13.70 4.176	Mar. 8	1515	33200 940	17.86 5.444

Minimum daily discharge, 38 ft<sup>3</sup>/s (1.08 m<sup>3</sup>/s) Oct. 19, 20, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	223	408	610	2960	1470	1380	1440	1290	375	173	73	67
2	156	276	537	6610	3790	1500	1360	1180	360	170	72	63
3	117	210	485	7400	3970	2080	1360	1090	355	164	70	62
4	99	238	440	7110	3030	3260	2380	1010	341	159	52	65
5	83	1670	408	14600	7180	6140	4050	939	326	154	51	104
6	73	1420	375	12100	11000	6240	9730	896	313	148	63	129
7	65	766	365	8080	18000	4780	6040	840	296	143	63	110
8	60	475	350	7510	14000	25000	4120	799	288	141	59	100
9	54	327	318	16000	9000	15500	3080	759	280	134	56	92
10	52	249	296	9810	6900	8500	2470	728	272	129	53	650
11	48	210	1230	6670	5620	5770	2090	702	265	124	51	350
12	47	223	3000	5400	6080	4270	1830	671	257	124	51	240
13	45	194	2850	6600	7800	3400	1640	646	250	122	53	180
14	45	170	29100	10000	6400	2860	1500	646	243	117	51	150
15	43	148	33300	20000	5100	2450	1980	1010	236	115	50	129
16	43	136	12800	39000	4500	2160	2180	977	233	108	53	113
17	40	124	17900	24000	3800	1940	1950	758	230	106	53	99
18	40	115	9000	15500	3250	1770	1720	676	227	104	53	93
19	38	106	5260	15000	2900	1620	1960	628	214	104	51	84
20	38	99	3430	12000	2600	1500	3190	587	197	91	53	77
21	44	4830	2630	9000	2400	1410	2930	559	197	101	54	77
22	38	10700	5130	6300	2250	1340	2410	532	197	98	56	75
23	41	4060	9770	4600	2100	1430	2080	516	197	88	56	72
24	47	2330	6930	3700	1980	1660	1860	510	196	86	57	70
25	72	1790	4560	2850	1850	1320	2140	490	193	84	75	67
26	151	1470	3280	2460	1710	1220	2250	470	185	82	113	67
27	156	1210	5090	2130	1590	1150	1890	350	180	74	85	67
28	138	1000	4600	1900	1490	1100	1640	322	176	73	95	67
29	230	826	3880	1730	---	1050	1490	394	175	73	83	65
30	740	709	4270	1580	---	1020	1390	403	143	74	75	65
31	753	---	3630	1460	---	1040	---	390	---	73	68	---
TOTAL	3819	36489	175824	284060	141760	115860	76150	21768	7397	3536	1948	3649
MEAN	123	1216	5672	9163	5063	3737	2538	702	247	114	62.8	122
MAX	753	10700	33300	39000	18000	25000	9730	1290	375	173	113	650
MIN	38	99	296	1460	1470	1020	1360	322	143	73	50	62
AC-FT	7570	72380	348700	563400	281200	229800	151000	43180	14670	7010	3860	7240
CAL YR 1977	TOTAL	266145	MEAN	729	MAX	33300	MIN 13	AC-FT	527900			
WTR YR 1978	TOTAL	872260	MEAN	2390	MAX	39000	MIN 38	AC-FT	1730000			

11476500 SOUTH FORK EEL RIVER NEAR MIRANDA, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1952 to current year.

WATER TEMPERATURES: Water years 1961 to current year.

SEDIMENT RECORDS: Water years 1955-62.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1960 to current year.

INSTRUMENTATION.--Temperature recorder since November 1960.

REMARKS.--Where no maximum or minimum is shown, temperature is once-daily reading.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 34.0°C July 25, 1964; minimum recorded, 1.0°C Jan. 20, 21, 1963.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.5°C July 21, 22; minimum, 6.5°C Nov. 19, 20.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)		
OCT										
12...	1515	--	47	288	8.2	19.0	1.0	12.2		
NOV										
02...	1230	--	268	232	8.0	15.5	25	9.9		
DEC										
07...	1330	--	365	207	7.8	12.0	2.0	10.4		
JAN										
04...	1440	--	6630	131	7.3	11.0	85	10.6		
FEB										
08...	1520	--	12400	95	7.4	10.0	220	11.0		
MAR										
07...	1330	--	4230	110	7.4	11.0	70	10.2		
APR										
04...	1345	--	2470	133	7.4	11.5	40	10.3		
MAY										
09...	1245	--	867	152	7.6	19.5	2.0	9.4		
JUN										
06...	1315	--	309	186	8.3	25.0	3.0	10.2		
JUL										
11...	1230	--	124	199	8.4	23.5	.00	10.2		
AUG										
08...	1245	--	60	199	8.4	29.0	1.0	13.9		
SEP										
12...	1500	240	--	227	8.3	21.5	2.0	10.2		

DATE	TIME	HARD- NESS (MG/L AS CACO3)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	ALKA- LITY (MG/L AS CACO3)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	BORON, DIS- SOLVED (UG/L AS B)
JAN										
04...	1440	45	7.0	.5	48	2.2	.11	.04	.12	0
JUN										
06...	1315	84	7.3	.3	80	4.5	.01	.02	.06	100
JUL										
11...	1230	99	8.1	.4	96	6.0	.02	.00	.00	100

11476500 SOUTH FORK EEL RIVER NEAR MIRANDA, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	OCT DAILY	MIN	MAX	NOV DAILY	MIN	MAX	DEC DAILY	MIN	MAX	JAN DAILY	MIN	MAX	FEB DAILY	MIN	MAX	MAR DAILY	MIN
1	19.0	--	16.0	14.5	--	12.5	11.5	--	10.5	9.5	--	8.5	9.5	--	9.0	10.0	--	9.0
2	19.0	--	16.0	14.5	--	13.0	11.0	--	10.5	10.0	--	9.5	10.5	--	9.5	10.5	--	10.0
3	19.5	--	16.0	13.5	--	11.5	11.5	--	11.0	10.5	--	10.0	11.5	--	10.5	11.5	--	10.5
4	19.5	--	16.5	11.5	--	10.5	12.5	--	11.5	10.5	--	10.5	11.0	--	10.5	11.0	--	10.5
5	19.0	--	16.5	11.5	--	10.5	12.5	--	11.5	10.5	--	10.5	10.5	--	10.0	11.5	--	10.5
6	18.0	--	16.0	12.0	--	11.0	11.5	--	10.5	10.5	--	10.5	10.5	--	10.0	11.5	--	10.5
7	18.5	--	16.0	11.5	--	10.5	12.5	--	11.0	11.0	--	10.5	10.5	--	10.0	12.0	--	10.5
8	18.5	--	15.5	11.5	--	10.5	11.0	--	9.5	11.5	--	11.0	10.0	--	9.5	12.0	--	12.0
9	18.5	--	15.5	11.0	--	9.5	9.5	--	8.5	11.5	--	11.5	9.5	--	9.0	12.0	--	11.5
10	19.5	--	14.5	11.0	--	10.5	9.5	--	8.5	11.5	--	10.5	9.0	--	8.5	12.5	--	11.5
11	20.5	--	15.0	11.0	--	10.5	10.5	--	9.5	10.5	--	10.0	8.5	--	7.5	12.0	--	11.0
12	20.0	--	15.5	11.5	--	10.5	10.5	--	9.5	11.5	--	10.5	9.0	--	8.5	11.5	--	10.0
13	19.5	--	14.5	12.5	--	10.5	11.5	--	10.5	11.5	--	10.0	9.5	--	8.5	11.0	--	10.0
14	21.5	--	15.5	12.0	--	10.5	12.5	--	11.5	11.0	--	10.5	10.0	--	9.0	11.5	--	9.5
15	19.0	--	14.5	13.0	--	11.5	12.5	--	10.5	10.5	--	10.0	9.5	--	9.0	12.0	--	10.0
16	18.0	--	14.5	12.5	--	10.5	10.5	--	9.5	11.0	--	10.5	9.5	--	8.5	12.5	--	10.5
17	18.0	--	15.0	11.5	--	9.5	10.5	--	9.5	11.5	--	11.0	10.0	--	9.5	13.0	--	11.0
18	18.0	--	15.0	9.5	--	7.5	10.5	--	8.5	11.0	--	11.0	11.5	--	9.0	14.0	--	11.5
19	16.5	--	14.5	8.5	--	6.5	9.0	--	8.0	11.5	--	10.5	12.5	--	10.5	15.0	--	13.0
20	17.5	--	13.5	8.0	--	6.5	8.5	--	7.5	11.0	--	10.5	12.0	--	10.5	14.5	--	13.5
21	16.0	--	12.5	10.5	--	7.5	9.5	--	8.5	11.5	--	10.5	12.0	--	10.5	14.0	--	13.5
22	18.5	--	12.5	10.5	--	9.5	10.5	--	9.5	10.5	--	9.5	12.5	--	10.5	14.5	--	13.0
23	15.5	--	14.5	10.5	--	9.5	10.5	--	10.5	9.5	--	9.0	12.0	--	10.5	15.0	--	14.0
24	17.5	--	15.0	11.5	--	10.0	10.5	--	9.5	9.5	--	8.5	11.5	--	10.5	14.5	--	13.0
25	17.0	--	15.5	12.5	--	11.5	9.5	--	9.5	9.5	--	8.5	12.5	--	10.5	15.0	--	13.0
26	15.5	--	14.5	12.5	--	12.0	9.5	--	9.5	9.5	--	9.0	11.5	--	10.5	15.0	--	14.5
27	15.0	--	13.5	12.5	--	12.0	10.5	--	9.5	9.5	--	8.5	11.5	--	9.5	16.0	--	14.0
28	14.0	--	13.5	12.0	--	11.5	11.0	--	10.5	9.5	--	8.5	10.5	--	9.5	16.5	--	14.5
29	14.0	--	13.5	11.5	--	11.0	11.0	--	10.0	9.5	--	8.5	--	--	--	16.0	--	14.5
30	14.5	--	13.0	11.5	--	11.0	10.0	--	9.5	9.5	--	8.5	--	--	--	16.5	--	14.0
31	13.5	--	12.5	--	--	--	9.5	--	9.0	9.5	--	8.5	--	--	--	16.0	--	14.0
MONTH	21.5	--	12.5	14.5	--	6.5	12.5	--	7.5	11.5	--	8.5	12.5	--	7.5	16.5	--	9.0
DAY	MAX	APR DAILY	MIN	MAX	MAY DAILY	MIN	MAX	JUN DAILY	MIN	MAX	JUL DAILY	MIN	MAX	AUG DAILY	MIN	MAX	SEP DAILY	MIN
1	14.0	--	13.5	15.0	--	12.5	22.0	--	18.5	21.5	--	19.5	--	--	--	25.0	--	20.5
2	14.5	--	13.0	16.5	--	13.5	22.0	--	18.5	21.5	--	19.0	--	--	--	26.0	--	21.5
3	14.0	--	12.0	17.0	--	14.0	22.5	--	19.0	23.5	--	19.0	--	--	--	25.0	--	22.0
4	13.0	--	11.5	16.0	--	13.5	23.5	--	19.0	23.5	--	19.5	--	--	--	23.5	--	21.5
5	12.5	--	12.0	16.0	--	13.0	24.5	--	21.0	24.0	--	19.0	--	--	--	21.5	--	20.0
6	12.0	--	11.5	16.5	--	13.0	24.5	--	21.5	24.0	--	19.5	--	--	--	21.5	--	19.5
7	13.0	--	11.5	17.0	--	14.0	23.5	--	20.5	24.5	--	20.0	--	--	--	21.5	--	18.5
8	13.5	--	12.0	19.0	--	15.0	23.5	--	21.0	25.0	--	20.0	--	--	--	21.5	--	19.0
9	15.5	--	13.5	18.5	--	16.0	--	--	--	24.5	--	20.0	--	--	--	21.0	--	19.0
10	16.5	--	15.0	18.0	--	16.0	22.5	--	20.0	23.5	--	20.0	--	--	--	20.5	--	19.0
11	16.5	--	15.5	18.0	--	16.0	23.0	--	19.5	24.0	--	19.5	--	--	--	22.0	--	18.5
12	16.5	--	15.5	19.0	--	15.0	23.0	--	21.0	25.0	--	20.0	--	--	--	22.5	--	18.5
13	16.5	--	15.0	18.5	--	17.0	23.5	--	20.5	25.0	--	20.5	--	--	--	22.5	--	19.5
14	16.0	--	14.5	18.0	--	15.0	22.5	--	20.0	26.0	--	21.5	--	--	--	22.5	--	19.0
15	14.5	--	13.5	15.0	--	14.5	22.0	--	20.0	25.0	--	21.0	--	--	--	22.5	--	18.5
16	13.5	--	13.0	17.0	--	14.0	22.5	--	19.5	24.5	--	21.0	--	--	--	21.5	--	18.0
17	14.0	--	13.0	18.5	--	15.0	23.5	--	20.0	25.0	--	20.0	--	--	--	20.0	--	16.5
18	14.5	--	13.0	--	--	--	22.5	--	20.5	25.5	--	20.5	--	--	--	19.0	--	16.0
19	13.0	--	12.0	--	--	--	23.0	--	20.0	27.0	--	22.0	--	--	--	18.5	--	16.0
20	12.0	--	11.0	--	--	--	23.0	--	20.5	26.5	--	18.5	--	--	--	19.0	--	14.0
21	12.0	--	11.0	--	--	--	23.0	--	20.5	27.5	--	23.5	--	--	--	18.5	--	15.0
22	12.0	--	11.5	18.0	--	15.5	23.5	--	20.0	27.5	--	23.5	--	--	--	19.5	--	14.5
23	13.0	--	12.0	17.5	--	15.0	21.5	--	19.5	26.5	--	23.0	--	--	--	21.5	--	15.5
24	13.0	--	12.0	16.5	--	15.5	21.5	--	19.0	26.5	--	22.5	--	20.5	--	22.5	--	17.0
25	14.0	--	12.0	17.5	--	15.0	22.5	--	19.0	25.0	--	22.0	--	--	--	21.5	--	18.5
26	14.0	--	13.0	18.5	--	16.5	23.0	--	19.5	25.5	--	22.0	--	--	--	22.0	--	18.0
27	15.0	--	13.0	21.0	--	17.0	24.5	--	20.0	--	--	--	--	--	--	22.0	--	18.5
28	15.0	--	14.0	21.5	--	18.0	22.5	--	20.0	--	--	--	--	--	--	21.0	--	16.5
29	15.5	--	13.0	21.0	--	17.0	20.5	--	19.5	--	--	--	--	--	--	21.5	--	16.0
30	15.0	--	13.5	20.5	--	17.0	23.0	--	19.0	--	--	--	--	--	--	21.0	--	17.0
31	--	--	--	22.0	--	18.0	--	--	--	--	--	--	--	21.0	--	--	--	--
MONTH	16.5	--	11.0	22.0	--	12.5	24.5	--	18.5	27.5	--	18.5	--	--	--	26.0	--	14.0

## 11476600 BULL CREEK NEAR WEOTT, CA

LOCATION.--Lat 40°21'05", long 124°00'10", in SW¼NW¼ sec.30, T.1 S., R.2 E., Humboldt County, Hydrologic Unit 18010106, on left bank 0.2 mi (0.3 km) downstream from Albee Creek, 4.5 mi (7.2 km) northwest of Weott, and 4.6 mi (7.4 km) upstream from mouth.

DRAINAGE AREA.--28.1 mi<sup>2</sup> (72.8 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 269.36 ft (82.101 m) 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 (46 m) downstream at datum 8.90 ft (2.713 m) lower.

REMARKS.--Records good. Minor diversions above station for domestic use.

AVERAGE DISCHARGE.--18 years, 126 ft<sup>3</sup>/s (3.568 m<sup>3</sup>/s), 91,290 acre-ft/yr (113 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,520 ft<sup>3</sup>/s (185 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 20.6 ft (6.28 m), from floodmarks, site and datum then in use, from rating curve extended above 2,100 ft<sup>3</sup>/s (59.5 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; minimum daily, 0.30 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Sept. 28, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,700 ft<sup>3</sup>/s (48 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 14	0430	*4260 121	10.87 3.313	Jan. 16	0500	3950 112	10.27 3.130
Jan. 5	2000	1970 55.8	8.00 2.438	Feb. 7	0930	1990 56.4	8.02 2.444
Jan. 9	0130	2210 62.6	8.32 2.536				

Minimum daily discharge, 2.5 ft<sup>3</sup>/s (0.071 m<sup>3</sup>/s) Aug. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	28	64	490	151	162	73	79	23	12	4.1	4.4
2	8.4	25	59	765	281	155	70	72	23	12	4.1	4.8
3	7.3	21	53	650	298	169	95	67	22	12	4.1	4.1
4	6.6	50	48	800	227	290	118	63	22	11	4.1	7.5
5	6.0	85	45	1600	470	346	232	58	20	10	3.8	17
6	5.4	61	46	1420	813	310	278	54	22	9.2	3.5	11
7	5.4	48	44	1070	1300	374	246	50	19	9.2	3.2	7.9
8	5.7	41	39	1260	1180	903	211	50	19	9.2	3.0	7.5
9	5.4	38	37	1560	1010	585	181	43	19	8.3	2.7	79
10	4.6	36	37	1070	762	442	158	42	21	7.5	2.5	40
11	3.6	38	123	1130	625	349	138	38	20	7.5	2.5	23
12	3.4	34	106	928	690	290	130	36	18	7.5	2.7	16
13	3.8	28	320	1180	740	251	118	36	19	7.9	3.2	12
14	4.9	27	3220	1180	600	213	110	44	17	7.1	3.2	11
15	4.6	24	2700	2180	500	181	176	55	16	7.1	3.0	9.7
16	4.6	22	2000	2720	440	160	128	41	16	7.1	3.0	8.8
17	4.3	20	2200	1910	390	140	116	40	16	7.1	3.0	7.9
18	3.8	19	1400	1300	345	128	107	39	14	6.7	3.0	7.5
19	4.9	17	840	1080	310	114	167	38	14	6.3	2.7	7.1
20	4.9	16	590	817	285	105	181	35	14	5.9	2.7	6.7
21	5.4	236	520	629	260	96	153	34	14	5.1	2.7	5.9
22	4.1	283	800	438	240	88	140	33	14	4.8	3.2	5.9
23	6.3	239	1170	331	225	114	134	31	13	4.8	3.2	5.5
24	9.2	236	740	273	210	95	124	32	13	5.1	6.3	5.5
25	19	183	520	235	198	84	126	32	13	4.8	13	5.5
26	14	153	680	203	184	77	108	30	13	4.4	7.1	5.5
27	10	125	900	176	176	72	100	29	12	4.4	5.5	4.8
28	27	103	700	155	170	67	91	26	12	4.4	4.4	4.4
29	46	85	615	142	---	63	85	25	12	4.1	3.8	4.8
30	47	72	665	130	---	61	84	25	12	4.1	3.8	4.8
31	33	---	570	120	---	65	---	24	---	4.4	3.8	---
TOTAL	329.6	2393	21851	27942	13080	6549	4178	1301	502	221.0	120.9	345.5
MEAN	10.6	79.8	705	901	467	211	139	42.0	16.7	7.13	3.90	11.5
MAX	47	283	3220	2720	1300	903	278	79	23	12	13	79
MIN	3.4	16	37	120	151	61	70	24	12	4.1	2.5	4.1
AC-FT	654	4750	43340	55420	25940	12990	8290	2580	996	438	240	685

CAL YR 1977 TOTAL 27765.37 MEAN 76.1 MAX 3220 MIN .39 AC-FT 55070  
WTR YR 1978 TOTAL 78813.00 MEAN 216 MAX 3220 MIN 2.5 AC-FT 156300

## EEL RIVER BASIN

11476600 BULL CREEK NEAR WEOTT, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

CHEMICAL ANALYSES: Water year 1977.

WATER TEMPERATURES: Water years 1976 to current year.

SEDIMENT RECORDS: Water years 1976 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1975 to current year.

SEDIMENT RECORDS: October 1975 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum observed, 29.5°C Aug. 3, 10, 1977; minimum observed, 4.0°C Jan. 2, 1976.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 14,400 mg/L Dec. 14, 1977; minimum daily mean, 1 mg/L on many days in 1975-78.

SEDIMENT DISCHARGE: Maximum daily, 129,000 tons (117,000 metric tons) Dec. 14, 1977; minimum daily, 0 ton (0 metric ton) on many days in 1975, 1977.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum observed 28.0°C July 19; minimum observed, 8.5°C Dec. 19, Jan. 23, 24.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 14,400 mg/L Dec. 14; minimum daily mean, 1 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily, 129,000 tons (117,000 metric tons) Dec. 14; minimum daily, 0.01 ton (0.01 metric ton) on many days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	11.0	10.0	---	12.0	---	---	12.0	---	---	13.0
2	22.0	16.0	10.5	11.0	11.0	12.0	10.0	14.5	---	---	---	---
3	---	17.0	---	11.0	---	12.0	---	---	---	18.0	---	---
4	---	10.5	---	11.0	11.0	---	---	---	---	---	---	17.0
5	---	10.0	10.0	11.5	11.0	14.0	11.0	---	20.0	---	---	18.0
6	---	11.0	11.0	---	10.0	12.0	---	---	---	---	---	15.0
7	20.0	---	---	13.0	11.0	11.0	12.0	19.0	21.0	18.0	---	---
8	20.0	---	---	13.0	11.0	12.0	13.0	---	---	---	28.0	---
9	---	---	---	12.0	9.0	12.0	11.0	20.0	14.0	---	---	17.0
10	---	---	---	10.0	9.5	13.0	---	19.0	---	---	---	---
11	22.0	11.0	11.0	11.0	9.0	11.0	12.0	19.0	---	---	---	22.0
12	---	---	11.0	12.0	10.0	11.0	---	---	18.0	25.0	25.0	---
13	---	11.5	---	12.0	10.0	11.0	12.0	15.0	20.0	25.0	---	---
14	22.0	---	---	11.5	11.0	13.0	11.0	13.0	19.0	---	---	21.0
15	---	---	---	11.0	8.5	14.0	---	14.0	---	---	25.0	---
16	---	10.0	11.0	11.0	---	---	11.0	18.0	---	---	---	---
17	---	---	11.0	11.0	9.5	16.0	10.0	21.0	---	---	---	18.5
18	17.0	---	10.0	11.0	14.5	---	9.0	17.0	---	---	---	---
19	---	---	8.5	11.0	13.5	---	11.5	---	---	28.0	---	---
20	---	---	---	---	12.5	15.0	9.0	---	---	23.0	---	---
21	---	9.0	10.5	---	14.5	14.0	---	---	---	---	---	---
22	9.0	11.0	11.5	9.0	13.0	---	10.0	17.0	22.0	---	---	18.0
23	18.0	11.0	10.0	8.5	---	---	10.5	13.0	---	---	---	---
24	18.0	---	---	8.5	12.5	14.0	12.0	15.0	---	---	15.0	---
25	17.0	---	---	10.0	---	---	---	15.0	---	---	20.5	19.0
26	---	13.0	---	---	11.0	17.5	14.0	---	---	---	---	---
27	16.0	9.0	10.5	---	11.0	---	---	---	---	---	---	---
28	13.0	12.0	12.0	9.0	---	15.0	12.0	---	22.0	---	---	---
29	13.5	11.0	11.0	---	---	14.0	13.5	19.0	---	24.0	---	18.0
30	14.0	---	---	10.0	---	16.0	13.5	18.5	---	27.0	---	---
31	17.0	---	---	---	---	13.0	---	18.0	---	---	23.5	---
MEAN	17.0	11.5	10.5	11.0	11.0	13.0	11.5	17.0	18.5	23.5	23.0	18.0

11476600 BULL CREEK NEAR WEOTT, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	11	3	.09	28	6	.45	64	30	5.2
2	8.4	2	.05	25	5	.34	59	25	4.0
3	7.3	2	.04	21	4	.23	53	24	3.4
4	6.6	1	.02	50	336	107	48	23	3.0
5	6.0	1	.02	85	152	36	45	19	2.3
6	5.4	1	.01	61	47	7.7	46	33	4.1
7	5.4	1	.01	48	24	3.1	44	30	3.6
8	5.7	2	.03	41	15	1.7	39	18	1.9
9	5.4	2	.03	38	15	1.5	37	18	1.8
10	4.6	1	.01	36	10	.97	37	17	1.7
11	3.6	1	.01	38	30	3.1	123	604	299
12	3.4	1	.01	34	10	.92	106	120	34
13	3.8	1	.01	28	9	.68	320	2360	4580
14	4.9	1	.01	27	8	.58	3220	14400	129000
15	4.6	1	.01	24	7	.45	2700	8800	64200
16	4.6	2	.02	22	7	.42	2000	4000	21600
17	4.3	2	.02	20	6	.32	2200	2400	14300
18	3.8	7	.07	19	6	.31	1400	1420	5370
19	4.9	5	.07	17	5	.23	840	950	2150
20	4.9	3	.04	16	5	.22	590	560	892
21	5.4	3	.04	236	2930	2990	520	250	351
22	4.1	2	.02	283	2390	1900	800	600	1300
23	6.3	6	.15	239	510	329	1170	800	2530
24	9.2	5	.16	236	400	255	740	400	799
25	19	11	.63	183	375	185	520	300	421
26	14	3	.11	153	290	120	680	200	367
27	10	1	.03	125	220	74	900	450	1090
28	27	116	16	103	102	28	700	150	283
29	46	99	14	85	52	12	615	140	232
30	47	70	9.0	72	37	7.2	665	250	449
31	33	12	1.1	---	---	---	570	100	154
TOTAL	329.6	---	41.82	2393	---	6066.42	21851	---	250432.0

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	490	70	93	151	407	201	162	19	8.3
2	765	850	1760	281	1320	1090	155	195	82
3	650	920	1610	298	610	491	169	166	76
4	800	3250	7020	227	400	245	290	588	469
5	1600	6000	25900	470	3880	6090	346	505	472
6	1420	4150	15900	813	3980	9220	310	228	191
7	1070	2800	8090	1300	6260	24700	374	1700	2470
8	1260	3340	12100	1180	4470	15000	903	6160	15800
9	1560	5590	25400	1010	2450	6680	585	1400	2210
10	1070	1900	5490	762	1300	2670	442	800	955
11	1130	1650	5030	625	900	1520	349	510	481
12	928	970	2430	690	2080	3880	290	211	165
13	1180	2450	7810	740	1420	2840	251	91	62
14	1180	2750	9640	600	800	1300	213	60	35
15	2180	10400	66300	500	597	806	181	48	23
16	2720	14000	107000	440	435	517	160	36	16
17	1910	8750	45100	390	285	300	140	27	10
18	1300	6200	21800	345	171	159	128	22	7.6
19	1080	4200	12200	310	110	92	114	20	6.2
20	817	2600	5740	285	79	61	105	16	4.5
21	629	1750	2970	260	61	43	96	14	3.6
22	438	1120	1320	240	51	33	88	12	2.9
23	331	732	654	225	48	29	114	155	55
24	273	508	374	210	49	28	95	32	8.2
25	235	325	206	198	40	21	84	20	4.5
26	203	230	126	184	26	13	77	18	3.7
27	176	172	82	176	21	10	72	17	3.3
28	155	118	49	170	20	9.2	67	15	2.7
29	142	80	31	---	---	---	63	11	1.9
30	130	65	23	---	---	---	61	9	1.5
31	120	56	18	---	---	---	65	18	3.2
TOTAL	27942	---	392266	13080	---	78048.2	6549	---	23634.1

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	73	41	8.1	79	21	4.5	23	5	.31
2	70	27	5.1	72	17	3.3	23	4	.25
3	95	285	130	67	17	3.1	22	4	.24
4	118	365	116	63	16	2.7	22	3	.18
5	232	829	664	58	15	2.3	20	3	.16
6	278	470	353	54	14	2.0	22	3	.18
7	246	230	153	50	14	1.9	19	3	.15
8	211	135	77	50	10	1.4	19	2	.10
9	181	61	30	43	7	.81	19	2	.10
10	158	39	17	42	7	.79	21	2	.11
11	138	36	13	38	6	.62	20	2	.11
12	130	32	11	36	6	.58	18	3	.15
13	118	29	9.2	36	6	.58	19	3	.15
14	110	26	7.7	44	10	1.2	17	4	.18
15	176	284	144	55	100	15	16	4	.17
16	128	99	34	41	12	1.3	16	4	.17
17	116	45	14	40	8	.86	16	3	.13
18	107	36	10	39	7	.74	14	3	.11
19	167	329	187	38	7	.72	14	3	.11
20	181	208	102	35	8	.76	14	3	.11
21	153	136	56	34	8	.73	14	3	.11
22	140	104	39	33	9	.80	14	3	.11
23	134	85	31	31	3	.25	13	3	.11
24	124	71	24	32	10	.86	13	3	.11
25	126	57	19	32	4	.35	13	3	.11
26	108	47	14	30	4	.32	13	3	.11
27	100	36	9.7	29	4	.31	12	2	.06
28	91	26	6.4	26	4	.28	12	2	.06
29	85	22	5.0	25	4	.27	12	3	.10
30	84	25	5.7	25	4	.27	12	3	.10
31	---	---	---	24	3	.19	---	---	---
TOTAL	4178	---	2294.9	1301	---	49.79	502	---	4.15
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	12	3	.10	4.1	1	.01	4.4	6	.07
2	12	3	.10	4.1	1	.01	4.8	6	.08
3	12	3	.10	4.1	1	.01	4.1	6	.07
4	11	3	.09	4.1	1	.01	7.5	22	.61
5	10	4	.11	3.8	1	.01	17	50	2.5
6	9.2	4	.10	3.5	2	.02	11	21	.62
7	9.2	4	.10	3.2	3	.03	7.9	21	.45
8	9.2	4	.10	3.0	1	.01	7.5	16	.32
9	8.3	4	.09	2.7	1	.01	79	1230	460
10	7.5	4	.08	2.5	1	.01	40	466	53
11	7.5	4	.08	2.5	2	.01	23	145	9.0
12	7.5	4	.08	2.7	3	.02	16	63	2.7
13	7.9	4	.09	3.2	2	.02	12	38	1.2
14	7.1	4	.08	3.2	2	.02	11	15	.45
15	7.1	4	.08	3.0	2	.02	9.7	7	.18
16	7.1	4	.08	3.0	2	.02	8.8	5	.12
17	7.1	4	.08	3.0	2	.02	7.9	4	.09
18	6.7	4	.07	3.0	2	.02	7.5	4	.08
19	6.3	4	.07	2.7	2	.01	7.1	4	.08
20	5.9	1	.02	2.7	2	.01	6.7	3	.05
21	5.1	1	.01	2.7	2	.01	5.9	3	.05
22	4.8	1	.01	3.2	2	.02	5.9	3	.05
23	4.8	1	.01	3.2	2	.02	5.5	4	.06
24	5.1	2	.03	6.3	3	.05	5.5	5	.07
25	4.8	1	.01	13	6	.21	5.5	6	.09
26	4.4	1	.01	7.1	5	.10	5.5	4	.06
27	4.4	1	.01	5.5	4	.06	4.8	3	.04
28	4.4	1	.01	4.4	4	.05	4.4	2	.02
29	4.1	1	.01	3.8	3	.03	4.8	2	.03
30	4.1	1	.01	3.8	2	.02	4.8	2	.03
31	4.4	1	.01	3.8	2	.02	---	---	---
TOTAL	221.0	---	1.83	120.9	---	.89	345.5	---	532.17
YEAR	78813.0		753372.27						



11476600 BULL CREEK NEAR WEOTT, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	
OCT												
28...	1750	13.0	--	49	287	38	--	--	--	--	--	
28...	2240	13.0	--	59	248	40	--	--	--	--	--	
NOV												
21...	2020	11.0	--	520	8450	11900	23	31	43	59	73	
28...	1920	12.0	--	100	74	20	--	--	--	--	--	
DEC												
16...	1445	9.5	2000	--	3680	19900	19	29	39	50	59	
JAN												
05...	1715	11.0	--	1880	9140	46400	--	25	39	51	62	
12...	1830	12.0	--	913	1010	2490	26	35	48	61	71	
15...	1355	11.0	--	2570	12000	83300	--	30	45	60	71	
16...	1925	11.0	--	2920	16000	126000	--	31	47	62	75	
MAR												
09...	1230	10.5	--	557	1090	1640	24	35	48	62	72	
APR												
16...	1130	8.0	--	128	100	35	--	--	--	--	--	
19...	1750	11.5	--	186	463	233	26	34	48	61	73	
SEP												
09...	1735	17.0	--	114	1640	505	30	42	54	69	82	
DATE		SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT												
28...	--	95	--	97	--	100	--	--	--	--	--	--
28...	--	99	--	100	--	--	--	--	--	--	--	--
NOV												
21...	--	82	--	93	--	99	--	100	--	--	--	--
28...	--	84	--	87	--	88	--	90	--	100	--	--
DEC												
16...	--	64	--	70	--	78	--	89	--	97	100	--
JAN												
05...	72	--	79	--	89	--	98	--	100	--	--	--
12...	--	78	--	84	--	91	--	96	--	99	100	--
15...	80	--	91	--	99	--	100	--	--	--	--	--
16...	84	--	94	--	99	--	100	--	--	--	--	--
MAR												
09...	--	78	--	82	--	93	--	98	--	100	--	--
APR												
16...	--	72	--	78	--	82	--	88	--	96	100	--
19...	--	80	--	88	--	95	--	99	--	100	--	--
SEP												
09...	--	91	--	94	--	96	--	98	--	99	100	--

## EEL RIVER BASIN

11477000 · EEL RIVER AT SCOTIA, CA

LOCATION.--Lat 40°29'30", long 124°05'55", in SW¼ sec.5, T.1 N., R.1 E., Humboldt County, Hydrologic Unit 18010105, near center of span in left pier of bridge on U.S. Highway 101, 0.5 mi (0.8 km) north of Scotia, and 6 mi (10 km) upstream from Van Duzen River.

DRAINAGE AREA.--3,113 mi<sup>2</sup> (8,063 km<sup>2</sup>).

## 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. Datum of gage is 35.50 ft (10.820 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 12, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow slightly regulated by Lake Pillsbury (station 11470000) 138 mi (222 km) upstream and by diversion through Potter Valley powerhouse (station 11471000).

AVERAGE DISCHARGE.--68 years, 7,323 ft<sup>3</sup>/s (207.4 m<sup>3</sup>/s), 5,306,000 acre-ft/yr (6.54 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 752,000 ft<sup>3</sup>/s (21,300 m<sup>3</sup>/s) Dec. 23, 1964, gage height, 72.0 ft (21.95 m) from floodmarks, from rating curve extended above 220,000 ft<sup>3</sup>/s (6,230 m<sup>3</sup>/s) on basis of maximum flow at upstream stations; minimum observed, 10 ft<sup>3</sup>/s (0.28 m<sup>3</sup>/s) Aug. 12-14, 1924.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 72,000 ft<sup>3</sup>/s (2,040 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 15	1100	147000 4160	33.25 10.135	Jan. 17	0200	*169000 4790	35.47 10.811
Jan. 6	0900	84100 2380	26.05 7.940	Feb. 8	0045	119000 3370	30.16 9.193
Jan. 9	2030	107000 3030	28.82 8.784	Mar. 8	2215	108000 3060	28.98 8.833

Minimum daily discharge, 127 ft<sup>3</sup>/s (3.60 m<sup>3</sup>/s) Oct. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	971	2030	2750	13100	6890	6310	7620	7590	1930	627	208	167
2	825	1310	2420	18700	12700	6370	9010	6970	1790	639	202	162
3	618	916	2180	33000	20100	9860	7350	6280	1740	610	195	159
4	474	805	2000	26200	15000	18400	9680	5820	1680	579	191	173
5	371	3520	1860	65800	17300	31200	13600	5240	1620	557	189	219
6	309	5880	1720	76600	50900	36200	33700	4760	1580	537	179	267
7	261	3640	1680	46000	81300	23900	28800	4360	1540	525	173	301
8	231	2360	1580	31700	90500	67300	19600	4050	1520	500	171	295
9	209	1720	1490	73400	68000	80200	14800	3920	1430	484	162	409
10	192	1340	1380	68800	43300	42000	12400	3890	1350	455	157	854
11	180	1110	2000	37100	28800	26800	10900	3830	1310	452	149	1120
12	167	1030	8400	28200	24400	19400	9860	3720	1240	435	145	1070
13	159	944	7840	30100	35700	15300	8850	3630	1160	418	143	907
14	154	1000	53400	49600	29700	12900	8050	3630	1090	402	139	652
15	150	880	121000	117000	22800	11100	8880	4290	1050	385	134	484
16	147	770	51300	157000	18300	9720	11400	5410	1000	365	131	395
17	143	690	57800	148000	15900	8620	10600	4530	963	356	130	346
18	140	630	38800	80700	14500	8000	9550	3870	924	347	132	315
19	136	580	20700	68900	12900	7500	9140	3480	894	329	130	285
20	133	540	13500	55900	11900	7100	13400	3230	856	320	132	268
21	129	11000	14000	37500	11000	6700	14800	2980	819	305	130	250
22	127	35000	16500	26900	10300	6400	12200	2880	792	297	131	239
23	141	17000	33700	20300	9620	6700	10700	2750	774	286	133	233
24	159	11200	33200	16200	9110	7700	9720	2640	746	273	137	226
25	206	9040	19200	13400	8560	6600	10200	2520	708	261	153	217
26	401	7330	14500	11500	7990	6000	12200	2290	679	251	165	213
27	372	5900	17000	10100	7440	5600	11000	2110	664	238	179	204
28	410	4700	23300	9050	6860	5400	9410	1940	645	230	193	191
29	605	3790	17600	8020	---	5200	8590	1910	640	222	187	187
30	1300	3170	18000	7560	---	5000	7930	2000	631	219	183	183
31	2070	---	16300	7120	---	5080	---	1990	---	215	171	---
TOTAL	11890	139825	617100	1393450	691770	514560	363940	118510	33765	12119	4954	10991
MEAN	384	4661	19910	44950	24710	16600	12130	3823	1126	391	160	366
MAX	2070	35000	121000	157000	90500	80200	33700	7590	1930	639	208	1120
MIN	127	540	1380	7120	6860	5000	7350	1910	631	215	130	159
AC-FT	23580	277300	1224000	2764000	1372000	1021000	721900	235100	66970	24040	9830	21800
CAL YR 1977	TOTAL	957674	MEAN	2624	MAX	121000	MIN	25	AC-FT	1900000		
WTR YR 1978	TOTAL	3912874	MEAN	10720	MAX	157000	MIN	127	AC-FT	7761000		

11477000 EEL RIVER AT SCOTIA, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1952-75, 1977.

WATER TEMPERATURES: Water years 1958 to current year.

SEDIMENT RECORDS: Water years 1955 to current year.

TURBIDITY: Water years 1965-68, 1972-73.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1957 to current year.

SEDIMENT RECORDS: October 1957 to current year.

INSTRUMENTATION.--Temperature recorder since November 1960.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 26.0°C Sept. 4, 1977; minimum recorded, 2.0°C Dec. 11, 1972.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 33,000 mg/L (estimated) Dec. 23, 1964; minimum daily mean,

1 mg/L on many days in 1958-64, 1966-67, 1970, 1972-78.

SEDIMENT DISCHARGE: Maximum daily, 57,000,000 tons (51,700,000 metric tons), estimated, Dec. 23, 1964; minimum daily, 0.07 ton (0.06 metric ton) Aug. 13, 17-20, 1977.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.5°C Aug. 7-9; minimum, 6.5°C Feb. 2.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 5,010 mg/L Dec. 15; minimum daily mean, 1 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily, 1,660,000 tons (1,506,000 metric tons) Dec. 15; minimum daily, 0.34 ton (0.31 metric ton) Oct. 22.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.0	18.0	15.0	13.5	12.0	11.0	9.0	8.5	8.5	7.5	10.5	9.5
2	20.5	18.5	15.0	14.0	12.0	11.5	9.5	8.5	7.5	6.5	10.5	10.0
3	21.0	18.5	14.0	12.5	12.0	11.5	10.5	9.5	8.0	7.0	11.0	10.0
4	21.0	18.0	12.5	11.0	12.5	12.0	10.5	10.0	8.0	7.5	10.5	10.5
5	20.5	18.0	11.5	10.5	13.0	12.0	10.5	10.0	7.5	7.5	10.5	10.0
6	19.0	17.0	12.0	11.0	12.0	11.5	11.0	10.0	7.5	7.0	11.0	10.0
7	20.0	17.0	11.5	11.0	12.0	11.0	11.0	10.5	8.0	7.5	10.5	10.0
8	20.0	18.0	11.5	10.5	11.0	10.0	11.5	10.5	8.0	7.5	11.0	10.5
9	20.0	17.5	11.5	10.0	10.0	9.0	11.5	10.0	8.0	7.5	11.0	10.5
10	20.0	17.0	11.5	10.0	10.0	8.5	11.0	11.0	7.5	7.5	11.0	10.5
11	20.0	16.5	11.5	10.5	10.5	9.5	11.0	10.5	7.5	7.0	11.0	10.5
12	20.0	17.5	12.0	11.0	10.5	10.0	11.0	10.5	7.5	7.0	11.0	10.5
13	20.0	17.0	13.0	11.5	10.5	10.0	11.5	11.0	8.0	7.5	10.5	10.0
14	19.5	16.5	12.5	12.0	12.0	10.5	11.5	11.0	8.5	8.0	11.0	10.0
15	20.0	17.0	14.0	12.5	12.0	11.0	11.5	11.0	9.0	8.5	12.0	10.5
16	20.0	16.5	14.0	13.0	11.0	9.5	12.0	11.0	8.5	8.0	12.5	11.0
17	19.5	16.5	13.0	11.5	10.0	9.5	12.5	12.5	8.5	8.0	13.0	11.5
18	17.5	16.5	11.5	10.0	9.5	8.5	12.5	12.0	10.0	8.5	13.5	12.0
19	17.0	16.0	10.5	9.0	8.5	7.5	12.0	12.0	10.5	9.5	14.0	12.5
20	18.0	15.5	9.0	8.0	7.5	7.0	12.0	11.5	10.5	10.0	14.0	13.0
21	18.0	14.5	10.0	8.0	8.5	7.5	11.5	11.5	10.5	10.0	13.5	13.0
22	17.0	13.5	12.5	10.0	9.0	8.5	11.5	11.0	11.0	10.0	13.5	12.5
23	16.5	15.5	12.0	11.0	10.0	9.0	11.0	10.5	11.0	10.0	13.5	12.5
24	18.5	16.0	11.5	11.0	10.0	9.5	10.5	10.0	10.5	10.0	13.5	12.5
25	18.5	16.5	12.0	12.0	9.5	8.5	10.0	9.5	10.5	9.5	14.0	12.5
26	16.5	15.5	12.0	12.0	9.0	8.5	10.0	9.5	10.5	10.5	14.5	13.0
27	15.5	14.5	12.0	12.0	10.0	9.0	10.5	10.0	10.5	10.5	14.0	13.0
28	14.5	13.5	12.0	12.0	10.5	10.0	10.5	10.0	11.5	10.5	15.0	13.5
29	14.5	13.5	12.0	12.0	10.5	10.5	10.5	10.0	---	---	14.5	14.5
30	14.5	13.5	12.0	12.0	10.5	10.0	10.0	9.0	---	---	---	---
31	15.0	13.5	---	---	10.0	9.0	9.5	8.5	---	---	13.5	13.0
MONTH	21.0	13.5	15.0	8.0	13.0	7.0	12.5	8.5	11.5	6.5	15.0	9.5

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.0	12.0	15.0	14.5	20.0	19.0	20.5	19.5	22.5	18.5	23.5	18.5
2	12.0	11.5	15.5	15.0	21.5	19.5	19.5	18.0	23.5	19.0	24.5	20.5
3	11.5	10.5	15.5	15.5	22.0	19.0	20.5	17.0	22.5	19.0	22.5	21.0
4	11.0	10.5	15.5	15.5	22.0	19.0	19.0	16.5	22.5	19.0	21.0	19.0
5	10.5	10.0	15.5	15.0	23.5	19.5	21.5	16.5	24.0	19.0	19.0	18.0
6	10.0	10.0	16.0	15.0	23.5	20.5	22.5	18.0	25.0	19.5	19.0	17.5
7	10.0	9.5	17.0	15.5	21.5	19.0	21.5	18.5	25.5	20.5	21.0	17.0
8	11.0	10.0	18.0	16.5	21.5	18.5	22.0	18.0	25.5	21.0	19.0	17.5
9	13.0	11.0	18.0	17.5	22.5	19.0	21.0	18.5	25.5	21.0	19.5	17.5
10	14.0	13.0	18.0	17.0	21.5	19.0	21.0	16.5	23.5	20.5	19.5	17.5
11	14.0	14.0	17.5	17.0	22.0	18.0	21.5	17.0	24.0	19.5	20.5	17.5
12	14.0	14.0	18.5	17.0	21.5	19.0	22.5	18.0	22.0	20.0	21.5	18.0
13	14.0	14.0	18.5	17.5	22.0	19.0	22.5	19.0	23.0	19.0	19.5	18.5
14	14.0	13.0	18.0	17.5	21.0	18.0	23.5	19.0	24.0	19.5	20.5	17.5
15	13.0	12.0	17.5	16.0	20.5	17.0	23.0	20.0	23.5	19.5	21.5	17.5
16	12.0	11.0	16.0	15.0	21.5	17.5	23.0	19.0	23.0	19.5	20.0	17.0
17	11.5	11.0	17.0	15.5	22.5	18.0	22.5	18.5	22.5	18.5	18.0	15.0
18	12.5	11.5	18.0	16.5	20.5	19.0	23.5	19.0	23.0	18.0	18.5	15.0
19	12.5	12.5	19.0	17.5	19.5	18.0	23.5	19.5	23.0	18.5	18.5	15.0
20	12.5	11.5	19.5	18.5	18.0	17.5	24.5	19.5	23.0	18.5	19.0	15.5
21	12.0	11.0	19.5	16.0	18.0	17.0	25.0	20.0	22.5	19.0	18.0	16.0
22	13.0	12.0	16.0	15.5	19.0	17.5	25.0	21.0	23.0	19.0	19.5	15.5
23	13.5	13.0	16.0	15.5	18.5	18.0	23.5	20.0	22.5	18.0	21.0	16.5
24	13.5	13.5	16.5	16.0	20.0	17.5	25.0	20.5	23.0	19.0	21.0	17.5
25	14.0	13.5	16.0	15.5	21.0	17.0	24.5	20.0	22.5	20.0	20.5	17.5
26	14.5	14.0	17.0	16.0	22.0	18.0	23.0	20.5	23.5	19.5	21.0	17.5
27	15.0	14.5	19.0	17.0	23.0	18.5	22.0	20.0	23.0	19.0	21.5	19.0
28	15.0	15.0	18.5	16.5	22.0	20.0	22.5	19.5	23.0	18.5	20.5	17.0
29	15.0	15.0	18.5	16.5	21.0	20.0	21.5	19.0	21.0	19.0	20.5	16.5
30	15.0	15.0	18.5	17.0	21.0	19.0	22.0	19.0	20.0	18.5	21.0	18.0
31	---	---	19.5	17.5	---	---	22.5	19.0	22.5	18.0	---	---
MONTH	15.0	9.5	19.5	14.5	23.5	17.0	25.0	16.5	25.5	18.0	24.5	15.0

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	971	15	39	2030	39	214	2750	19	141
2	825	4	8.9	1310	15	53	2420	14	91
3	618	3	5.0	916	8	20	2180	12	71
4	474	2	2.6	805	10	22	2000	10	54
5	371	1	1.0	3520	331	3600	1860	9	45
6	309	1	.83	5880	325	5160	1720	8	37
7	261	1	.70	3640	100	983	1680	7	32
8	231	1	.62	2360	38	242	1580	6	26
9	209	1	.56	1720	18	84	1490	5	20
10	192	1	.52	1340	10	36	1380	4	15
11	180	1	.49	1110	8	24	2000	16	132
12	167	1	.45	1030	6	17	8400	520	13200
13	159	1	.43	944	5	13	7840	383	8110
14	154	1	.42	1000	4	11	53400	4540	749000
15	150	1	.41	880	4	9.5	121000	5010	1660000
16	147	1	.40	770	3	6.2	51300	1080	171000
17	143	1	.39	690	3	5.6	57800	1780	294000
18	140	1	.38	630	3	5.1	38800	990	104000
19	136	1	.37	580	2	3.1	20700	668	37300
20	133	1	.36	540	2	2.9	13500	435	15900
21	129	1	.35	11000	600	17800	14000	300	11300
22	127	1	.34	35000	2000	189000	16500	765	34100
23	141	1	.38	17000	990	45400	33700	1220	111000
24	159	1	.43	11200	451	13600	33200	970	87000
25	206	1	.56	9040	313	7640	19200	580	30100
26	401	20	22	7330	205	4060	14500	350	13700
27	372	30	30	5900	128	2040	17000	550	25200
28	410	15	17	4700	76	964	23300	760	47800
29	605	23	45	3790	42	430	17600	420	20000
30	1300	143	552	3170	25	214	18000	395	19200
31	2070	70	391	---	---	---	16300	322	14200
TOTAL	11890	---	1122.89	139825	---	291659.4	617100	---	3466774

11477000 EEL RIVER AT SCOTIA, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

JANUARY				FEBRUARY				MARCH	
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	13100	242	8560	6890	97	1800	6310	129	2200
2	18700	503	30200	12700	570	24100	6370	128	2200
3	33000	955	85100	20100	680	36900	9860	350	9320
4	26200	595	42100	15000	360	14600	18400	1060	52700
5	65800	2640	503000	17300	540	34300	31200	1270	107000
6	76600	1960	405000	50900	1920	264000	36200	1000	97700
7	46000	940	117000	81300	2270	498000	23900	500	32300
8	31700	540	46200	90500	1910	467000	67300	1970	438000
9	73400	2010	460000	68000	1350	248000	80200	1700	368000
10	68800	1800	352000	43300	880	103000	42000	870	98700
11	37100	950	95200	28800	550	42800	26800	510	36900
12	28200	650	49500	24400	630	41500	19400	395	20700
13	30100	770	62600	35700	980	94500	15300	315	13000
14	49600	1170	157000	29700	540	43300	12900	268	9330
15	117000	3030	1030000	22800	375	23100	11100	252	7550
16	157000	3400	1440000	18300	308	15200	9720	210	5510
17	148000	2540	1010000	15900	304	13100	8620	160	3720
18	80700	1750	381000	14500	275	10800	8000	125	2700
19	68900	1380	257000	12900	279	9720	7500	100	2030
20	55900	1110	168000	11900	270	8680	7100	80	1530
21	37500	810	82000	11000	265	7870	6700	70	1270
22	26900	610	44300	10300	270	7510	6400	70	1210
23	20300	460	25200	9620	240	6230	6700	84	1520
24	16200	367	16100	9110	219	5390	7700	120	2490
25	13400	292	10600	8560	192	4440	6600	88	1570
26	11500	231	7170	7990	170	3670	6000	62	1000
27	10100	187	5100	7440	143	2870	5600	45	680
28	9050	149	3640	6860	134	2480	5400	38	554
29	8020	122	2640	---	---	---	5200	34	477
30	7560	99	2020	---	---	---	5000	32	432
31	7120	84	1610	---	---	---	5080	31	425
TOTAL	1393450	---	6899840	691770	---	2034860	514560	---	1322718
APRIL				MAY				JUNE	
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	7620	94	2050	7590	56	1150	1930	6	31
2	9010	127	3090	6970	53	997	1790	5	24
3	7350	108	2140	6280	52	882	1740	4	19
4	9680	378	10200	5820	50	786	1680	4	18
5	13600	533	21000	5240	45	637	1620	4	17
6	33700	1280	124000	4760	35	450	1580	4	17
7	28800	700	54400	4360	30	353	1540	3	12
8	19600	340	18000	4050	20	219	1520	3	12
9	14800	220	8790	3920	19	201	1430	3	12
10	12400	170	5690	3890	17	179	1350	3	11
11	10900	140	4120	3830	15	155	1310	4	14
12	9860	119	3170	3720	13	131	1240	7	23
13	8850	102	2440	3630	13	127	1160	4	13
14	8050	93	2020	3630	13	127	1090	4	12
15	8880	128	3070	4290	22	255	1050	5	14
16	11400	235	7230	5410	50	730	1000	5	13
17	10600	192	5500	4530	31	379	963	5	13
18	9550	133	3430	3870	16	167	924	5	12
19	9140	130	3210	3480	11	103	894	5	12
20	13400	380	13700	3230	10	87	856	5	12
21	14800	385	15400	2980	10	80	819	5	11
22	12200	246	8100	2880	11	86	792	5	11
23	10700	153	4420	2750	10	74	774	4	8.4
24	9720	98	2570	2640	9	64	746	4	8.1
25	10200	100	2750	2520	7	48	708	4	7.6
26	12200	170	5600	2290	7	43	679	4	7.3
27	11000	150	4450	2110	6	34	664	4	7.2
28	9410	94	2390	1940	7	37	645	4	7.0
29	8590	75	1740	1910	8	41	640	3	5.2
30	7930	63	1350	2000	7	38	631	3	5.1
31	---	---	---	1990	7	38	---	---	---
TOTAL	363940	---	346020	118510	---	8698	33765	---	388.9

## EEL RIVER BASIN

11477000 EEL RIVER AT SCOTIA, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	627	3	5.1	208	2	1.1	167	2	.90
2	639	3	5.2	202	2	1.1	162	2	.87
3	610	3	4.9	195	2	1.1	159	2	.86
4	579	3	4.7	191	2	1.0	173	2	.93
5	557	4	6.0	189	2	1.0	219	2	1.2
6	537	3	4.3	179	3	1.4	267	1	.72
7	525	3	4.3	173	3	1.4	301	1	.81
8	500	4	5.4	171	3	1.4	295	1	.80
9	484	4	5.2	162	3	1.3	409	5	5.5
10	455	4	4.9	157	3	1.3	854	22	51
11	452	3	3.7	149	3	1.2	1120	32	97
12	435	3	3.5	145	3	1.2	1070	16	46
13	418	3	3.4	143	3	1.2	907	7	17
14	402	3	3.3	139	3	1.1	652	4	7.0
15	385	3	3.1	134	3	1.1	484	3	3.9
16	365	3	3.0	131	3	1.1	395	2	2.1
17	356	3	2.9	130	3	1.1	346	2	1.9
18	347	3	2.8	132	3	1.1	315	2	1.7
19	329	3	2.7	130	2	.70	285	2	1.5
20	320	3	2.6	132	2	.71	268	1	.72
21	305	3	2.5	130	2	.70	250	1	.68
22	297	3	2.4	131	2	.71	239	1	.65
23	286	3	2.3	133	2	.72	233	1	.63
24	273	3	2.2	137	2	.74	226	1	.61
25	261	3	2.1	153	2	.83	217	1	.59
26	251	2	1.4	165	2	.89	213	1	.58
27	238	2	1.3	179	2	.97	204	1	.55
28	230	5	3.1	193	2	1.0	191	1	.52
29	222	4	2.4	187	2	1.0	187	1	.50
30	219	2	1.2	183	2	.99	183	1	.49
31	215	2	1.2	171	2	.92	---	---	---
TOTAL	12119	---	103.1	4954	---	32.08	10991	---	248.21
YEAR	3912874		14372464.58						

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
NOV								
24...	0800	--	11600	471	14800	44	54	62
DEC								
15...	1700	11.0	124000	3460	1160000	25	35	47
JAN								
19...	1700	--	70500	1320	251000	--	34	46
21...	1715	--	34400	744	69100	26	35	45
30...	1715	9.0	7530	95	1930	--	--	--
FEB								
28...	1430	--	7120	134	2580	--	--	--
MAR								
08...	1730	11.0	96700	3390	885000	21	30	41
APR								
06...	1740	10.0	39500	1520	162000	21	30	39

11477000 EEL RIVER AT SCOTIA, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
NOV 24...	71	77	80	85	93	100	--
DEC 15...	61	75	85	94	99	100	--
JAN 19...	59	77	87	99	100	--	--
21...	56	68	79	92	100	--	--
30...	--	--	60	65	76	100	--
FEB 28...	--	--	46	49	58	97	100
MAR 08...	54	69	81	94	99	100	--
APR 06...	52	65	76	88	97	100	--

## EEL RIVER BASIN

11478500 VAN DUZEN RIVER NEAR BRIDGEVILLE, CA

LOCATION.--Lat 40°28'50", long 123°53'23", in NE¼SE¼ 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 (1.4 km) upstream from Grizzly Creek, and 5 mi (8 km) west of Bridgeville.

DRAINAGE AREA.--222 mi<sup>2</sup> (575 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 358.18 ft (109.173 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1965, at site 2.4 mi (3.9 km) upstream at different datum.

REMARKS.--Records good except those for period of no gage-height record, June 7 to July 10, which are fair. No storage or large diversion above station.

AVERAGE DISCHARGE.--28 years, 899 ft<sup>3</sup>/s (25.46 m<sup>3</sup>/s), 651,300 acre-ft/yr (803 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,700 ft<sup>3</sup>/s (1,380 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 24.0 ft (7.32 m), from floodmarks, present site and datum, from rating curve extended above 20,000 ft<sup>3</sup>/s (566 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 21.3 ft (6.49 m), former site and datum; minimum, 4.6 ft<sup>3</sup>/s (0.13 m<sup>3</sup>/s) Aug. 8, 13-24, Sept. 9-15, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 15,000 ft<sup>3</sup>/s (425 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Dec. 14	0900	*18700	530	15.05	4.587
Jan. 16	2245	16300	462	14.11	4.301

Minimum daily discharge, 11 ft<sup>3</sup>/s (0.31 m<sup>3</sup>/s), Aug. 10-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	226	474	1520	1020	680	720	659	179	59	15	15
2	95	178	411	3670	2260	740	660	587	173	56	15	14
3	75	155	390	4690	2460	890	620	545	161	54	15	13
4	61	202	422	3880	1710	1100	1200	503	150	52	14	14
5	51	2240	417	8400	3470	3300	2200	467	145	49	14	27
6	45	1310	406	6070	5500	1450	4500	438	140	47	14	52
7	41	682	462	3670	8890	1930	2700	410	136	45	13	53
8	39	492	385	4490	6160	9030	2100	379	131	43	12	41
9	36	364	334	8520	5260	4760	1700	374	123	42	12	78
10	33	288	293	4720	3220	2700	1400	359	119	41	11	313
11	32	255	1160	3340	2310	1860	1200	345	117	39	11	191
12	30	315	1500	3210	2610	1470	1030	313	113	39	11	118
13	28	263	1660	4940	3030	1270	920	291	109	37	11	80
14	27	229	12800	6210	2350	1110	840	291	107	36	11	62
15	26	202	10100	11600	2210	984	1020	714	103	34	11	52
16	25	184	5150	13800	1800	879	1020	772	99	32	11	45
17	24	167	6410	10300	1550	803	901	545	95	30	11	40
18	24	155	3820	6000	1300	743	871	449	92	30	11	35
19	22	145	2390	6160	1180	693	1450	416	89	29	11	32
20	22	137	1780	4460	1070	652	1860	369	85	27	11	30
21	20	2850	1570	3150	980	619	1550	345	81	26	11	29
22	20	5810	2500	2420	910	645	1270	326	78	24	11	27
23	27	3780	6650	1880	870	879	1060	309	76	22	11	26
24	36	4220	4030	1560	830	1060	953	300	74	22	12	24
25	184	2220	2460	1360	790	811	1310	291	73	21	14	23
26	288	2060	1810	1230	750	620	1120	253	72	20	18	22
27	150	1280	3090	1130	720	520	953	245	69	19	19	22
28	111	875	2450	1050	695	485	842	226	66	18	19	21
29	359	636	2580	992	---	465	758	208	63	18	18	20
30	783	537	2650	946	---	450	707	198	62	18	18	19
31	380	---	1960	901	---	500	---	182	---	18	16	---
TOTAL	3226	32457	82514	136269	65905	44098	39435	12109	3180	1047	412	1538
MEAN	104	1082	2662	4396	2354	1423	1315	391	106	33.8	13.3	51.3
MAX	783	5810	12800	13800	8890	9030	4500	772	179	59	19	313
MIN	20	137	293	901	695	450	620	182	62	18	11	13
AC-FT	6400	64380	163700	270300	130700	87470	78220	24020	6310	2080	817	3050
CAL YR 1977 TOTAL	151321.4			MEAN 415	MAX 12800	MIN 4.6	AC-FT 300100					
WTR YR 1978 TOTAL	422190.0			MEAN 1157	MAX 13800	MIN 11	AC-FT 837400					



11478500 VAN DUZEN RIVER NEAR BRIDGEVILLE, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958 to current year.

CHEMICAL ANALYSES: Water years 1958 to current year.

WATER TEMPERATURES: Water years 1961 to current year.

SEDIMENT RECORDS: Water years 1955-67.

TURBIDITY: Water years 1964-67.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: December 1960 to current year.

INSTRUMENTATION.--Temperature recorder since December 1960.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 29.5°C July 1, 2, 1967; minimum recorded, 0.0°C Dec. 14, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.5°C July 21, Aug. 7, 8; minimum, 4.5°C Nov. 20.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)
OCT								
12...	1305	--	29	266	8.0	18.0	.00	10.0
NOV								
02...	1000	--	175	194	7.9	13.0	2.0	10.2
DEC								
07...	1015	--	474	182	7.8	10.5	21	10.5
JAN								
03...	1620	--	3970	118	7.4	9.5	110	11.3
FEB								
08...	1225	--	5520	93	7.5	8.5	170	11.7
MAR								
07...	0945	--	1650	109	7.4	10.0	28	11.0
APR								
04...	1100	1200	--	122	7.4	9.0	55	11.3
MAY								
09...	1000	--	374	140	7.6	14.0	2.0	9.8
JUN								
06...	1110	--	140	167	8.2	22.0	1.0	8.6
JUL								
11...	1000	39	--	203	7.9	17.0	.00	9.3
AUG								
08...	1015	--	12	247	8.2	23.0	.00	9.2
SEP								
12...	1250	--	115	216	8.3	20.0	.00	9.9

DATE	TIME	HARD- NESS (MG/L AS CAC03)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	ALKA- LITY (MG/L AS CAC03)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	BORON, DIS- SOLVED (UG/L AS B)
OCT							
12...	1305	120	7.1	.3	100	5.1	100
JUL							
11...	1000	110	5.5	.2	99	2.9	0
AUG							
08...	1015	130	8.2	.3	120	4.0	100
SEP							
12...	1250	100	6.0	.3	88	4.2	100

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	14.5	13.0	10.0	10.5	9.5	9.0	8.5	10.0	9.5	9.0	8.5
2	18.5	14.0	14.0	12.0	10.5	9.0	9.0	9.0	10.0	10.0	9.0	8.5
3	19.5	15.0	12.0	11.0	11.5	9.5	10.0	9.0	10.0	9.5	10.0	9.0
4	19.0	14.0	11.0	9.5	12.5	10.5	10.0	9.0	10.0	10.0	10.0	9.0
5	18.5	14.5	9.5	9.0	10.5	9.5	10.0	9.0	10.0	8.5	11.0	9.0
6	17.5	13.5	10.0	9.5	10.5	10.0	10.0	9.0	9.5	8.5	11.0	10.5
7	18.5	13.5	10.5	9.5	11.0	9.0	11.0	8.5	9.0	8.5	11.0	10.0
8	16.0	15.0	10.5	9.0	9.0	7.0	11.5	11.0	8.5	8.0	11.0	10.0
9	17.5	14.5	10.0	8.0	8.0	6.5	11.0	9.5	8.5	8.0	10.0	10.0
10	18.5	14.0	10.0	7.5	8.0	6.5	10.5	9.0	8.0	7.0	11.0	10.0
11	19.5	13.5	10.0	8.5	9.5	8.0	10.0	9.0	7.0	6.0	10.0	9.5
12	18.5	14.0	10.0	8.0	9.5	8.0	10.5	9.5	7.0	7.0	9.5	8.5
13	19.0	14.5	11.0	9.0	10.5	9.5	10.5	10.0	8.0	7.0	9.0	9.0
14	18.5	13.5	11.0	9.0	11.0	10.5	10.5	9.0	8.5	7.5	9.0	8.5
15	18.0	14.5	12.5	10.0	11.0	8.5	9.0	8.5	8.0	7.5	10.0	9.0
16	18.0	14.0	12.0	10.5	8.5	8.0	9.5	9.0	7.5	7.0	10.5	9.5
17	17.0	13.0	11.0	9.0	8.0	7.5	10.0	9.5	8.5	7.5	11.5	10.0
18	17.0	14.5	9.5	7.0	7.5	7.0	10.0	9.5	10.5	8.5	12.0	11.0
19	15.5	14.5	7.5	5.5	7.0	6.0	10.0	9.0	10.5	9.5	12.5	11.5
20	17.0	13.5	6.0	4.5	8.0	6.0	9.5	8.0	10.5	10.0	13.0	12.5
21	16.0	12.0	7.5	6.0	9.5	8.0	10.0	8.5	10.5	10.0	13.0	12.5
22	16.5	11.5	8.5	6.0	10.0	9.5	9.5	9.0	10.5	10.0	13.0	12.5
23	15.0	14.0	8.5	7.0	9.5	8.0	9.0	7.5	10.5	9.5	13.0	12.0
24	18.0	15.0	10.5	8.5	8.5	7.0	9.0	8.0	10.5	9.5	12.5	11.5
25	16.5	14.0	11.5	10.0	7.5	6.5	10.5	9.0	10.5	9.5	12.5	11.5
26	14.0	13.0	12.0	11.5	7.5	7.0	10.5	9.5	10.0	9.0	13.0	12.0
27	13.5	12.5	11.5	10.5	8.5	7.5	10.5	9.5	9.5	8.5	13.0	12.5
28	13.0	12.0	10.5	9.5	8.5	8.0	10.0	9.0	9.0	8.0	14.0	13.0
29	12.5	11.5	11.0	9.5	8.5	8.0	9.0	6.5	---	---	14.0	13.0
30	12.5	11.0	11.0	10.5	9.0	8.5	9.0	7.0	---	---	13.5	12.5
31	12.5	10.5	---	---	9.0	8.5	10.0	9.0	---	---	13.5	13.0
MONTH	19.5	10.5	14.0	4.5	12.5	6.0	11.5	6.5	10.5	6.0	14.0	8.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.0	11.5	15.0	10.0	22.5	15.0	21.5	18.0	24.0	17.0	23.0	16.5
2	11.5	10.5	16.5	12.0	22.0	16.0	19.5	17.5	25.0	18.5	24.5	17.0
3	11.0	10.5	16.5	13.0	23.0	16.5	19.5	16.5	23.5	19.5	23.0	16.5
4	10.5	9.0	16.0	12.0	24.0	16.5	20.0	16.0	23.5	18.0	19.0	17.0
5	9.5	9.5	15.5	10.0	25.5	17.5	23.0	16.0	25.5	17.0	18.5	17.0
6	9.5	8.0	16.5	10.0	24.5	18.0	23.5	17.0	27.0	18.0	20.0	16.0
7	10.0	7.5	18.0	11.0	22.0	18.0	23.0	17.5	27.5	19.5	21.0	16.0
8	11.5	8.5	19.5	12.0	20.0	18.0	22.0	17.0	27.5	19.5	19.5	16.5
9	13.5	10.0	17.5	14.0	23.0	17.0	20.0	17.0	27.0	19.0	18.0	16.0
10	15.0	12.0	17.0	13.5	21.0	17.0	22.0	16.0	24.5	18.0	18.5	15.5
11	15.0	12.5	17.0	13.0	23.0	16.5	22.0	16.5	24.0	18.0	20.0	14.5
12	14.5	12.5	18.5	12.0	22.0	17.5	23.5	17.0	21.5	18.0	21.5	15.5
13	14.5	12.0	18.0	13.0	22.5	17.0	24.0	17.5	23.0	17.5	20.5	17.0
14	13.0	10.5	16.5	13.5	22.0	15.5	25.0	17.5	24.5	17.0	21.5	16.0
15	10.5	9.5	13.5	10.5	21.5	15.5	23.0	18.0	23.5	16.5	21.0	16.5
16	10.5	8.0	14.5	10.0	23.0	16.5	23.0	17.5	22.0	17.5	20.0	16.0
17	11.0	8.5	17.0	12.0	24.0	17.0	24.0	17.5	23.0	17.0	18.0	14.0
18	12.5	9.5	19.5	13.0	20.5	18.0	25.0	16.5	22.5	15.5	18.5	13.0
19	11.0	9.0	21.0	14.0	19.0	17.0	25.0	17.0	23.0	17.0	19.0	12.5
20	9.0	8.0	21.0	14.5	18.0	16.5	26.0	17.5	23.5	17.0	19.5	12.5
21	10.5	7.0	17.0	13.5	20.0	16.5	27.5	18.5	19.5	17.5	19.5	13.5
22	10.5	8.5	17.0	12.0	21.0	17.0	25.5	19.0	22.5	17.0	20.0	13.5
23	11.5	9.0	15.5	12.0	19.0	17.0	24.5	18.5	23.0	16.0	21.0	14.0
24	12.5	10.5	15.5	12.0	20.0	16.5	26.5	18.5	21.5	18.0	21.5	14.5
25	12.0	11.0	15.0	11.0	22.0	15.5	25.5	18.5	22.0	18.5	21.5	16.0
26	12.0	10.0	17.0	11.5	23.0	17.0	24.5	18.5	23.0	17.5	22.0	16.0
27	13.5	11.0	20.0	13.0	25.0	16.5	21.5	18.0	23.5	17.5	21.0	17.5
28	13.5	11.5	17.0	15.0	25.0	18.0	23.5	18.0	23.0	16.0	21.0	16.0
29	14.5	11.5	20.5	14.0	20.0	19.0	24.0	18.0	18.5	17.5	21.0	15.0
30	13.0	11.0	20.5	14.0	23.0	17.5	19.0	18.0	20.0	17.0	20.5	16.5
31	---	---	22.5	14.5	---	---	23.0	17.5	24.0	16.5	---	---
MONTH	15.0	7.0	22.5	10.0	25.5	15.0	27.5	16.0	27.5	15.5	24.5	12.5

## 11480400 RUTH RESERVOIR NEAR FOREST GLEN, CA

LOCATION.--Lat 40°22'08", long 123°25'56", in NW¼NW¼ 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 (9.0 km) west of Forest Glen.

DRAINAGE AREA.--121 mi<sup>2</sup> (313 km<sup>2</sup>).

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, 51,800 acre-ft (63.9 hm<sup>3</sup>) at elevation 2,654.0 ft (808.94 m), crest of spillway. Water is released down Mad River for municipal use. Records given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 66,400 acre-ft (81.9 hm<sup>3</sup>) Feb. 14, 1975, elevation, 2,665.98 ft (812.591 m); minimum, 11,700 acre-ft (14.4 hm<sup>3</sup>) Oct. 24-28, 1977; minimum elevation, 2,607.13 ft (794.653 m) Oct. 28, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 59,400 acre-ft (73.2 hm<sup>3</sup>) Jan. 16, 17; maximum elevation, 2,660.57 ft (810.942 m) Jan. 17; minimum contents, 11,700 acre-ft (14.4 hm<sup>3</sup>) Oct. 24-28; minimum elevation, 2,607.13 ft (794.653 m) Oct. 28.

Capacity table (elevation, in feet, and contents, in acre-feet)

2595	6670	2640	37300
2600	8520	2645	42300
2605	10700	2650	47400
2610	13300	2655	52900
2615	16500	2660	58700
2620	20100	2665	65000
2625	23900	2670	72300
2630	27800	2675	80300
2635	32500		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14100	11900	26700	53100	53100	52500	53100	52800	52000	50900	47500	42100
2	14100	11900	26800	54200	53300	52700	53400	52800	52000	50800	47400	41900
3	14000	11900	26900	54200	53300	53300	54300	52700	52000	50800	47200	41700
4	13900	12100	27000	55000	54600	54000	54300	52600	52000	50700	47100	41600
5	13800	12600	27100	55600	55800	53900	54100	52600	52000	50600	46900	41400
6	13700	12800	27200	55200	57100	54000	53800	52600	51900	50600	46700	41200
7	13500	13000	27300	54400	56300	56700	53600	52600	51900	50500	46600	41000
8	13400	13100	27400	54700	55400	55900	53300	52600	51900	50400	46400	40800
9	13300	13200	27400	56400	54500	55700	53200	52500	51800	50300	46200	40800
10	13200	13200	27500	55200	53900	54800	53100	52500	51800	50300	46000	40700
11	13100	13300	28400	54500	53700	54200	53000	52400	51800	50200	45900	40500
12	13000	13400	29300	54000	53600	53800	53000	52400	51800	50100	45700	40300
13	12900	13400	31100	54400	53400	53500	53000	52300	51700	50000	45500	40100
14	12800	13400	45700	55900	53200	53300	53000	52300	51700	49900	45300	39900
15	12700	13500	53400	58300	53100	53100	53000	52400	51600	49700	45100	39700
16	12500	13500	54900	59400	53000	53000	53100	52500	51600	49600	44900	39500
17	12400	13600	55900	57200	52900	52800	53400	52400	51600	49500	44800	39300
18	12300	13600	54600	55800	52800	52700	53500	52400	51500	49400	44600	39100
19	12200	13600	53700	55000	52700	52600	53400	52400	51500	49200	44400	38900
20	12100	13600	53200	54300	52600	52500	53300	52300	51500	49100	44300	38700
21	12000	16500	52800	53700	52500	52500	53300	52200	51400	49000	44100	38600
22	11900	19800	52900	53300	52300	52600	53300	52200	51300	48900	43900	38400
23	11800	22000	54200	53000	52300	52800	53200	52200	51300	48700	43800	38200
24	11700	23500	54000	52700	52300	52900	53200	52200	51200	48600	43600	38000
25	11700	24500	53400	52500	52200	52900	53100	52200	51100	48500	43400	37800
26	11700	25200	53100	52400	52200	52800	53200	52200	51100	48300	43200	37600
27	11700	25700	53500	52400	52100	52800	53100	52100	51100	48200	43000	37400
28	11800	26000	53400	52300	52300	52600	53000	52100	51000	48000	42800	37200
29	11800	26300	53400	52200	---	52600	52900	52100	51000	47900	42600	37000
30	11900	26500	53400	52100	---	53000	52800	52000	51000	47800	42500	36800
31	11900	---	53200	52400	---	53000	---	52100	---	47600	42300	---
MAX	14100	26500	55900	59400	57100	56700	54300	52800	52000	50900	47500	42100
MIN	11700	11900	26700	52100	52100	52500	52800	52000	51000	47600	42300	36800
(+)	2607.55	2628.35	2655.25	2654.50	2654.43	2655.06	2654.90	2654.21	2653.23	2650.21	2644.94	2639.47
(-)	-2200	+14600	+26700	-800	-100	+700	-200	-700	-1100	-3400	-5300	-5500

CAL YR 1977 ‡ +33800

WTR YR 1978 ‡ +22700

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

11480500 MAD RIVER NEAR FOREST GLEN, CA

LOCATION.--Lat 40°27'30", long 123°30'35", in SW¼ sec.16, T.1 N., R.6 E., Trinity County, Hydrologic Unit 18010102, Six Rivers National Forest, on right bank 0.7 mi (1.1 km) downstream from Lamb Creek, and 11.1 mi (17.9 km) northwest of Forest Glen.

DRAINAGE AREA.--143 mi<sup>2</sup> (370 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1395: 1954. WSP 1715: 1957 (M), 1958 (P).

GAGE.--Water-stage recorder. Datum of gage is 2,408.18 ft (734.013 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 22, 1955, water-stage recorder at site 0.7 mi (1.1 km) upstream at different datum. Jan. 13 to June 18, 1956, nonrecording gage at former site at datum 4.17 ft (1.271 m) lower than former datum.

REMARKS.--Records good including those for period of no gage-height record, Mar. 19 to Apr. 20. Flow regulated by Ruth Reservoir (station 11480400), 9 mi (14 km) upstream, beginning in July 1961. No diversion above station.

AVERAGE DISCHARGE.--25 years, 380 ft<sup>3</sup>/s (10.76 m<sup>3</sup>/s), 275,300 acre-ft/yr (339 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,200 ft<sup>3</sup>/s (1,110 m<sup>3</sup>/s) Dec. 22, 1955, gage height, 24.5 ft (7.468 m) present datum, from floodmarks, from rating curve extended above 8,100 ft<sup>3</sup>/s (229 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; minimum daily, 0.60 ft<sup>3</sup>/s (0.017 m<sup>3</sup>/s) Sept. 15, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,190 ft<sup>3</sup>/s (232 m<sup>3</sup>/s) Jan. 16, gage height, 10.41 ft (3.173 m); minimum daily, 9.3 ft<sup>3</sup>/s (0.26 m<sup>3</sup>/s) Nov. 17, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	19	853	286	214	225	301	79	46	69	100
2	14	11	18	1410	321	290	310	276	76	46	69	100
3	17	11	17	1820	513	359	500	250	71	46	69	100
4	46	12	17	1710	550	606	700	227	69	46	69	100
5	48	47	16	3010	978	1020	1100	209	67	46	89	104
6	48	26	16	2890	1990	1200	1900	196	64	43	89	100
7	48	16	16	2130	4030	1090	1400	183	61	43	89	99
8	48	14	15	1980	4160	2940	1100	173	57	42	89	99
9	48	12	15	3600	3330	3310	840	163	55	42	89	114
10	48	12	14	3080	2380	2030	685	151	55	42	89	100
11	46	12	73	2090	1670	1380	540	143	54	44	89	95
12	44	12	69	1660	1350	1010	440	147	53	49	89	95
13	44	12	98	1860	1310	790	385	158	54	70	89	95
14	44	11	1080	2530	1160	635	365	145	50	70	89	95
15	44	10	830	4730	1070	521	400	169	50	70	89	95
16	46	9.8	1820	7560	970	437	455	187	50	70	89	95
17	48	9.3	3200	6930	895	378	510	178	49	70	89	93
18	48	9.4	2590	4280	850	334	440	166	50	70	89	93
19	48	9.3	1550	3610	808	309	520	152	49	70	89	93
20	49	9.5	1020	2850	758	284	770	140	49	70	89	93
21	48	211	793	2090	694	267	702	128	49	70	90	93
22	48	238	869	1560	629	252	664	115	49	70	89	93
23	50	127	1460	1190	568	300	599	107	49	70	91	93
24	51	176	1610	945	471	590	541	106	48	70	100	93
25	33	85	1240	772	397	505	585	105	47	70	100	93
26	11	70	928	648	382	410	520	103	46	70	100	93
27	9.7	47	1090	516	361	340	459	99	46	70	100	93
28	11	34	1110	415	320	300	404	94	49	70	100	93
29	16	26	1020	386	---	274	361	90	47	69	100	93
30	18	22	1060	356	---	250	334	86	46	69	100	93
31	13	---	992	326	---	238	---	82	---	69	100	---
TOTAL	1146.7	1312.3	24665	69787	33201	22863	18754	4829	1638	1862	2770	2888
MEAN	37.0	43.7	796	2251	1186	738	625	156	54.6	60.1	89.4	96.3
MAX	51	238	3200	7560	4160	3310	1900	301	79	70	100	114
MIN	9.7	9.3	14	326	286	214	225	82	46	42	69	93
AC-FT	2270	2600	48920	138400	65850	45350	37200	9580	3250	3690	5490	5730
CAL YR 1977	TOTAL	36837.9	MEAN	101	MAX	3200	MIN	8.7	AC-FT	73070		
WTR YR 1978	TOTAL	185716.0	MEAN	509	MAX	7560	MIN	9.3	AC-FT	368400		

11480500 MAD RIVER NEAR FOREST GLEN, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957 to current year.

CHEMICAL ANALYSES: Water years 1971-74, 1977.

WATER TEMPERATURES: Water years 1961 to current year.

SEDIMENT RECORDS: Water years 1957-74.

TURBIDITY: Water years 1964-67, 1971-74.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1960 to current year.

INSTRUMENTATION.--Temperature recorder since November 1960.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 26.0°C June 25, 1961, June 29, 1977; minimum, 0.0°C Jan. 5, 6, 1968.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 23.0°C July 7-9; minimum, 4.0°C Nov. 21.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	15.0	13.0	12.0	9.5	8.5	7.0	7.0	7.0	6.0	8.0	6.0
2	17.0	15.0	13.0	12.0	9.5	8.5	7.0	7.0	7.5	6.5	8.0	7.0
3	17.0	15.0	12.0	11.0	9.5	9.0	7.5	7.0	8.5	7.0	8.5	7.0
4	17.0	14.5	11.0	10.0	10.0	9.5	7.5	7.0	8.0	7.0	8.0	7.0
5	16.5	14.5	10.0	9.0	9.5	9.0	7.5	7.0	8.0	7.0	9.0	8.0
6	15.5	14.5	10.5	9.5	9.0	8.5	7.5	7.0	7.5	7.0	9.0	8.0
7	17.0	14.5	10.5	9.5	9.0	8.5	8.0	7.0	7.0	7.0	9.0	8.5
8	17.5	15.0	10.0	9.0	8.5	7.5	8.0	7.5	7.0	7.0	8.5	8.0
9	17.5	15.0	9.5	8.5	7.5	6.5	8.0	7.5	7.0	7.0	8.5	8.0
10	17.0	14.5	9.5	8.0	7.0	6.0	8.0	7.0	7.0	6.0	8.5	7.5
11	17.5	14.5	9.5	8.5	7.0	6.5	8.0	7.0	7.0	6.0	8.5	7.0
12	17.0	14.5	9.5	8.5	7.5	6.5	8.0	7.5	7.5	5.5	8.5	6.5
13	17.5	15.0	10.0	9.0	8.0	7.0	8.0	8.0	7.0	6.0	8.5	7.0
14	17.0	14.5	10.0	9.0	9.0	7.5	8.0	7.0	7.0	6.0	9.5	6.5
15	16.5	14.5	11.0	10.0	9.0	7.5	7.0	7.0	7.0	6.0	10.0	6.5
16	17.0	15.0	11.0	10.0	7.5	6.5	7.0	7.0	6.5	6.0	10.5	7.5
17	17.0	14.0	10.5	9.5	7.5	6.5	7.5	7.0	7.0	6.0	11.0	9.0
18	16.5	14.0	10.0	8.0	7.5	7.0	7.0	7.0	8.0	6.5	12.0	9.0
19	15.5	14.0	8.0	6.5	7.5	6.5	7.5	7.0	8.0	6.0	10.0	9.0
20	15.0	13.5	6.5	5.5	7.5	6.5	7.5	6.5	8.5	6.0	10.5	9.0
21	15.0	13.0	5.5	4.0	7.5	7.0	7.0	6.0	8.5	6.5	10.5	9.0
22	15.0	13.0	6.5	4.5	7.5	7.0	7.5	7.0	9.0	6.5	11.0	10.5
23	14.5	13.5	7.0	6.5	7.5	7.5	7.5	6.5	9.0	7.0	11.0	10.0
24	15.5	14.5	8.5	7.0	8.0	7.5	8.0	6.5	7.0	6.5	12.5	9.5
25	15.5	15.0	9.5	8.5	8.0	7.5	8.5	7.0	9.0	7.0	13.0	10.0
26	15.5	14.0	10.5	9.5	7.5	7.0	7.5	6.5	8.5	7.0	13.0	10.5
27	14.5	13.5	10.0	9.5	8.0	7.5	8.0	5.5	8.0	6.5	12.5	10.0
28	14.0	12.5	10.0	9.0	8.0	7.0	8.0	5.5	8.0	6.0	12.5	8.5
29	12.5	12.0	10.0	9.0	8.0	7.0	7.5	5.0	---	---	11.5	9.5
30	13.0	12.0	10.0	9.0	7.5	7.0	7.5	6.0	---	---	13.0	10.5
31	12.5	11.5	---	---	7.0	7.0	7.5	6.0	---	---	12.0	10.0
MONTH	17.5	11.5	13.0	4.0	10.0	6.0	8.5	5.0	9.0	5.5	13.0	6.0

## MAD RIVER BASIN

11480500 MAD RIVER NEAR FOREST GLEN, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	10.0	13.5	9.5	19.0	14.0	19.0	17.0	21.0	16.5	17.0	14.0
2	12.0	10.0	14.0	9.0	19.5	14.5	18.0	15.5	20.5	16.0	17.5	14.0
3	11.0	9.0	13.5	9.5	20.5	15.0	20.0	15.0	20.5	16.5	17.0	14.0
4	11.5	9.0	13.0	8.5	21.0	15.5	21.5	16.5	21.0	16.5	15.5	13.5
5	10.0	9.0	13.0	8.5	21.5	16.0	21.5	16.0	19.5	16.5	13.5	13.0
6	10.5	9.0	14.0	8.5	21.5	15.5	22.0	16.5	19.5	16.5	14.5	13.0
7	10.5	8.5	14.5	9.5	21.5	15.5	23.0	18.0	19.5	16.5	15.5	13.0
8	10.5	8.0	15.5	10.5	21.5	16.0	23.0	18.0	19.5	16.0	14.0	13.0
9	12.0	8.0	16.0	12.0	20.0	16.0	23.0	18.0	19.5	16.5	14.0	13.0
10	13.0	9.0	15.5	12.5	17.5	15.0	22.5	18.0	19.0	16.0	14.0	13.0
11	12.5	8.5	13.5	11.5	19.5	14.0	22.0	17.0	18.5	15.0	16.0	13.0
12	12.0	8.0	16.0	11.5	19.0	15.5	22.0	17.0	16.5	15.0	16.0	13.5
13	12.0	8.5	15.0	11.5	19.5	14.5	20.5	16.5	17.5	14.5	16.5	14.0
14	9.5	8.0	13.5	12.0	19.5	14.0	21.0	16.5	17.5	14.5	16.5	13.5
15	9.5	8.5	12.0	11.0	19.0	13.5	20.5	17.0	17.5	15.0	16.5	14.0
16	10.0	8.5	15.5	11.0	19.5	14.5	20.5	16.5	17.5	15.0	16.5	14.0
17	11.0	8.5	15.5	11.0	20.5	15.5	21.0	16.5	17.0	13.5	14.5	12.5
18	11.0	8.0	16.5	11.5	20.5	16.5	21.5	17.0	17.5	14.0	14.5	11.5
19	11.5	8.5	16.5	12.0	21.0	16.5	21.5	17.0	17.5	14.5	14.5	12.0
20	11.5	8.5	17.0	13.0	21.0	16.0	21.5	17.0	17.5	14.5	15.5	12.5
21	11.5	9.5	17.0	13.0	21.5	16.5	22.0	17.5	16.0	13.5	15.5	13.5
22	11.5	9.0	15.0	12.5	21.0	16.5	21.5	17.5	16.5	13.0	16.5	14.0
23	12.0	9.0	13.0	11.0	20.5	16.5	21.5	17.5	16.0	13.5	16.5	14.0
24	12.0	10.0	12.0	11.0	18.0	15.5	21.5	17.0	15.0	13.5	17.0	14.5
25	12.0	10.5	13.5	11.0	19.0	14.0	19.5	17.0	14.0	13.0	16.0	14.5
26	13.0	10.0	14.0	12.0	20.0	15.0	20.5	16.0	16.5	13.0	16.5	14.0
27	13.5	9.5	17.0	12.0	20.5	15.5	20.5	16.5	17.0	13.5	17.0	15.0
28	13.0	9.5	18.0	14.0	19.5	17.0	20.0	16.0	17.0	13.5	17.0	15.0
29	12.5	8.5	18.0	14.0	20.5	16.5	20.5	16.0	17.0	14.0	17.0	14.0
30	11.0	9.0	18.0	14.0	21.5	17.0	20.5	16.0	17.5	15.0	17.0	15.0
31	---	---	18.5	13.5	---	---	21.0	16.0	17.5	14.5	---	---
MONTH	13.5	8.0	18.5	8.5	21.5	13.5	23.0	15.0	21.0	13.0	17.5	11.5

## 11481000 MAD RIVER NEAR ARCATA, CA

LOCATION.--Lat 40°54'35", long 124°03'35", in NW¼ sec.15, T.6 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, on right bank 100 ft (30 m) upstream from bridge on U.S. Highway 299, 1.0 mi (1.6 km) downstream from Warren Creek, and 2.8 mi (4.5 km) northeast of Arcata.

DRAINAGE AREA.--485 mi<sup>2</sup> (1,256 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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. Datum of gage is 12.79 ft (3.898 m) National Geodetic Vertical Datum of 1929. December 1910 to September 1913, nonrecording gage at site 0.1 mi (0.2 km) upstream at different datum. Aug. 15, 1950, to July 23, 1956, water-stage recorder at site 0.6 mi (1.0 km) upstream at datum 11.00 ft (3.353 m) higher. July 24, 1956, to Apr. 9, 1965, water-stage recorder at datum 5.00 ft (1.524 m) higher. Aug. 29 to Oct. 26, 1961, auxiliary water-stage recorder at site 0.5 mi (0.8 km) downstream at different datum.

REMARKS.--Records good. Flow regulated by Ruth Reservoir (station 11480400) 68 mi (109 km) upstream beginning in July 1961. Water is diverted 0.5 mi (0.8 km) upstream from station for municipal supply and industrial use in Humboldt Bay area.

AVERAGE DISCHARGE (adjusted for diversions).--31 years, 1,513 ft<sup>3</sup>/s (42.85 m<sup>3</sup>/s), 1,096,000 acre-ft/yr (1.35 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,000 ft<sup>3</sup>/s (2,290 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 30.7 ft (9.36 m) present datum, from high-water mark profile; minimum, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Aug. 29, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,900 ft<sup>3</sup>/s (620 m<sup>3</sup>/s) Jan. 17, gage height, 15.29 ft (4.660 m); minimum daily, 1.0 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s) Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	296	680	2920	1920	1160	1130	1290	131	53	29	53
2	14	200	580	3040	3340	1160	1760	1110	127	54	29	51
3	3.9	186	854	4670	4860	1360	1980	980	124	80	25	56
4	1.1	241	1170	4170	3770	2220	3240	878	112	130	24	80
5	1.0	2070	1010	7930	4070	3170	3610	784	98	73	24	121
6	14	2560	903	7280	6750	3430	5370	691	85	47	25	134
7	13	1150	1100	5350	10900	2970	4150	616	68	33	33	94
8	6.5	715	937	4880	12000	9880	3240	542	66	35	33	58
9	9.5	448	747	8470	9200	8920	2700	495	62	29	31	80
10	11	301	583	7000	6800	5980	2360	455	66	27	33	304
11	11	247	1070	5040	5900	4440	2010	433	73	26	33	227
12	11	271	2150	4280	5200	3490	1700	418	62	26	33	130
13	7.4	236	2910	4240	4550	2900	1460	360	62	25	38	89
14	4.4	225	13400	5200	4050	2520	1270	391	71	26	38	82
15	4.4	182	10600	11800	3750	2150	1410	801	62	29	37	63
16	3.4	154	6490	16900	3390	1890	1640	1060	71	32	39	56
17	3.4	124	7860	17700	3300	1680	1700	792	65	35	38	47
18	5.0	109	6450	9980	3590	1480	1540	660	65	39	39	41
19	6.9	95	4450	8710	3390	1320	1860	534	71	40	38	37
20	8.4	85	3150	7560	3110	1170	3560	448	121	37	39	35
21	6.5	1280	2430	6020	2820	1060	3250	383	94	35	41	38
22	7.4	5600	2510	4980	2520	1130	2740	350	82	35	45	48
23	22	3500	4210	4140	2170	1470	2340	296	73	37	44	51
24	37	6000	4300	3500	1910	2100	2090	290	73	35	45	53
25	1080	3700	3310	3030	1700	1690	2330	313	73	33	56	51
26	928	5200	2620	2720	1530	1430	2280	284	63	32	63	50
27	344	3200	3240	2470	1410	1260	1920	247	53	32	58	43
28	158	2300	3340	2180	1300	1110	1700	225	45	33	50	40
29	307	1200	3290	2010	---	995	1490	200	45	32	50	35
30	838	800	4240	1900	---	907	1370	179	53	32	54	37
31	634	---	3600	1790	---	828	---	154	---	32	56	---
TOTAL	4567.2	42675	104184	181860	119200	77270	69200	16659	2316	1244	1220	2284
MEAN	147	1423	3361	5866	4257	2493	2307	537	77.2	40.1	39.4	76.1
MAX	1080	6000	13400	17700	12000	9880	5370	1290	131	130	63	304
MIN	1.0	85	580	1790	1300	828	1130	154	45	25	24	35
AC-FT	9060	84650	206600	360700	236400	153300	137300	33040	4590	2470	2420	4530
(†)	4440	4720	4380	4920	4640	5140	4420	5210	5350	4760	4590	4660

CAL YR 1977 TOTAL 202571.78 MEAN 555 MAX 13400 MIN .10 AC-FT 401800 † 54890  
WTR YR 1978 TOTAL 622679.20 MEAN 1706 MAX 17700 MIN 1.0 AC-FT 1235000 † 57230

† Diversion, in acre-feet, for municipal supply and industrial use; furnished by Humboldt Municipal Water District.

## MAD RIVER BASIN

11481000 MAD RIVER NEAR ARCATA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955 to current year.

CHEMICAL ANALYSES: Water years 1959 to current year.

WATER TEMPERATURES: Water years 1958 to current year.

SEDIMENT RECORDS: Water years 1955-74.

TURBIDITY: Water years 1971-74.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: December 1957 to current year.

SEDIMENT RECORDS: December 1957 to September 1974.

INSTRUMENTATION.--Temperature recorder since November 1960.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 27.0°C July 6, 27, 28, 1968, July 30, 1977; minimum, 0.5°C Dec. 17-20, 1965.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 26.5°C Aug. 18; minimum, 5.0°C Jan. 24.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)
NOV 01...	1330	277	180	8.4	15.0	5.0	10.5
JAN 03...	1345	4730	113	8.3	10.0	200	11.3
MAR 06...	1315	3420	98	7.4	11.0	80	10.6
MAY 08...	1215	534	133	7.8	17.0	4.0	9.9
JUL 10...	1215	31	202	7.9	21.0	1.0	9.1
SEP 11...	1300	223	184	8.2	19.5	2.0	10.1

DATE	TIME	HARD- NESS (MG/L AS CACO3)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	ALKA- LITY (MG/L AS CACO3)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	BORON, DIS- SOLVED (UG/L AS B)
SEP 11...	1300	86	5.1	.2	71	3.4	0



11481000 MAD RIVER NEAR ARCATA, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.0	12.5	14.0	10.0	11.5	9.5	8.0	5.5	9.0	7.5	9.5	7.0
2	20.0	13.0	15.0	9.5	11.5	9.5	7.5	7.0	8.5	7.5	9.5	9.0
3	19.5	14.0	13.0	7.5	11.5	10.5	7.5	7.0	10.5	8.5	10.5	9.0
4	20.5	12.5	9.5	7.5	12.0	11.0	8.0	7.0	9.5	8.5	10.0	9.0
5	18.0	14.5	9.5	8.5	12.5	9.5	8.5	7.0	10.0	8.5	9.0	8.5
6	18.0	12.5	11.5	8.0	10.5	9.5	7.5	7.0	9.5	8.5	10.5	8.5
7	20.5	13.0	11.5	8.5	12.0	9.5	9.0	7.0	9.5	8.5	9.5	9.0
8	16.0	15.0	12.0	7.5	10.5	7.5	8.5	7.0	8.5	8.0	9.5	9.0
9	19.0	14.5	12.5	7.0	9.0	6.5	9.5	9.0	9.5	7.5	12.0	10.0
10	20.0	14.0	12.0	7.5	10.0	6.5	9.0	8.0	8.5	6.5	10.5	9.0
11	21.0	12.5	11.5	9.0	9.5	8.0	8.0	7.0	8.5	6.0	11.5	8.5
12	16.5	13.5	12.0	7.5	9.0	8.0	8.5	7.5	9.5	7.5	11.0	8.0
13	18.5	14.0	14.0	9.0	10.0	9.0	9.0	8.5	10.0	7.0	10.5	8.0
14	19.0	13.0	11.5	9.0	10.5	10.0	8.5	7.0	9.0	8.0	12.0	7.0
15	17.5	13.5	13.5	11.0	10.5	8.5	7.5	6.5	10.5	7.5	13.5	7.5
16	20.0	13.5	14.0	9.0	8.5	8.0	8.0	7.5	10.0	7.5	14.0	8.0
17	14.0	11.5	12.0	7.5	9.0	7.5	8.5	7.5	9.0	8.0	14.5	8.5
18	14.0	12.5	11.0	6.0	9.0	7.0	8.0	7.5	10.5	8.5	15.0	9.5
19	14.5	12.5	9.5	5.5	8.5	6.0	8.5	7.5	11.0	9.5	15.5	10.0
20	16.5	13.0	8.0	5.5	8.0	5.5	9.0	8.0	10.0	9.5	15.5	11.5
21	16.5	9.5	10.0	8.0	8.5	7.5	9.5	7.5	10.5	9.5	13.5	11.5
22	16.5	13.5	8.5	8.0	8.5	7.5	9.0	6.5	11.0	9.5	14.0	11.5
23	16.0	13.5	9.0	8.0	9.0	8.5	8.5	5.5	11.5	9.5	13.5	11.0
24	15.5	12.5	10.5	8.5	10.0	8.0	8.5	5.0	10.5	9.5	14.0	10.0
25	15.5	12.5	11.5	10.5	10.0	6.5	8.5	6.0	10.5	9.5	15.0	10.0
26	15.5	12.0	12.0	11.5	7.5	7.0	9.5	7.0	12.0	9.5	14.5	10.0
27	15.0	12.0	11.5	10.5	9.5	7.5	9.5	6.5	11.5	8.0	14.5	10.5
28	12.5	12.0	11.5	9.5	10.0	8.5	10.0	6.5	10.5	7.0	14.0	11.0
29	13.5	11.0	12.0	9.5	10.5	8.5	10.0	7.0	---	---	12.5	10.5
30	14.0	11.0	11.5	10.5	9.0	7.5	8.5	7.0	---	---	16.5	9.5
31	14.0	10.0	---	---	8.0	5.5	9.5	7.0	---	---	12.0	10.0
MONTH	21.0	9.5	15.0	5.5	12.5	5.5	10.0	5.0	12.0	6.0	16.5	7.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	9.5	14.0	10.0	19.0	14.0	17.0	15.0	21.0	15.0	22.5	16.0
2	11.0	8.0	15.5	11.5	16.5	14.5	16.5	14.5	20.5	16.0	22.0	15.5
3	9.5	8.0	15.0	13.0	20.5	14.5	17.5	14.5	20.0	15.5	19.5	16.5
4	11.0	7.0	15.0	11.0	21.0	14.5	19.5	15.0	21.0	16.0	18.0	16.0
5	9.0	7.5	14.5	10.0	22.5	15.0	18.0	13.5	21.0	16.0	18.5	16.0
6	10.0	6.5	15.0	9.5	20.0	15.0	18.5	15.5	21.5	15.5	22.5	16.0
7	11.0	6.5	15.5	11.0	20.5	15.5	17.5	16.0	21.5	16.0	23.5	14.0
8	13.0	7.5	16.0	11.5	18.0	16.0	17.5	15.0	24.0	16.5	18.0	15.5
9	14.5	8.0	15.0	13.5	18.5	15.0	19.5	14.5	23.5	17.0	20.0	16.0
10	15.5	9.5	14.5	13.0	20.0	14.5	22.5	14.5	23.0	17.5	21.5	16.0
11	16.0	10.5	15.0	12.5	19.0	13.5	21.0	14.5	23.0	17.0	22.5	14.5
12	15.5	11.0	16.0	12.0	18.0	15.5	20.5	15.0	21.5	16.5	23.0	14.0
13	15.5	10.0	15.5	12.5	18.5	15.0	22.5	14.5	21.5	16.0	19.0	16.0
14	11.5	10.0	14.5	13.0	19.0	12.5	22.5	14.5	22.0	16.0	22.5	15.0
15	11.0	9.0	14.0	12.0	18.0	12.5	23.0	16.0	21.5	16.5	22.0	15.5
16	11.0	8.0	15.0	10.5	22.0	15.0	24.5	16.0	22.0	17.5	21.0	15.0
17	11.5	8.0	16.5	12.0	---	---	24.5	15.0	22.5	14.5	20.0	12.5
18	12.0	9.0	17.5	13.0	---	---	24.5	14.0	26.5	15.5	20.0	12.0
19	12.0	9.5	18.0	14.0	---	---	24.5	15.0	26.0	15.5	20.5	11.0
20	10.0	8.5	18.0	14.0	---	---	25.0	15.5	25.0	18.0	20.5	12.5
21	10.0	8.0	16.0	12.0	---	---	25.5	14.5	21.5	18.0	20.0	14.0
22	10.0	8.5	16.5	10.5	---	---	24.5	15.5	24.5	17.5	21.0	12.0
23	11.0	8.5	16.0	11.0	---	---	23.5	16.0	21.5	16.5	22.0	13.5
24	11.0	9.5	16.0	12.0	17.5	13.5	23.0	16.0	20.5	17.5	21.5	15.0
25	12.0	11.0	15.5	11.5	17.0	12.5	22.0	15.5	22.0	17.0	20.5	14.5
26	14.0	10.5	15.0	12.0	17.5	14.5	22.0	17.0	21.5	17.5	20.5	15.0
27	13.0	11.0	17.5	13.0	17.0	14.5	21.0	17.0	23.5	16.5	21.5	15.5
28	13.5	11.5	18.0	14.0	17.5	15.0	20.0	17.0	22.0	15.0	20.5	13.5
29	13.5	11.0	18.0	13.0	---	---	19.5	17.0	19.5	17.5	20.5	13.0
30	13.0	11.0	18.0	12.5	---	---	19.5	16.5	20.0	17.0	20.5	16.0
31	---	---	18.5	12.5	---	---	21.5	16.0	23.0	16.5	---	---
MONTH	16.0	6.5	18.5	9.5	22.5	12.5	25.5	13.5	26.5	14.5	23.5	11.0

## LITTLE RIVER BASIN

11481200 LITTLE RIVER NEAR TRINIDAD, CA

LOCATION.--Lat 41°00'40", long 124°04'50", in NE¼ sec.8, T.7 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, on right bank 0.5 mi (0.8 km) upstream from Coon Creek, 4.7 mi (7.6 km) southeast of Trinidad, and 9.1 mi (14.6 km) north of Arcata.

DRAINAGE AREA.--40.5 mi<sup>2</sup> (104.9 km<sup>2</sup>), revised.

PERIOD OF RECORD.--October 1955 to current year. Prior to October 1971, published as "at Crannell."

REVISED RECORDS.--WSP 2129: 1956-60.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 17.62 ft (5.371 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--23 years, 143 ft<sup>3</sup>/s (4.050 m<sup>3</sup>/s), 103,600 acre-ft/yr (128 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,830 ft<sup>3</sup>/s (278 m<sup>3</sup>/s) Mar. 18, 1975, gage height, 14.19 ft (4.325 m), from rating curve extended above 3,100 ft<sup>3</sup>/s (87.8 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 14.08 ft (4.292 m); minimum daily, 2.8 ft<sup>3</sup>/s (0.079 m<sup>3</sup>/s) Oct. 20-22, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 17, 18, 1953, reached a stage of 15.7 ft (4.79 m), observed by an employee of Hammond Lumber Co.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft<sup>3</sup>/s (85 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	Gage height (ft)	(m)
Nov. 21	2245	3220	91.2	7.24	2.207
Nov. 26	0115	4200	119	8.20	2.499
Dec. 14	0915	*6140	174	10.14	3.091

Minimum daily discharge, 5.6 ft<sup>3</sup>/s (0.16 m<sup>3</sup>/s) Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	73	151	216	122	73	59	76	28	17	9.0	7.3
2	14	85	117	201	490	99	80	67	28	16	8.7	7.0
3	12	71	213	176	823	107	112	63	28	16	8.3	8.0
4	10	162	242	161	385	131	281	59	27	16	8.3	15
5	9.2	980	204	368	337	137	393	56	26	15	8.3	27
6	15	545	199	382	341	135	445	53	25	15	8.0	17
7	21	228	189	258	453	174	351	50	24	15	7.6	11
8	14	135	159	206	650	1140	211	47	24	14	7.4	10
9	12	94	139	445	650	738	157	46	24	14	7.1	60
10	10	70	112	311	400	396	124	45	25	14	6.8	126
11	9.6	74	161	231	284	269	103	47	25	14	6.8	46
12	8.8	76	176	192	258	211	91	43	23	13	7.0	24
13	7.7	76	980	169	253	167	82	40	23	13	7.3	17
14	8.1	70	3710	172	218	143	77	45	22	13	8.0	14
15	7.4	62	1460	1130	223	124	110	165	21	12	7.3	12
16	7.4	56	961	1090	194	110	124	157	20	12	6.9	10
17	7.0	49	856	1200	185	99	119	88	20	12	6.5	9.4
18	7.0	45	553	617	192	90	94	68	20	11	6.1	8.0
19	7.0	41	393	856	174	81	139	58	20	11	5.6	8.0
20	7.0	39	284	660	155	74	192	51	21	11	6.4	7.7
21	7.0	938	221	465	137	71	183	47	21	10	8.0	7.3
22	7.0	1210	187	378	122	73	141	45	20	9.8	11	7.0
23	8.1	479	187	299	112	137	117	42	20	9.8	7.9	7.0
24	12	1420	157	229	103	102	103	45	20	9.4	22	6.1
25	826	842	135	189	100	82	194	42	19	9.4	23	6.7
26	177	1870	119	163	91	73	151	39	18	9.0	14	6.1
27	70	527	250	141	85	68	120	37	18	9.0	12	6.7
28	52	302	208	122	78	64	102	35	17	9.0	10	6.7
29	168	213	269	110	---	62	90	33	17	9.0	9.4	6.7
30	272	189	523	100	---	58	82	32	17	9.4	8.6	6.4
31	123	---	311	93	---	55	---	30	---	9.4	7.9	---
TOTAL	1935.3	11021	13826	11330	7615	5343	4627	1751	661	377.2	281.2	511.1
MEAN	62.4	367	446	365	272	172	154	56.5	22.0	12.2	9.07	17.0
MAX	826	1870	3710	1200	823	1140	445	165	28	17	23	126
MIN	7.0	39	112	93	78	55	59	30	17	9.0	5.6	6.1
AC-FT	3840	21860	27420	22470	15100	10600	9180	3470	1310	748	558	1010
CAL YR 1977 TOTAL	34606.3			MEAN 94.8	MAX 3710	MIN 3.5	AC-FT 68640					
WTR YR 1978 TOTAL	59278.8			MEAN 162	MAX 3710	MIN 5.6	AC-FT 117600					

## REDWOOD CREEK BASIN

375

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA

LOCATION.--Lat 40°54'22", long 123°48'51", in SE&NE& sec.15, T.6 N., R.3 E., Humboldt County, Hydrologic Unit 18010102, on right bank 400 ft (122 m) upstream from Lupton Creek, and 9.1 mi (14.6 km) east of town of Blue Lake.

DRAINAGE AREA.--67.7 mi<sup>2</sup> (175.3 km<sup>2</sup>), revised.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1953 to September 1958, October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 850 ft (259 m), from topographic map.

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

AVERAGE DISCHARGE.--11 years, 267 ft<sup>3</sup>/s (7.561 m<sup>3</sup>/s), 193,400 acre-ft/yr (238 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft<sup>3</sup>/s (346 m<sup>3</sup>/s) Mar. 18, 1975, gage height, 13.70 ft (4.176 m), from rating curve extended above 6,400 ft<sup>3</sup>/s (181 m<sup>3</sup>/s); minimum daily, 2.6 ft<sup>3</sup>/s (0.074 m<sup>3</sup>/s) Aug. 24, Sept. 11-15, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,900 ft<sup>3</sup>/s (54 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 24	0715	2490 70.5	7.48 2.280	Jan. 16	2230	2560 72.5	7.54 2.298
Dec. 14	0545	*3490 98.8	8.29 2.527	Mar. 8	0830	2340 66.3	7.35 2.240

Minimum daily discharge, 5.0 ft<sup>3</sup>/s (0.14 m<sup>3</sup>/s) Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	46	325	410	317	257	226	223	63	33	12	9.3
2	11	47	295	520	546	276	275	207	61	32	11	6.5
3	10	41	353	709	583	276	282	196	58	33	9.9	6.5
4	9.1	86	373	595	416	535	355	169	55	32	9.3	11
5	8.6	332	349	1200	589	562	400	151	52	30	9.3	25
6	8.6	301	377	1040	697	476	600	142	50	28	9.3	23
7	10	161	399	758	1170	471	560	133	48	26	8.1	16
8	8.6	103	361	820	901	1650	410	125	48	25	7.6	16
9	8.2	74	333	1210	556	973	360	121	47	24	7.0	43
10	7.7	49	313	899	480	661	320	117	50	23	6.5	75
11	7.7	47	556	721	440	520	295	117	50	23	6.0	40
12	6.9	55	525	639	400	445	278	111	46	22	5.5	24
13	6.9	53	1070	739	410	428	257	103	47	21	6.5	19
14	6.9	48	2090	853	450	386	237	111	44	20	7.0	16
15	6.4	44	1520	1510	500	336	257	199	42	20	6.5	16
16	6.4	41	948	1810	447	298	275	167	41	20	6.0	13
17	5.9	37	1190	1530	505	275	266	135	40	19	6.0	13
18	5.6	34	673	1310	546	266	257	119	39	19	6.0	12
19	5.5	33	540	1390	515	242	362	109	40	17	5.5	12
20	5.5	32	490	1120	480	228	436	101	52	16	5.0	12
21	5.5	441	440	872	430	234	378	96	42	16	6.0	11
22	5.3	827	440	715	399	254	340	92	39	15	8.1	11
23	6.5	567	620	594	373	370	308	89	38	14	7.6	9.9
24	14	1420	520	520	357	344	298	96	38	13	7.0	9.9
25	142	703	400	462	337	285	378	94	33	13	13	9.3
26	79	1160	350	421	313	263	326	87	35	13	12	9.3
27	39	650	560	386	291	242	288	82	33	13	9.3	8.7
28	37	500	480	353	268	226	266	79	31	13	8.7	8.7
29	72	412	480	329	---	215	245	74	32	13	8.1	8.7
30	140	361	670	310	---	201	242	71	33	12	7.6	8.7
31	70	---	475	291	---	207	---	66	---	11	7.6	---
TOTAL	768.8	8705	18515	25036	13716	12402	9777	3782	1327	629	245.0	503.5
MEAN	24.8	290	597	808	490	400	326	122	44.2	20.3	7.90	16.8
MAX	142	1420	2090	1810	1170	1650	600	223	63	33	13	75
MIN	5.3	32	295	291	268	201	226	66	31	11	5.0	6.5
AC-FT	1520	17270	36720	49660	27210	24600	19390	7500	2630	1250	486	999

CAL YR 1977	TOTAL	43068.9	MEAN 118	MAX 2090	MIN 2.6	AC-FT 85430
WTR YR 1978	TOTAL	95406.3	MEAN 261	MAX 2090	MIN 5.0	AC-FT 189200

## REDWOOD CREEK BASIN

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

CHEMICAL ANALYSES: Water years 1974-75.

WATER TEMPERATURES: Water years 1973 to current year.

SEDIMENT RECORDS: Water years 1973 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1972 to current year.

SEDIMENT RECORDS.--October 1972 to current year.

INSTRUMENTATION.--Temperature recorder since October 1972.

REMARKS.--Differences between unadjusted recorder and field measurement values exceeded +1.0C for water temperature, at times during calibration visits.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 33.5°C Aug. 2, 1977; minimum recorded, 0.5°C Jan. 9, 1977.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 11,200 mg/L Mar. 18, 1975; minimum daily mean, 0 mg/L on several days in 1976.

SEDIMENT DISCHARGE: Maximum daily, 276,000 tons (250,000 metric tons) Mar. 18, 1975; minimum daily, 0 ton (0 metric ton) on several days in 1976.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 29.0°C Aug. 9; minimum, 3.5°C Nov. 20.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,010 mg/L Jan. 16; minimum daily mean, 1 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily, 17,600 tons (16,000 metric tons) Dec 14; minimum daily, 0.02 ton (0.02 metric ton) Sept. 2, 3, 27-30.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	12.5	13.0	9.5	8.5	7.5	7.5	6.5	8.0	7.0	9.0	6.0
2	19.5	12.5	13.0	10.0	9.0	7.0	7.5	7.5	8.5	7.0	9.5	8.5
3	19.0	12.5	10.5	8.5	10.0	9.0	8.0	7.5	9.5	8.0	10.0	8.0
4	19.0	12.5	9.0	7.5	11.0	10.0	8.5	8.0	9.0	8.0	9.0	7.5
5	18.5	12.5	9.0	8.5	10.5	8.5	8.0	7.5	9.0	8.0	8.5	8.0
6	15.0	11.5	10.0	8.5	9.5	8.0	8.5	8.0	8.5	7.5	9.5	7.0
7	17.5	11.5	10.0	8.5	10.0	8.5	9.0	8.0	8.0	7.5	9.0	8.5
8	18.0	12.0	9.0	6.5	8.5	6.5	9.0	8.5	8.0	7.5	9.0	8.0
9	17.5	11.5	8.5	5.5	7.5	6.0	9.0	9.0	7.5	7.0	10.0	8.0
10	18.0	11.0	9.0	6.0	7.5	6.0	9.0	8.0	7.0	6.0	9.0	8.0
11	18.5	11.5	9.5	7.5	9.0	7.5	9.0	8.0	6.5	5.0	9.0	7.5
12	17.5	12.0	9.0	7.0	9.0	8.0	9.5	8.5	6.5	6.0	8.5	6.5
13	17.5	11.5	10.5	8.5	10.5	9.0	9.5	9.0	7.5	6.0	9.0	7.0
14	18.0	12.0	10.0	8.0	10.5	10.5	9.5	9.0	8.0	6.5	9.0	6.0
15	17.5	12.5	12.0	9.5	10.5	8.5	9.5	9.0	7.5	6.5	10.0	6.0
16	17.0	12.0	11.0	8.5	8.5	8.5	9.5	9.5	7.5	6.5	11.0	7.0
17	17.0	11.0	9.5	7.0	8.5	8.0	10.5	9.5	8.0	7.0	11.5	8.0
18	16.5	11.0	7.5	5.0	8.0	7.5	10.0	9.5	9.0	7.5	12.0	8.5
19	16.0	12.5	6.0	4.0	7.5	6.5	10.0	9.5	9.5	7.0	13.0	9.5
20	15.5	11.5	5.0	3.5	7.5	7.0	10.0	8.5	9.5	7.5	13.0	9.5
21	15.0	9.5	6.5	4.5	8.0	7.5	10.0	9.0	9.5	7.5	12.0	10.5
22	15.0	9.5	7.0	6.5	8.5	7.5	9.0	8.0	10.0	7.5	12.0	10.5
23	14.0	12.0	7.5	6.5	8.5	8.0	8.0	7.0	9.5	7.5	11.0	9.5
24	15.0	12.5	10.0	7.5	8.0	7.5	7.5	6.5	9.0	8.0	11.5	9.0
25	14.5	12.0	11.0	9.0	7.5	6.5	9.0	7.0	9.5	8.5	13.0	9.0
26	13.5	11.0	11.0	10.0	7.5	7.0	9.0	7.5	9.5	8.0	13.5	10.0
27	13.0	11.5	10.0	9.0	8.5	7.5	8.5	7.0	9.0	7.0	14.0	10.5
28	12.0	11.5	9.5	8.0	9.0	8.0	8.5	7.0	8.5	6.0	13.5	10.0
29	11.5	10.0	10.0	8.5	9.0	8.5	8.5	7.0	---	---	12.0	10.5
30	12.0	10.0	10.0	8.5	8.5	7.5	8.0	6.5	---	---	13.5	10.0
31	12.0	9.0	---	---	7.5	6.5	8.5	7.5	---	---	11.5	10.5
MONTH	19.5	9.0	13.0	3.5	11.0	6.0	10.5	6.5	10.0	5.0	14.0	6.0

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.5	9.5	14.0	8.5	22.0	13.5	17.0	15.0	26.5	16.0	25.0	14.5
2	10.5	8.5	14.5	9.5	22.5	14.5	16.5	14.0	26.5	15.5	25.5	14.5
3	9.5	8.0	14.5	10.5	23.0	15.0	18.5	14.5	26.0	15.5	19.5	14.5
4	9.5	7.0	14.5	9.5	24.0	15.5	22.0	14.5	26.5	16.5	16.5	15.0
5	9.5	8.0	14.0	8.0	24.0	16.0	23.0	14.5	27.5	16.5	15.0	14.5
6	10.0	7.5	15.0	7.5	24.0	16.0	24.0	15.5	28.0	17.5	16.0	14.0
7	11.0	7.5	16.5	9.0	24.0	16.5	25.0	17.0	28.5	17.0	18.5	13.0
8	12.0	8.0	18.0	10.5	21.0	16.5	25.5	17.0	28.5	17.5	16.0	13.5
9	13.5	8.5	16.5	11.5	18.5	15.0	25.5	18.0	29.0	17.0	16.0	14.0
10	14.5	10.0	14.5	11.5	23.0	13.5	25.0	18.0	27.0	16.0	16.0	11.5
11	14.5	10.5	15.0	11.0	19.0	16.0	24.5	16.5	25.5	15.0	18.0	11.5
12	13.5	9.5	18.0	10.5	21.5	15.5	25.5	17.5	18.0	14.5	19.5	12.0
13	13.5	10.0	17.5	11.5	20.5	14.0	27.0	18.0	23.0	14.0	16.5	14.0
14	11.0	9.0	15.0	12.0	20.0	14.0	27.5	18.5	24.0	12.5	20.5	13.0
15	10.0	9.0	12.5	10.5	22.5	13.5	24.0	19.0	21.5	14.0	21.0	13.5
16	9.0	7.0	16.0	9.0	23.5	14.0	26.5	18.0	20.5	14.5	20.5	13.5
17	10.0	7.0	17.5	10.0	18.5	16.0	27.0	17.0	23.0	11.0	17.0	12.0
18	11.0	8.0	19.0	11.0	23.5	15.0	28.0	18.0	24.0	12.0	18.5	11.0
19	10.0	8.5	19.5	12.5	20.0	15.5	28.0	18.0	24.0	12.5	18.0	9.5
20	9.5	7.5	20.0	13.0	---	---	27.5	17.5	17.5	13.0	19.0	10.5
21	10.0	7.0	17.0	13.5	---	---	28.5	18.0	17.0	13.5	19.0	11.5
22	9.5	7.0	18.0	11.5	23.0	16.0	27.5	18.5	21.0	13.5	19.0	11.5
23	11.0	7.5	15.5	11.0	18.0	15.5	27.5	18.0	20.5	12.5	20.5	11.5
24	11.0	9.0	13.0	11.0	16.5	14.0	27.5	18.0	19.5	14.5	21.5	12.5
25	12.0	9.5	15.5	10.0	21.0	13.5	26.5	18.5	19.5	15.0	20.0	13.5
26	11.5	9.5	14.5	10.5	22.5	14.5	26.0	18.0	21.0	14.0	20.5	14.0
27	12.5	9.5	19.5	11.0	24.0	16.0	25.5	17.0	23.0	13.0	21.0	14.5
28	12.5	9.5	21.0	14.0	24.5	17.5	25.5	16.5	23.5	13.0	20.5	13.0
29	13.0	8.5	20.5	12.5	19.0	16.5	26.0	16.0	24.0	14.5	21.0	12.0
30	11.0	9.0	20.5	12.5	17.0	15.5	26.0	16.5	24.0	16.0	20.0	13.5
31	---	---	21.5	12.5	---	---	26.5	16.5	25.0	15.5	---	---
MONTH	14.5	7.0	21.5	7.5	24.5	13.5	28.5	14.0	29.0	11.0	25.5	9.5

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	13	4	.14	46	5	.62	325	80	70
2	11	3	.09	47	5	.63	295	74	59
3	10	3	.08	41	4	.44	353	120	114
4	9.1	2	.05	86	10	2.3	373	110	111
5	8.6	2	.05	332	50	45	349	100	94
6	8.6	2	.05	301	40	33	377	110	112
7	10	3	.08	161	25	11	399	120	129
8	8.6	2	.05	103	16	4.4	361	110	107
9	8.2	2	.04	74	10	2.0	333	100	90
10	7.7	2	.04	49	6	.79	313	90	76
11	7.7	2	.04	47	4	.51	556	313	619
12	6.9	2	.04	55	7	1.0	525	210	298
13	6.9	2	.04	53	5	.72	1070	1070	4510
14	6.9	2	.04	48	5	.65	2090	2840	17600
15	6.4	2	.03	44	4	.48	1520	1610	7280
16	6.4	2	.03	41	4	.44	948	450	1150
17	5.9	2	.03	37	3	.30	1190	800	2570
18	5.6	2	.03	34	3	.28	673	280	509
19	5.5	2	.03	33	3	.27	540	180	262
20	5.5	2	.03	32	5	.43	490	140	185
21	5.5	2	.03	441	305	748	440	100	119
22	5.3	2	.03	827	470	1190	440	100	119
23	6.5	3	.05	567	228	393	620	250	418
24	14	4	.15	1420	1200	5390	520	150	211
25	142	60	23	703	439	906	400	100	108
26	79	20	4.3	1160	800	2850	350	80	76
27	39	10	1.1	650	300	526	560	180	272
28	37	10	1.0	500	150	202	480	140	181
29	72	15	2.9	412	100	111	480	140	181
30	140	50	19	361	90	88	670	300	543
31	70	10	1.9	---	---	---	475	150	192
TOTAL	768.8	---	54.47	8705	---	12509.26	18515	---	38365

## REDWOOD CREEK BASIN

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	410	100	111	317	55	51	257	13	9.0
2	520	200	281	546	211	374	276	17	13
3	709	350	670	583	172	271	276	13	9.7
4	595	410	659	416	34	38	535	218	327
5	1200	1100	3560	589	161	311	562	148	225
6	1040	550	1540	697	115	216	476	70	90
7	758	210	430	1170	473	1720	471	102	170
8	820	426	1010	901	305	742	1650	1260	6380
9	1210	1200	3920	556	170	255	973	160	420
10	899	450	1090	480	108	140	661	118	211
11	721	180	350	440	52	62	520	82	115
12	639	130	224	400	85	92	445	50	60
13	739	332	698	410	38	42	428	40	46
14	853	473	1280	450	36	44	386	29	30
15	1510	1960	8800	500	54	73	336	20	18
16	1810	3010	15600	447	44	53	298	14	11
17	1530	1960	9000	505	45	61	275	12	8.9
18	1310	820	2900	546	60	88	266	10	7.2
19	1390	630	2360	515	62	86	242	8	5.2
20	1120	380	1150	480	30	39	228	7	4.3
21	872	204	480	430	25	29	234	8	5.1
22	715	132	255	399	20	22	254	12	8.2
23	594	72	115	373	17	17	370	117	133
24	520	50	70	357	15	14	344	40	37
25	462	40	50	337	15	14	285	25	19
26	421	23	26	313	13	11	263	19	13
27	386	22	23	291	11	8.6	242	14	9.1
28	353	20	19	268	14	10	226	11	6.7
29	329	15	13	---	---	---	215	8	4.6
30	310	12	10	---	---	---	201	8	4.3
31	291	10	7.9	---	---	---	207	10	5.6
TOTAL	25036	---	56701.9	13716	---	4883.6	12402	---	8405.9
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	226	20	12	223	8	4.8	63	2	.34
2	275	65	48	207	7	3.9	61	2	.33
3	282	70	53	196	6	3.2	58	2	.31
4	355	80	77	169	5	2.3	55	2	.30
5	400	100	108	151	5	2.0	52	2	.28
6	600	130	211	142	5	1.9	50	2	.27
7	560	80	121	133	4	1.4	48	2	.26
8	410	30	33	125	4	1.4	48	2	.26
9	360	27	26	121	4	1.3	47	2	.25
10	320	25	22	117	3	.95	50	1	.14
11	295	19	15	117	5	1.6	50	1	.14
12	278	12	9.0	111	5	1.5	46	1	.12
13	257	12	8.3	103	5	1.4	47	1	.13
14	237	15	9.6	111	6	1.8	44	1	.12
15	257	30	21	199	30	16	42	1	.11
16	275	41	30	167	14	6.3	41	1	.11
17	266	20	14	135	10	3.6	40	1	.11
18	257	12	8.3	119	8	2.6	39	1	.11
19	362	75	93	109	6	1.8	40	2	.22
20	436	70	82	101	4	1.1	52	8	1.1
21	378	32	33	96	4	1.0	42	2	.23
22	340	26	24	92	5	1.2	39	1	.11
23	308	23	19	89	5	1.2	38	1	.10
24	298	21	17	96	6	1.6	38	1	.10
25	378	69	70	94	5	1.3	33	1	.09
26	326	29	26	87	4	.94	35	3	.28
27	288	18	14	82	3	.66	33	8	.71
28	266	13	9.3	79	3	.64	31	3	.25
29	245	10	6.6	74	2	.40	32	2	.17
30	242	9	5.9	71	2	.38	33	2	.18
31	---	---	---	66	2	.36	---	---	---
TOTAL	9777	---	1226.0	3782	---	70.53	1327	---	7.23

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	33	2	.18	12	2	.06	9.3	1	.03
2	32	2	.17	11	2	.06	6.5	1	.02
3	33	2	.18	9.9	2	.05	6.5	1	.02
4	32	2	.17	9.3	3	.08	11	2	.06
5	30	2	.16	9.3	3	.08	25	5	.34
6	28	2	.15	9.3	2	.05	23	2	.12
7	26	1	.07	8.1	2	.04	16	1	.04
8	25	1	.07	7.6	2	.04	16	2	.09
9	24	1	.06	7.0	2	.04	43	9	1.0
10	23	1	.06	6.5	2	.04	75	9	1.8
11	23	1	.06	6.0	2	.03	40	3	.32
12	22	1	.06	5.5	2	.03	24	2	.13
13	21	1	.06	6.5	2	.04	19	1	.05
14	20	1	.05	7.0	2	.04	16	1	.04
15	20	1	.05	6.5	2	.04	16	1	.04
16	20	2	.11	6.0	2	.03	13	1	.04
17	19	2	.10	6.0	2	.03	13	1	.04
18	19	1	.05	6.0	2	.03	12	1	.03
19	17	2	.09	5.5	2	.03	12	1	.03
20	16	2	.09	5.0	3	.04	12	2	.06
21	16	1	.04	6.0	4	.06	11	4	.12
22	15	1	.04	8.1	5	.11	11	2	.06
23	14	1	.04	7.6	6	.12	9.9	1	.03
24	13	1	.04	7.0	6	.11	9.9	1	.03
25	13	1	.04	13	8	.28	9.3	1	.03
26	13	2	.07	12	6	.19	9.3	1	.03
27	13	3	.11	9.3	3	.08	8.7	1	.02
28	13	5	.18	8.7	2	.05	8.7	1	.02
29	13	3	.11	8.1	1	.02	8.7	1	.02
30	12	2	.06	7.6	1	.02	8.7	1	.02
31	11	2	.06	7.6	1	.02	---	---	---
TOTAL	629	---	2.78	245.0	---	1.94	503.5	---	4.68
YEAR	95406.3		122233.29						

## SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1977	768.80	54.47	0	54
NOVEMBER ...	8705.00	12509.26	6680	19200
DECEMBER ...	18515.00	38365.00	15900	54300
JANUARY 1978	25036.00	56701.90	28200	84900
FEBRUARY ...	13716.00	4883.60	7060	11900
MARCH .....	12402.00	8405.90	6490	14900
APRIL .....	9777.00	1226.00	1620	2850
MAY .....	3782.00	70.53	0	71
JUNE .....	1327.00	7.23	0	7
JULY .....	629.00	2.78	0	3
AUGUST .....	245.00	1.94	0	2
SEPTEMBER ..	503.50	4.68	0	5
TOTAL .....	95406.30	122233.29	65950	188192

## REDWOOD CREEK BASIN

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
NOV								
23...	1115	6.5	505	176	240	--	--	--
23...	1455	7.5	452	140	171	--	--	--
DEC								
13...	1145	10.0	795	482	1040	33	42	52
14...	1245	10.5	1960	2450	13000	17	24	34
JAN								
11...	1515	8.0	691	218	407	--	--	--
16...	0835	9.5	2130	4360	25100	12	17	25
19...	1420	10.0	1390	597	2240	15	22	31
MAR								
10...	1530	8.5	632	116	198	--	--	--

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
NOV								
23...	--	--	78	82	86	95	100	--
23...	--	--	79	83	87	93	100	--
DEC								
13...	62	72	79	84	89	94	98	100
14...	43	53	60	69	80	92	98	99
JAN								
11...	--	--	43	48	54	61	75	94
16...	33	42	50	59	71	82	88	94
19...	41	49	55	61	70	84	93	97
MAR								
10...	--	--	61	67	75	86	99	100



11481500 REDWOOD CREEK NEAR BLUE LAKE, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SEDIMENT IN TRANSIT WITHIN 0.25 FOOT OF BED SURFACE,  
WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (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
NOV								
23...	1420	6.5	6	462	73	409	--	0
DEC								
13...	1340	10.0	5	899	82	717	0	1
14...	1200	10.5	5	2150	102	4240	0	2
JAN								
11...	1425	8.0	8	691	78	362	0	1
19...	1335	10.0	8	1410	93	5970	0	1
FEB								
16...	1415	6.5	35	443	72	164	--	0
MAR								
10...	1615	8.5	14	632	79	585	--	0
APR								
12...	1450	13.5	--	279	68	.00	--	--
MAY								
11...	1140	13.0	--	124	52	.00	--	--
JUL								
20...	1155	22.5	--	17	38	.00	--	--
AUG								
11...	1330	25.0	--	6.5	33	.00	--	--
31...	1620	24.5	--	7.4	34	.00	--	--

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
NOV								
23...	1	7	22	48	75	90	100	--
DEC								
13...	6	10	16	24	33	44	71	100
14...	9	20	31	39	48	59	82	100
JAN								
11...	5	15	25	39	55	71	87	100
19...	5	13	19	27	43	72	88	100
FEB								
16...	2	7	25	54	77	98	100	--
MAR								
10...	2	6	15	36	63	88	100	--
APR								
12...	--	--	--	--	--	--	--	--
MAY								
11...	--	--	--	--	--	--	--	--
JUL								
20...	--	--	--	--	--	--	--	--
AUG								
11...	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--

## REDWOOD CREEK BASIN

11482200 REDWOOD CREEK AT SOUTH PARK BOUNDARY, NEAR ORICK, CA

LOCATION.--Lat 41°10'19", long 123°56'55", in SE¼NE¼ sec.16, T.9 N., R.2 E., Humboldt County, Hydrologic Unit 18010102, Redwood National Park (south boundary), on left bank 150 ft (46 m) downstream from Slide Creek, 8.6 mi (13.8 km) southeast of Orick, and 17 mi (27 km) upstream from mouth.

DRAINAGE AREA.--185 mi<sup>2</sup> (479 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 226.84 ft (69.141 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 3, 1973, at different datum.

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

AVERAGE DISCHARGE.--8 years, 773 ft<sup>3</sup>/s (21.89 m<sup>3</sup>/s), 560,000 acre-ft/yr (690 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft<sup>3</sup>/s (935 m<sup>3</sup>/s) Mar. 18, 1975, gage height, unknown, on basis of runoff comparison with upstream and downstream stations; maximum gage height recorded, 29.36 ft (8.949 m) Mar. 2, 1972, datum then in use; minimum daily discharge, 4.5 ft<sup>3</sup>/s (0.13 m<sup>3</sup>/s) Oct. 17-21, 23, 26, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,900 ft<sup>3</sup>/s (167 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	Gage height (ft)	(m)	Date	Time	Discharge (ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	Gage height (ft)	(m)
Nov. 21	2115	7670	217	11.79	3.594	Dec. 17	0445	7480	212	11.86	3.615
Nov. 24	1015	8570	243	12.41	3.783	Jan. 17	unknown	8400	238	unknown	
Dec. 14	0945	*17200	487	17.23	5.252						

Minimum daily discharge, 15 ft<sup>3</sup>/s (0.42 m<sup>3</sup>/s) Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	220	904	1270	835	714	605	541	155	78	25	19
2	65	223	790	1340	1940	790	809	519	149	75	26	18
3	61	197	908	1540	2790	767	875	494	143	79	25	17
4	58	431	955	1310	1680	1120	1300	458	137	77	24	28
5	55	1860	856	3000	1600	1290	1680	418	131	75	23	79
6	51	1640	875	3200	1800	1190	1880	403	126	70	22	78
7	47	822	946	2300	2910	1220	1370	380	121	67	21	56
8	43	521	840	2100	2920	4440	1090	359	118	63	19	62
9	39	368	738	3500	3080	3050	966	337	116	61	18	141
10	35	288	653	2800	2290	2070	890	337	118	59	17	330
11	32	272	1110	2300	1890	1630	811	323	121	57	16	165
12	30	265	1360	2000	1700	1340	745	297	115	53	15	93
13	27	255	3880	1700	1600	1240	615	267	113	52	17	71
14	27	236	12200	1900	1440	1100	526	300	110	52	18	60
15	26	215	8570	3500	1510	987	588	659	106	48	18	51
16	25	200	5940	5200	1370	897	674	604	103	48	18	46
17	24	186	6050	6000	1470	829	682	419	101	47	18	41
18	23	174	3890	4000	1610	781	598	358	99	44	17	40
19	23	164	2590	4390	1490	698	799	334	100	43	17	37
20	22	157	1830	3450	1360	638	1230	304	104	40	16	33
21	22	3720	1450	2590	1260	621	1040	283	106	39	17	33
22	21	4650	1440	2170	1150	695	883	271	98	37	19	31
23	26	3050	1860	1790	1090	928	766	252	95	35	20	30
24	55	6290	1580	1530	967	966	691	293	96	33	23	31
25	727	3640	1230	1310	928	768	817	307	95	32	46	30
26	399	4900	1020	1170	880	691	748	248	87	31	31	28
27	185	2790	1750	993	810	641	652	236	86	30	28	27
28	177	1820	1500	896	750	599	606	216	82	29	24	26
29	351	1340	1500	800	---	557	569	207	80	29	22	25
30	681	1070	2150	726	---	523	542	181	74	28	21	26
31	336	---	1670	659	---	505	---	164	---	27	20	---
TOTAL	3762	41964	73035	71434	45120	34285	26047	10769	3285	1538	661	1752
MEAN	121	1399	2356	2304	1611	1106	868	347	110	49.6	21.3	58.4
MAX	727	6290	12200	6000	3080	4440	1880	659	155	79	46	330
MIN	21	157	653	659	750	505	526	164	74	27	15	17
AC-FT	7460	83240	144900	141700	89500	68000	51660	21360	6520	3050	1310	3480
CAL YR 1977 TOTAL	163928.8	MEAN 449	MAX 12200	MIN 15	AC-FT 325200							
WTR YR 1978 TOTAL	313652.0	MEAN 859	MAX 12200	MIN 15	AC-FT 622100							

11482200 REDWOOD CREEK AT SOUTH PARK BOUNDARY, NEAR ORICK, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.

CHEMICAL ANALYSES: Water years 1971-77.

WATER TEMPERATURES: Water years 1974 to current year.

SEDIMENT RECORDS: Water years 1971 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1973 to current year.

INSTRUMENTATION.--Temperature recorder since October 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 27.5°C June 29, 1974; minimum recorded, 1.0°C Dec. 10, 1976.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Minimum, 5.5°C Nov. 20.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	13.0	12.5	11.0	10.0	8.5	7.0				
2	---	---	13.0	11.0	10.5	9.5	9.0	8.5				
3	---	---	11.0	9.5	11.0	10.5	9.0	8.5				
4	---	---	10.0	9.0	11.5	11.0	9.0	9.0				
5	---	---	10.5	10.0	11.0	10.0	9.0	8.5				
6	---	---	10.5	9.5	10.0	9.5	---	---				
7	---	---	10.5	9.5	10.0	9.0	---	---				
8	---	---	9.5	8.5	9.0	7.5	---	---				
9	---	---	9.0	7.5	7.5	7.0	---	---				
10	---	---	9.5	8.0	8.0	6.5	---	---				
11	---	---	9.5	9.0	9.5	8.0	---	---				
12	---	---	10.0	9.0	9.5	9.0	---	---				
13	16.0	14.0	10.5	9.5	11.0	9.5	---	---				
14	16.0	13.0	10.5	9.5	12.0	11.0	---	---				
15	16.5	14.0	12.0	10.5	11.5	9.5	---	---				
16	16.0	13.5	11.5	10.0	9.5	9.0	---	---				
17	16.0	13.0	10.5	9.0	9.0	9.0	---	---				
18	15.5	13.5	9.0	7.5	9.0	8.0	---	---				
19	15.0	13.5	7.5	6.5	8.0	7.5	---	---				
20	14.5	13.0	6.5	5.5	8.0	7.0	10.0	9.5				
21	14.5	11.5	10.0	6.5	9.0	8.0	10.0	9.0				
22	14.5	11.0	9.5	9.5	9.0	8.5	---	---				
23	14.5	13.0	9.5	8.5	9.5	9.0	---	---				
24	15.0	13.5	11.0	9.5	9.5	8.5	---	---				
25	14.5	13.5	12.0	11.0	8.5	7.0	---	---				
26	13.5	12.5	12.0	11.5	8.0	7.5	---	---				
27	---	---	11.5	10.5	9.5	8.0	---	---				
28	---	---	11.0	10.0	10.0	9.5	---	---				
29	---	---	11.0	10.0	10.0	9.5	---	---				
30	---	---	11.0	10.5	9.5	8.5	---	---				
31	---	---	---	---	8.5	7.0	---	---				
MONTH	16.5	11.0	13.0	5.5	12.0	6.5	10.0	7.0				

## REDWOOD CREEK BASIN

11482200 REDWOOD CREEK AT SOUTH PARK BOUNDARY, NEAR ORICK, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	19.5	14.5						
2			---	---	20.0	15.0						
3			---	---	20.5	15.5						
4			---	---	21.5	15.5						
5			---	---	22.5	16.5						
6			---	---	22.5	17.0						
7			---	---	21.5	17.0						
8			---	---	22.0	17.0						
9			15.5	13.0	19.5	17.0						
10			14.0	12.5	19.0	16.0						
11			13.5	12.0	20.5	15.0						
12			16.0	11.0	19.0	16.0						
13			15.5	12.5	19.5	15.5						
14			14.0	12.5	20.0	14.5						
15			12.5	11.0	19.5	14.5						
16			14.5	10.0	23.0	15.5						
17			16.0	11.5	17.5	16.0						
18			17.5	12.0	16.5	15.5						
19			18.0	13.0	21.0	15.0						
20			18.5	14.0	21.5	16.0						
21			16.5	13.5	---	---						
22			16.0	11.5	---	---						
23			15.5	11.5	---	---						
24			13.0	12.0	---	---						
25			14.5	11.0	---	---						
26			14.0	11.5	---	---						
27			18.0	12.5	---	---						
28			19.0	14.0	---	---						
29			19.0	13.5	---	---						
30			19.0	13.5	---	---						
31			20.0	13.5	---	---						
MONTH			20.0	10.0	23.0	14.5						

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
NOV								
01...	1440	13.0	213	16	9.2	--	--	--
DEC								
08...	1415	8.5	831	113	254	--	--	--
13...	0835	11.0	1980	612	3270	--	--	--
13...	1215	11.0	2970	1990	16000	--	--	--
13...	1250	11.0	3170	2380	20400	--	--	--
13...	1510	--	4280	2530	29200	--	22	32
13...	1610	--	4820	2880	37500	--	--	--
14...	0900	11.5	17100	6860	317000	--	--	--
14...	1045	11.5	16000	5930	256000	--	--	--
14...	1525	12.0	13100	3540	125000	--	--	--
14...	1530	12.0	13100	3580	127000	--	--	--
15...	0905	10.0	9790	3210	84900	--	--	--
15...	1220	9.5	9040	2820	68800	--	15	24
JAN								
18...	1430	10.0	4040	847	9240	21	29	38
19...	0925	9.5	4500	1200	14600	18	24	31
19...	1230	9.5	4810	1210	15700	18	24	33
FEB								
17...	1620	8.5	1540	155	644	--	--	--
MAR								
28...	1540	14.0	591	38	61	--	--	--
MAY								
09...	1315	14.5	324	13	11	--	--	--
JUL								
06...	1340	23.0	69	2	.37	--	--	--
AUG								
16...	1440	21.0	18	1	.05	--	--	--

11482200 REDWOOD CREEK AT SOUTH PARK BOUNDARY, NEAR ORICK, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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
NOV 01...	--	--	70	--	--	--	--	--
DEC 08...	--	--	50	53	57	66	91	100
13...	--	--	74	--	--	--	--	--
13...	--	--	66	74	85	94	99	100
13...	--	--	54	--	--	--	--	--
13...	41	52	60	68	79	91	98	100
13...	--	--	55	--	--	--	--	--
14...	--	--	68	--	--	--	--	--
14...	--	--	71	--	--	--	--	--
14...	--	--	79	--	--	--	--	--
14...	--	--	72	--	--	--	--	--
15...	--	--	62	--	--	--	--	--
15...	34	44	52	60	69	78	87	96
JAN 18...	48	57	64	73	84	92	99	100
19...	40	47	54	62	73	84	93	98
19...	42	49	57	66	78	90	97	100
FEB 17...	--	--	69	76	83	91	100	--
MAR 28...	--	--	71	--	--	--	--	--
MAY 09...	--	--	74	--	--	--	--	--
JUL 06...	--	--	--	--	--	--	--	--
AUG 16...	--	--	--	--	--	--	--	--

## PARTICLE-SIZE DISTRIBUTION OF SEDIMENT IN TRANSIT WITHIN 0.25 FOOT OF BED SURFACE, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPERATURE (DEG C)	NUMBER OF SAMPLING POINTS	STREAM FLOW, INSTANTANEOUS (CFS)	STREAM WIDTH (FT)	SEDIMENT DISCHARGE, BEDLOAD (TONS/DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM
DEC 08...	1330	8.5	7	834	67	596	--	0	1
13...	1135	11.0	7	2380	133	5770	--	--	--
13...	1540	12.0	7	4040	145	6320	0	2	9
15...	1115	9.5	6	9300	148	12500	0	2	8
JAN 18...	1325	10.0	8	3910	145	16800	0	1	4
19...	1150	9.5	8	4800	148	4340	0	1	6
FEB 17...	1600	8.5	6	1430	133	138	0	2	15
MAR 28...	1625	14.0	4	577	118	27	--	0	5

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	SED. BEDLOAD SIEVE DIAM. % FINER THAN 76.0 MM
DEC 08...	10	27	56	80	95	100	--	--
13...	--	--	--	--	--	--	--	--
13...	24	36	48	58	78	92	100	--
15...	20	31	43	56	65	84	92	100
JAN 18...	12	23	42	59	74	91	100	--
19...	14	21	32	51	75	92	100	--
FEB 17...	40	64	80	94	100	--	--	--
MAR 28...	23	47	59	70	90	95	100	--

## 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 NE¼SE¼ sec.23, T.11 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, Redwood National Park, on right bank 0.8 mi (1.3 km) upstream from mouth, and 3.2 mi (5.1 km) northeast of Orick.

DRAINAGE AREA.--3.46 mi<sup>2</sup> (8.96 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 50 ft (15 m), from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 808 ft<sup>3</sup>/s (22.9 m<sup>3</sup>/s) Mar. 18, 1975, gage height, 4.32 ft (1.317 m); minimum daily, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Dec. 19-26, 28, 1976, Feb. 19, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft<sup>3</sup>/s (2.8 m<sup>3</sup>/s) and maximum(\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Nov. 21	2130	132	3.74	3.08	0.939	Dec. 14	0945	*391	11.1	3.70	1.128
Nov. 25	2315	386	10.9	3.73	1.137	Jan. 16	0700	100	2.83	2.89	.881

Minimum daily discharge, 0.36 ft<sup>3</sup>/s (0.010 m<sup>3</sup>/s) Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	14	20	26	8.1	6.3	3.8	6.0	2.1	.86	.52	.44
2	8.8	15	17	22	22	6.0	4.6	5.7	2.1	.80	.52	.44
3	6.4	14	28	19	49	6.3	5.4	5.4	2.0	.86	.48	.44
4	5.3	15	30	17	35	7.3	12	5.1	2.0	.86	.48	2.7
5	4.3	62	26	35	31	7.7	19	4.6	1.7	.86	.48	4.2
6	4.7	52	25	41	30	8.1	26	4.4	1.6	.80	.48	1.9
7	4.3	31	25	33	45	11	20	4.2	1.5	.74	.44	1.2
8	3.4	23	24	27	48	54	16	4.0	1.5	.74	.44	1.3
9	3.2	19	21	41	47	38	14	3.8	1.5	.80	.44	7.3
10	2.9	16	19	34	37	28	11	3.6	1.9	.80	.40	14
11	2.7	14	22	28	29	21	9.1	3.8	1.6	.74	.40	6.3
12	2.4	12	22	22	27	17	7.7	3.4	1.5	.74	.40	4.0
13	2.3	13	34	19	25	14	7.0	3.2	1.6	.74	.40	2.8
14	2.1	12	224	18	22	12	6.6	3.6	1.3	.68	.40	2.4
15	2.0	11	106	43	21	9.7	9.7	6.3	1.3	.74	.40	1.9
16	2.0	11	61	86	19	8.6	9.7	5.7	1.3	.74	.40	1.6
17	1.9	10	56	74	19	7.7	10	4.9	1.3	.74	.40	1.4
18	1.9	9.2	43	47	18	7.0	9.1	4.4	1.3	.68	.40	1.3
19	1.8	8.8	32	61	16	6.3	9.7	4.2	1.3	.68	.40	1.3
20	1.8	8.5	26	55	15	5.7	12	3.8	1.1	.62	.36	1.1
21	1.8	39	22	41	13	5.4	14	3.6	1.1	.62	.40	1.0
22	1.6	93	19	35	12	5.4	14	3.4	1.1	.57	.40	.93
23	1.6	72	19	29	10	7.0	12	3.4	1.0	.57	.40	.93
24	2.3	125	18	24	9.1	5.7	11	3.2	1.0	.52	1.2	.86
25	27	102	17	20	8.6	5.1	10	3.2	.93	.52	2.2	.86
26	22	172	16	17	7.7	4.9	9.1	3.0	.93	.52	.74	.80
27	16	63	17	14	7.3	4.4	8.1	2.7	.86	.52	.57	.86
28	13	41	16	12	6.6	4.2	7.3	2.7	.80	.52	.48	.80
29	13	31	23	10	---	4.2	7.0	2.5	.80	.52	.44	.74
30	18	25	35	9.1	---	3.8	6.6	2.4	.80	.52	.44	.68
31	16	---	32	8.1	---	3.8	---	2.2	---	.52	.44	---
TOTAL	208.5	1133.5	1095	967.2	637.4	335.6	321.5	122.4	40.82	21.14	16.35	66.48
MEAN	6.73	37.8	35.3	31.2	22.8	10.8	10.7	3.95	1.36	.68	.53	2.22
MAX	27	172	224	86	49	54	26	6.3	2.1	.86	2.2	14
MIN	1.6	8.5	16	8.1	6.6	3.8	3.8	2.2	.80	.52	.36	.44
AC-FT	414	2250	2170	1920	1260	666	638	243	81	42	32	132

CAL YR 1977 TOTAL 3291.17 MEAN 9.02 MAX 224 MIN .10 AC-FT 6530  
WTR YR 1978 TOTAL 4965.89 MEAN 13.6 MAX 224 MIN .36 AC-FT 9850

11482468 LITTLE LOST MAN CREEK AT SITE NO. 2, NEAR ORICK, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

CHEMICAL ANALYSES: Water years 1974-77.

SEDIMENT RECORDS: Water years 1974-76, 1978.

REMARKS.--Prior to October 1975, published in Geological Survey Open-File Report 76-678, "Redwood National Park Studies", Data Release Number 2.

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)
NOV					
28...	1215	10.5	40	29	3.1
JAN					
13...	1215	10.0	19	4	.21
FEB					
06...	1325	9.5	31	23	1.9
14...	1045	8.5	22	10	.59
28...	1155	8.0	6.6	5	.09
MAR					
06...	1140	9.5	8.1	5	.11
07...	1730	--	12	20	.65
08...	1300	10.5	55	29	4.3
13...	1030	9.0	10	6	.16
20...	1120	10.0	5.6	3	.05
27...	1300	10.5	4.2	3	.03
APR					
04...	1145	--	12	8	.26
06...	1115	8.0	26	4	.28
25...	1415	9.5	9.7	2	.05
JUN					
27...	1310	14.0	.86	1	.00
SEP					
05...	1300	--	3.8	3	.03

## REDWOOD CREEK BASIN

11482500 REDWOOD CREEK AT ORICK, CA

LOCATION.--Lat 41°17'18", long 124°03'27", in NE¼NE¼ sec.4, T.10 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, on left bank at upstream side of bridge on U.S. Highway 101 at Orick, 0.9 mi (1.4 km) downstream from Prairie Creek.

DRAINAGE AREA.--278 mi<sup>2</sup> (720 km<sup>2</sup>).

## 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. Datum of gage is 5.16 ft (1.573 m) National Geodetic Vertical Datum of 1929. Sept. 10, 1911, to Aug. 9, 1913, nonrecording gage at different datum.

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

AVERAGE DISCHARGE.--27 years, 1,070 ft<sup>3</sup>/s (30.30 m<sup>3</sup>/s), 775,200 acre-ft/yr (956 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,500 ft<sup>3</sup>/s (1,430 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 24.0 ft (7.32 m), from outside high-water marks; minimum, 9.3 ft<sup>3</sup>/s (0.26 m<sup>3</sup>/s) Oct. 17-19, 21, 23-26, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 18, 1953, reached a stage of 23.95 ft (7.300 m), from floodmarks, discharge, 50,000 ft<sup>3</sup>/s (1,420 m<sup>3</sup>/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 9,000 ft<sup>3</sup>/s (255 m<sup>3</sup>/s) and maximum(\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Nov. 22	0115	9360	265	12.62	3.847	Dec. 14	1230	*21200	600	16.60	5.060
Nov. 24	1300	9650	273	12.74	3.883	Jan. 17	0445	10600	300	13.11	3.996

Minimum daily discharge, 31 ft<sup>3</sup>/s (0.88 m<sup>3</sup>/s) Aug. 18-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	276	345	1400	2150	1040	731	592	690	270	122	47	37
2	192	315	1280	2110	2000	806	892	680	263	123	46	35
3	143	300	1480	2290	3900	794	967	667	252	127	45	35
4	116	700	1580	1960	2800	1100	1710	618	245	123	44	69
5	99	3250	1370	3740	2600	1330	1960	576	232	121	42	205
6	116	3380	1340	3790	3000	1310	2850	544	222	114	41	159
7	151	2000	1480	2920	4100	1240	2160	512	214	107	38	104
8	114	1250	1300	2630	4400	4270	1730	477	205	106	37	81
9	95	910	1140	3990	4500	4050	1450	452	205	100	35	244
10	83	670	1010	3240	3500	2800	1270	440	210	98	34	607
11	77	504	1440	2640	2800	2180	1100	447	207	94	32	406
12	68	458	1930	2270	2610	1810	985	433	196	91	32	237
13	63	440	3680	2050	2420	1620	900	403	196	89	33	161
14	61	391	15200	2140	2100	1460	856	408	185	85	33	137
15	58	344	9960	4980	2140	1260	1030	863	178	85	32	113
16	56	309	6300	7650	1900	1120	1100	953	173	83	32	96
17	54	279	6450	8580	1910	1020	1130	691	164	80	32	92
18	51	255	4590	5400	2010	928	968	586	161	78	31	83
19	50	240	3460	5880	1840	850	1130	516	161	73	31	76
20	49	228	2800	4970	1670	779	1780	468	156	69	31	68
21	48	5100	2340	3700	1500	736	1550	434	169	67	32	63
22	48	6530	2140	3000	1340	817	1320	409	157	62	34	60
23	60	4030	2380	2550	1220	1030	1150	386	148	57	35	68
24	270	7200	2180	2200	1120	1210	990	383	144	57	39	49
25	1200	4660	1750	1850	1070	931	1200	379	145	54	109	47
26	730	7270	1520	1680	968	810	1100	357	134	51	68	44
27	385	3560	2180	1450	873	736	970	343	126	53	53	47
28	275	2560	2060	1280	788	677	860	326	121	52	46	49
29	570	1960	2150	1100	---	634	770	316	122	50	41	48
30	1080	1630	3220	1000	---	593	740	303	121	48	38	44
31	540	---	2640	957	---	555	---	285	---	48	37	---
TOTAL	7178	61068	93750	96147	62119	40187	37210	15345	5482	2567	1260	3564
MEAN	232	2036	3024	3102	2219	1296	1240	495	183	82.8	40.6	119
MAX	1200	7270	15200	8580	4500	4270	2850	953	270	127	109	607
MIN	48	228	1010	957	788	555	592	285	121	48	31	35
AC-FT	14240	121100	186000	190700	123200	79710	73810	30440	10870	5090	2500	7070
CAL YR 1977 TOTAL	228339			626	MAX 15200	MIN 14	AC-FT 452900					
WTR YR 1978 TOTAL	425877			MEAN 1167	MAX 15200	MIN 31	AC-FT 844700					



11482500 REDWOOD CREEK AT ORICK, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955-56, 1959 to current year.

CHEMICAL ANALYSES: Water years 1959-66, 1973 to current year.

WATER TEMPERATURES: Water years 1966 to current year.

SEDIMENT RECORDS: Water years 1955-56, 1970 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1965 to current year.

SEDIMENT RECORDS: March 1970 to current year.

INSTRUMENTATION.--Temperature recorder since October 1965.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 24.0°C July 10, 1976; minimum recorded, 1.0°C Dec. 14, 1967.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 9,610 mg/L Mar. 18, 1975; minimum daily mean, 1 mg/L on many days in 1970, 1973-74, 1976, 1978.

SEDIMENT DISCHARGE: Maximum daily, 1,070,000 tons (971,000 metric tons) Mar. 18, 1975; minimum daily, 0.03 ton (0.03 metric ton) Oct. 7, 8, 11, 12, 1970.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 22.5°C July 16, 21; minimum, 6.5°C Dec. 19, 20, Jan. 24, Feb. 11.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 4,350 mg/L Dec. 14; minimum daily mean, 1 mg/L on several days.

SEDIMENT DISCHARGE: Maximum daily, 187,000 tons (170,000 metric tons) Dec. 14; minimum daily, 0.08 ton (0.07 metric ton) Aug. 19, 20.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)
OCT								
11...	1300	--	77	177	7.8	17.0	1.0	11.5
NOV								
01...	1415	345	--	135	7.2	13.5	5.0	9.9
DEC								
06...	1300	--	1330	112	7.0	11.0	25	10.4
JAN								
04...	1030	--	1910	107	7.2	10.0	45	11.2
FEB								
07...	1500	--	4510	72	7.2	10.0	190	11.1
MAR								
06...	1405	--	1300	88	7.2	11.5	40	10.6
APR								
03...	1430	--	913	98	7.2	11.0	23	10.6
MAY								
08...	1300	--	476	103	7.4	17.0	4.0	10.0
JUN								
05...	1300	--	264	125	7.6	20.0	1.0	9.2
JUL								
10...	1315	--	130	136	7.8	21.0	1.0	9.3
AUG								
07...	1245	--	39	149	7.4	21.0	1.0	9.0
SEP								
11...	1345	--	375	156	7.4	19.0	5.0	8.9

DATE	TIME	HARD- NESS (MG/L AS CACO3)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	ALKA- LINEITY (MG/L AS CACO3)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	BORON, DIS- SOLVED (UG/L AS B)
MAR							
06...	1405	36	2.7	.2	31	2.0	0

## REDWOOD CREEK BASIN

11482500 REDWOOD CREEK AT ORICK, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	14.5	12.5	11.5	11.5	11.0	8.0	7.0	9.0	8.5	11.0	8.0
2	16.5	14.5	12.5	12.0	11.0	10.5	8.5	8.0	9.0	8.5	10.5	10.0
3	16.0	14.5	12.0	11.0	11.0	10.5	9.0	8.5	10.5	9.5	12.0	9.5
4	16.0	14.5	11.0	10.0	11.5	11.0	9.0	8.5	10.0	9.5	10.5	10.0
5	15.5	15.0	10.0	9.5	11.0	10.0	9.0	8.5	10.0	9.5	10.5	10.0
6	15.0	14.0	10.5	9.5	10.0	10.0	9.0	8.5	9.5	9.0	11.0	9.5
7	15.5	14.0	10.5	9.5	10.5	9.5	9.0	8.5	9.5	9.0	10.5	10.0
8	15.0	14.5	10.0	8.5	9.5	8.0	10.0	9.0	9.0	8.5	10.5	10.5
9	15.5	14.5	10.5	8.0	8.0	7.5	10.0	10.0	8.5	8.0	11.0	9.5
10	15.5	14.0	10.5	8.5	8.0	7.0	10.0	9.0	8.0	7.0	10.5	10.0
11	15.5	14.0	10.5	9.5	9.5	8.0	9.0	8.5	7.5	6.5	11.0	9.5
12	15.0	14.0	10.5	9.0	10.0	9.5	9.5	9.0	8.5	7.0	10.5	8.5
13	15.0	14.5	11.5	10.0	11.0	10.0	10.0	9.5	9.0	7.5	10.0	9.0
14	15.0	14.5	10.5	10.0	11.0	10.5	10.0	9.0	9.0	8.5	11.0	8.5
15	15.0	14.0	12.0	10.5	11.0	8.5	9.0	8.5	9.5	8.0	11.5	8.5
16	15.0	14.0	12.5	10.0	8.5	8.5	9.5	8.5	8.5	8.0	12.5	9.0
17	14.5	13.5	11.5	9.0	8.5	8.5	9.5	9.0	8.5	8.0	13.0	9.5
18	14.0	14.0	10.5	8.5	8.5	7.5	9.5	9.0	10.5	8.5	13.5	10.0
19	14.0	13.5	9.0	7.5	7.5	6.5	9.0	9.0	10.5	9.0	13.5	10.5
20	14.0	13.5	8.0	7.0	8.0	6.5	9.5	9.0	10.5	9.5	14.0	11.0
21	14.0	12.5	10.0	7.5	8.5	8.0	9.5	9.0	10.5	10.0	12.0	11.5
22	13.5	12.5	10.0	9.5	8.5	8.5	9.0	8.0	11.0	10.0	12.0	11.5
23	14.0	13.5	10.0	9.5	9.5	8.5	8.0	7.5	11.5	10.0	13.0	12.0
24	14.5	13.5	11.5	9.5	9.0	8.0	7.5	6.5	10.5	10.0	13.5	11.0
25	14.5	13.0	12.0	11.5	8.0	7.5	8.5	7.0	11.5	10.0	14.0	11.0
26	13.5	13.0	12.0	12.0	8.0	7.5	9.0	8.0	12.0	10.0	14.0	11.5
27	13.0	12.5	12.0	11.5	9.0	8.0	9.0	8.0	11.5	9.0	14.0	12.0
28	12.5	12.5	11.5	11.0	9.5	9.0	9.0	7.5	11.0	8.5	13.5	12.5
29	12.5	12.0	11.5	11.0	9.5	9.0	9.5	8.0	---	---	13.5	12.5
30	12.5	12.0	11.5	11.5	9.0	8.5	9.0	8.0	---	---	15.5	11.5
31	12.0	11.5	---	---	8.5	7.0	9.0	8.5	---	---	13.0	12.0
MONTH	16.5	11.5	12.5	7.0	11.5	6.5	10.0	6.5	12.0	6.5	15.5	8.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.0	11.0	15.0	10.0	19.5	14.5	18.5	15.0	20.5	16.0	20.0	16.0
2	13.0	10.5	16.0	11.5	17.5	14.5	17.0	15.0	19.0	16.0	20.5	16.5
3	11.0	10.0	15.5	12.5	19.0	14.5	19.0	15.5	18.5	16.0	18.0	16.5
4	11.5	9.0	15.5	11.5	20.0	15.0	19.5	15.5	20.0	16.0	16.5	16.0
5	10.0	9.5	15.0	10.5	21.0	15.5	21.0	14.5	20.5	16.0	16.5	15.5
6	10.0	9.0	16.0	10.0	21.0	15.5	21.5	15.5	21.5	16.0	17.5	15.5
7	11.5	9.0	17.0	11.0	18.5	16.0	20.5	16.0	21.5	16.5	19.0	15.5
8	13.0	9.5	17.5	12.0	17.5	16.0	21.0	16.0	21.5	16.5	17.0	16.0
9	14.5	10.0	14.0	13.0	19.5	15.5	19.5	16.0	21.0	17.0	16.5	16.0
10	15.5	11.5	13.5	12.5	20.0	15.5	21.5	16.0	20.0	17.0	17.0	15.5
11	15.5	11.5	16.0	12.0	20.5	14.5	20.5	15.5	20.5	16.5	18.0	15.5
12	15.0	11.5	17.0	11.5	17.5	15.5	19.5	16.0	18.5	16.5	18.5	15.5
13	14.0	10.5	15.5	12.5	20.5	15.0	21.0	16.0	20.5	15.5	17.0	16.0
14	11.5	10.5	14.5	13.0	19.5	14.5	22.0	16.5	20.5	15.5	18.0	15.5
15	11.0	9.5	13.0	11.5	19.5	14.5	20.0	17.0	19.0	16.0	18.5	15.5
16	11.0	9.0	16.0	10.5	21.0	15.0	22.5	16.5	20.5	16.5	18.0	15.5
17	11.0	9.5	17.5	12.0	21.0	15.0	22.0	16.0	20.0	15.5	17.0	14.5
18	12.0	10.0	18.5	12.5	19.0	16.0	22.0	16.0	20.0	15.5	17.0	14.5
19	11.0	10.0	19.0	13.5	20.5	15.5	21.5	16.0	20.5	15.5	17.0	13.5
20	10.5	9.0	19.0	14.0	17.0	15.5	21.5	16.5	19.0	16.0	17.0	14.0
21	11.5	9.0	15.5	13.5	16.5	15.5	22.5	16.5	18.5	16.5	17.5	15.0
22	10.5	9.5	17.0	12.0	17.0	15.0	21.5	17.0	20.0	16.0	17.5	14.0
23	12.0	9.5	16.5	12.0	18.5	15.0	21.5	17.0	19.0	16.0	18.0	14.5
24	12.0	10.0	15.5	12.5	19.0	15.0	22.0	17.0	17.0	16.5	18.0	15.5
25	14.0	11.0	16.0	11.5	19.5	14.0	21.5	17.0	20.0	15.5	17.5	15.5
26	14.5	11.5	15.0	12.5	21.5	15.0	20.0	17.0	20.0	16.5	18.0	16.0
27	13.0	11.0	19.0	13.0	21.5	15.5	19.0	17.0	20.0	16.0	18.5	16.5
28	13.5	11.5	17.5	14.5	17.5	16.0	18.0	16.5	20.0	16.0	18.0	15.5
29	15.0	11.0	19.0	13.0	17.0	16.0	18.0	16.5	18.0	17.0	17.0	15.0
30	13.5	11.0	19.5	13.0	17.0	15.5	19.0	16.5	17.5	16.5	17.5	16.0
31	---	---	20.5	13.5	---	---	20.5	16.0	20.0	16.0	---	---
MONTH	15.5	9.0	20.5	10.0	21.5	14.0	22.5	14.5	21.5	15.5	20.5	13.5

11482500 REDWOOD CREEK AT ORICK, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	276	9	6.7	345	15	14	1400	112	423
2	192	7	3.6	315	11	9.4	1280	72	249
3	143	4	1.5	300	6	4.9	1480	163	651
4	116	4	1.3	700	40	76	1580	152	648
5	99	4	1.1	3250	890	7810	1370	95	351
6	116	4	1.3	3380	396	3610	1340	103	373
7	151	3	1.2	2000	95	513	1480	137	547
8	114	3	.92	1250	50	169	1300	97	340
9	95	3	.77	910	29	71	1140	85	262
10	83	2	.45	670	18	33	1010	85	232
11	77	2	.42	504	24	33	1440	405	2040
12	68	2	.37	458	15	19	1930	392	2200
13	63	3	.51	440	11	13	3680	1810	27300
14	61	3	.49	391	8	8.4	15200	4350	187000
15	58	3	.47	344	8	7.4	9960	1970	54100
16	56	2	.30	309	7	5.8	6300	1240	21300
17	54	2	.29	279	6	4.5	6450	1230	22100
18	51	2	.28	255	5	3.4	4590	598	7410
19	50	3	.41	240	5	3.2	3460	458	4280
20	49	3	.40	228	4	2.5	2800	357	2700
21	48	2	.26	5100	2500	34400	2340	258	1630
22	48	2	.26	6530	2640	53400	2140	228	1320
23	60	2	.32	4030	881	9820	2380	310	1990
24	270	4	2.9	7200	3100	67700	2180	259	1520
25	1200	258	836	4660	1540	20000	1750	194	917
26	730	78	154	7270	2400	49100	1520	164	673
27	385	15	16	3560	770	7400	2180	385	2380
28	275	10	7.4	2560	357	2470	2060	237	1320
29	570	35	54	1960	225	1190	2150	238	1380
30	1080	74	216	1630	160	704	3220	596	5180
31	540	20	29	---	---	---	2640	271	1930
TOTAL	7178	---	1338.92	61068	---	258594.5	93750	---	354746

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2150	150	871	1040	110	309	731	45	89
2	2110	173	986	2000	340	1840	806	87	189
3	2290	350	2160	3900	815	8580	794	67	144
4	1960	210	1110	2800	247	1870	1100	150	476
5	3740	1130	12100	2600	252	1770	1330	174	625
6	3790	777	7950	3000	252	2040	1310	124	439
7	2920	352	2780	4100	793	9990	1240	164	625
8	2630	294	2090	4400	744	9130	4270	1750	20200
9	3990	1110	12900	4500	790	9780	4050	610	6670
10	3240	462	4040	3500	299	2830	2800	260	1970
11	2640	265	1890	2800	196	1480	2180	180	1060
12	2270	207	1270	2610	210	1480	1810	131	640
13	2050	202	1120	2420	165	1080	1620	112	490
14	2140	326	1880	2100	127	720	1460	97	382
15	4980	1840	29700	2140	170	982	1260	88	299
16	7650	1660	33200	1900	103	528	1120	74	224
17	8580	2170	56500	1910	110	567	1020	68	187
18	5400	968	13800	2010	134	727	928	101	253
19	5880	968	15400	1840	113	561	850	75	172
20	4970	594	7970	1670	97	437	779	57	120
21	3700	420	4200	1500	82	332	736	54	107
22	3000	319	2580	1340	79	286	817	70	154
23	2550	248	1710	1220	72	237	1030	180	549
24	2200	205	1220	1120	68	206	1210	197	644
25	1850	197	984	1070	66	191	931	84	211
26	1680	146	662	968	78	204	810	44	96
27	1450	107	419	873	66	156	736	37	74
28	1280	90	311	788	55	117	677	34	62
29	1100	75	223	---	---	---	634	27	46
30	1000	65	175	---	---	---	593	21	34
31	957	58	150	---	---	---	555	20	30
TOTAL	96147	---	222351	62119	---	58430	40187	---	37261

11482500 REDWOOD CREEK AT ORICK, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	APRIL				MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	592	23	37	690	19	35	270	6	4.4	
2	892	27	220	680	17	31	263	6	4.3	
3	967	74	193	667	17	31	252	5	3.4	
4	1710	370	1750	618	17	28	245	4	2.6	
5	1960	319	1850	576	15	23	232	3	1.9	
6	2850	439	3460	544	11	16	222	3	1.8	
7	2160	190	1110	512	11	15	214	2	1.2	
8	1730	113	528	477	10	13	205	2	1.1	
9	1450	87	341	452	9	11	205	3	1.7	
10	1270	77	264	440	9	11	210	2	1.1	
11	1100	53	157	447	11	13	207	2	1.1	
12	985	40	106	433	9	11	196	3	1.6	
13	900	36	87	403	8	8.7	196	3	1.6	
14	856	35	81	408	16	18	185	3	1.5	
15	1030	48	133	863	189	466	178	3	1.4	
16	1100	52	154	953	75	193	173	2	.93	
17	1130	47	143	691	23	43	164	2	.89	
18	968	34	89	586	16	25	161	2	.87	
19	1130	75	229	516	10	14	161	2	.87	
20	1780	347	1670	468	8	10	156	2	.84	
21	1550	145	607	434	7	8.2	169	2	.91	
22	1320	74	264	409	7	7.7	157	2	.85	
23	1150	56	174	386	6	6.3	148	1	.40	
24	990	43	115	383	6	6.2	144	1	.39	
25	1200	58	188	379	6	6.1	145	2	.78	
26	1100	46	137	357	7	6.7	134	2	.72	
27	970	36	94	343	5	4.6	126	2	.68	
28	860	34	79	326	5	4.4	121	2	.65	
29	770	38	79	316	5	4.3	122	2	.66	
30	740	25	50	303	5	4.1	121	2	.65	
31	---	---	---	285	4	3.1	---	---	---	
TOTAL	37210	---	14389	15345	---	1077.4	5482	---	41.79	

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	122	2	.66	47	2	.25	37	2	.20
2	123	2	.66	46	2	.25	35	2	.19
3	127	2	.69	45	2	.24	35	2	.19
4	123	2	.66	44	2	.24	69	10	1.9
5	121	2	.65	42	2	.23	205	20	11
6	114	2	.62	41	3	.33	159	7	3.0
7	107	2	.58	38	3	.31	104	2	.56
8	106	2	.57	37	3	.30	81	2	.44
9	100	2	.54	35	3	.28	244	30	20
10	98	2	.53	34	3	.28	607	110	180
11	94	2	.51	32	2	.17	406	27	30
12	91	2	.49	32	2	.17	237	5	3.2
13	89	2	.48	33	2	.18	161	3	1.3
14	85	2	.46	33	2	.18	137	3	1.1
15	85	2	.46	32	2	.17	113	2	.61
16	83	3	.67	32	2	.17	96	2	.52
17	80	3	.65	32	2	.17	92	2	.50
18	78	2	.42	31	2	.17	83	2	.45
19	73	2	.39	31	1	.08	76	2	.41
20	69	3	.56	31	1	.08	68	1	.18
21	67	3	.54	32	2	.17	63	1	.17
22	62	3	.50	34	5	.46	60	1	.16
23	57	3	.46	35	5	.47	68	2	.37
24	57	3	.46	39	4	.42	49	2	.26
25	54	4	.58	109	14	4.1	47	2	.25
26	51	3	.41	68	8	1.5	44	2	.24
27	53	1	.14	53	7	1.0	47	2	.25
28	52	1	.14	46	7	.87	49	2	.26
29	50	1	.14	41	6	.66	48	2	.26
30	48	2	.26	38	4	.41	44	2	.24
31	48	2	.26	37	3	.30	---	---	---
TOTAL	2567	---	15.14	1260	---	14.61	3564	---	258.21

YEAR 425877.0

948517.57

11482500 REDWOOD CREEK AT ORICK, CA--Continued

## SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1977	7178.00	1338.92	2120	3460
NOVEMBER ...	61068.00	258594.50	51500	310000
DECEMBER ...	93750.00	354746.00	80900	436000
JANUARY 1978	96147.00	222351.00	86100	308000
FEBRUARY ...	62119.00	58430.00	52700	111000
MARCH .....	40187.00	37261.00	27600	64800
APRIL .....	37210.00	14389.00	24700	39100
MAY .....	15345.00	1077.40	4110	5190
JUNE .....	5482.00	41.79	161	203
JULY .....	2567.00	15.14	2	17
AUGUST .....	1260.00	14.61	0	15
SEPTEMBER ..	3564.00	258.21	302	560
TOTAL .....	425877.00	948517.57	330195	1278345

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT								
25...	0800	13.0	678	165	302	--	--	--
25...	1525	14.0	1840	525	2610	33	46	59
NOV								
22...	1420	10.0	5360	1400	20300	24	34	44
29...	0800	--	2010	247	1340	--	--	--
DEC								
13...	1040	11.0	2550	845	5820	--	26	37
13...	1340	11.0	3260	1410	12400	--	20	30
13...	1500	11.0	3660	1920	19000	16	24	34
14...	0915	--	18800	4990	253000	--	26	36
14...	1355	--	20700	6280	351000	--	22	33
14...	1720	--	17300	3600	168000	--	28	40
15...	1100	10.0	10800	2500	72900	--	28	39
JAN								
18...	1310	9.0	5180	850	11900	19	24	35
18...	1700	9.0	5170	878	12300	--	--	--
19...	1205	--	6160	968	16100	18	25	36

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT								
25...	--	--	79	95	98	99	100	--
25...	75	87	91	96	99	99	100	--
NOV								
22...	57	68	77	83	92	98	100	--
29...	--	--	74	--	--	--	--	--
DEC								
13...	49	65	76	84	90	96	99	100
13...	44	59	72	83	89	95	99	100
13...	48	61	74	86	94	98	100	--
14...	49	61	70	81	92	98	100	--
14...	44	55	61	62	72	80	86	96
14...	53	64	73	83	92	97	99	100
15...	51	63	72	82	92	98	99	100
JAN								
18...	45	56	65	74	86	97	100	--
18...	--	--	63	--	--	--	--	--
19...	47	59	68	79	89	96	98	100

## REDWOOD CREEK BASIN

11482500 REDWOOD CREEK AT ORICK, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SEDIMENT IN TRANSIT WITHIN 0.25 FOOT OF BED SURFACE,  
WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (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 .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
NOV 22...	1545	10.0	5	5170	236	5360	--	0	1
DEC 13...	1125	11.0	5	2650	160	3920	--	--	--
13...	1415	11.0	5	3350	180	3510	--	--	--
13...	1715	--	5	4750	205	5470	--	0	1
14...	1050	--	4	20100	330	21300	--	--	--
14...	1645	--	5	18000	320	1810	0	1	5
15...	1130	10.0	5	10700	278	1140	--	0	7
JAN 18...	1230	9.0	5	5230	197	3030	--	0	2
19...	1130	--	5	6050	198	3420	--	0	1
MAR 01...	1445	10.5	30	725	167	485	--	0	2
APR 13...	1500	13.5	16	890	170	354	--	0	1
MAY 10...	1340	13.0	22	440	142	359	--	--	0
SEP 05...	1605	15.5	23	198	133	165	--	--	0

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
NOV 22...	5	13	33	57	79	91	97	100
DEC 13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	5	16	34	52	71	91	98	100
14...	--	--	--	--	--	--	--	--
14...	17	31	41	54	69	87	100	--
15...	17	28	38	55	71	87	100	--
JAN 18...	8	17	31	54	78	94	100	--
19...	4	13	30	50	68	89	99	100
MAR 01...	17	38	57	78	95	100	--	--
APR 13...	12	51	79	91	97	100	--	--
MAY 10...	6	26	51	73	92	100	--	--
SEP 05...	3	27	68	88	96	100	--	--

11489500 ANTELOPE CREEK NEAR TENNANT, CA

LOCATION.--Lat 41°32'48", long 121°55'02", in NW¼NW¼ sec.25, T.43 N., R.1 W., Siskiyou County, Shasta National Forest, on right bank 2.5 mi (4.0 km) south of Tennant, 4 mi (6 km) downstream from Frog Lake, and 17 mi (27 km) southeast of town of Mount Hebron.

DRAINAGE AREA.--18.6 mi<sup>2</sup> (48.2 km<sup>2</sup>).

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

REVISED RECORDS.--WSP 1929: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,080 ft (1,548 m), from topographic map.

REMARKS.--Records good except those for the winter period, which are fair. No storage or diversion above station.

AVERAGE DISCHARGE.--26 years, 35.9 ft<sup>3</sup>/s (1.017 m<sup>3</sup>/s), 26,010 acre-ft/yr (32.1 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,350 ft<sup>3</sup>/s (38.2 m<sup>3</sup>/s) Nov. 11, 1973, gage height, 5.19 ft (1.582 m), from rating curve extended above 180 ft<sup>3</sup>/s (5.10 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 4.00 ft (1.219 m); minimum daily, 3.6 ft<sup>3</sup>/s (0.10 m<sup>3</sup>/s) Jan. 5, 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 15	0100	118 3.34	2.66 0.811	May 14	2300	*176 4.98	3.02 0.920
Dec. 20	1300	100 2.83	2.52 0.768	June 6	2300	155 4.39	2.91 0.887
Apr. 1	0030	125 3.54	2.74 0.835				

Minimum daily, 7.3 ft<sup>3</sup>/s (0.21 m<sup>3</sup>/s) Oct. 15-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	10	13	37	25	24	108	57	90	59	23	14
2	11	10	12	22	25	25	88	64	92	56	22	14
3	10	10	13	21	28	27	81	69	95	52	21	13
4	9.6	13	15	20	26	27	73	68	106	48	21	13
5	9.5	18	14	20	36	29	67	65	120	46	20	14
6	9.4	18	14	20	39	29	62	66	134	45	20	17
7	9.2	18	14	19	32	28	57	71	134	47	19	15
8	9.2	13	13	28	30	36	54	77	132	46	19	15
9	9.0	9.6	12	59	29	36	54	88	130	44	18	47
10	8.8	9.7	12	41	27	33	56	95	116	44	18	41
11	8.8	10	12	36	26	31	56	98	102	40	17	22
12	8.7	12	13	38	25	30	54	99	94	39	17	19
13	8.2	11	15	51	25	29	54	114	92	37	17	19
14	7.5	10	78	86	25	28	53	131	86	36	17	19
15	7.3	10	62	70	24	28	49	142	79	36	17	17
16	7.3	10	32	56	23	28	46	111	70	35	16	16
17	7.3	9.8	28	52	23	30	43	104	68	34	16	16
18	8.0	11	28	48	24	31	42	103	70	34	16	16
19	8.5	26	28	44	24	32	43	104	68	33	15	15
20	8.4	38	26	41	24	34	41	112	70	32	15	15
21	8.5	26	24	39	23	35	39	124	70	30	16	15
22	8.5	37	21	37	23	44	39	126	71	29	20	14
23	8.4	25	23	34	24	75	39	109	69	28	16	14
24	8.6	21	20	38	25	62	43	96	64	27	16	14
25	13	16	18	32	26	58	53	86	59	26	17	14
26	16	19	18	31	25	59	48	79	56	26	16	13
27	15	15	20	30	24	61	52	78	56	25	15	13
28	15	14	22	29	24	65	52	84	71	25	15	13
29	17	14	29	28	---	71	54	89	71	24	14	13
30	13	14	26	27	---	87	55	90	64	23	15	13
31	11	---	26	26	---	91	---	88	---	23	15	---
TOTAL	310.7	478.1	701	1160	734	1303	1655	2887	2599	1129	539	513
MEAN	10.0	15.9	22.6	37.4	26.2	42.0	55.2	93.1	86.6	36.4	17.4	17.1
MAX	17	38	78	86	39	91	108	142	134	59	23	47
MIN	7.3	9.6	12	19	23	24	39	57	56	23	14	13
AC-FT	616	948	1390	2300	1460	2580	3280	5730	5160	2240	1070	1020
CAL YR 1977	TOTAL	4174.7	MEAN 11.4	MAX 78	MIN 4.9	AC-FT 8280						
WTR YR 1978	TOTAL	14008.8	MEAN 38.4	MAX 142	MIN 7.3	AC-FT 27790						

LOCATION.--Lat 42°05'05", long 122°04'20", in SE4SE4 sec.14, T.40 S., R.6 E., Klamath County, Hydrologic Unit 18010206, on right bank 0.7 mi (1.1 km) downstream from John C. Boyle powerplant, 8 mi (13 km) downstream from Spencer Creek, and 8.5 mi (13.7 km) southwest of Keno.

PERIOD OF RECORD.--January 1959 to current year. Prior to Oct. 1, 1961, published as "below Big Bend powerplant."

GAGE.--Water-stage recorder. Datum of gage is 3,274.82 ft (998.165 m) National Geodetic Vertical Datum of 1929 (levels by Pacific Power and Light Co.).

REMARKS.--Records good. Flow regulated by Upper Klamath Lake (station 11507001). Large diurnal fluctuation caused by John C. Boyle powerplant and two powerplants below Upper Klamath Lake. Diversions for irrigation above station.

AVERAGE DISCHARGE.--19 years, 1,881 ft<sup>3</sup>/s (53.27 m<sup>3</sup>/s), 1,363,000 acre-ft/yr (1.68 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft<sup>3</sup>/s (312 m<sup>3</sup>/s) Mar. 5, 1972, gage height, 9.33 ft (2.844 m); minimum, 283 ft<sup>3</sup>/s (8.01 m<sup>3</sup>/s) Feb. 17, 1968; minimum daily, 317 ft<sup>3</sup>/s (8.98 m<sup>3</sup>/s) July 25, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,620 ft<sup>3</sup>/s (187 m<sup>3</sup>/s) Jan. 18, gage height, 7.76 ft (2.365 m); minimum, 354 ft<sup>3</sup>/s (10.0 m<sup>3</sup>/s) many days; minimum daily, 354 ft<sup>3</sup>/s (10.0 m<sup>3</sup>/s) July 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1160	1420	1460	3340	2810	2330	2810	2820	955	672	955	1190
2	1180	1460	1460	3140	2810	2330	2810	2810	955	357	913	1230
3	1190	1040	1460	3140	2800	2330	2800	2700	865	760	906	1240
4	1460	990	1460	2990	2810	2330	2810	2380	630	361	906	1240
5	1440	906	1460	2740	2810	2330	2810	2200	630	718	913	1150
6	1450	906	1440	3170	2800	2290	2810	1940	635	712	724	1190
7	1490	1260	1440	3250	2810	2810	2810	1830	545	718	948	1200
8	1510	1510	1430	3070	3050	2810	2810	1780	361	672	948	1170
9	1510	1440	1710	2880	3710	3140	2810	1600	595	540	948	1170
10	1510	1430	2300	2840	3900	3840	3050	1610	585	565	948	1200
11	1510	1310	2410	2880	4540	4070	3790	1790	969	357	990	1100
12	1510	899	2510	2950	4580	4050	4020	2050	962	354	990	943
13	1450	899	2740	3370	4320	4070	4040	2010	689	354	585	976
14	1370	1110	2750	3790	3410	4070	3850	2010	724	435	948	1050
15	1000	1440	3410	4100	2810	3900	3580	2100	635	495	997	997
16	997	1440	4720	4210	2820	3460	3630	2220	635	495	997	1030
17	1150	1480	5060	4700	2810	3250	3520	2220	814	491	990	1030
18	1460	1550	5210	5100	2810	3010	3230	2370	865	513	1000	1180
19	1400	1620	4720	5020	2800	3020	3250	2240	683	500	1060	1190
20	1150	1610	4350	5040	2800	2960	3230	2050	590	500	1050	1160
21	1360	1490	4260	4920	2800	2810	3400	2050	590	635	1040	1160
22	1000	1330	4000	4920	2430	2750	3650	1900	545	590	1040	1170
23	990	1310	3980	4740	2220	2810	2840	1820	585	364	990	1190
24	990	1310	4000	4170	2280	2800	2150	1310	585	590	955	1170
25	1130	1310	4000	3630	2310	2800	3080	1250	361	778	948	1160
26	1160	1130	4170	3550	2260	2810	2820	976	585	820	955	1170
27	1450	1130	4160	3430	2200	2810	2820	859	630	820	948	1040
28	1150	1160	3970	3190	2330	2810	2820	962	540	913	1060	1170
29	1060	1470	4000	3190	---	2800	2820	948	640	826	1040	1170
30	1050	1460	3870	3160	---	2810	2810	1330	672	364	1060	1120
31	1110	---	3550	2890	---	2810	---	808	---	1060	1130	---
TOTAL	39347	38820	97460	113510	82920	93220	93680	56943	20055	18329	29882	34136
MEAN	1269	1294	3144	3662	2961	3007	3123	1837	669	591	964	1118
MAX	1510	1620	5210	5100	4580	4070	4040	2820	969	1060	1110	1240
MIN	990	899	1430	2740	2200	2290	2150	808	361	354	585	976
AC-FT	78040	77000	193300	225100	164500	184900	185800	112900	39780	36360	59270	67710
CAL YR 1977	TOTAL	405647	MEAN	1111	MAX	5210	MIN	340	AC-FT	804600		
WTR YR 1978	TOTAL	718302	MEAN	1968	MAX	5210	MIN	354	AC-FT	1425000		



## RESERVOIRS IN KLAMATH RIVER BASIN, CA

11511400 COPCO LAKE NEAR COPCO.--Lat 41°58'46", long 122°20'00", in SE¼SW¼ sec.29, T.48 N., R.4 W., Siskiyou County, 12.7 mi (20.4 km) northeast of Hornbrook. DRAINAGE AREA, 4,300 mi<sup>2</sup> (11,137 km<sup>2</sup>). PERIOD OF RECORD, October 1967 to current year. GAGE, pressure device and telemark read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pacific Power and Light Co.).

Reservoir is formed by gravity-type dam completed in 1922. Normal capacity at elevation 2,607.5 ft (794.77 m) is 46,867 acre-ft (57.8 hm<sup>3</sup>). Records, including extremes, represent contents at 0800 hours. Records of contents furnished by Pacific Power and Light Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 46,818 acre-ft (57.7 hm<sup>3</sup>) June 24, 1969, elevation, 2,607.45 ft (794.751 m); minimum, 30,360 acre-ft (37.4 hm<sup>3</sup>) Aug. 19, 1971, elevation, 2,589.24 ft (789.200 m). EXTREMES FOR CURRENT YEAR: Maximum contents, 45,871 acre-ft (56.6 hm<sup>3</sup>) Nov. 28, elevation, 2,606.49 ft (794.458 m); minimum 40,078 acre-ft (49.4 hm<sup>3</sup>) Oct. 3, elevation, 2,600.40 ft (792.602 m).

11516510 IRON GATE RESERVOIR NEAR HORN BROOK.--Lat 41°55'58", long 122°26'06", in SW¼SW¼ sec.9, T.47 N., R.5 W., Siskiyou County, 6.6 mi (10.6 km) northeast of Hornbrook. DRAINAGE AREA, 4,573 mi<sup>2</sup> (11,844 km<sup>2</sup>). PERIOD OF RECORD, October 1967 to current year. GAGE, pressure device and telemark read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pacific Power and Light Co.).

Reservoir is formed by earth- and rockfill dam completed in 1962. Capacity is 58,794 acre-ft (72.5 hm<sup>3</sup>) at elevation 2,328.0 ft (709.57 m), crest of spillway. Records, including extremes, represent contents at 0800 hours. Records of contents furnished by Pacific Power and Light Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 61,776 acre-ft (76.2 hm<sup>3</sup>) Mar. 3, 1972, elevation, 2,330.96 ft (710.477 m); minimum, 50,103 acre-ft (61.8 hm<sup>3</sup>) Dec. 9, 1968, elevation, 2,318.40 ft (706.648 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 60,188 acre-ft (74.2 hm<sup>3</sup>) Dec. 14, elevation, 2,329.40 ft (710.001 m); minimum, 54,713 acre-ft (67.5 hm<sup>3</sup>) Nov. 7, elevation, 2,323.68 ft (708.258 m).

## MONTHEND ELEVATION NGVD AND CONTENTS, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

Date	Elevation (feet)a	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)a	Contents (acre-feet)	Change in contents (acre-feet)
11511400 COPCO LAKE				11516510 IRON GATE RESERVOIR		
Sept. 30.....	2601.34	40949	--	2324.77	55715	--
Oct. 31.....	2601.60	41192	+243	2325.61	56500	+785
Nov. 30.....	2606.25	45635	+4443	2325.12	56041	-459
Dec. 31.....	2601.15	40772	-4863	2328.96	59744	+3703
CAL YR 1977.....	--	--	-3144	--	--	+2734
Jan. 31.....	2603.51	42992	+2220	2328.67	59457	-287
Feb. 28.....	2603.17	42669	-323	2328.38	59170	-287
Mar. 31.....	2603.68	43154	+485	2328.59	59378	+208
Apr. 30.....	2604.00	43458	+304	2328.60	59388	+10
May 31.....	2603.92	43382	-76	2326.88	57707	-1681
June 30.....	2604.84	44265	+883	2327.03	57851	+144
July 31.....	2602.68	42205	-2060	2325.30	56210	-1641
Aug. 31.....	2604.57	44005	+1800	2325.50	56398	+188
Sept. 30.....	2602.99	42498	-1507	2325.24	56154	-244
WTR YR 1978.....	--	--	+1549	--	--	+439

a Elevation at 0800.

## KLAMATH RIVER BASIN

11516530 KLAMATH RIVER BELOW IRON GATE DAM, CA

LOCATION.--Lat 41°55'41", long 122°26'35", in SE¼NE¼ sec.17, T.47 N., R.5 W., Siskiyou County, on left bank 0.1 mi (0.2 km) downstream from Bogus Creek, 0.6 mi (1.0 km) downstream from Iron Gate Dam, and 5.9 mi (9.5 km) north-east of Hornbrook.

DRAINAGE AREA.--4,630 mi<sup>2</sup> (11,990 km<sup>2</sup>), approximately (not including Lost River and Lower Klamath Lake basins).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 2,162.44 ft (659.112 m) National Geodetic Vertical Datum of 1929 (levels by Pacific Power and Light Co.).

REMARKS.--Records excellent. Flow regulated by Upper Klamath Lake, capacity, 523,700 acre-ft (646 hm<sup>3</sup>), Iron Gate Reservoir (station 11516510), other smaller reservoirs, and diversions above station.

AVERAGE DISCHARGE.--18 years, 2,256 ft<sup>3</sup>/s (63.89 m<sup>3</sup>/s), 1,634,000 acre-ft/yr (2.01 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,400 ft<sup>3</sup>/s (833 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 13.63 ft (4.154 m), from rating curve extended above 15,000 ft<sup>3</sup>/s (425 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; minimum daily, 647 ft<sup>3</sup>/s (18.3 m<sup>3</sup>/s) Oct. 30, Nov. 6, 1960, Sept. 24, Oct. 1, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,580 ft<sup>3</sup>/s (215 m<sup>3</sup>/s) Dec. 14, gage height, 7.71 ft (2.350 m); minimum daily, 724 ft<sup>3</sup>/s (20.5 m<sup>3</sup>/s) June 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1340	1320	1750	3870	3100	2460	3290	3160	838	734	1020	1320
2	1340	1320	1750	3400	3120	2580	3270	3120	801	730	1020	1320
3	1340	1320	1750	3410	3230	2820	3250	2900	804	734	1030	1340
4	1340	1310	1760	3400	3220	2820	3280	2620	804	736	1030	1340
5	1340	1310	1760	3610	3190	2880	3340	2540	814	727	1030	1340
6	1330	1310	1750	3530	3270	3070	3430	2200	790	728	1040	1340
7	1320	1310	1750	3450	3430	3420	3330	2180	772	727	1030	1340
8	1320	1310	1750	3450	3990	4040	3290	2170	774	728	1020	1330
9	1320	1330	2040	3810	4590	4310	3230	2150	776	729	1030	1330
10	1320	1320	2710	3780	4840	4700	3660	2090	776	728	1030	1330
11	1310	1310	2950	3580	5450	5130	4520	2100	777	731	1040	1330
12	1310	1310	2960	3670	5390	5000	4650	2180	775	731	1040	1320
13	1310	1310	3320	4040	5070	4890	4650	2190	781	730	1040	1330
14	1310	1320	6290	4420	4040	4870	4530	2190	865	729	1040	1330
15	1310	1330	5800	4940	3330	4570	4240	2250	875	729	1040	1330
16	1310	1330	5930	5960	3210	3900	4220	2320	735	732	1040	1330
17	1310	1330	6020	6410	3190	3440	4100	2390	730	733	1040	1330
18	1300	1340	6280	6590	3290	3430	3750	2420	732	731	1040	1330
19	1320	1330	5620	6290	3240	3420	3580	2570	759	735	1040	1330
20	1320	1330	4980	6090	3160	3370	3510	2410	861	729	1040	1320
21	1320	1330	4930	5850	3200	3170	3650	2410	725	728	1050	1320
22	1320	1360	4370	5740	3140	3280	3380	2390	730	727	1070	1320
23	1320	1330	4820	5500	2680	3380	3230	2200	727	728	1050	1320
24	1320	1360	4680	4770	2450	3370	2890	1990	727	728	1050	1320
25	1340	1340	4590	4060	2300	3320	3220	1760	724	739	1050	1320
26	1330	1560	4570	3940	2270	3310	3160	1390	731	730	1050	1320
27	1320	1770	5040	3740	2330	3250	3150	1150	732	731	1050	1310
28	1320	1750	4910	3390	2460	3110	3160	1150	743	738	1050	1310
29	1320	1750	4840	3390	---	3100	3150	1150	739	743	1050	1320
30	1320	1750	4930	3390	---	3110	3180	1150	733	743	1050	1320
31	1320	---	4380	3330	---	3170	---	1150	---	746	1070	---
TOTAL	40970	41700	120980	134800	96180	110590	107290	66040	23150	22692	32270	39790
MEAN	1322	1390	3903	4348	3435	3567	3576	2130	772	732	1041	1326
MAX	1340	1770	6290	6590	5450	5130	4650	3160	875	746	1070	1340
MIN	1300	1310	1750	3330	2270	2460	2890	1150	724	727	1020	1310
AC-FT	81260	82710	240000	267400	190800	219400	212800	131000	45920	45010	64010	78920
CAL YR 1977 TOTAL	466362			1278	MAX 6290	MIN 706	AC-FT	925000				
WTR YR 1978 TOTAL	836452			2292	MAX 6590	MIN 724	AC-FT	1659000				

11516530 KLAMATH RIVER BELOW IRON GATE DAM, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

CHEMICAL ANALYSES: Water years 1962 to current year.

WATER TEMPERATURES: Water years 1963 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1962 to current year.

INSTRUMENTATION.--Temperature recorder since October 1962.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 23.5°C Aug. 3, 4, 1977, Aug. 10, 1978; minimum recorded, 0.5°C on many days in 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 23.5°C Aug. 10; minimum recorded, 3.0°C Jan. 1.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT									
04...	0830	1340	186	8.4	15.0	.00	7.8	59	16
NOV									
15...	1530	1330	200	7.1	11.0	2.0	8.0	--	--
DEC									
05...	0930	1760	178	7.2	7.0	3.0	9.6	--	--
JAN									
05...	0800	3710	171	7.4	4.0	10	11.7	48	15
FEB									
06...	0915	3280	155	7.3	4.5	8.0	11.5	48	15
MAR									
14...	1210	4860	195	7.5	8.5	10	11.8	--	--
APR									
11...	1230	4490	211	7.6	13.0	4.0	10.3	64	19
MAY									
04...	0730	2700	195	7.4	11.0	7.0	9.8	--	--
JUN									
13...	0845	785	193	8.4	18.0	3.0	10.0	--	--
JUL									
05...	1030	727	193	8.4	20.0	1.0	10.9	--	--
AUG									
10...	0905	1020	181	8.1	23.0	1.0	8.0	--	--
SEP									
05...	1300	1340	160	8.3	18.5	2.0	8.8	50	13

DATE	SODIUM AD- SORP- TION RATIO	ALKA- LITY (MG/L AS CAC03)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)
OCT									
04...	.9	72	5.2	.26	.07	.80	.20	.17	0
NOV									
15...	--	--	--	.50	.28	.70	.24	.24	--
DEC									
05...	--	--	--	.10	.29	.70	.16	.14	--
JAN									
05...	.9	62	2.0	.52	.74	.70	.15	.10	0
FEB									
06...	.9	59	3.1	.59	.47	.73	.13	.09	0
MAR									
14...	--	--	--	.28	.08	.06	.10	.02	--
APR									
11...	1.0	91	2.0	.32	.05	.80	.14	.12	100
MAY									
04...	--	--	--	.36	.04	.80	.11	.08	--
JUN									
13...	--	--	--	.06	.02	1.1	.13	.04	--
JUL									
05...	--	--	--	.07	.01	.70	.16	.12	--
AUG									
10...	--	--	--	.16	.11	.60	.18	.13	--
SEP									
05...	.8	64	2.3	.29	.03	1.0	.19	.15	100

## KLAMATH RIVER BASIN

11516530 KLAMATH RIVER BELOW IRON GATE DAM, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	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)
APR 11...	1230	17	.8	7	0	0	0	0
SEP 05...	1300	20	3.3	14	0	0	0	0

DATE	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	CARBON, ORGANIC TOTAL (MG/L AS C)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
APR 11...	0	300	10	0	.1	0	7.8	.00
SEP 05...	0	60	0	10	.0	0	6.6	.00

11516530 KLAMATH RIVER BELOW IRON GATE DAM, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.5	15.5	11.5	11.5	---	---	3.5	3.0	4.0	4.0	6.0	5.0
2	16.0	15.5	12.0	11.0	---	---	3.5	3.5	4.5	4.0	6.0	5.5
3	16.0	15.0	---	---	---	---	4.0	3.5	4.5	4.0	6.5	5.5
4	15.5	15.0	---	---	---	---	4.0	3.5	4.5	4.0	6.5	5.5
5	15.5	15.0	---	---	---	---	4.0	3.5	5.0	4.5	7.0	6.0
6	15.5	15.0	---	---	---	---	4.0	3.5	4.5	4.0	7.5	6.0
7	15.0	14.5	---	---	---	---	4.0	3.5	5.0	4.5	7.0	5.0
8	15.0	14.5	---	---	6.5	6.0	4.5	3.5	4.5	4.5	7.5	6.5
9	14.5	14.0	---	---	6.5	6.0	5.0	4.0	4.5	4.5	8.0	6.5
10	14.5	14.0	---	---	6.0	6.0	4.5	4.0	4.5	4.5	7.5	6.5
11	14.5	14.0	---	---	6.0	6.0	4.0	3.5	4.5	4.5	7.5	7.0
12	14.5	14.0	---	---	6.0	6.0	4.0	3.5	5.0	4.5	8.0	7.0
13	14.5	14.0	---	---	6.5	6.0	4.5	4.0	5.0	4.5	8.0	7.0
14	14.5	14.0	---	---	6.5	6.5	4.5	4.0	5.0	4.5	7.5	7.0
15	14.5	14.0	---	---	6.5	5.5	4.5	4.0	5.0	4.5	8.0	7.0
16	14.0	13.5	---	---	6.0	5.5	5.0	4.0	5.0	4.5	8.0	7.0
17	14.0	13.5	---	---	5.5	5.5	5.0	4.5	4.5	4.5	8.5	7.5
18	14.0	13.5	---	---	5.5	5.5	4.5	4.5	5.0	4.5	8.5	7.5
19	14.0	13.5	---	---	5.5	5.0	5.0	4.5	5.0	4.5	9.0	8.0
20	14.0	13.0	---	---	5.0	5.0	5.0	4.5	4.5	4.0	9.0	8.0
21	13.5	13.0	---	---	5.0	5.0	5.0	4.5	5.0	4.0	9.0	8.5
22	13.0	12.5	---	---	5.0	4.5	5.0	4.5	5.0	4.5	9.0	8.5
23	13.0	12.5	---	---	4.5	4.0	4.5	4.5	5.5	4.5	9.0	8.5
24	13.0	12.5	---	---	4.5	4.0	4.5	4.0	5.0	4.5	9.5	8.5
25	12.5	12.5	---	---	4.0	4.0	4.5	4.5	5.0	4.5	10.0	9.0
26	13.0	12.0	---	---	4.0	3.5	4.5	4.5	5.5	4.5	10.5	9.5
27	12.5	12.0	---	---	4.0	3.5	4.5	4.0	5.5	4.5	11.5	9.5
28	12.0	11.5	---	---	4.0	3.5	4.5	4.0	5.5	4.5	11.0	10.0
29	11.5	11.5	---	---	4.0	3.5	4.5	4.0	---	---	10.5	10.5
30	12.0	11.5	---	---	4.0	3.5	4.5	4.0	---	---	12.0	10.5
31	12.0	11.5	---	---	3.5	3.5	4.5	4.0	---	---	11.0	10.5
MONTH	16.5	11.5	---	---	---	---	5.0	3.0	5.5	4.0	12.0	5.0

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.0	10.0	12.5	10.5	16.5	15.0	19.5	18.0	22.5	20.5	19.5	19.0
2	11.0	10.0	13.0	10.5	16.5	15.0	18.5	17.0	22.0	21.0	---	---
3	10.5	8.5	13.0	11.0	17.0	15.0	19.5	17.0	22.5	21.0	---	---
4	11.0	10.0	12.5	10.5	17.5	15.5	20.0	17.5	23.0	21.0	---	---
5	10.5	9.5	12.5	10.5	21.0	16.5	20.0	17.5	22.5	21.0	---	---
6	10.5	9.5	13.0	10.5	19.5	17.5	20.0	15.5	22.0	21.5	---	---
7	11.0	10.0	13.0	11.0	21.0	17.5	20.0	18.5	22.5	21.5	---	---
8	12.0	10.0	13.5	11.5	20.0	17.0	20.5	18.5	23.0	21.5	18.0	17.5
9	11.5	10.0	13.5	12.0	19.5	18.0	21.0	18.5	23.0	22.0	17.5	17.0
10	11.5	10.5	13.5	12.0	18.5	17.0	21.0	18.5	23.5	21.5	17.5	17.0
11	12.0	10.5	13.5	12.0	18.5	16.5	21.0	19.0	23.0	21.0	18.0	17.0
12	12.0	10.5	13.5	12.5	17.5	16.5	20.0	19.0	22.5	21.5	17.5	17.0
13	12.0	10.5	13.5	12.0	19.0	16.5	20.0	15.5	22.5	21.0	17.0	17.0
14	11.0	10.0	13.0	12.5	18.5	17.0	20.5	19.0	21.5	20.5	18.0	16.5
15	10.5	10.0	13.0	12.0	18.0	16.0	21.5	19.5	21.5	20.5	18.0	16.5
16	10.5	10.0	14.5	12.0	17.0	15.5	21.5	18.5	21.5	20.5	17.5	16.5
17	10.5	10.0	14.5	12.5	17.0	16.0	21.5	19.0	21.0	20.0	17.0	16.5
18	11.0	10.0	15.0	13.5	17.5	16.0	21.5	19.0	21.0	20.0	16.5	16.0
19	11.0	10.5	15.5	14.0	17.5	16.0	21.5	19.5	21.0	20.0	17.5	15.5
20	11.0	10.5	15.0	14.0	18.5	16.5	21.5	19.5	21.0	20.0	16.5	15.5
21	11.0	10.0	16.5	14.5	18.5	16.5	21.5	20.0	20.0	18.5	16.5	15.5
22	11.0	10.0	15.5	14.0	18.5	17.0	21.0	20.0	20.0	18.0	16.5	15.5
23	11.0	10.0	15.0	14.0	18.0	17.0	21.0	20.0	19.5	18.0	17.5	15.5
24	10.5	10.0	14.0	13.5	18.0	17.0	21.0	15.5	18.0	17.5	16.5	15.5
25	11.0	10.0	14.5	13.0	18.5	16.5	21.0	20.5	19.0	18.0	16.5	16.0
26	10.5	10.5	14.5	13.5	19.0	16.5	21.5	20.5	19.5	18.5	16.5	15.0
27	12.0	10.5	16.0	13.5	19.5	17.5	22.0	20.5	19.5	18.5	16.0	15.5
28	12.0	10.5	16.5	14.0	18.5	17.5	22.0	20.5	20.0	18.5	16.5	15.5
29	11.5	10.0	16.5	14.5	19.0	17.5	21.5	20.5	20.0	19.0	16.0	15.5
30	11.5	10.5	16.5	15.0	19.0	17.5	23.0	20.5	20.0	19.0	16.5	15.5
31	---	---	16.5	15.0	---	---	22.5	20.5	20.0	19.0	---	---
MONTH	12.0	8.5	16.5	10.5	21.0	15.0	23.0	15.5	23.5	17.5	19.5	15.0

## KLAMATH RIVER BASIN

11516900 LITTLE SHASTA RIVER NEAR MONTAGUE, CA

LOCATION.--Lat 41°45'11", long 122°17'42", in NW¼NW¼ sec.15, T.45 N., R.4 W., Siskiyou County, on right bank 0.5 mi (0.8 km) downstream from Dry Creek, and 12 mi (19 km) east of Montague.

DRAINAGE AREA.--48.2 mi<sup>2</sup> (124.8 km<sup>2</sup>).

PERIOD OF RECORD.--October 1957 to September 1978 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 3,360 ft (1,024 m), from topographic map. Prior to May 27, 1965, water-stage recorder at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--No known diversion or regulation above station.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--21 years, 19.5 ft<sup>3</sup>/s (0.552 m<sup>3</sup>/s), 14,130 acre-ft/yr (17.4 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,910 ft<sup>3</sup>/s (167 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 12.2 ft (3.72 m) present site and datum, from slope-area measurement of maximum flow; minimum daily, 0.60 ft<sup>3</sup>/s (0.017 m<sup>3</sup>/s) Jan. 4, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 411 ft<sup>3</sup>/s (11.6 m<sup>3</sup>/s) Dec. 14, gage height, 3.91 ft (1.192 m); minimum daily, 2.6 ft<sup>3</sup>/s (0.074 m<sup>3</sup>/s) Nov. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	3.3	10	22	12	19	110	42	21	10	5.6	4.8
2	3.3	4.5	9.6	22	13	20	77	41	20	11	5.4	4.7
3	3.2	4.0	22	22	16	20	67	39	20	11	5.4	4.6
4	3.1	3.7	28	21	16	22	72	17	19	10	5.4	4.7
5	3.0	3.8	18	25	17	37	69	36	19	9.4	5.4	5.6
6	3.4	4.1	15	25	18	42	71	36	18	9.1	5.3	6.1
7	3.4	4.1	13	22	18	33	72	37	17	9.0	5.2	5.9
8	3.2	3.8	10	25	18	85	87	37	16	9.3	5.2	5.6
9	3.0	3.7	10	60	17	76	100	39	16	8.7	5.1	5.4
10	3.0	3.6	9.4	48	14	56	99	38	16	8.4	5.0	6.3
11	3.0	3.8	15	32	12	48	84	37	15	8.2	5.1	5.4
12	3.0	4.1	17	27	14	44	69	37	15	8.0	5.2	5.0
13	3.0	4.2	42	26	13	40	64	37	14	7.8	5.3	5.0
14	3.0	4.0	170	29	12	36	59	37	14	7.6	5.2	5.1
15	2.9	4.0	89	30	12	34	57	46	14	7.5	5.2	4.9
16	2.9	3.8	48	29	11	32	56	40	13	7.4	5.3	4.7
17	2.9	3.5	33	26	12	34	54	36	13	7.2	5.1	4.9
18	2.9	3.4	30	24	15	34	54	33	13	6.9	5.0	5.1
19	2.9	2.8	23	22	20	36	54	31	13	6.7	5.0	4.9
20	2.9	2.6	26	21	23	39	50	31	12	6.5	5.1	4.7
21	2.8	2.9	23	18	22	43	50	30	12	6.4	5.6	4.7
22	2.8	4.8	23	17	22	74	52	30	11	6.3	7.1	4.7
23	3.1	4.1	30	17	22	91	56	29	12	6.2	5.4	4.6
24	3.2	10	26	16	24	73	60	31	13	6.1	5.0	4.6
25	7.3	17	22	15	24	62	62	31	11	6.1	5.4	4.6
26	5.4	57	20	15	22	58	52	28	11	6.3	5.1	4.6
27	3.9	24	56	14	20	57	50	26	11	6.2	5.0	4.5
28	3.6	16	39	14	19	57	47	25	14	5.9	4.9	4.5
29	3.5	15	33	13	---	54	45	24	14	5.8	4.8	4.4
30	3.6	14	31	13	---	55	44	23	11	5.7	5.1	4.4
31	3.3	---	25	13	---	61	---	22	---	5.7	4.9	---
TOTAL	104.1	239.6	966.0	723	478	1472	1943	1046	438	236.4	162.8	149.0
MEAN	3.36	7.99	31.2	23.3	17.1	47.5	64.8	33.7	14.6	7.63	5.25	4.97
MAX	7.3	57	170	60	24	91	110	46	21	11	7.1	6.3
MIN	2.8	2.6	9.4	13	11	19	44	22	11	5.7	4.8	4.4
AC-FT	206	475	1920	1430	948	2920	3850	2070	869	469	323	296
CAL YR 1977 TOTAL	3025.3			MEAN 8.29	MAX 170	MIN 1.9	AC-FT 6000					
WTR YR 1978 TOTAL	7957.9			MEAN 21.8	MAX 170	MIN 2.6	AC-FT 15780					

LOCATION.--Lat 41°49'23", long 122°35'40", in SE¼NE¼ sec.24, T.46 N., R.7 W., Siskiyou County, on right bank 0.5 mi (0.8 km) upstream from mouth, and 7 mi (11 km) north of Yreka.

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 2,000 ft (610 m), from topographic map. Prior to Nov. 2, 1933, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--41 years, 187 ft<sup>3</sup>/s (5.296 m<sup>3</sup>/s), 135,500 acre-ft/yr (167 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,500 ft<sup>3</sup>/s (609 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 12.92 ft (3.938 m) in gage well, 13.85 ft (4.221 m) from floodmarks, from rating curve extended above 4,100 ft<sup>3</sup>/s (116 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; minimum, 3.4 ft<sup>3</sup>/s (0.10 m<sup>3</sup>/s) Aug. 13, 1939, when about 2 ft<sup>3</sup>/s (0.06 m<sup>3</sup>/s) was being diverted around gage.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,140 ft<sup>3</sup>/s (60.6 m<sup>3</sup>/s) Jan. 17, gage height, 6.65 ft (2.027 m); minimum daily, 27 ft<sup>3</sup>/s (0.76 m<sup>3</sup>/s) Aug. 3.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	143	167	245	255	253	368	193	96	127	31	80
2	102	135	167	246	258	256	403	170	93	130	29	94
3	100	135	173	243	252	262	373	159	98	134	27	100
4	99	135	176	231	243	258	363	156	102	137	29	105
5	96	139	173	323	240	283	420	146	103	127	32	166
6	96	136	170	434	250	328	525	122	98	109	29	342
7	105	135	164	350	321	308	688	122	86	97	50	453
8	123	133	164	282	456	359	611	129	95	109	53	303
9	117	132	161	365	478	591	524	113	97	98	51	246
10	115	133	161	562	479	485	445	110	96	89	40	243
11	108	133	196	465	371	410	402	115	99	95	31	249
12	105	133	227	356	321	388	371	106	101	93	28	219
13	108	141	207	307	298	370	340	100	101	83	31	206
14	112	142	854	329	287	345	321	93	88	76	36	202
15	113	139	1090	554	277	325	301	113	99	66	34	192
16	116	140	593	1290	269	305	316	118	102	67	33	181
17	115	141	533	1570	275	291	330	127	104	49	34	179
18	114	137	370	845	296	279	311	127	102	53	31	176
19	118	137	302	625	294	274	303	127	93	42	30	172
20	120	136	248	504	287	273	314	127	80	40	39	170
21	122	145	236	428	281	278	316	125	68	47	47	168
22	122	176	228	388	277	435	284	125	66	52	234	163
23	120	193	264	350	275	469	268	129	83	47	200	160
24	122	222	247	322	273	489	260	128	97	42	164	159
25	129	199	223	304	268	411	249	181	123	53	175	151
26	136	226	210	294	265	376	249	203	129	47	170	138
27	133	224	471	281	261	349	253	180	107	63	147	106
28	133	186	422	271	256	327	228	137	127	80	114	115
29	136	170	321	262	---	289	205	123	138	70	82	120
30	136	170	301	249	---	291	192	111	144	43	88	111
31	145	---	267	249	---	299	---	101	---	42	77	---
TOTAL	3619	4646	9486	13524	8363	10656	10533	4116	3015	2407	2196	5469
MEAN	117	155	306	436	299	344	351	133	101	77.6	70.8	182
MAX	145	226	1090	1570	479	591	688	203	144	137	234	453
MIN	96	132	161	231	240	253	192	93	66	40	27	80
AC-FT	7180	9220	18820	26820	16590	21140	20890	8160	5980	4770	4360	10850
CAL YR 1977	TOTAL	38713.3	MEAN	106	MAX	1090	MIN	6.0	AC-FT	76790		
WTR YR 1978	TOTAL	78030.0	MEAN	214	MAX	1570	MIN	27	AC-FT	154800		

## KLAMATH RIVER BASIN

11517500 SHASTA RIVER NEAR YREKA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955-56, 1958 to current year.

CHEMICAL ANALYSES: Water years 1959 to current year.

WATER TEMPERATURES: Water years 1965 to current year.

SEDIMENT RECORDS: Water years 1955-56, 1958-62.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1965 to current year.

INSTRUMENTATION.--Temperature recorder since June 1965.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 31.5°C July 15, 16, 1972; minimum recorded, 0.0°C Jan. 30, 31, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 30.5°C Aug. 7; minimum recorded, 1.0°C Nov. 21.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)
NOV 15...	1440	139	426	8.8	11.5	1.0	11.8
JAN 05...	0845	350	463	8.2	6.0	65	10.2
MAR 14...	1250	347	500	8.3	10.5	5.0	10.4
MAY 04...	0800	158	515	8.2	12.0	3.0	9.8
JUL 05...	1140	127	506	8.4	22.0	3.0	8.6
SEP 05...	1345	166	535	8.3	16.5	2.0	8.8

DATE	HARD- NESS (MG/L AS CAC03)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	ALKA- LITY (MG/L AS CAC03)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	BORON, DIS- SOLVED (UG/L AS B)
NOV 15...	170	33	1.1	200	21	400
JAN 05...	--	--	--	--	--	--
MAR 14...	--	--	--	--	--	--
MAY 04...	--	--	--	--	--	--
JUL 05...	--	--	--	--	--	--
SEP 05...	240	41	1.2	260	25	500



11517500 SHASTA RIVER NEAR YREKA, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.5	12.0	12.5	10.0	---	---	6.0	5.5	7.0	6.5	10.5	7.0
2	17.0	12.0	12.0	10.5	---	---	6.5	5.5	8.0	6.0	10.5	9.0
3	16.5	12.0	11.5	9.0	---	---	8.0	6.0	10.0	7.5	12.0	9.5
4	17.0	12.0	9.5	8.0	---	---	7.5	6.5	9.5	8.0	11.0	9.0
5	16.5	12.5	10.0	8.0	---	---	7.5	6.0	9.5	8.0	11.0	9.0
6	14.5	12.5	10.0	7.5	---	---	7.0	6.0	9.0	7.5	11.5	8.5
7	15.5	11.0	10.5	8.0	---	---	7.5	5.5	8.0	7.0	10.5	9.5
8	15.5	10.5	9.0	7.0	---	---	9.0	7.5	7.0	5.5	10.0	9.0
9	15.5	10.5	8.0	6.0	---	---	9.0	8.5	7.0	5.0	10.5	8.0
10	15.5	10.5	8.5	6.0	---	---	9.0	8.0	6.5	4.5	11.5	9.0
11	16.0	11.0	8.5	7.0	---	---	8.0	7.0	7.0	4.5	10.5	9.5
12	15.5	11.0	9.5	7.0	---	---	8.0	7.0	7.0	5.5	11.0	8.0
13	16.5	12.0	10.0	8.5	---	---	8.5	7.5	7.0	4.5	11.0	9.0
14	16.0	12.0	11.0	9.5	---	---	8.5	8.0	7.5	5.5	11.5	7.5
15	15.5	11.5	11.5	9.0	---	---	7.5	6.5	8.0	6.0	12.0	8.0
16	16.0	11.5	10.0	8.0	6.5	5.5	7.0	6.0	8.0	6.5	13.5	8.5
17	15.5	11.0	8.5	6.5	6.0	5.0	7.5	6.0	7.0	6.5	14.5	10.0
18	15.5	11.0	6.5	5.0	6.0	5.0	7.5	6.5	9.0	7.0	14.5	10.5
19	15.0	11.5	6.0	4.0	5.5	4.5	8.0	6.5	10.5	8.0	15.5	11.0
20	14.0	11.0	4.0	2.5	5.0	4.0	9.0	7.0	11.0	8.0	16.5	11.5
21	13.5	10.0	3.5	1.0	6.5	5.0	8.0	6.5	12.0	8.5	14.5	13.0
22	12.5	9.5	6.0	3.5	7.0	5.5	7.5	6.0	12.5	8.5	13.0	12.0
23	12.0	10.5	---	---	8.0	7.0	7.0	5.0	12.5	9.0	13.0	11.0
24	13.5	10.0	---	---	8.0	6.5	6.5	4.5	11.5	10.5	13.0	10.0
25	13.0	12.0	---	---	6.5	5.5	7.0	5.5	12.0	9.0	14.5	11.0
26	13.0	10.5	---	---	6.5	5.5	8.5	6.5	11.5	9.0	15.5	12.0
27	12.5	10.5	---	---	7.5	6.0	8.5	6.5	11.5	7.5	17.5	12.5
28	11.0	9.5	---	---	8.5	7.5	8.5	6.5	11.5	7.5	16.5	13.0
29	10.5	9.5	---	---	8.5	8.0	8.5	6.5	---	---	15.0	13.5
30	11.0	8.5	---	---	8.0	7.0	8.5	6.5	---	---	17.0	12.5
31	12.0	9.0	---	---	7.0	5.5	9.0	6.5	---	---	14.5	13.0
MONTH	17.0	8.5	---	---	---	---	9.0	4.5	12.5	4.5	17.5	7.0

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.0	10.5	18.5	12.0	23.0	16.5	24.0	18.0	---	---	---	---
2	12.0	10.0	19.5	13.0	25.0	16.5	20.5	18.0	29.0	19.5	---	---
3	12.5	10.0	19.0	14.0	25.5	17.5	20.0	17.0	29.5	21.0	---	---
4	11.0	9.5	18.0	12.5	26.0	18.5	23.5	16.0	29.5	22.5	---	---
5	10.0	9.5	17.0	11.0	27.0	19.5	25.0	17.5	30.0	21.5	---	---
6	9.5	8.5	18.5	11.0	27.5	20.0	26.5	18.5	29.5	22.0	---	---
7	10.5	8.0	20.0	12.5	27.0	19.0	26.0	20.0	30.5	22.5	16.5	14.0
8	12.5	8.5	21.5	14.0	27.0	19.5	27.5	19.5	29.5	22.5	15.5	14.5
9	15.0	10.5	19.0	16.0	24.0	18.0	27.5	19.5	29.0	21.5	15.5	14.0
10	17.0	12.5	19.0	14.0	22.0	17.0	26.0	19.0	28.0	21.0	16.0	13.5
11	17.0	13.5	19.5	14.0	24.0	15.5	26.0	18.5	27.0	19.5	17.5	13.0
12	16.5	12.5	19.5	13.5	22.0	17.5	26.5	19.0	22.5	18.0	18.5	13.0
13	16.0	12.5	20.0	15.0	23.5	16.0	28.0	19.5	24.0	15.5	16.0	14.5
14	13.5	12.0	17.0	14.5	23.5	16.5	28.5	20.5	24.5	15.5	18.0	13.5
15	11.5	9.5	17.0	13.0	21.5	15.5	---	---	21.0	17.0	19.0	14.0
16	11.0	9.0	18.5	12.0	23.5	15.0	---	---	23.0	16.0	18.5	14.0
17	11.0	9.0	20.0	13.0	24.5	16.5	---	---	23.0	15.0	15.5	13.0
18	13.0	9.0	21.0	15.0	23.0	18.5	---	---	24.0	15.0	16.0	12.5
19	12.0	10.5	22.0	16.5	26.0	17.5	---	---	24.0	16.5	16.0	11.0
20	12.0	10.0	23.5	17.0	26.5	19.0	---	---	23.5	16.5	16.0	11.5
21	12.5	9.5	23.0	17.5	27.0	19.5	---	---	19.0	15.5	17.5	13.0
22	13.5	10.0	19.5	14.5	25.0	19.0	---	---	18.0	14.5	18.0	13.5
23	14.0	11.0	18.0	13.5	23.0	17.5	---	---	19.0	15.5	19.0	14.0
24	13.5	12.0	16.0	13.0	21.0	16.0	---	---	18.0	15.0	19.5	14.5
25	14.5	11.0	17.5	12.0	22.0	15.5	---	---	20.0	15.0	18.5	15.5
26	13.5	12.5	18.0	14.0	23.5	16.0	---	---	---	---	19.5	15.0
27	17.0	12.0	21.0	14.5	26.0	18.0	---	---	---	---	19.5	14.5
28	17.0	13.0	23.5	16.0	24.5	20.0	---	---	---	---	19.5	14.5
29	18.5	12.5	23.0	16.0	24.0	19.0	---	---	---	---	19.0	14.0
30	16.0	13.5	21.5	15.5	25.0	18.5	---	---	---	---	19.0	14.0
31	---	---	22.5	15.0	---	---	---	---	---	---	---	---
MONTH	18.5	8.0	23.5	11.0	27.5	15.0	---	---	---	---	19.5	11.0

## KLAMATH RIVER BASIN

11519500 SCOTT RIVER NEAR FORT JONES, CA

LOCATION.--Lat 41°38'27", long 123°00'50", in NE&NE4 sec.29, T.44 N., R.10 W., Siskiyou County, on right bank 1.8 mi (2.9 km) upstream from Snow Creek, and 9.0 mi (14.5 km) west of Fort Jones.

DRAINAGE AREA.--653 mi<sup>2</sup> (1,691 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1941 to current year. Monthly discharge only October to December 1941, published in WSP 1315-B.

REVISED RECORDS.--WSP 1445: 1942-43(M), 1946(M), 1948, WSP 1715: 1951-52(M). WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,623.80 ft (799.734 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1966, water-stage recorder 400 ft (122 m) downstream at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good. Diversions for irrigation of about 30,000 acres (121 km<sup>2</sup>) above station.

AVERAGE DISCHARGE.--37 years, 667 ft<sup>3</sup>/s (18.89 m<sup>3</sup>/s), 483,200 acre-ft/yr (596 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,600 ft<sup>3</sup>/s (1,550 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 25.34 ft (7.724 m) from floodmarks, from rating curve extended above 15,000 ft<sup>3</sup>/s (425 m<sup>3</sup>/s) on basis of slope-area measurement at 21.40 ft (6.523 m), site and datum then in use; minimum daily, 5.4 ft<sup>3</sup>/s (0.15 m<sup>3</sup>/s) Aug. 31, 1977.

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

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 26	1230	3330 94.3	9.95 3.033	Feb. 7	2215	3380 95.7	9.79 2.984
Dec. 14	2030	*13300 377	15.56 4.743	Mar. 9	0500	2220 62.9	8.87 2.704
Jan. 9	2145	3150 89.2	9.79 2.984	Apr. 1	1115	2030 57.5	8.66 2.640
Jan. 16	2030	7130 202	12.48 3.804				

Minimum daily, 15 ft<sup>3</sup>/s (0.42 m<sup>3</sup>/s) Oct. 3-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	24	567	931	835	889	1920	784	868	518	82	74
2	16	26	487	884	944	867	1660	749	873	522	82	73
3	15	27	475	912	1350	894	1410	806	922	543	72	73
4	15	34	650	855	1360	923	1310	865	1020	495	72	73
5	15	42	670	1620	1330	1000	1240	825	1160	439	70	80
6	15	45	553	1460	1930	1010	1240	737	1260	389	67	110
7	15	45	526	1190	2300	943	1150	710	1250	370	69	155
8	15	45	450	1120	2870	1480	1040	765	1150	393	70	154
9	15	47	400	2220	2420	2050	974	937	1160	368	69	148
10	15	48	366	2300	1890	1640	973	1070	1010	338	67	291
11	15	54	530	1630	1610	1410	1120	1070	877	312	63	294
12	16	54	939	1410	1430	1280	1130	936	791	287	61	228
13	16	54	2050	1340	1290	1160	1090	990	749	276	59	197
14	16	54	9870	2360	1160	1060	1060	1210	679	263	59	175
15	16	56	9080	4850	1080	984	1060	1320	614	243	57	165
16	17	65	4070	5370	1000	933	1080	1090	530	242	56	157
17	17	65	2720	4740	960	902	948	931	486	232	54	151
18	17	65	1930	3070	946	920	867	880	500	221	53	142
19	17	65	1440	2560	912	958	830	920	506	203	54	135
20	17	65	1160	2100	896	1040	857	1040	509	188	53	132
21	20	78	1080	1840	907	1150	788	1190	514	165	58	126
22	18	144	1000	1620	948	1610	725	1320	519	156	66	121
23	19	185	1310	1440	997	1800	683	1130	509	150	65	121
24	21	599	1190	1300	1060	1710	671	973	459	138	62	118
25	23	1440	1020	1220	1090	1460	715	842	416	126	64	118
26	25	2790	909	1150	1040	1350	805	740	392	119	65	119
27	20	1600	1070	1070	982	1420	778	686	381	117	65	119
28	20	1000	1200	999	918	1500	782	775	524	103	64	109
29	20	751	1150	945	---	1580	795	880	625	96	63	101
30	21	679	1190	893	---	1730	809	940	556	89	70	101
31	22	---	1040	831	---	1780	---	897	---	86	73	---
TOTAL	545	10246	51092	56230	36455	39433	30510	29008	21809	8187	2004	4160
MEAN	17.6	342	1648	1814	1302	1272	1017	936	727	264	64.6	139
MAX	25	2790	9870	5370	2870	2050	1920	1320	1260	543	82	294
MIN	15	24	366	831	835	867	671	686	381	86	53	73
AC-FT	1080	20320	101300	111500	72310	78220	60520	57540	43260	16240	3970	8250
CAL YR 1977 TOTAL	81534.5			MEAN 223	MAX 9870	MIN 5.4	AC-FT 161700					
WTR YR 1978 TOTAL	289679.0			MEAN 794	MAX 9870	MIN 15	AC-FT 574600					

## KLAMATH RIVER BASIN

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11519500 SCOTT RIVER NEAR FORT JONES, CALIF.--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955-56, 1959 to current year.

CHEMICAL ANALYSES: Water years 1959 to current year.

SEDIMENT RECORDS: Water years 1955-56.

REMARKS.--Records furnished by California Department of Water Resources.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
NOV 16...	0830	54	285	7.5	9.0	.00	10.0	--	--	--
DEC 28...	1640	1170	150	7.2	5.0	5.0	--	70	5.0	.3
30...	1230	1200	155	7.5	6.0	--	--	--	--	--
JAN 04...	1600	823	172	7.4	6.5	5.0	10.2	--	--	--
MAR 14...	1605	1050	187	7.4	10.0	5.0	10.5	--	--	--
MAY 04...	1045	889	158	8.4	11.0	5.0	10.0	--	--	--
JUL 05...	1420	436	175	7.8	21.5	2.0	9.9	--	--	--
SEP 05...	1615	82	288	8.0	15.0	.00	10.2	150	5.3	.2

DATE	ALKA- LITY (MG/L AS CACO3)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (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, ORTHOS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHOS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)
NOV 16...	--	--	--	--	--	--	--	--	--
DEC 28...	70	1.7	.07	.04	.10	.14	.23	.21	0
30...	--	--	.34	.06	.10	.16	.04	.02	--
JAN 04...	--	--	--	--	--	--	--	--	--
MAR 14...	--	--	--	--	--	--	--	--	--
MAY 04...	--	--	--	--	--	--	--	--	--
JUL 05...	--	--	--	--	--	--	--	--	--
SEP 05...	140	5.8	--	--	--	--	--	--	0

## KLAMATH RIVER BASIN

11520500 KLAMATH RIVER NEAR SEIAD VALLEY, CA

LOCATION.--Lat 41°51'14", long 123°13'52", in SW¼SW¼ sec.3, T.46 N., R.12 W., Siskiyou County, Klamath National Forest, on left bank 0.4 mi (0.6 km) upstream from Bittenbender Creek, 1.4 mi (2.3 km) downstream from Grider Creek, and 2.2 mi (3.5 km) west of Seiad Valley.

DRAINAGE AREA.--6,940 mi<sup>2</sup> (17,975 km<sup>2</sup>), approximately (not including Lost River or Lower Klamath Lake basins).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1912 to September 1925, July 1951 to current year. Monthly discharges only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Altitude of gage is 1,320 ft (402 m) from river-profile map. November 1912 to June 1925, nonrecording gage at site 3.5 mi (5.6 km) upstream at different datum.

REMARKS.--Records excellent. Flow regulated considerably by reservoirs and powerplants above station. Large diversions above station for irrigation.

AVERAGE DISCHARGE.--40 years, 4,127 ft<sup>3</sup>/s (116.9 m<sup>3</sup>/s), 2,990,000 acre-ft/yr (3.69 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 165,000 ft<sup>3</sup>/s (4,670 m<sup>3</sup>/s) Dec. 23, 1964, gage height, 33.75 ft (10.287 m) from floodmarks, from rating curve extended above 49,000 ft<sup>3</sup>/s (1,390 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 20.1 ft (6.13 m) and 29.2 ft (8.90 m); minimum daily, 320 ft<sup>3</sup>/s (9.06 m<sup>3</sup>/s) Nov. 25, 1917.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 29,300 ft<sup>3</sup>/s (830 m<sup>3</sup>/s) Dec. 15, gage height, 14.78 ft (4.505 m); minimum daily, 1050 ft<sup>3</sup>/s (29.7 m<sup>3</sup>/s) July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1670	1740	3360	6510	5090	4740	7230	5180	2820	1880	1070	1340
2	1640	1730	3150	5770	5210	4720	6960	5110	2580	1880	1280	1530
3	1630	1750	3140	5650	6560	4990	6500	5060	2580	1900	1270	1560
4	1620	1730	3480	5560	6620	5050	6440	4730	2700	1820	1270	1580
5	1610	1820	3490	7010	6320	5180	6340	4580	2870	1730	1270	1730
6	1600	1790	3310	7260	6850	5350	6640	4170	2990	1620	1260	1880
7	1580	1760	3150	6630	7790	5700	6540	3960	2900	1570	1260	2110
8	1580	1730	3000	6290	10000	7260	6320	4060	2790	1570	1260	2040
9	1590	1730	2890	7390	10100	9630	6080	4220	2790	1560	1260	2030
10	1590	1730	3450	8860	9290	8980	6030	4300	2620	1500	1250	2240
11	1590	1740	4300	7390	9410	8760	7230	4260	2500	1470	1230	2250
12	1570	1730	5570	6790	9030	8600	7420	4190	2360	1440	1230	2070
13	1570	1730	7400	6940	8610	8130	7360	4230	2300	1410	1230	1990
14	1570	1730	23900	8110	7530	7820	7270	4520	2220	1390	1240	1970
15	1570	1750	24300	11600	6340	7570	6890	4830	2220	1340	1240	1910
16	1570	1750	15600	15500	5910	6690	6830	4580	2100	1310	1240	1870
17	1570	1750	12800	16900	5740	6010	6640	4420	1920	1310	1240	1850
18	1570	1750	11000	14200	5650	5930	6160	4390	1910	1280	1240	1840
19	1570	1740	9550	12700	5650	5930	6010	4520	1920	1270	1230	1820
20	1580	1740	7950	11200	5850	5990	5660	4680	2010	1230	1230	1810
21	1580	1950	7440	10100	5870	5950	5890	4740	1930	1200	1230	1790
22	1580	2710	6880	9400	5780	6640	5450	4890	1840	1170	1350	1770
23	1590	2530	7400	8890	5490	7270	5300	4580	1840	1160	1520	1760
24	1600	3720	7570	8020	5210	7250	4890	4200	1800	1130	1440	1750
25	1700	5350	7070	6930	4990	6710	5010	3790	1770	1120	1430	1740
26	1810	8870	6760	6500	4840	6460	5300	3450	1740	1120	1460	1730
27	1720	5730	7690	6260	4740	6560	5210	3980	1690	1090	1430	1690
28	1700	4480	8070	5650	4760	6460	5200	3890	1810	1090	1400	1660
29	1690	3850	7680	5470	---	6460	5180	2990	2100	1100	1360	1660
30	1760	3650	7850	5370	---	6580	5200	3030	2060	1090	1320	1660
31	1750	---	7330	5270	---	6790	---	2960	---	1050	1330	---
TOTAL	50320	77760	236530	256120	185230	206160	185180	132490	67680	42800	40070	54630
MEAN	1623	2592	7630	8262	6615	6650	6173	4274	2256	1381	1293	1821
MAX	1810	8870	24300	16900	10100	9630	7420	5180	2990	1900	1520	2250
MIN	1570	1730	2890	5270	4740	4720	4890	2960	1690	1050	1070	1340
AC-FT	99810	154200	469200	508000	367400	408900	367300	262800	134200	84890	79480	108400
CAL YR 1977 TOTAL	716255			MEAN 1962	MAX 24300	MIN 792	AC-FT 1421000					
WTR YR 1978 TOTAL	1534970			MEAN 4205	MAX 24300	MIN 1050	AC-FT 3045000					

## 11520500' KLAMATH RIVER NEAR SEIAD VALLEY, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955-56, 1959 to current year.

CHEMICAL ANALYSES: Water years 1959-66.

WATER TEMPERATURES: Water years 1964 to current year.

SEDIMENT RECORDS: Water years 1955-56.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1963 to current year.

INSTRUMENTATION.--Temperature recorder since October 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 29.5°C July 26, 1970; minimum recorded, 0.5°C on several days in 1967, 1968, 1971-73, and 1977.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 26.5°C Aug. 6, 7; minimum recorded, 3.0°C Nov. 21.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.5	14.0	12.5	11.5	7.5	7.5	4.0	3.5	5.0	4.0	6.5	6.0
2	16.5	14.0	12.5	11.5	8.0	7.0	4.5	4.0	5.0	4.0	7.5	6.5
3	17.0	14.5	11.5	10.5	8.5	8.0	5.0	4.5	6.0	5.0	8.5	7.5
4	16.5	14.0	10.5	9.5	9.0	8.0	5.0	5.0	6.0	6.0	8.0	7.5
5	16.5	14.5	10.0	9.0	8.0	7.0	5.0	5.0	6.5	6.0	8.0	7.5
6	15.5	14.0	11.0	9.5	7.5	6.5	5.0	5.0	6.5	6.0	8.5	7.5
7	15.5	13.5	11.0	10.0	7.5	6.5	5.0	4.5	6.0	6.0	8.0	8.0
8	15.5	13.5	10.0	9.0	6.5	5.0	6.0	5.0	6.0	5.5	8.0	7.0
9	15.5	13.0	9.5	8.0	5.5	5.0	6.5	6.0	5.5	5.0	8.0	7.0
10	15.5	13.0	9.5	8.0	5.5	5.0	6.0	6.0	5.5	5.0	8.5	7.5
11	15.5	13.0	9.5	9.0	6.5	5.5	6.0	5.5	5.0	4.5	8.5	7.5
12	15.5	13.5	10.0	9.0	6.5	6.0	5.5	5.5	5.5	4.5	8.0	7.0
13	15.5	13.5	10.0	9.0	7.5	6.0	6.0	5.5	5.5	4.5	8.5	7.5
14	15.5	13.5	10.5	9.5	7.5	7.5	6.0	5.5	5.5	5.0	8.0	7.0
15	15.5	13.5	11.0	10.0	7.5	6.0	6.0	4.5	6.0	5.5	8.5	7.0
16	15.5	13.5	10.5	9.5	6.0	5.0	6.0	5.0	5.5	5.0	9.0	7.5
17	15.0	13.0	9.5	8.0	5.5	5.0	6.0	6.0	5.5	5.5	10.0	8.5
18	15.0	13.0	8.0	7.0	5.5	5.0	6.0	5.5	6.5	5.5	10.0	9.0
19	14.5	13.0	7.0	6.0	5.5	4.5	6.0	5.5	7.0	6.0	10.5	9.0
20	14.0	13.0	6.0	5.0	4.5	4.0	6.5	6.0	6.5	6.0	10.5	9.5
21	13.5	12.0	5.0	3.0	5.5	4.5	6.0	5.5	7.0	6.5	10.5	10.0
22	13.0	11.5	5.5	4.0	5.5	5.0	5.5	5.0	7.0	6.5	10.0	9.5
23	13.0	12.0	6.0	5.5	6.0	5.5	5.5	4.5	7.0	6.5	9.5	9.5
24	13.5	12.5	6.5	5.5	5.5	5.0	4.5	4.0	7.5	7.0	10.0	9.0
25	14.5	13.5	7.0	6.0	5.0	4.5	5.5	4.5	7.5	7.0	11.0	9.5
26	14.0	12.5	7.5	6.5	4.5	4.0	5.5	5.0	7.0	6.5	11.5	10.5
27	13.0	11.5	8.0	7.0	5.0	4.5	5.5	5.0	7.0	6.0	12.0	11.0
28	12.5	11.5	8.0	7.5	5.5	5.0	5.5	5.0	6.5	6.0	12.0	11.0
29	12.0	11.5	8.5	7.5	5.5	5.0	5.5	5.0	---	---	11.5	10.5
30	12.0	11.0	8.0	7.5	5.5	4.5	5.5	5.0	---	---	12.0	10.5
31	12.5	11.0	---	---	4.5	4.0	5.5	5.0	---	---	12.0	11.0
MONTH	17.0	11.0	12.5	3.0	9.0	4.0	6.5	3.5	7.5	4.0	12.0	6.0

## KLAMATH RIVER BASIN

11520500 KLAMATH RIVER NEAR SEIAD VALLEY, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.0	9.5	13.0	10.5	18.0	14.5	19.5	18.0	25.0	22.0	22.0	19.5
2	10.0	9.0	14.0	12.0	18.0	15.0	19.5	17.5	25.0	22.0	22.0	19.5
3	10.0	9.5	14.0	12.5	18.5	15.5	19.5	17.0	25.5	22.5	21.5	19.5
4	10.0	9.0	13.0	11.5	19.0	16.0	19.5	16.5	25.5	23.0	21.0	18.5
5	10.0	9.0	12.5	11.0	19.5	16.5	21.0	18.0	26.0	23.5	18.5	17.0
6	9.5	9.0	13.5	11.0	19.5	16.5	22.0	19.0	26.5	24.0	18.0	16.5
7	10.0	9.0	14.5	12.0	19.5	16.5	22.5	20.5	26.5	23.5	18.5	16.5
8	11.0	9.5	15.0	13.0	19.5	17.0	23.5	20.5	26.0	23.5	17.5	16.5
9	12.5	10.5	14.5	13.5	18.5	16.5	23.0	20.5	26.0	23.0	17.0	16.5
10	13.0	11.0	14.0	12.5	17.0	15.5	22.5	20.5	25.0	23.0	16.5	15.5
11	13.0	11.5	13.5	12.0	18.0	14.5	22.5	20.0	24.0	22.0	18.0	15.0
12	12.5	10.5	14.5	12.0	18.0	16.0	22.5	20.0	23.0	20.5	18.5	15.5
13	12.0	10.5	15.0	13.5	18.0	16.0	23.5	20.5	22.0	19.0	18.0	16.0
14	11.5	10.5	14.5	12.0	18.0	15.5	24.0	21.5	22.5	19.5	18.0	15.5
15	11.0	9.5	12.5	11.5	17.5	15.5	23.0	21.5	22.0	20.5	19.0	16.0
16	10.0	9.0	13.5	11.0	18.5	15.0	22.5	20.0	21.0	19.5	18.5	16.0
17	10.5	9.5	15.0	12.5	19.5	16.0	22.5	20.0	21.5	19.0	17.0	15.5
18	11.0	10.0	15.5	13.5	19.5	17.5	23.5	20.5	22.0	19.0	16.5	14.0
19	11.0	10.0	16.5	14.5	19.5	17.0	24.0	21.5	22.0	19.5	16.0	14.0
20	10.5	9.5	16.0	14.5	21.0	18.0	24.5	21.5	21.5	19.5	16.5	14.0
21	10.5	9.5	16.5	14.5	21.5	19.0	24.5	22.0	20.0	19.0	17.5	15.0
22	11.0	10.0	15.0	14.0	20.5	18.5	25.0	22.5	20.0	18.0	17.0	15.0
23	11.5	10.0	13.5	12.5	20.0	18.0	25.0	23.0	20.0	18.0	18.0	15.5
24	11.5	11.0	12.5	12.0	18.0	16.5	25.5	23.0	19.0	18.5	18.5	16.0
25	11.5	11.0	13.5	11.5	17.5	15.5	26.0	23.0	19.0	17.5	18.5	16.0
26	11.5	11.0	14.0	12.5	19.5	15.5	26.0	24.0	20.5	18.0	18.0	16.0
27	13.0	10.5	16.5	13.0	21.5	18.0	25.0	22.0	21.5	18.5	18.5	16.0
28	13.0	11.5	18.0	14.5	21.5	20.0	24.5	22.0	22.0	19.0	18.0	15.5
29	13.0	11.0	18.0	15.0	20.0	18.5	25.0	22.0	22.5	20.0	18.0	15.5
30	12.5	11.5	16.5	14.5	20.5	18.0	25.5	22.5	23.0	21.0	17.5	15.5
31	---	---	17.0	13.5	---	---	25.0	22.5	22.0	20.0	---	---
MONTH	13.0	9.0	18.0	10.5	21.5	14.5	26.0	16.5	26.5	17.5	22.0	14.0

## 11521500 INDIAN CREEK NEAR HAPPY CAMP, CA

LOCATION.--Lat 41°50'07", long 123°22'55", in SW¼SW¼ sec.26, T.17 N., R.7 E., Siskiyou County, on left bank 0.2 mi (0.3 km) upstream from Slater Creek, 3.0 mi (4.8 km) north of Happy Camp, and 3.5 mi (5.6 km) upstream from mouth.

DRAINAGE AREA.--120 mi<sup>2</sup> (311 km<sup>2</sup>).

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 (365.263 m) National Geodetic Vertical Datum of 1929. Prior to December 1956, nonrecording gages at sites 1.0 mi (1.6 km) upstream at different datums. December 1956 to Sept. 20, 1969, water-stage recorder at site 0.8 mi (1.3 km) upstream at different datum.

REMARKS.--Records excellent. Small diversions above station for irrigation.

AVERAGE DISCHARGE.--24 years (water years 1912-14, 1958-78), 436 ft<sup>3</sup>/s (12.35 m<sup>3</sup>/s), 315,900 acre-ft/yr (390 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,000 ft<sup>3</sup>/s (1,100 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 24.3 ft (7.41 m) from floodmarks, present site and datum, from rating curve extended above 6,000 ft<sup>3</sup>/s (170 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 29.0 ft (8.84 m), previous site and datum; minimum observed, 20 ft<sup>3</sup>/s (0.57 m<sup>3</sup>/s) Aug. 19 to Sept. 6, 1914.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 21, 1955, reached a stage of 29.0 ft (8.84 m), at 1956-69 site and datum, from floodmarks, discharge, 23,000 ft<sup>3</sup>/s (651 m<sup>3</sup>/s) on basis of slope-area measurement of peak flows.

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

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 25	2345	*8390 238	12.17 3.709	Feb. 3	0800	4820 137	10.14 3.091
Dec. 15	0130	6860 194	11.37 3.466	Feb. 7	1400	2640 74.8	8.44 2.573
Jan. 16	0930	2920 82.7	8.68 2.646				

Minimum daily, 33 ft<sup>3</sup>/s (0.93 m<sup>3</sup>/s) Oct. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	139	582	745	532	528	639	419	292	129	58	49
2	74	139	515	758	1040	516	588	419	294	126	57	48
3	61	121	784	913	3680	535	537	448	299	124	56	47
4	54	126	757	951	2020	633	522	425	308	119	55	52
5	49	165	598	1380	1800	654	547	397	305	114	55	103
6	50	170	532	1260	1770	649	538	379	289	110	53	96
7	52	157	483	1050	2300	699	504	380	265	107	52	78
8	47	153	426	1160	1920	1340	473	408	253	105	50	76
9	45	134	383	1700	1520	1030	482	450	248	100	49	367
10	42	122	351	1320	1230	865	538	428	235	97	48	477
11	41	123	1070	1120	1020	757	578	414	222	95	48	240
12	39	135	910	1060	906	676	530	385	211	92	50	149
13	38	148	4020	1140	813	634	498	407	203	90	52	118
14	38	149	6010	1370	731	585	476	477	194	89	51	104
15	37	190	4290	1610	698	544	476	509	187	87	51	90
16	36	194	2040	2460	647	519	445	410	178	86	51	82
17	35	153	1400	2410	622	524	425	387	174	83	50	77
18	35	132	1070	1990	622	557	418	385	175	81	49	76
19	34	119	877	1950	641	593	456	408	174	78	48	73
20	34	109	758	1550	660	634	460	428	180	76	48	70
21	34	525	673	1310	705	691	436	433	165	73	55	67
22	33	1150	646	1130	745	751	419	403	157	73	59	65
23	34	749	1080	967	758	865	410	353	151	71	55	64
24	40	2820	1230	850	745	815	411	335	147	69	59	62
25	197	2870	969	761	711	722	454	314	145	68	91	61
26	142	3290	807	693	654	692	466	301	138	67	64	59
27	99	1410	967	634	591	698	455	292	136	66	58	57
28	85	977	989	589	552	693	457	311	141	64	54	56
29	121	795	989	560	---	679	442	316	148	63	52	56
30	317	696	989	534	---	678	444	301	138	61	51	54
31	189	---	855	508	---	656	---	291	---	60	50	---
TOTAL	2224	18160	38050	36433	30633	21412	14524	12013	6152	2723	1679	3073
MEAN	71.7	605	1227	1175	1094	691	484	388	205	87.8	54.2	102
MAX	317	3290	6010	2460	3680	1340	639	509	308	129	91	477
MIN	33	109	351	508	532	516	410	291	136	60	48	47
AC-FT	4410	36020	75470	72260	60760	42470	28810	23830	12200	5400	3330	6100

CAL YR 1977 TOTAL 84735 MEAN 232 MAX 6010 MIN 21 AC-FT 168100  
WTR YR 1978 TOTAL 187076 MEAN 513 MAX 6010 MIN 33 AC-FT 371100

## KLAMATH RIVER BASIN

11522500 SALMON RIVER AT SOMES BAR, CA

LOCATION.--Lat 41°22'40", long 123°28'35", in NE¼ 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 (1.6 km) upstream from mouth.

DRAINAGE AREA.--751 mi<sup>2</sup> (1,945 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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. Datum of gage is 482.97 ft (147.209 m) 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 (0.8 km) upstream at datum 6.54 ft (1.993 m) higher.

REMARKS.--Records good. No storage or large diversion above station.

AVERAGE DISCHARGE.--55 years, 1,804 ft<sup>3</sup>/s (51.09 m<sup>3</sup>/s), 1,307,000 acre-ft/yr (1.61 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 133,000 ft<sup>3</sup>/s (3,770 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 46.6 ft (14.20 m) present site and datum, from floodmarks, from rating curve extended above 33,000 ft<sup>3</sup>/s (935 m<sup>3</sup>/s); minimum, 70 ft<sup>3</sup>/s (1.98 m<sup>3</sup>/s) Aug. 25, Sept. 4, 5, 1931.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10,000 ft<sup>3</sup>/s (283 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 26	unknown	12300 348	11.50 3.505
Dec. 14	1300	*31700 898	18.15 5.532

Minimum daily discharge, 128 ft<sup>3</sup>/s (3.62 m<sup>3</sup>/s) Oct. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	356	484	1980	2990	2140	2120	3120	2160	2170	1230	371	229
2	276	546	1700	2890	2440	2100	3100	2160	2200	1210	358	223
3	233	646	1910	2860	4000	2130	2940	2340	2290	1160	344	216
4	207	573	2540	2740	3850	2180	2870	2400	2430	1060	333	216
5	190	887	2360	3590	3640	2200	2820	2250	2610	1010	328	606
6	180	730	2010	3680	3750	2220	3060	2130	2670	996	314	1030
7	185	595	1980	3400	4160	2170	2900	2130	2490	1000	302	606
8	181	535	1660	3430	4680	3720	2730	2260	2340	1030	292	465
9	170	475	1450	4720	4420	4030	2700	2600	2320	967	281	985
10	163	436	1320	4490	3940	3440	2920	2580	2040	956	272	1990
11	156	431	2380	3800	3520	3080	3140	2490	1830	873	264	1250
12	151	465	3150	3570	3190	3000	3000	2280	1740	834	259	806
13	147	450	9600	3480	2910	2800	2850	2440	1710	803	259	617
14	144	441	25600	4040	2650	2680	2710	2730	1650	760	259	535
15	141	436	15900	5090	2500	2500	2650	2950	1550	759	249	475
16	138	489	8880	7000	2370	2390	2490	2420	1430	724	248	422
17	135	470	6850	7540	2280	2300	2320	2280	1400	677	247	390
18	132	427	5220	6040	2280	2230	2230	2280	1470	653	239	364
19	130	390	4140	5220	2340	2200	2280	2470	1490	637	230	356
20	129	360	3560	4610	2410	2270	2270	2710	1500	626	224	335
21	129	964	3200	4130	2500	2380	2170	2910	1480	590	231	327
22	128	2990	3050	3700	2540	2600	2090	2900	1470	566	319	315
23	132	2170	3720	3300	2570	3200	2040	2440	1400	554	306	307
24	154	6060	3670	3050	2610	3150	2040	2180	1270	535	269	296
25	597	5500	3150	2850	2560	3100	2160	2010	1170	516	319	288
26	935	10000	2840	2630	2430	2880	2230	1890	1120	504	329	277
27	505	5600	3470	2450	2310	2900	2190	1830	1140	492	289	266
28	386	3700	3790	2300	2210	2820	2230	2090	1480	454	267	263
29	418	2850	3630	2180	---	2800	2230	2270	1570	427	255	259
30	846	2300	3630	2170	---	2830	2270	2300	1330	402	242	252
31	617	---	3220	2100	---	2900	---	2180	---	382	236	---
TOTAL	8391	52400	141560	116040	83200	83320	76750	73060	52760	23387	8735	14966
MEAN	271	1747	4566	3743	2971	2688	2558	2357	1759	754	282	499
MAX	935	10000	25600	7540	4680	4030	3140	2950	2670	1230	371	1990
MIN	128	360	1320	2100	2140	2100	2040	1830	1120	382	224	216
AC-FT	16640	103900	280800	230200	165000	165300	152200	144900	104600	46390	17330	29690
CAL YR 1977	TOTAL	307825	MEAN	843	MAX	25600	MIN	80	AC-FT	610600		
WTR YR 1978	TOTAL	734569	MEAN	2013	MAX	25600	MIN	128	AC-FT	1457000		



11522500 SALMON RIVER AT SOMES BAR, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1959-64.

WATER TEMPERATURES: Water years 1966 to current year.

SEDIMENT RECORDS: Water years 1955-56.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1965 to current year.

INSTRUMENTATION.--Temperature recorder since October 1965.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 32.0°C Sept. 4, 5, 1966; minimum recorded, 0.0°C on several days in 1967 and 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.5°C Aug. 8; minimum, 4.0°C Dec. 20.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	11.0	10.5	7.0	6.5	5.5	4.5	6.5	5.5	6.5	5.5
2	---	---	11.5	10.5	6.5	6.0	6.0	5.5	6.5	5.5	8.0	7.0
3	---	---	10.5	9.5	7.5	6.5	7.0	6.0	8.0	6.5	8.5	7.5
4	---	---	9.5	8.0	8.5	7.5	7.0	6.5	7.5	7.0	8.5	8.0
5	15.0	12.0	8.5	8.0	8.0	6.5	7.0	7.0	8.0	7.5	8.5	8.0
6	13.0	10.5	8.5	8.0	7.0	6.5	7.0	6.5	7.5	7.0	8.5	7.5
7	14.0	10.5	9.0	8.0	7.5	7.0	7.5	6.5	7.5	7.0	8.5	8.0
8	14.0	10.0	8.0	7.0	7.0	5.0	8.0	7.5	7.5	6.5	8.0	7.0
9	14.0	10.0	7.0	6.5	5.0	4.5	8.0	8.0	7.0	7.0	8.5	7.0
10	14.0	10.0	7.0	6.0	4.5	4.5	8.0	7.5	7.0	6.0	8.0	6.5
11	14.0	10.0	7.0	6.5	6.5	4.5	7.5	7.0	6.0	5.5	8.0	7.0
12	14.5	10.5	8.0	7.0	7.0	6.5	7.5	7.0	6.5	5.5	7.5	6.5
13	15.0	11.0	8.5	8.0	8.0	7.0	8.5	7.5	7.0	6.5	8.0	6.5
14	14.5	11.0	---	---	8.5	8.0	8.0	8.0	7.5	6.5	7.5	6.5
15	15.0	11.0	---	---	8.5	6.0	8.0	6.5	7.0	6.5	7.5	6.0
16	15.0	11.5	---	---	6.0	6.0	8.0	6.5	6.5	6.0	8.5	6.5
17	14.5	10.5	---	---	6.0	5.5	8.0	7.5	7.0	6.5	9.5	7.5
18	14.5	10.5	---	---	6.0	5.5	8.0	7.5	8.0	7.0	9.5	8.5
19	14.0	11.0	---	---	5.5	4.5	8.0	7.5	8.0	7.0	10.0	8.5
20	13.5	10.5	---	---	5.0	4.0	8.0	8.0	8.0	7.0	10.0	9.0
21	13.0	9.0	---	---	6.5	5.0	8.0	7.5	8.5	7.5	10.0	9.0
22	12.5	9.0	---	---	6.5	6.0	7.5	6.5	8.0	7.0	9.5	9.0
23	12.5	10.5	---	---	7.0	6.5	6.5	5.5	8.5	7.5	9.0	8.0
24	13.0	12.0	---	---	7.0	6.0	5.5	4.5	8.5	8.0	9.0	7.0
25	13.0	12.5	---	---	6.0	5.5	7.0	5.0	8.5	8.0	10.0	8.0
26	12.5	11.5	---	---	6.0	5.5	7.5	7.0	8.0	7.0	10.5	9.0
27	12.0	11.0	---	---	7.0	6.0	7.0	6.0	7.5	6.5	10.5	9.0
28	11.0	10.5	---	---	7.0	7.0	6.5	6.0	6.5	5.5	10.5	9.0
29	11.0	10.5	---	---	7.5	7.0	6.5	6.0	---	---	10.0	8.5
30	11.0	10.0	---	---	7.0	6.5	6.5	6.0	---	---	10.5	9.0
31	11.0	10.0	---	---	6.5	4.5	7.0	6.5	---	---	10.5	9.0
MONTH	15.0	9.0	11.5	6.0	8.5	4.0	8.5	4.5	8.5	5.5	10.5	5.5

## KLAMATH RIVER BASIN

11522500 SALMON RIVER AT SOMES BAR, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.0	7.5	11.5	9.0	14.0	11.5	17.0	15.5	23.5	20.0	22.0	17.5
2	7.5	6.5	12.0	10.0	14.0	11.5	17.0	15.0	23.5	19.5	22.0	17.5
3	7.5	7.0	12.5	11.0	14.5	12.0	16.0	15.0	23.5	19.5	22.0	17.5
4	7.5	6.0	12.0	9.5	15.0	12.5	17.5	14.5	24.0	20.0	19.0	16.5
5	7.0	6.5	10.5	8.5	15.0	12.5	18.5	15.5	24.5	20.5	17.0	16.0
6	7.5	6.0	11.0	8.5	15.0	12.5	19.0	16.5	25.0	20.5	16.5	15.0
7	8.5	6.5	12.0	9.5	15.0	12.5	20.0	18.0	25.0	20.5	17.5	15.0
8	9.0	6.5	13.0	10.5	15.5	13.0	20.0	18.0	25.5	21.0	15.5	15.0
9	10.0	7.5	12.5	10.5	14.5	12.5	20.5	18.5	25.0	21.0	15.5	14.5
10	11.0	8.5	11.5	10.0	---	---	20.0	18.0	25.0	21.0	14.5	13.0
11	11.0	9.0	11.0	9.5	---	---	20.0	17.5	24.0	20.0	15.0	13.0
12	10.5	8.5	12.0	9.5	---	---	20.0	17.5	21.0	18.5	15.5	13.5
13	10.0	8.5	12.0	10.5	---	---	20.0	18.0	21.5	16.5	16.0	15.0
14	9.5	7.5	12.0	10.0	---	---	21.0	18.5	22.0	17.0	17.0	14.0
15	8.0	7.0	10.0	8.5	---	---	20.0	19.0	20.5	17.5	17.5	14.0
16	7.0	6.0	11.0	8.0	---	---	20.0	17.5	21.5	17.0	17.5	14.5
17	8.0	6.0	12.0	9.0	---	---	21.0	18.0	21.5	16.0	16.5	14.0
18	9.0	7.5	13.0	10.5	---	---	21.5	19.0	21.5	16.0	16.0	13.0
19	9.0	7.5	13.5	11.0	---	---	22.0	19.5	21.5	16.5	15.5	11.5
20	8.0	7.0	13.0	11.0	---	---	22.0	19.5	21.0	16.5	15.5	11.5
21	8.5	6.5	13.5	11.0	---	---	22.5	19.5	19.0	16.0	16.0	13.0
22	8.0	7.0	12.5	10.5	---	---	22.5	20.0	19.5	16.0	16.5	13.0
23	9.0	7.5	11.0	9.5	---	---	23.0	20.5	19.5	15.5	17.0	13.0
24	9.5	8.0	10.0	9.0	---	---	23.0	20.0	18.5	16.5	17.5	14.0
25	10.5	9.0	---	---	---	---	23.0	21.0	19.0	16.5	17.5	14.5
26	11.0	9.5	---	---	---	---	23.0	20.5	20.0	16.5	18.0	15.0
27	12.0	9.5	---	---	---	---	22.5	19.0	21.0	16.0	18.0	15.0
28	11.5	10.0	---	---	17.5	16.5	22.0	18.5	21.5	16.5	18.0	15.0
29	11.5	10.0	---	---	17.0	15.0	22.5	18.5	22.0	17.5	18.0	14.0
30	11.5	9.5	---	---	17.5	15.5	23.0	19.0	22.0	18.5	17.5	13.5
31	---	---	13.0	10.5	---	---	23.5	19.0	22.0	18.5	---	---
MONTH	12.0	6.0	13.5	8.0	17.5	11.5	23.5	14.5	25.5	15.5	22.0	11.5

## 11523000 KLAMATH RIVER AT ORLEANS, CA

LOCATION.--Lat 41°18'13", long 123°32'00", in SW¼NE¼ sec.31, T.11 N., R.6 E., Humboldt County, Hydrologic Unit 18010209, Six Rivers National Forest on right bank at Orleans, 25 ft (8 m) upstream from highway bridge, and 0.2 mi (0.3 km) downstream from Cheenitch Creek.

DRAINAGE AREA.--8,475 mi<sup>2</sup> (21,950 km<sup>2</sup>), not including Lost River or Lower Klamath Lake basins.

## WATER-DISCHARGE RECORDS

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. Datum of gage is 355.98 ft (108.503 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1965, at site 6.7 mi (10.8 km) upstream at datum 90.68 ft (27.639 m) higher.

REMARKS.--Records good. Flow considerably regulated by reservoirs and powerplants above station. Large diversions above station for irrigation.

AVERAGE DISCHARGE.--51 years, 8,175 ft<sup>3</sup>/s (231.5 m<sup>3</sup>/s), 5,923,000 acre-ft/yr (7.30 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 307,000 ft<sup>3</sup>/s (8,690 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 76.5 ft (23.32 m), from floodmarks, site and datum then in use, from rating curve extended above 80,000 ft<sup>3</sup>/s (2,270 m<sup>3</sup>/s) by slope-conveyance study; minimum daily, 320 ft<sup>3</sup>/s (9.06 m<sup>3</sup>/s) Aug. 25, Sept. 1, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 40,000 ft<sup>3</sup>/s (1,130 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 26	unknown	72000 2040	19.75 6.020
Dec. 14	1500	*111000 3140	23.30 7.102
Jan. 17	1015	44100 1250	15.99 4.874

Minimum daily discharge, 1,680 ft<sup>3</sup>/s (47.6 m<sup>3</sup>/s) Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2850	3050	9500	15400	11700	10400	15100	10900	6950	4080	1780	1920
2	2570	2980	8060	14500	13300	10300	14500	10700	6770	3980	1830	2030
3	2430	3110	8520	14700	27200	10500	13400	10900	6770	3980	1920	2140
4	2350	3000	9700	14500	23500	11100	13100	10800	6940	3860	1900	2180
5	2290	4510	9250	17600	20700	11200	13300	10200	7330	3730	1880	2770
6	2260	4230	8360	19200	20400	11400	14000	9810	7480	3610	1870	3520
7	2300	3550	8060	17600	22800	11400	13600	9370	7270	3510	1840	3120
8	2250	3290	7390	17200	26700	17600	13000	9510	6930	3440	1820	3160
9	2240	3060	6880	20200	25200	20000	12700	10100	6830	3360	1800	4200
10	2200	2910	6660	21100	22700	18700	13100	10200	6490	3280	1780	7630
11	2180	2880	10700	19300	20700	17500	14100	10000	6130	3130	1750	5290
12	2150	3000	14500	18300	19200	16700	14300	9650	5860	3030	1740	3880
13	2140	2990	32200	18100	17800	15800	13900	9740	5660	2930	1750	3310
14	2130	3010	91800	19400	16200	15000	13500	10500	5500	2820	1760	3070
15	2130	3100	72200	23500	14400	14100	13300	11700	5320	2770	1750	2920
16	2120	3410	37200	34900	13100	13200	12800	10300	5130	2670	1760	2780
17	2110	3150	27600	41100	12600	12400	12400	9620	4870	2590	1740	2670
18	2110	2940	23200	31800	12400	12100	12000	9430	4790	2530	1720	2610
19	2090	2790	19900	29000	12500	12200	11900	9680	4730	2460	1710	2580
20	2100	2680	17400	25800	12600	12400	12000	10300	4710	2400	1680	2540
21	2110	4890	15800	23100	12600	12800	11700	10600	4750	2310	1700	2500
22	2110	8000	15000	21000	12800	13900	11500	10700	4560	2260	1960	2460
23	2140	11000	16500	19200	12800	15500	11100	9740	4450	2200	2190	2430
24	2200	30000	18400	17800	12400	15700	10800	8860	4290	2140	2160	2410
25	3240	29000	16800	16300	12100	14500	10900	8220	4130	2090	2340	2390
26	3970	52000	15500	15000	11500	13900	11400	7630	3970	2060	2290	2350
27	2860	37000	16700	14000	10900	14000	11200	7030	3890	2020	2160	2320
28	2510	25000	18100	13100	10600	14000	11200	6960	4080	1950	2080	2250
29	2660	17500	17600	12400	---	13800	11100	7190	4380	1920	2010	2240
30	4340	12000	17700	12000	---	14100	11100	7250	4290	1870	1940	2230
31	3650	---	16800	11700	---	14100	---	7010	---	1820	1920	---
TOTAL	76790	290030	613980	608800	461400	430300	378000	294600	165250	86800	58530	87900
MEAN	2477	9668	19810	19640	16480	13880	12600	9503	5508	2800	1888	2930
MAX	4340	52000	91800	41100	27200	20000	15100	11700	7480	4080	2340	7630
MIN	2090	2680	6660	11700	10600	10300	10800	6960	3890	1820	1680	1920
AC-FT	152300	575300	1218000	1208000	915200	853500	749800	584300	327800	172200	116100	174300
CAL YR 1977 TOTAL	1609500			MEAN 4410	MAX 91800	MIN 1040	AC-FT 3192000					
WTR YR 1978 TOTAL	3552380			MEAN 9733	MAX 91800	MIN 1680	AC-FT 7046000					

## KLAMATH RIVER BASIN

11523000 KLAMATH RIVER AT ORLEANS, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.  
 CHEMICAL ANALYSES: Water years 1951 to current year.  
 WATER TEMPERATURES: Water years 1966 to current year.  
 SEDIMENT RECORDS: Water years 1955-59, 1967 to current year.  
 Prior to October 1966, published as "at Somesbar."

PERIOD OF DAILY RECORD.--  
 WATER TEMPERATURES: October 1965 to current year.  
 SEDIMENT RECORDS: January 1967 to current year.

INSTRUMENTATION.--Temperature recorder since October 1965.

REMARKS.--Differences between unadjusted recorder and field measurement values exceeded  $\pm 1.0^{\circ}\text{C}$  for water temperature, at times during calibration visits.

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

## EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded,  $29.5^{\circ}\text{C}$  July 27, 1973; minimum recorded,  $0.0^{\circ}\text{C}$  Dec. 22, 23, 1968, Jan. 9-11, 1974.

SEDIMENT CONCENTRATIONS (water years 1968-78): Maximum daily mean, 4,690 mg/L Jan. 16, 1974; minimum daily mean, 1 mg/L Aug. 25-27, 1972.

SEDIMENT DISCHARGE (water years 1968-78): Maximum daily, 3,040,000 tons (2,760,000 metric tons) Jan. 16, 1974; minimum daily, 4.7 tons (4.3 metric tons) Aug. 27, 1972.

## EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum,  $27.0^{\circ}\text{C}$  Aug. 8; minimum,  $2.5^{\circ}\text{C}$  Nov. 21, 22.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,190 mg/L Dec. 14; minimum daily mean, 2 mg/L on several days.

SEDIMENT DISCHARGE: Maximum daily, 301,000 tons (273,000 metric tons) Dec. 14; minimum daily, 11 tons (10 metric tons) Oct. 20-22.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)
OCT							
11...	0945	2180	216	7.9	14.5	1.0	10.2
NOV							
01...	1115	3040	164	7.8	13.0	1.0	10.9
DEC							
06...	1030	8290	139	8.0	8.0	4.0	11.5
JAN							
03...	1130	14700	150	7.5	7.5	10	12.6
FEB							
07...	1135	21500	115	7.5	8.5	30	12.7
APR							
03...	1145	13300	140	7.5	10.0	5.0	11.4
MAY							
08...	1015	9580	136	7.7	14.0	2.0	10.8
JUN							
05...	0945	7510	108	7.8	18.0	2.0	9.7
JUL							
10...	1015	3350	159	8.0	21.0	1.0	9.1
AUG							
07...	1000	1840	178	8.0	26.0	1.0	8.9

11523000 KLAMATH RIVER AT ORLEANS, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	14.5	12.0	11.5	8.0	7.5	5.5	5.5	7.0	6.5	7.5	7.0
2	15.5	14.0	12.0	11.5	8.0	7.5	5.5	5.5	6.5	6.0	8.0	7.5
3	16.0	14.0	11.5	10.5	8.5	8.0	6.5	5.5	7.5	6.0	8.5	8.0
4	15.5	14.0	10.5	9.0	9.0	8.5	6.5	6.5	7.5	7.5	9.0	8.5
5	15.5	15.0	9.0	8.5	9.0	8.5	6.5	6.5	7.5	7.5	9.0	9.0
6	15.0	14.0	9.0	8.5	8.5	8.0	6.5	6.5	7.5	7.5	9.0	9.0
7	15.0	14.0	9.5	9.0	8.5	8.0	6.5	6.5	7.5	7.5	9.0	9.0
8	15.0	14.0	9.0	8.5	8.0	6.5	7.0	6.5	7.5	7.0	9.0	8.5
9	15.0	14.0	8.5	8.0	6.5	6.0	7.5	7.0	7.0	6.5	8.5	8.0
10	15.0	13.5	8.0	8.0	6.0	6.0	7.5	7.0	7.0	6.0	8.5	8.5
11	15.0	13.0	8.0	8.0	7.0	6.0	7.5	7.0	6.0	5.5	8.5	8.5
12	15.0	14.0	8.5	8.0	7.5	7.0	7.0	7.0	6.0	5.5	8.5	8.0
13	15.5	14.5	9.5	8.5	8.5	7.5	7.5	7.0	6.5	6.0	8.5	8.5
14	15.5	14.5	9.5	9.0	8.5	8.5	7.5	7.5	6.5	6.5	8.5	8.0
15	15.5	14.5	10.0	9.5	8.5	7.5	7.5	6.0	7.0	6.5	8.5	8.0
16	15.5	14.5	10.0	9.5	7.5	6.0	7.0	6.0	6.5	6.0	9.5	8.5
17	15.5	14.5	9.5	8.5	6.5	5.5	7.5	7.0	6.5	6.0	10.0	9.0
18	15.5	14.0	8.5	7.0	6.5	6.5	7.5	7.5	6.5	6.5	10.5	9.5
19	15.0	14.0	7.0	6.0	6.5	5.5	7.5	7.5	7.5	7.0	10.5	10.0
20	14.0	14.0	6.0	5.0	5.5	5.5	7.5	7.5	7.5	7.5	11.0	10.0
21	14.0	13.0	5.0	2.5	6.0	5.5	7.5	7.5	8.0	7.5	10.5	10.5
22	13.5	12.5	5.0	2.5	6.5	6.0	7.5	6.5	8.0	8.0	10.5	10.0
23	12.5	12.5	6.0	5.0	7.0	6.5	6.5	6.0	8.0	8.0	10.5	9.5
24	13.5	12.5	6.5	6.0	7.0	7.0	6.0	5.5	8.0	8.0	9.5	9.0
25	13.5	13.5	7.5	6.5	7.0	6.5	6.5	5.5	8.5	8.0	10.5	9.5
26	13.5	13.5	7.5	7.5	6.5	6.0	7.0	6.5	8.0	8.0	11.0	10.5
27	13.5	13.0	7.5	7.5	6.5	6.0	7.0	6.5	8.0	7.5	11.5	10.5
28	13.0	12.5	8.0	7.5	7.0	6.5	6.5	6.5	7.5	7.0	11.5	11.0
29	13.0	11.5	8.0	8.0	7.0	7.0	6.5	6.5	7.0	7.0	11.5	10.5
30	12.5	12.5	8.0	8.0	7.0	6.5	7.0	6.5	7.0	7.0	11.5	10.5
31	12.5	11.5	---	---	6.5	5.5	7.0	7.0	---	---	11.5	10.5
MONTH	16.0	11.5	12.0	2.5	9.0	5.5	7.5	5.5	8.5	5.5	11.5	7.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.5	9.5	12.5	11.0	16.5	14.5	19.5	18.5	24.5	22.0	22.5	21.0
2	9.5	9.0	13.0	12.0	17.0	15.0	19.5	18.0	25.0	22.0	22.5	21.0
3	9.0	9.0	13.5	13.0	17.5	15.5	19.0	18.0	25.0	23.0	22.5	21.0
4	9.0	8.5	13.5	12.5	18.0	16.0	19.5	18.0	25.5	23.5	22.0	20.5
5	9.0	8.5	12.5	12.0	18.0	16.5	20.5	18.5	26.0	24.0	20.5	20.0
6	8.5	8.0	12.0	11.5	18.0	16.5	21.5	19.0	26.5	24.5	20.0	19.0
7	9.0	8.0	13.0	12.0	18.0	16.0	22.0	20.0	26.5	24.5	19.0	18.0
8	9.5	8.5	14.0	13.0	18.5	17.0	22.5	21.0	27.0	24.5	18.5	18.5
9	11.0	9.5	14.0	13.5	18.0	16.5	22.5	21.5	26.5	24.5	18.5	18.0
10	12.0	10.5	13.5	13.5	16.5	16.0	22.0	21.0	26.0	24.5	18.0	16.0
11	12.0	11.0	13.5	12.5	16.5	15.0	22.0	21.0	25.0	23.0	17.0	16.0
12	12.0	11.0	13.0	12.5	17.0	15.5	22.0	20.5	23.0	21.0	17.5	16.5
13	11.5	10.5	13.5	13.0	17.5	16.0	22.5	21.0	22.5	20.5	17.5	17.5
14	11.0	10.0	13.5	13.0	17.5	15.5	23.0	21.5	23.0	20.0	18.0	17.5
15	10.0	9.5	13.0	11.5	17.0	15.5	23.0	21.5	22.0	20.5	18.5	18.0
16	9.5	8.5	12.0	11.0	17.5	15.0	22.5	20.5	22.0	20.0	18.5	18.5
17	9.5	8.5	13.0	12.0	18.5	16.0	23.0	21.0	22.0	19.0	18.5	18.0
18	10.5	9.5	14.5	13.0	18.5	17.0	23.5	21.5	22.0	19.5	18.0	16.0
19	10.5	9.5	15.0	14.0	19.0	17.0	23.5	22.0	22.0	20.0	17.0	15.5
20	9.5	9.5	15.5	14.5	19.5	17.5	24.0	22.0	22.0	20.0	16.5	15.5
21	9.5	9.0	15.5	14.5	20.0	18.0	24.5	22.5	21.5	19.5	17.0	16.0
22	10.0	9.5	15.0	14.0	19.5	18.0	24.5	23.0	21.0	19.5	17.0	16.0
23	10.5	9.5	14.0	13.5	19.0	17.5	24.5	23.0	21.0	19.0	17.5	16.0
24	11.0	10.0	13.5	12.5	18.5	17.0	25.0	23.0	20.5	20.0	18.5	17.5
25	11.5	11.0	12.5	12.0	17.5	16.0	24.5	23.0	21.0	19.5	18.5	18.5
26	11.5	11.0	12.5	12.5	18.5	16.0	24.5	23.0	21.5	19.5	18.5	18.0
27	12.5	11.0	14.5	12.5	20.0	17.5	24.0	21.5	22.0	19.5	18.5	18.5
28	12.5	11.5	16.0	14.5	20.0	19.0	24.0	21.0	22.5	20.0	18.5	18.5
29	12.5	12.0	16.5	15.0	20.0	18.5	24.0	21.5	22.5	21.0	18.5	17.5
30	12.5	11.5	16.0	15.0	20.0	18.5	24.0	21.5	22.5	22.0	18.0	17.0
31	---	---	15.5	14.5	---	---	24.5	21.5	22.5	22.0	---	---
MONTH	12.5	8.0	16.5	11.0	20.0	14.5	25.0	18.0	27.0	19.0	22.5	15.5

## KLAMATH RIVER BASIN

11523000 KLAMATH RIVER AT ORLEANS, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2850	8	62	3050	8	66	9500	20	513
2	2570	7	49	2980	6	48	8060	16	348
3	2430	7	46	3110	7	59	8520	26	629
4	2350	7	44	3000	6	49	9700	18	471
5	2290	6	37	4510	12	146	9250	10	250
6	2260	6	37	4230	8	91	8360	9	203
7	2300	6	37	3550	6	58	8060	8	174
8	2250	6	36	3290	4	36	7390	8	160
9	2240	6	36	3060	2	17	6880	7	130
10	2200	5	30	2910	3	24	6660	6	108
11	2180	5	29	2880	2	16	10700	59	2330
12	2150	4	23	3000	3	24	14500	56	2190
13	2140	4	23	2990	3	24	32200	603	77000
14	2130	4	23	3010	3	24	91800	1190	301000
15	2130	4	23	3100	3	25	72200	859	178000
16	2120	4	23	3410	4	37	37200	358	36000
17	2110	3	17	3150	3	26	27600	195	14500
18	2110	3	17	2940	2	16	23200	145	9080
19	2090	3	17	2790	2	15	19900	115	6180
20	2100	2	11	2680	3	22	17400	100	4700
21	2110	2	11	4890	9	185	15800	91	3880
22	2110	2	11	8000	95	2050	15000	84	3400
23	2140	3	17	11000	48	1430	16500	89	3960
24	2200	4	24	30000	190	15400	18400	80	3970
25	3240	10	87	29000	110	8610	16800	70	3180
26	3970	20	214	52000	460	64600	15500	65	2720
27	2860	15	116	37000	145	14500	16700	65	2930
28	2510	10	68	25000	57	3850	18100	68	3320
29	2660	9	65	17500	34	1610	17600	54	2570
30	4340	15	176	12000	26	842	17700	46	2200
31	3650	10	99	---	---	---	16800	71	3220
TOTAL	76790	---	1508	290030	---	113900	613980	---	669316

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	15400	49	2040	11700	22	695	10400	17	477
2	14500	35	1370	13300	37	1480	10300	16	445
3	14700	29	1150	27200	163	12500	10500	17	482
4	14500	25	979	23500	105	6660	11100	20	599
5	17600	46	2190	20700	85	4750	11200	21	635
6	19200	62	3210	20400	75	4130	11400	22	677
7	17600	39	1850	22800	100	6160	11400	20	616
8	17200	32	1490	26700	150	10800	17600	56	2660
9	20200	72	3740	25200	130	8850	20000	80	4320
10	21100	78	4440	22700	110	6740	18700	75	3790
11	19300	47	2450	20700	95	5310	17500	60	2840
12	18300	33	1630	19200	85	4410	16700	50	2250
13	18100	32	1560	17800	75	3600	15800	45	1920
14	19400	49	2570	16200	70	3060	15000	40	1620
15	23500	102	6470	14400	65	2530	14100	35	1330
16	34900	255	25400	13100	60	2120	13200	33	1180
17	41100	309	34600	12600	55	1870	12400	30	1000
18	31800	165	14200	12400	50	1670	12100	27	882
19	29000	125	9790	12500	46	1550	12200	25	823
20	25800	113	7870	12600	42	1430	12400	30	1000
21	23100	100	6240	12600	39	1330	12800	32	1110
22	21000	82	4650	12800	36	1240	13900	35	1310
23	19200	65	3370	12800	33	1140	15500	45	1880
24	17800	55	2640	12400	30	1000	15700	50	2120
25	16300	47	2070	12100	27	882	14500	40	1570
26	15000	38	1540	11500	24	745	13900	35	1310
27	14000	33	1250	10900	21	618	14000	33	1250
28	13100	30	1060	10600	18	515	14000	32	1210
29	12400	28	937	---	---	---	13800	30	1120
30	12000	26	842	---	---	---	14100	28	1070
31	11700	24	758	---	---	---	14100	26	990
TOTAL	608800	---	154356	461400	---	97785	430300	---	44486

11523000 KLAMATH RIVER AT ORLEANS, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	15100	40	1630	10900	10	294	6950	7	131
2	14500	36	1410	10700	9	260	6770	7	128
3	13400	32	1160	10900	13	383	6770	8	146
4	13100	27	955	10800	10	292	6940	9	169
5	13300	27	970	10200	8	220	7330	10	198
6	14000	30	1130	9810	7	185	7480	11	222
7	13600	23	845	9370	6	152	7270	11	216
8	13000	18	632	9510	9	231	6930	10	187
9	12700	16	549	10100	10	273	6830	9	166
10	13100	18	637	10200	9	248	6490	8	140
11	14100	20	761	10000	9	243	6130	7	116
12	14300	22	849	9650	8	208	5860	6	95
13	13900	20	751	9740	9	237	5660	6	92
14	13500	18	656	10500	11	312	5500	6	89
15	13300	17	610	11700	13	411	5320	7	101
16	12800	16	553	10300	11	306	5130	6	83
17	12400	15	502	9620	10	260	4870	5	66
18	12000	14	454	9430	10	255	4790	5	65
19	11900	14	450	9680	10	261	4730	5	64
20	12000	13	421	10300	11	306	4710	5	64
21	11700	12	379	10600	12	343	4750	6	77
22	11500	11	342	10700	13	376	4560	6	74
23	11100	10	300	9740	10	263	4450	7	84
24	10800	10	292	8860	9	215	4290	8	93
25	10900	18	530	8220	8	178	4130	9	100
26	11400	17	523	7630	8	165	3970	8	86
27	11200	16	484	7030	7	133	3890	9	95
28	11200	14	423	6960	7	132	4080	29	319
29	11100	13	390	7190	6	116	4380	26	307
30	11100	12	360	7250	7	137	4290	20	232
31	---	---	---	7010	6	114	---	---	---
TOTAL	378000	---	19948	294600	---	7509	165250	---	4005
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	4080	15	165	1780	7	34	1920	4	21
2	3980	10	107	1830	6	30	2030	5	27
3	3980	9	97	1920	6	31	2140	6	35
4	3860	8	83	1900	7	36	2180	7	41
5	3730	7	70	1880	7	36	2770	8	60
6	3610	6	58	1870	7	35	3520	10	95
7	3510	6	57	1840	7	35	3120	9	76
8	3440	6	56	1820	7	34	3160	8	68
9	3360	6	54	1800	7	34	4200	15	170
10	3280	6	53	1780	7	34	7630	25	515
11	3130	6	51	1750	7	33	5290	20	286
12	3030	6	49	1740	7	33	3880	12	126
13	2930	5	40	1750	7	33	3310	8	71
14	2820	5	38	1760	7	33	3070	5	41
15	2770	5	37	1750	7	33	2920	5	39
16	2670	5	36	1760	7	33	2780	4	30
17	2590	5	35	1740	7	33	2670	4	29
18	2530	5	34	1720	7	33	2610	4	28
19	2460	5	33	1710	7	32	2580	3	21
20	2400	5	32	1680	7	32	2540	3	21
21	2310	5	31	1700	7	32	2500	4	27
22	2260	5	31	1960	7	37	2460	4	27
23	2200	6	36	2190	8	47	2430	4	26
24	2140	7	40	2160	9	52	2410	4	26
25	2090	7	40	2340	9	57	2390	4	26
26	2060	6	33	2290	8	49	2350	4	25
27	2020	5	27	2160	7	41	2320	4	25
28	1950	5	26	2080	6	34	2250	4	24
29	1920	5	26	2010	6	33	2240	5	30
30	1870	6	30	1940	5	26	2230	5	30
31	1820	7	34	1920	4	21	---	---	---
TOTAL	86800	---	1539	58530	---	1096	87900	---	2066
YEAR	3552380		1117514						

## KLAMATH RIVER BASIN

11523000 KLAMATH RIVER AT ORLEANS, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
DEC								
14...	1600	--	107000	1250	361000	16	22	32
15...	1400	--	66600	717	129000	21	33	45
16...	0800	7.5	38900	416	43700	20	32	44
17...	1015	6.5	27700	214	16000	--	--	--
JAN								
31...	1325	7.0	11700	27	853	--	--	--
APR								
04...	1240	9.0	13000	28	983	--	--	--
MAY								
03...	1625	--	11000	13	386	--	--	--

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
DEC							
14...	45	59	74	87	96	100	--
15...	60	76	87	96	100	--	--
16...	60	74	86	95	99	100	--
17...	--	--	88	97	100	--	--
JAN							
31...	--	--	63	71	82	93	100
APR							
04...	--	--	53	58	66	86	100
MAY							
03...	--	--	63	71	89	100	--



## 11523200 TRINITY RIVER ABOVE COFFEE CREEK, NEAR TRINITY CENTER, CA

LOCATION.--Lat 41°06'29", long 122°42'23", in NE¼SE¼ sec.31, T.38 N., R.7 W., Trinity County, Shasta National Forest, on right bank 250 ft (76 m) downstream from Chinquapin Gulch, 1.8 mi (2.9 km) upstream from Coffee Creek, and 8.5 mi (13.7 km) north of Trinity Center.

DRAINAGE AREA.--149 mi<sup>2</sup> (386 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 2,533.36 ft (772.168 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--21 years, 423 ft<sup>3</sup>/s (11.98 m<sup>3</sup>/s), 306,500 acre-ft/yr (378 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,500 ft<sup>3</sup>/s (750 m<sup>3</sup>/s) Jan. 16, 1974, gage height, 12.96 ft (3.950 m) in gage well, 13.6 ft (4.15 m) from floodmarks, from rating curve extended above 4,500 ft<sup>3</sup>/s (127 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 9.91 ft (3.021 m) and 12.96 ft (3.950 m); minimum daily, 16 ft<sup>3</sup>/s (0.45 m<sup>3</sup>/s) Sept. 11-14, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached a stage of 10.5 ft (3.20 m) from floodmarks, discharge, 11,400 ft<sup>3</sup>/s (323 m<sup>3</sup>/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,900 ft<sup>3</sup>/s (53.8 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 15	0130	3820 108	6.21 1.893	Mar. 8	1930	2440 69.1	5.24 1.597
Jan. 5	0300	2130 60.3	4.98 1.518	Mar. 30	2200	2000 56.6	4.93 1.503
Jan. 9	0800	6790 192	7.72 2.353	May 13	2100	2270 64.3	5.10 1.554
Jan. 14	2100	*8250 234	8.32 2.536	May 21	2100	2160 61.2	5.00 1.524
Feb. 5	1700	2310 65.4	5.13 1.564	June 5	2000	1980 56.1	4.84 1.475
Feb. 7	1200	2590 73.3	5.36 1.634				

Minimum daily, 28 ft<sup>3</sup>/s (0.79 m<sup>3</sup>/s) Oct. 17-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	84	324	544	321	567	1750	929	1170	519	98	57
2	64	94	282	581	369	632	1270	1070	1190	519	90	55
3	53	99	264	597	555	780	1010	1300	1300	481	86	55
4	50	99	439	954	560	933	917	1250	1490	425	83	60
5	45	109	401	1460	1370	1110	826	1070	1630	389	80	273
6	42	99	310	860	1660	986	772	983	1670	369	75	234
7	42	96	254	661	1980	851	710	1060	1470	360	72	128
8	40	91	203	1400	1480	1940	669	1290	1420	356	69	99
9	37	84	162	4490	1070	1350	710	1580	1280	340	68	566
10	36	80	132	1930	812	1040	853	1580	1050	325	66	497
11	35	80	144	1250	658	819	1010	1440	905	306	66	229
12	34	84	132	1120	613	693	1010	1400	875	287	64	168
13	34	84	516	2150	550	597	961	1720	833	272	62	137
14	33	80	2390	4720	471	544	924	1820	766	260	62	130
15	30	62	2330	3600	428	519	879	1500	703	257	62	112
16	30	80	1060	3340	400	510	756	1160	628	243	62	103
17	28	75	740	2100	374	550	683	1140	648	235	62	98
18	28	69	529	1610	371	624	639	1260	680	230	62	96
19	28	59	405	1410	425	698	655	1430	664	222	62	93
20	28	57	343	1060	488	819	648	1600	672	216	59	91
21	28	71	303	868	574	982	598	1780	646	209	61	86
22	28	94	421	730	657	1300	574	1630	642	201	96	79
23	29	84	1050	632	717	1470	568	1240	601	197	66	75
24	32	159	722	550	775	1200	613	989	581	194	62	75
25	60	216	529	510	793	1000	848	827	560	186	63	73
26	68	547	413	475	736	1060	876	762	555	183	64	71
27	45	380	485	438	656	1170	876	865	560	182	59	69
28	68	315	675	401	594	1340	943	1110	614	166	59	68
29	150	351	1080	373	---	1530	954	1300	550	130	59	66
30	144	419	946	350	---	1880	971	1260	529	119	59	66
31	99	---	693	314	---	1810	---	1170	---	108	59	---
TOTAL	1548	4321	18677	41478	20457	31304	25473	39515	26882	8486	2117	4009
MEAN	49.9	144	602	1338	731	1010	849	1275	896	274	68.3	134
MAX	150	547	2390	4720	1980	1940	1750	1820	1670	519	98	566
MIN	28	57	132	314	321	510	568	762	529	108	59	55
AC-FT	3070	8570	37050	82270	40580	62090	50530	78380	53320	16830	4200	7950
CAL YR 1977 TOTAL	45467				2390	MIN 16	AC-FT	90180				
WTR YR 1978 TOTAL	224267				4720	MIN 28	AC-FT	444800				

## KLAMATH RIVER BASIN

11525400 CLAIR ENGLE LAKE NEAR LEWISTON, CA

LOCATION.--Lat 40°48'05", long 122°45'44", in NW¼SW¼ sec.15, T.34 N., R.8 W., Trinity County, Trinity National Forest, on side of intake structure of Trinity Dam on Trinity River, 9 mi (14 km) north of Lewiston.

DRAINAGE AREA.--692 mi<sup>2</sup> (1,792 km<sup>2</sup>).

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 Bureau of Reclamation). Prior to Jan. 4, 1962, nonrecording gage at same site and datum.

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 (3.01 km<sup>3</sup>) between elevations 1,995.5 ft (608.23 m), elevation of invert of river outlets and 2,370.0 ft (722.38 m), gross pool elevation. Dead storage, 10,000 acre-ft (12.3 hm<sup>3</sup>). Records, including extremes, represent total contents at 2400 hours.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,588,000 acre-ft (3.19 km<sup>3</sup>) Jan. 19, 1974, elevation, 2,378.32 ft (724.912 m); minimum since lake first filled, 222,400 acre-ft (274 hm<sup>3</sup>) Nov. 9, 1977, elevation, 2,120.22 ft (646.243 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,981,400 acre-ft (2.44 km<sup>3</sup>) July 23, 24, elevation, 2,339.65 ft (713.125 m); minimum, 222,400 acre-ft (274 hm<sup>3</sup>) Nov. 9, elevation, 2,120.22 ft (646.243 m).

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

1960	670	2100	162231
1970	1894	2140	292850
1980	4131	2190	529611
2000	12373	2250	955140
2020	26436	2310	1583590
2040	47023	2380	2616990
2070	92906		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	242300	224100	252900	430600	821300	1010400	1304100	1508800	1765800	1946400	1975300	1926200
2	241900	223800	254700	435400	825500	1016700	1313200	1516300	1773600	1949500	1974400	1922500
3	241800	223600	257300	440600	830600	1024300	1321500	1525100	1782200	1951600	1973900	1919000
4	239700	223600	261100	449300	835300	1033500	1329100	1533700	1792100	1954400	1973300	1915500
5	238800	223600	264100	464700	846700	1044900	1337600	1540900	1803200	1956500	1972700	1915200
6	238200	223200	266500	474400	860700	1054500	1344700	1547900	1814300	1959600	1972100	1912800
7	237600	223100	268600	481300	879700	1063600	1350900	1555900	1824200	1962700	1970500	1909700
8	237100	222500	270100	492400	895900	1090100	1356900	1564200	1833500	1965200	1969100	1906600
9	236500	222400	271300	523700	907900	1109900	1363700	1572400	1841700	1967700	1967400	1910000
10	235800	223100	272900	539700	916900	1122600	1370600	1581600	1848600	1969100	1965800	1910800
11	235000	222500	275200	550400	924300	1132500	1378500	1590000	1855200	1970000	1963400	1909900
12	234300	223200	276700	560100	930700	1140400	1386400	1598200	1861100	1970800	1958800	1907800
13	233700	223900	285500	577300	936200	1147100	1393500	1608000	1866900	1971700	1955800	1905200
14	233000	223600	322600	612400	941400	1153300	1400900	1618600	1871900	1972700	1952100	1902700
15	232400	223600	348100	647800	946100	1158900	1409300	1627800	1876600	1973400	1948500	1899800
16	231700	223600	359000	687500	950200	1164200	1416100	1634800	1881100	1974300	1944500	1897000
17	230800	223600	366600	711600	953900	1169000	1421900	1642500	1885800	1975600	1941200	1893200
18	230100	223700	372100	730300	958000	1174100	1427700	1649600	1891100	1977000	1940200	1890500
19	229200	224300	375900	747900	962100	1180100	1432600	1659000	1896100	1978200	1939100	1887300
20	228500	224900	379100	760400	966300	1186900	1438100	1669100	1901400	1979200	1937700	1884400
21	228100	224900	380500	769800	970700	1194900	1442600	1681000	1906500	1980100	1936700	1881500
22	226700	225500	382400	776500	976100	1204400	1447200	1691000	1911300	1981100	1935700	1878700
23	226200	225900	390200	784300	981600	1214900	1452200	1699600	1915300	1981400	1935000	1875900
24	225500	228300	397500	790100	987000	1223800	1457600	1706200	1918400	1981400	1934100	1873700
25	225600	231000	402600	794700	992800	1231900	1465500	1711900	1921800	1981200	1933300	1873000
26	225500	237200	406600	798900	997800	1240100	1472600	1717900	1925500	1979800	1932700	1873100
27	224500	241500	410500	802800	1002400	1248300	1479900	1723500	1929900	1977700	1932300	1869700
28	224100	244400	413800	806600	1006000	1258200	1487200	1732200	1935300	1977000	1931900	1866200
29	224700	247400	419700	810700	---	1268900	1494400	1741300	1939500	1976300	1931400	1862800
30	224400	250600	424300	814200	---	1280300	1501700	1750800	1943100	1975700	1930700	1861300
31	224400	---	426800	817600	---	1292300	---	1758100	---	1976000	1929500	---
MAX	242300	250600	426800	817600	1006000	1292300	1501700	1758100	1943100	1981400	1975300	1926200
MIN	224100	222400	252900	430600	821300	1010400	1304100	1508800	1765800	1946400	1929500	1861300
†	2120.83	2128.58	2170.66	2233.16	2255.80	2284.99	2303.31	2323.53	2336.98	2339.28	2336.02	2331.14
‡	-18000	+26200	+176200	+390800	+188400	+286300	+209400	+256400	+185000	+32900	-46500	-68200
††	600	180	120	280	560	1800	2540	5920	7710	8620	7880	4280

CAL YR 1977 ‡ -779200

WTR YR 1978 ‡ +1618900

† Elevation, in feet NGVD, at end of month.

‡ Change in contents, in acre-feet.

†† Evaporation, in acre-feet.

## 11525430 JUDGE FRANCIS CARR POWERPLANT NEAR FRENCH GULCH, CA

LOCATION.--Lat 40°38'49", long 122°37'34", Shasta County, at powerplant 1.6 mi (2.6 km) downstream from Mill Creek, and 3.8 mi (6.1 km) south of French Gulch.

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

GAGE.--Recorded powerplant output.

REMARKS.--Water is diverted from Trinity River at NW¼SE¼ 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 furnished by Bureau of Reclamation, rounded to Geological Survey standards.

AVERAGE DISCHARGE.--15 years, 1,632 ft<sup>3</sup>/s (46.22 m<sup>3</sup>/s), 1,182,000 acre-ft/yr (1.46 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,910 ft<sup>3</sup>/s (111 m<sup>3</sup>/s) Feb. 11, 1970; no flow for several days in many years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	319	383	0	495	0	0		0	336	205	512	1580
2	316	321	0	497	0	0		0	394	198	509	1570
3	631	333	0	487	0	0		0	433	497	513	1560
4	533	324	0	501	0	0		0	490	788	521	1540
5	237	326	0	559	0	0		0	433	0	528	1540
6	292	204	0	0	0	0		0	550	0	526	1530
7	295	201	0	0	0	0		0	440	410	976	1540
8	298	271	0	0	258	0		436	526	196	651	1510
9	302	0	0	0	0	151		345	316	189	779	1370
10	295	0	0	0	0	0		501	316	239	449	1490
11	302	0	0	0	0	0		513	379	247	545	1510
12	307	0	0	0	0	0		511	313	263	1470	1560
13	302	0	0	0	0	0		509	194	260	1440	1520
14	297	0	316	0	0	0		521	196	209	1480	1500
15	297	0	0	465	0	0		516	201	207	1440	1460
16	262	0	0	450	0	0		510	201	281	1440	1570
17	205	0	0	0	0	0		0	204	138	1440	1400
18	206	0	0	0	0	0		521	206	196	309	1370
19	197	0	0	0	0	0		39	211	195	288	1450
20	256	0	0	0	0	0		543	201	208	386	1530
21	256	0	1290	0	0	0		0	199	248	333	1430
22	254	0	1540	0	0	0		0	205	192	324	1440
23	254	0	1190	0	0	0		0	208	215	377	1450
24	261	0	0	0	0	0		0	197	191	302	1440
25	256	0	0	0	0	0		0	214	207	321	121
26	256	0	0	0	0	0		0	215	529	356	2.0
27	195	0	1330	0	0	0		0	204	502	312	1430
28	256	0	1500	0	0	0		0	221	198	388	1440
29	269	0	1550	0	---	0		0	211	195	372	1490
30	244	0	1560	4.0	---	0		2.0	195	195	334	508
31	272	---	1550	0	---	0	---	0	---	248	335	---
TOTAL	8922	2363	11426	3458.0	258	151	0	5467.0	8609	7846	19956	40851.0
MEAN	288	78.8	381	112	9.21	4.87	0	176	287	253	644	1362
MAX	631	383	1560	559	258	151	0	543	550	788	1480	1580
MIN	195	0	0	0	0	0	0	0	194	0	288	2.0
AC-FT	17700	4690	23460	6860	512	300	0	10840	17080	15560	39580	81030
CAL YP 1977	TOTAL	548184.00	MEAN	1502	MAX	3670	MIN	0	AC-FT	1087000		
WTR YR 1978	TOTAL	109707.00	MEAN	301	MAX	1580	MIN	0	AC-FT	217600		

## KLAMATH RIVER BASIN

11525500 TRINITY RIVER AT LEWISTON, CA

LOCATION.--Lat 40°43'10", long 122°48'09", in SW¼NW¼ sec.17, T.33 N., R.8 W., Trinity County, on right bank 400 ft (122 m) upstream from Deadwood Creek, and 0.8 mi (1.3 km) northeast of Lewiston.

DRAINAGE AREA.--719 mi<sup>2</sup> (1,862 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1911 to current year.

REVISED RECORDS.--WSP 331: 1911-12. WSP 1181: 1949. WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,810 ft (552 m), from topographic map. See WSP 1929 for history of changes prior to July 7, 1964.

REMARKS.--Records good. Flow regulated by Clair Engle Lake (station 11525400) beginning in November 1960. Diversion to Judge Francis Carr powerplant (station 11525430) began in April 1963. Small diversions above head of Trinity Lake for irrigation, power, and placer mining.

AVERAGE DISCHARGE (adjusted for change in contents, evaporation, and diversion).--67 years, 1,713 ft<sup>3</sup>/s (48.51 m<sup>3</sup>/s), 1,241,000 acre-ft/yr (1.53 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,600 ft<sup>3</sup>/s (2,030 m<sup>3</sup>/s) Dec. 22, 1955, gage height, 27.3 ft (8.32 m) from floodmarks, site and datum then in use; minimum, 23 ft<sup>3</sup>/s (0.65 m<sup>3</sup>/s) July 30, 1924. Maximum discharge since construction of Lewiston Dam in 1960, 14,400 ft<sup>3</sup>/s (408 m<sup>3</sup>/s) Jan. 18, 1974, gage height, 10.41 ft (3.173 m); minimum daily, 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) Apr. 14, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1861 reached a stage of 21.6 ft (6.58 m) from floodmarks, at site 1.1 mi (1.8 km) downstream at different datum, discharge, not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 754 ft<sup>3</sup>/s (21.4 m<sup>3</sup>/s) July 24, 25, 27, gage height, 4.86 ft (1.481 m); minimum daily, 159 ft<sup>3</sup>/s (4.50 m<sup>3</sup>/s) Dec. 4, 5, 7, 12, Jan. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	192	250	176	163	164	166	169	273	322	289	287	297
2	197	252	161	163	164	168	169	325	318	288	287	296
3	193	251	161	163	163	168	169	324	317	293	286	296
4	192	251	159	168	163	165	168	319	317	290	287	295
5	199	250	159	170	167	164	169	320	317	288	289	295
6	193	250	161	167	166	162	167	323	318	292	288	295
7	195	250	159	165	169	162	166	321	319	294	287	296
8	195	251	161	165	171	175	166	313	318	288	287	295
9	195	252	163	167	167	182	165	311	319	329	287	297
10	194	252	161	165	166	171	166	319	319	564	288	295
11	194	252	161	163	166	172	166	324	319	616	289	302
12	195	252	159	163	165	172	166	322	316	635	289	297
13	194	250	168	163	166	167	166	324	319	633	290	287
14	194	249	178	169	165	163	167	324	318	554	291	282
15	219	224	168	169	163	162	170	325	320	423	290	288
16	233	201	168	174	163	160	171	323	323	324	290	292
17	234	195	170	168	164	160	168	331	324	294	290	303
18	242	204	166	170	164	163	169	331	324	294	291	314
19	247	214	163	170	163	165	168	333	323	293	291	315
20	247	212	163	176	162	164	170	329	323	293	292	311
21	245	214	163	177	163	165	170	327	324	294	292	311
22	248	217	166	175	163	163	171	329	324	292	293	310
23	249	216	166	169	162	165	171	333	325	487	294	311
24	247	212	166	160	161	165	170	330	321	709	293	311
25	247	208	163	159	162	165	172	331	320	746	294	313
26	245	208	161	160	160	163	172	329	321	742	295	309
27	246	205	163	161	161	164	172	329	318	746	295	308
28	246	205	161	163	163	164	171	333	286	636	296	309
29	250	206	163	163	---	163	173	332	285	482	296	306
30	246	206	161	162	---	163	174	334	286	407	297	304
31	249	---	161	163	---	166	---	333	---	308	297	---
TOTAL	6862	6859	5079	5153	4596	5137	5071	10054	9503	13423	9018	9040
MEAN	221	229	164	166	164	166	169	324	317	433	291	301
MAX	250	252	178	177	171	182	174	334	325	746	297	315
MIN	192	195	159	159	160	160	165	273	285	288	286	282
AC-FT	13610	13600	10070	10220	9120	10190	10060	19940	18850	26620	17890	17930
MEAN ‡	227	751	3412	6638	3576	4856	3731	4767	3842	1361	307	588
AC-FT ‡	13930	44670	209800	408200	198600	298600	222000	293100	228600	83700	18860	35000
CAL YR 1977 TOTAL	60932		MEAN 167	MAX 252	MIN 142	AC-FT 120900	MEAN ‡ 622		AC-FT ‡ 450100			
WTR YR 1978 TOTAL	89795		MEAN 246	MAX 746	MIN 159	AC-FT 178100	MEAN ‡ 2839		AC-FT ‡ 2055000			

‡ Adjusted for change in contents, evaporation, and diversion from Engle Lake, furnished by Bureau of Reclamation.

11525500 TRINITY RIVER AT LEWISTON, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--1951 to current year.

CHEMICAL ANALYSES: Water years 1951 to current year.

WATER TEMPERATURES: Water years 1952-55, 1958 to current year.

SEDIMENT RECORDS: Water years 1955-61.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: September 1951 to September 1955, October 1957 to September 1958, July 1959 to current year.

INSTRUMENTATION.--Temperature recorder September 1951 to September 1955, October 1957 to September 1958, and since July 1959.

REMARKS.--Water temperatures affected by construction of Trinity Dam beginning in November 1960. Extremes are given below for two separate periods--Water years 1952-60, and 1961 to current year.

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

EXTREMES FOR PERIOD OF DAILY RECORD (See REMARKS above):

WATER TEMPERATURES (water years 1952-60): Maximum recorded, 26.0°C July 20, 21, 28, 29, 1960; minimum recorded, 1.0°C on several days in 1952.

(Water years 1961 to current year): Maximum recorded, 21.0°C on several days in 1977; minimum recorded, 3.0°C June 22, 23, 1962.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 14.5°C Oct. 2-5; minimum recorded, 7.0°C on several days during December and February.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV									
01...	0730	250	100	7.1	10.0	1.0	9.6	--	--
JAN									
03...	0745	161	138	7.1	7.5	22	10.7	54	6.0
MAR									
06...	0745	162	118	7.0	8.0	6.0	9.4	50	3.3
APR									
03...	0800	169	108	7.0	9.5	2.0	8.6	49	2.1
MAY									
08...	0645	385	100	7.0	11.0	2.0	9.0	50	2.6
JUL									
10...	0630	592	88	7.2	11.0	8.0	9.9	--	--
SEP									
11...	0715	295	95	7.1	8.0	5.0	10.2	45	2.4

DATE	SODIUM AD- SORP- TION RATIO	ALKA- LITY (MG/L AS CAC03)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)
NOV									
01...	--	--	--	.15	.02	.00	--	.05	--
JAN									
03...	.4	54	3.5	.31	.06	.10	.06	.02	0
MAR									
06...	.2	48	1.4	.21	.04	.30	.03	.01	0
APR									
03...	.1	48	--	.10	.04	.20	.02	.02	0
MAY									
08...	.2	48	1.9	.12	.07	.50	.02	.01	0
JUL									
10...	--	--	--	.21	.06	.50	.02	.01	--
SEP									
11...	.2	42	2.0	.27	.01	.20	.02	.00	100

## KLAMATH RIVER BASIN

11525500 TRINITY RIVER AT LEWISTON, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	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)
APR 03...	0800	3	1.4	4	0	0	10	0
SEP 11...	0715	2	1.0	1	0	0	0	0

DATE	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECØV- ERABLE (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	CARBON, ORGANIC TOTAL (MG/L AS C)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
APR 03...	0	120	0	10	.0	0	2.4	.00
SEP 11...	0	90	0	0	.1	0	1.8	.00

## 11525500 TRINITY RIVER AT LEWISTON, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.0	12.5	12.0	11.0	9.0	8.0	8.0	7.5	8.0	7.5	10.0	7.5
2	14.5	12.5	12.0	11.0	9.0	8.5	8.0	7.5	8.0	7.5	9.0	8.5
3	14.5	12.5	12.0	11.0	9.5	8.5	8.5	8.0	8.5	8.0	10.0	8.5
4	14.5	12.5	11.0	11.0	10.0	8.5	8.0	8.0	8.5	7.5	9.0	8.5
5	14.5	12.5	11.5	11.0	9.5	8.5	8.5	7.5	9.0	8.0	10.0	8.5
6	13.5	12.0	11.5	11.0	9.0	8.5	8.5	7.5	8.5	8.0	10.0	8.5
7	13.5	12.0	11.5	10.5	9.5	8.0	8.5	7.5	8.5	7.5	9.5	9.0
8	13.5	11.5	11.0	10.0	9.0	8.0	8.5	8.0	8.0	7.0	9.5	9.0
9	13.5	11.5	11.0	10.0	9.0	8.0	9.0	8.0	9.0	7.5	11.0	9.0
10	13.5	12.0	11.0	10.0	9.0	8.5	9.0	8.0	8.5	7.5	11.0	8.5
11	13.5	12.0	10.5	10.0	8.5	8.5	8.5	8.0	9.0	7.0	10.5	8.5
12	13.5	12.0	11.0	10.5	9.0	8.5	8.5	8.0	8.0	7.5	11.0	8.5
13	14.0	12.0	11.0	10.0	9.0	8.5	8.5	8.5	9.5	7.5	11.0	9.0
14	13.5	12.0	11.0	10.0	9.0	8.0	8.5	8.5	9.0	7.5	11.5	9.0
15	13.0	12.0	11.0	10.0	9.0	8.0	8.5	8.0	9.0	7.0	11.5	8.5
16	13.0	12.0	11.0	10.0	8.5	7.5	9.0	8.0	8.5	7.0	11.5	8.5
17	13.0	12.0	11.0	10.0	9.0	8.0	9.0	8.0	8.5	7.5	11.5	9.0
18	13.0	12.0	10.5	9.5	9.0	8.0	8.5	8.0	9.5	8.0	12.0	9.0
19	13.0	12.0	10.5	9.5	8.5	7.5	9.0	8.0	10.0	8.0	12.0	9.5
20	13.0	11.5	10.0	9.0	8.5	7.5	9.0	8.0	10.0	8.5	12.0	9.5
21	12.5	11.5	9.0	8.0	8.0	8.0	9.0	8.0	10.0	8.5	11.5	10.0
22	12.5	11.5	9.5	9.0	8.0	7.5	8.5	8.0	10.0	8.5	11.5	10.5
23	12.0	11.5	9.0	8.5	8.0	7.5	8.5	7.5	10.5	8.5	11.5	10.0
24	12.0	11.5	9.0	8.5	8.0	7.0	9.0	7.5	9.5	8.5	12.5	9.5
25	12.0	11.5	9.0	8.0	7.5	7.0	8.5	7.5	10.0	8.5	13.0	10.5
26	12.5	11.5	9.0	8.0	7.5	7.0	9.0	7.5	9.5	8.0	12.5	10.5
27	12.0	11.5	9.0	8.0	8.0	7.5	9.0	7.5	10.0	8.0	13.0	10.0
28	11.5	11.5	9.0	8.0	8.5	7.5	9.0	7.5	10.0	7.5	13.5	11.0
29	11.5	11.5	9.0	8.0	8.5	7.5	9.0	8.0	---	---	13.0	11.0
30	12.0	11.0	9.0	8.5	8.5	7.5	8.5	8.0	---	---	14.0	11.0
31	12.0	11.0	---	---	8.5	7.5	9.0	7.5	---	---	12.5	12.0
MONTH	14.5	11.0	12.0	8.0	10.0	7.0	9.0	7.5	10.5	7.0	14.0	7.5

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.5	10.5	12.5	11.0	13.5	11.5	13.0	11.5	12.5	11.0	11.5	10.0
2	12.5	10.0	13.0	11.0	13.0	11.5	13.0	11.0	13.0	11.0	11.5	10.0
3	11.5	10.0	13.0	11.0	13.0	11.5	12.5	11.0	13.0	11.0	11.0	9.5
4	12.0	10.0	13.0	11.0	13.0	11.0	13.0	11.0	13.0	11.0	10.5	9.5
5	11.0	9.0	13.0	11.0	13.0	11.0	13.0	11.0	13.0	11.0	9.5	9.0
6	11.5	10.0	13.0	11.0	12.5	11.0	12.5	10.5	13.0	11.0	10.0	8.5
7	12.0	10.0	13.5	11.5	12.5	10.5	12.5	11.0	13.0	11.0	10.0	8.5
8	12.5	10.0	13.5	11.5	12.5	10.5	12.5	11.0	13.0	11.5	9.5	8.5
9	13.5	10.5	13.5	11.5	12.0	10.5	13.0	11.0	12.5	11.0	9.0	8.5
10	13.5	11.0	13.0	11.5	12.5	10.5	12.0	11.0	12.5	11.0	9.5	8.0
11	13.5	11.0	12.5	11.0	12.5	10.5	12.5	11.0	12.5	10.5	9.5	8.0
12	14.0	11.0	13.0	11.0	12.0	10.5	12.5	11.5	12.0	10.5	10.0	8.0
13	14.0	10.5	13.0	11.0	12.5	10.5	12.5	11.5	12.0	10.5	10.0	8.5
14	12.0	10.5	12.0	11.0	12.5	10.5	12.5	11.0	12.0	10.0	10.0	8.5
15	11.5	10.5	11.5	10.5	12.5	10.5	12.0	11.0	11.5	10.0	10.0	8.5
16	11.5	10.0	12.5	10.5	12.5	11.0	12.5	11.0	11.0	9.5	10.0	8.5
17	11.5	10.0	12.0	10.5	13.0	11.0	13.0	11.0	11.0	9.5	9.5	8.0
18	11.5	10.5	12.5	10.5	12.5	10.5	13.0	11.0	11.0	9.0	9.5	8.5
19	11.5	10.5	12.0	10.0	13.0	11.0	13.0	11.5	11.0	9.0	9.5	8.0
20	12.5	10.0	12.0	10.0	13.0	11.0	13.0	11.0	11.0	9.0	9.5	8.0
21	13.0	10.0	12.0	10.5	13.0	11.0	13.0	11.5	10.0	9.0	9.5	8.0
22	12.5	10.0	12.0	10.0	13.0	11.0	13.5	11.5	11.0	9.0	9.5	7.5
23	12.5	10.5	12.0	10.0	12.5	11.0	12.5	11.5	11.0	9.0	9.5	8.0
24	11.5	10.5	11.5	10.5	12.5	11.0	13.0	11.5	10.0	9.5	9.5	8.0
25	12.0	11.0	12.0	10.0	13.0	11.0	12.5	12.0	10.0	9.5	9.5	8.5
26	12.5	11.0	12.0	10.5	12.5	11.5	12.5	11.5	11.0	9.5	10.0	8.0
27	13.5	11.0	12.5	10.5	13.0	11.0	12.5	11.0	11.5	9.5	9.5	8.0
28	14.0	11.0	13.0	11.0	13.0	11.0	12.0	11.0	11.5	9.5	10.0	8.5
29	14.0	11.0	13.0	11.0	13.5	11.5	12.0	11.0	11.5	9.5	10.0	8.5
30	13.0	11.0	13.0	11.5	13.0	11.5	12.0	11.0	11.5	9.5	9.5	8.5
31	---	---	13.5	11.5	---	---	12.5	10.5	11.5	9.5	---	---
MONTH	14.0	9.0	13.5	10.0	13.5	10.5	13.5	10.5	13.0	9.0	11.5	7.5

## KLAMATH RIVER BASIN

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA

LOCATION.--Lat 40°40'35", long 122°49'46", in SW¼NE¼ sec.36, T.33 N., R.9 W., Trinity County, on right bank 0.1 mi (0.2 km) upstream from Phillips Gulch, and 2.5 mi (4.0 km) southwest of Lewiston.

DRAINAGE AREA.--30.8 mi<sup>2</sup> (79.8 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 2,049.73 ft (624.758 m) National Geodetic Vertical Datum of 1929 (California State Highway Department bench mark).

REMARKS.--Records good. No regulation; small diversions above station for domestic use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,080 ft<sup>3</sup>/s (58.9 m<sup>3</sup>/s) Jan. 14, 1978; gage height, 8.38 ft (2.554 m); maximum gage height, 8.45 ft (2.576 m) Jan. 16, 1978; minimum daily discharge, 4.3 ft (0.12 m<sup>3</sup>/s) many days in 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft<sup>3</sup>/s (4.25 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Dec. 23	0100	273 7.73	5.65 1.722	Feb. 7	1315	493 14.0	6.77 2.063
Jan. 5	0445	344 9.74	5.87 1.789	Mar. 5	1130	298 8.44	6.30 1.920
Jan. 9	0715	489 13.8	6.25 1.905	Mar. 8	1845	710 20.1	7.11 2.167
Jan. 14	2115	*2080 58.9	8.38 2.554	Apr. 5	2245	184 5.21	5.93 1.807
Jan. 16	0930	1110 31.4	*8.45 2.576	Apr. 15	1400	167 4.73	5.87 1.789
Feb. 5	1645	314 8.89	6.33 1.929				

Minimum daily, 7.4 ft<sup>3</sup>/s (0.210 m<sup>3</sup>/s) Oct. 2-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	9.7	14	36	100	93	121	96	46	26	16	14
2	7.4	9.5	13	45	101	108	112	93	45	27	15	14
3	7.4	9.0	13	51	95	133	112	91	44	27	15	13
4	7.4	9.5	13	146	90	241	132	88	43	26	15	14
5	7.5	14	13	258	185	272	127	86	42	24	15	19
6	7.5	11	13	143	240	218	145	84	42	23	15	22
7	7.8	11	13	106	363	198	129	82	41	23	15	22
8	8.0	11	12	130	337	459	119	80	39	23	14	17
9	8.0	11	12	340	305	368	114	79	38	22	14	35
10	8.0	11	12	196	243	292	110	77	38	21	14	35
11	8.0	11	18	148	211	241	108	76	38	21	14	21
12	8.2	11	16	136	198	214	104	74	38	22	14	19
13	8.3	11	22	202	178	186	101	73	37	22	15	18
14	8.3	11	85	842	167	167	101	72	36	21	15	18
15	8.1	11	70	764	157	158	133	72	35	20	15	17
16	8.0	11	44	857	148	149	113	69	35	20	14	17
17	7.9	11	37	560	141	136	106	67	34	20	14	17
18	7.8	10	29	510	134	130	103	65	33	19	14	17
19	7.9	10	24	489	129	126	104	63	31	19	14	17
20	8.0	10	21	344	124	121	102	62	30	18	14	17
21	8.0	14	24	258	118	124	98	60	30	18	15	16
22	8.2	23	68	214	115	123	95	59	30	18	16	16
23	9.3	17	146	188	112	136	92	58	30	18	15	16
24	9.6	19	75	172	110	124	92	56	30	18	15	16
25	9.5	16	55	160	107	117	123	56	29	17	16	16
26	9.3	19	47	149	103	112	121	53	28	17	16	16
27	8.5	17	51	134	100	110	110	52	28	17	15	16
28	9.8	16	48	121	96	106	105	51	34	17	14	16
29	13	15	48	115	---	105	102	49	29	16	14	16
30	12	14	44	110	---	103	99	48	27	16	14	16
31	10	---	39	105	---	113	---	48	---	16	14	---
TOTAL	264.4	383.7	1139	8029	4507	5283	3333	2139	1060	632	455	543
MEAN	8.53	12.6	36.7	259	161	170	111	69.0	35.3	20.4	14.7	18.1
MAX	13	23	146	857	363	459	145	96	46	27	16	35
MIN	7.4	9.0	12	36	90	93	92	48	27	16	14	13
AC-FT	524	761	2260	15930	8940	10480	6610	4240	2100	1250	902	1080

CAL YR 1977 TOTAL 4587.1 MEAN 12.6 MAX 146 MIN 4.3 AC-FT 9100  
WTR YR 1978 TOTAL 27768.1 MEAN 76.1 MAX 857 MIN 7.4 AC-FT 55080



WATER-QUALITY RECORDS

SEDIMENT RECORDS.--November 1975 to current year.

SEDIMENT LOADS: Maximum daily, 15,900 tons (14,400 metric tons) Jan. 16, 1978; minimum daily, 0.01 ton (0.009 metric ton) Aug. 22, 23, 1977.

SEDIMENT LOADS: Maximum daily, 15,900 tons (14,400 metric tons) Jan. 16; minimum daily, 0.04 ton (0.04 metric ton) on many days during October.

[illegible]

## KLAMATH RIVER BASIN

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	7.7	2	.04	9.7	2	.05	14	4	.15
2	7.4	2	.04	9.5	5	.13	13	5	.18
3	7.4	2	.04	9.0	4	.10	13	4	.14
4	7.4	2	.04	9.5	5	.13	13	3	.11
5	7.5	2	.04	14	14	.55	13	2	.07
6	7.5	2	.04	11	3	.09	13	2	.07
7	7.8	2	.04	11	4	.12	13	2	.07
8	8.0	2	.04	11	2	.06	12	2	.06
9	8.0	2	.04	11	3	.09	12	2	.06
10	8.0	2	.04	11	3	.09	12	2	.06
11	8.0	2	.04	11	3	.09	18	87	5.1
12	8.2	2	.04	11	4	.12	16	12	.52
13	8.3	2	.04	11	3	.09	22	60	4.2
14	8.3	2	.04	11	3	.09	85	710	184
15	8.1	2	.04	11	3	.09	70	141	28
16	8.0	2	.04	11	4	.12	44	50	5.9
17	7.9	2	.04	11	3	.09	37	35	3.5
18	7.8	2	.04	10	7	.19	29	20	1.6
19	7.9	2	.04	10	3	.08	24	10	.65
20	8.0	2	.04	10	3	.08	21	15	.85
21	8.0	2	.04	14	93	6.0	24	42	3.9
22	8.2	2	.04	23	122	7.7	68	381	151
23	9.3	4	.11	17	33	1.5	146	895	447
24	9.6	2	.05	19	20	1.0	75	144	31
25	9.5	3	.08	16	8	.35	55	41	6.1
26	9.3	2	.05	19	9	.46	47	18	2.3
27	8.5	2	.05	17	5	.23	51	28	3.9
28	9.8	3	.08	16	6	.26	48	24	3.1
29	13	8	.29	15	6	.24	48	36	4.7
30	12	5	.16	14	5	.19	44	34	4.0
31	10	3	.08	---	---	---	39	24	2.5
TOTAL	264.4	---	1.83	383.7	---	20.38	1139	---	894.79

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	36	17	1.7	100	129	35	93	138	35
2	45	66	9.0	101	115	31	108	195	57
3	51	40	5.5	95	91	23	133	156	56
4	146	840	526	90	85	21	241	518	353
5	258	1510	1120	185	2490	1590	272	302	222
6	143	520	201	240	2020	1320	218	153	90
7	106	260	74	363	2140	2280	198	156	83
8	130	714	278	337	2460	2300	459	376	493
9	340	2240	2160	305	1530	1260	368	514	511
10	196	841	457	243	400	262	292	453	357
11	148	510	204	211	214	122	241	417	271
12	136	420	154	198	213	114	214	374	216
13	202	904	502	178	206	99	186	300	151
14	842	4620	13900	167	200	90	167	242	109
15	764	4670	9860	157	198	84	158	201	86
16	857	6710	15900	148	197	79	149	180	72
17	560	4410	6830	141	193	73	136	153	56
18	510	2660	3600	134	188	68	130	147	52
19	489	1780	2350	129	186	65	126	141	48
20	344	1000	929	124	183	61	121	132	43
21	258	870	606	118	182	58	124	208	70
22	214	770	445	115	180	56	123	174	58
23	188	670	340	112	177	54	136	236	87
24	172	580	269	110	168	50	124	138	46
25	160	430	186	107	162	47	117	112	35
26	149	340	137	103	158	44	112	88	27
27	134	270	98	100	152	41	110	81	24
28	121	196	64	96	146	38	106	81	23
29	115	145	45	---	---	---	105	80	23
30	110	119	35	---	---	---	103	78	22
31	105	114	32	---	---	---	113	170	52
TOTAL	8029	---	61318.2	4507	---	10365	5283	---	3828

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

APRIL				MAY				JUNE	
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)
1	121	153	50	96	76	20	46	32	4.0
2	112	122	37	93	60	15	45	32	3.9
3	112	171	52	91	60	15	44	32	3.8
4	132	446	159	88	60	14	43	32	3.7
5	127	360	123	86	60	14	42	31	3.5
6	145	372	146	84	58	13	42	31	3.5
7	129	108	38	82	58	13	41	31	3.4
8	119	100	32	80	57	12	39	31	3.3
9	114	100	31	79	56	12	38	31	3.2
10	110	100	30	77	54	11	38	31	3.2
11	108	98	29	76	52	11	38	31	3.2
12	104	93	26	74	52	10	38	31	3.2
13	101	88	24	73	51	10	37	31	3.1
14	101	81	22	72	51	9.9	36	31	3.0
15	133	246	98	72	50	9.7	35	31	2.9
16	113	117	36	69	48	8.9	35	32	3.0
17	106	105	30	67	45	8.1	34	32	2.9
18	103	105	29	65	42	7.4	33	32	2.9
19	104	108	30	63	39	6.6	31	32	2.7
20	102	81	22	62	38	6.4	30	32	2.6
21	98	75	20	60	34	5.5	30	32	2.6
22	95	75	19	59	33	5.3	30	32	2.6
23	92	75	19	58	32	5.0	30	32	2.6
24	92	82	20	56	30	4.5	30	32	2.6
25	123	385	129	56	30	4.5	29	32	2.5
26	121	147	48	53	30	4.3	28	32	2.4
27	110	105	31	52	30	4.2	28	32	2.4
28	105	100	28	51	30	4.1	34	68	6.2
29	102	93	26	49	32	4.2	29	32	2.5
30	99	86	23	48	32	4.1	27	24	1.7
31	---	---	---	48	32	4.1	---	---	---
TOTAL	3333	---	1407	2139	---	276.8	1060	---	93.1

	JULY				AUGUST			SEPTEMBER		
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)	
1	26	24	1.7	16	9	.39	14	5	.19	
2	27	24	1.7	15	9	.36	14	5	.19	
3	27	24	1.7	15	8	.32	13	4	.14	
4	26	24	1.7	15	7	.28	14	4	.15	
5	24	23	1.5	15	7	.28	19	12	.71	
6	23	23	1.4	15	6	.24	22	38	2.5	
7	23	23	1.4	15	6	.24	22	47	3.1	
8	23	21	1.3	14	5	.19	17	18	.83	
9	22	20	1.2	14	5	.19	35	125	16	
10	21	18	1.0	14	5	.19	35	169	16	
11	21	16	.91	14	5	.19	21	115	6.5	
12	22	15	.89	14	5	.19	19	72	3.7	
13	22	14	.83	15	8	.32	18	32	1.6	
14	21	14	.79	15	12	.49	18	12	.58	
15	20	14	.76	15	15	.61	17	8	.37	
16	20	16	.86	14	18	.68	17	7	.32	
17	20	17	.92	14	20	.76	17	7	.32	
18	19	18	.92	14	22	.83	17	6	.28	
19	19	21	1.1	14	25	.94	17	6	.28	
20	18	20	.97	14	28	1.1	17	6	.28	
21	18	18	.87	15	34	1.4	16	6	.26	
22	18	17	.83	16	31	1.3	16	6	.26	
23	18	13	.63	15	26	1.1	16	6	.26	
24	18	12	.58	15	21	.85	16	6	.26	
25	17	9	.41	16	16	.69	16	6	.26	
26	17	8	.37	16	11	.48	16	6	.26	
27	17	8	.37	15	6	.24	16	6	.26	
28	17	8	.37	14	5	.19	16	6	.26	
29	16	8	.35	14	4	.15	16	6	.26	
30	16	9	.39	14	4	.15	16	6	.26	
31	16	9	.39	14	4	.15	---	---	---	
TOTAL	632	---	29.11	455	---	15.49	543	---	56.64	
YEAR	27768.1		78306.34							

## KLAMATH RIVER BASIN

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
DEC								
14...	1145	87	7.0	481	113	25	34	40
JAN								
04...	1616	230	7.0	1480	919	7	10	15
16...	1300	854	6.5	7560	17400	4	4	8
FEB								
08...	1700	335	6.5	1180	1070	--	--	--
MAR								
08...	1110	428	7.0	2480	2870	2	3	4
		SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
DEC								
14...	49	56	61	66	71	81	89	93
JAN								
04...	22	29	35	45	60	80	93	100
16...	12	17	25	40	62	80	92	99
FEB								
08...	--	--	17	29	57	90	100	--
MAR								
08...	5	7	9	14	25	43	65	85

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM
NOV								
17...	1300	6.5	12	11	3	8	17	24
17...	1301	6.5	10	11	2	3	7	21
17...	1302	6.5	7	11	1	3	5	10
		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
NOV								
17...	28	31	34	37	40	59	73	89
17...	30	38	52	60	61	69	78	86
17...	16	23	33	42	54	64	84	96
				BED MAT. SIEVE DIAM. % FINER THAN 256 MM	BED MAT. SIEVE DIAM. % FINER THAN 512 MM			
			DATE					
			NOV					
			17...	99	100			
			17...	100	--			
			17...	99	100			

## 11526500 NORTH FORK TRINITY RIVER AT HELENA, CA

LOCATION.--Lat 40°46'55", long 123°07'38", in SW¼SW¼ sec.21, T.34 N., R.11 W., Trinity County, on right bank 500 ft (152 m) downstream from East Fork of North Fork Trinity River, 0.6 mi (1.0 km) north of Helena, 1.0 mi (1.6 km) upstream from mouth, and 6 mi (10 km) northwest of Junction City.

DRAINAGE AREA.--151 mi<sup>2</sup> (391 km<sup>2</sup>).

PERIOD OF RECORD.--August 1911 to September 1913, January 1957 to current year.

REVISED RECORDS.--WSP 1565: 1912-13.

GAGE.--Water-stage recorder. Altitude of gage is 1,380 ft (421 m), from topographic map. August 1911 to September 1913, at site 0.8 mi (1.3 km) downstream at different datum.

REMARKS.--No known regulation or diversion above station.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--23 years, 439 ft<sup>3</sup>/s (12.43 m<sup>3</sup>/s), 318,100 acre-ft/yr (392 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,800 ft<sup>3</sup>/s (1,010 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 27.93 ft (8.513 m) from floodmarks, from rating curve extended above 9,000 ft<sup>3</sup>/s (255 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; minimum daily, 7.5 ft<sup>3</sup>/s (0.21 m<sup>3</sup>/s) Sept. 26, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,980 ft<sup>3</sup>/s (226 m<sup>3</sup>/s) Dec. 14, gage height, 16.52 ft (5.035 m); minimum daily, 25 ft<sup>3</sup>/s (0.71 m<sup>3</sup>/s) Oct. 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	121	448	791	404	473	1020	516	382	231	92	36
2	80	162	376	719	438	491	822	505	384	211	87	35
3	65	150	369	771	790	547	713	577	414	169	81	34
4	56	130	457	803	804	663	694	578	458	148	81	34
5	50	187	394	1440	1050	890	717	509	519	153	81	159
6	46	177	326	1310	1330	926	832	463	544	178	73	209
7	46	154	308	1040	1940	828	825	466	486	205	70	100
8	42	140	249	1260	1920	2200	800	501	463	210	67	72
9	38	126	213	2980	1500	2130	800	504	440	211	63	296
10	36	114	190	2170	1150	1480	858	567	351	215	60	326
11	34	110	398	1510	917	1160	865	505	288	195	57	187
12	33	116	561	1300	783	937	788	445	295	189	54	119
13	32	107	2480	1510	674	794	713	484	287	178	51	89
14	31	99	6720	2310	598	684	650	500	281	172	46	76
15	30	106	4320	2920	538	598	631	572	262	184	42	68
16	29	108	2210	3740	499	543	553	432	222	168	40	62
17	28	97	1590	3330	467	531	496	383	226	151	39	56
18	27	87	1140	2370	471	533	474	309	268	147	38	53
19	26	77	846	2150	530	539	496	449	277	149	36	51
20	26	71	679	1730	621	572	518	515	293	159	35	48
21	25	104	607	1390	682	638	492	504	292	146	37	46
22	25	347	673	1120	710	792	472	567	299	151	52	44
23	29	341	1430	923	719	869	454	430	279	150	49	43
24	34	1560	1320	791	715	829	456	354	229	148	44	41
25	163	1280	980	694	670	732	546	311	182	149	52	39
26	165	2130	778	610	613	721	594	283	182	144	55	38
27	98	1090	1070	543	551	753	581	278	214	142	48	36
28	82	749	1220	492	503	765	595	357	364	124	43	36
29	145	645	1310	463	---	784	573	409	380	110	39	36
30	245	565	1240	440	---	854	571	423	284	98	37	35
31	153	---	972	413	---	843	---	396	---	96	37	---
TOTAL	2030	11250	35874	44033	22587	26099	19599	14402	9845	5081	1686	2504
MEAN	65.5	375	1157	1420	807	842	653	465	328	164	54.4	83.5
MAX	245	2130	6720	3740	1940	2200	1020	504	544	231	92	326
MIN	25	71	190	413	404	473	454	278	182	96	35	34
AC-FT	4030	22310	71160	87340	44800	51770	38870	28570	19530	10080	3340	4970

CAL YR 1977 TOTAL 72253 MEAN 198 MAX 6720 MIN 11 AC-FT 143300  
WTR YR 1978 TOTAL 194990 MEAN 534 MAX 6720 MIN 25 AC-FT 386800

## KLAMATH RIVER BASIN

11527000 TRINITY RIVER NEAR BURNT RANCH, CA

LOCATION.--Lat 40°47'20", long 123°26'20", in S½ sec.19, T.5 N., R.7 E., Trinity County, Hydrologic Unit 18010211, Trinity National Forest, on left bank 500 ft (152 m) upstream from Cedar Flat Creek, 700 ft (213 m) upstream from highway bridge at Cedar Flat, and 2.3 mi (3.7 km) southeast of town of Burnt Ranch.

DRAINAGE AREA.--1,439 mi<sup>2</sup> (3,727 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1931 to September 1940, October 1956 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 944.05 ft (287.746 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1931, to Jan. 19, 1940, at site 2 mi (3 km) upstream at different datum.

REMARKS.--Records good. Flow regulated since November 1960 by Clair Engle Lake (station 11525400) 64 mi (103 km) upstream. Small diversions above station for mining and irrigation.

AVERAGE DISCHARGE.--13 years (water years 1932-40, 1957-60), 2,785 ft<sup>3</sup>/s (78.87 m<sup>3</sup>/s), 2,016,000 acre-ft/yr (2.49 km<sup>3</sup>/yr); 18 years (water years 1961-78), 1,636 ft<sup>3</sup>/s (46.33 m<sup>3</sup>/s), 1,185,000 acre-ft/yr (1.46 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,500 ft<sup>3</sup>/s (2,310 m<sup>3</sup>/s) Feb. 25, 1958, gage height, 30.50 ft (9.296 m), from rating curve extended above 40,000 ft<sup>3</sup>/s (1,130 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 43.2 ft (13.17 m); minimum, 82 ft<sup>3</sup>/s (2.32 m<sup>3</sup>/s) Aug. 31, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached a stage of 43.2 ft (13.17 m), from floodmarks, discharge, 172,000 ft<sup>3</sup>/s (4,870 m<sup>3</sup>/s), on basis of slope-area measurement of maximum flow).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20,700 ft<sup>3</sup>/s (586 m<sup>3</sup>/s) Jan. 16, gage height, 15.28 ft (4.657 m); minimum daily, 294 ft<sup>3</sup>/s (8.33 m<sup>3</sup>/s) Oct. 15.

REVISIONS.--The maximum discharge for the water year 1975 has been revised to 9,780 ft<sup>3</sup>/s (277 m<sup>3</sup>/s) Mar. 25, 1975, gage height, 11.42 ft (3.481 m), superseding figure published in the report for 1975.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	490	543	1190	2130	1900	1970	3110	2040	1590	1150	622	427
2	412	550	998	2020	1990	1980	2710	2050	1570	1120	571	423
3	371	670	886	2250	2360	2220	2400	2140	1630	1040	549	419
4	346	587	1120	2300	2450	2920	2460	2170	1710	971	540	416
5	326	697	1120	5040	2840	3730	2420	2060	1870	953	540	535
6	319	664	871	4740	4280	3880	2940	1940	1960	995	531	1130
7	313	597	860	3570	5890	3380	2960	1880	1850	1040	514	735
8	313	575	737	3510	7420	6700	2790	1920	1730	1090	506	599
9	310	544	654	7400	7030	10300	2690	2110	1740	1050	490	685
10	307	520	602	7190	5430	6700	2750	2120	1530	1110	478	1570
11	304	506	711	4930	4380	5200	2790	2010	1370	1200	466	1020
12	297	519	1370	3990	3790	4350	2630	1870	1330	1200	458	765
13	301	507	2840	4300	3350	3730	2460	1910	1310	1190	454	666
14	297	490	13100	7110	2970	3280	2330	2050	1300	1170	454	585
15	294	482	10700	13100	2770	2950	2380	2110	1240	1150	446	544
16	304	477	5400	16200	2590	2710	2340	1870	1180	1010	435	514
17	316	439	4320	16200	2480	2590	2130	1690	1140	860	431	498
18	316	411	3140	9590	2400	2510	2010	1680	1220	815	431	490
19	322	394	2350	9190	2430	2450	2000	1770	1240	815	423	490
20	329	394	1920	7170	2540	2420	2070	1910	1280	820	419	490
21	326	475	1720	5640	2630	2460	1980	2050	1290	782	423	478
22	326	845	1850	4630	2650	2750	1900	2080	1290	776	462	474
23	331	1040	3350	3870	2620	2810	1840	1810	1260	771	478	470
24	356	2110	3480	3310	2580	2780	1810	1620	1140	965	462	462
25	454	2540	2660	2950	2450	2510	2110	1500	1040	1190	466	458
26	847	3590	2190	2670	2310	2440	2400	1400	1010	1210	506	454
27	539	2380	2390	2460	2170	2470	2300	1370	1080	1200	490	442
28	475	1760	2910	2280	2050	2490	2260	1530	1350	1170	462	438
29	514	1470	2940	2150	---	2480	2180	1650	1500	1000	446	438
30	721	1420	3010	2040	---	2620	2130	1710	1230	815	435	435
31	628	---	2500	1950	---	2580	---	1640	---	725	427	---
TOTAL	12104	28196	83889	165880	90750	104360	71280	57660	41980	31353	14815	17530
MEAN	390	940	2706	5351	3241	3366	2376	1860	1399	1011	478	584
MAX	847	3590	13100	16200	7420	10300	3110	2170	1960	1210	622	1570
MIN	294	394	602	1950	1900	1970	1810	1370	1010	725	419	416
AC-FT	24010	55930	166400	329000	180000	207000	141400	114400	83270	62190	29390	34770
CAL YR 1977 TOTAL	229906			630	MAX 13100	MIN 180	AC-FT 456000					
WTR YR 1978 TOTAL	719797			MEAN 1972	MAX 16200	MIN 294	AC-FT 1428000					

## 11527000 TRINITY RIVER NEAR BURNT RANCH, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1959-66.

WATER TEMPERATURES: Water years 1962-64, 1967, 1969 to current year.

SEDIMENT RECORDS: Water year 1968.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1961 to September 1964, October 1966 to September 1967, October 1968 to current year.

INSTRUMENTATION.--Temperature recorder since October 1961.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 27.0°C Aug. 17-19, 24, 1967; minimum recorded, 0.0°C Dec. 7-11, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 24.0°C Aug. 5-7; minimum recorded, 5.0°C Nov. 21, 22.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	14.5	11.5	10.5	8.0	7.5	6.0	6.0	6.0	5.5	8.5	7.0
2	16.5	14.0	11.5	10.5	7.5	7.5	7.5	6.0	5.5	5.5	9.0	8.5
3	16.0	14.0	11.5	10.0	8.0	7.5	7.0	6.5	7.5	6.0	10.0	9.0
4	16.0	13.5	10.0	10.0	8.5	8.0	7.0	7.0	7.5	7.0	9.0	9.0
5	15.5	14.0	10.0	9.5	8.5	7.5	7.0	7.0	7.5	7.0	9.5	9.0
6	15.5	13.0	10.0	9.5	8.0	7.5	7.5	7.0	7.0	7.0	10.0	9.0
7	14.0	13.0	10.0	9.5	8.0	7.0	7.5	7.0	7.0	7.0	10.0	9.5
8	14.0	13.0	9.5	9.0	7.0	6.0	7.5	7.5	7.0	7.0	9.5	9.0
9	14.5	13.0	9.0	8.5	6.0	5.5	7.5	7.5	7.0	7.0	10.5	9.0
10	14.5	13.0	9.5	8.5	6.0	5.5	7.5	7.5	7.0	6.0	10.0	9.0
11	14.5	13.0	9.5	9.5	6.5	6.0	7.5	7.5	6.0	6.0	9.0	9.0
12	14.5	13.5	9.5	9.0	6.5	6.5	7.5	7.5	6.0	6.0	9.0	8.0
13	14.5	13.5	9.5	9.0	7.0	6.5	7.5	7.5	6.5	6.0	9.5	8.5
14	14.5	13.5	10.0	9.0	7.5	7.0	7.5	7.0	7.0	6.5	10.0	8.5
15	14.5	13.5	10.5	9.5	7.5	6.5	7.0	6.5	7.0	6.0	10.5	8.0
16	14.5	13.5	10.0	9.0	6.5	6.0	6.5	6.5	6.5	6.5	11.5	8.5
17	14.0	12.5	9.0	8.0	6.0	6.0	7.0	6.5	7.0	6.5	11.5	9.0
18	14.0	12.5	8.0	7.0	6.0	6.0	7.0	7.0	8.0	7.0	11.5	9.5
19	13.5	12.5	7.0	6.0	6.0	5.5	7.0	7.0	8.5	8.0	12.0	9.5
20	13.0	12.0	6.0	5.5	6.5	5.5	7.5	7.0	8.5	8.5	11.5	10.0
21	12.5	11.5	5.5	5.0	7.0	6.5	7.5	7.5	8.5	8.5	11.5	10.5
22	13.0	11.0	5.5	5.0	7.0	7.0	7.5	6.5	8.5	8.5	11.0	10.5
23	13.0	12.5	6.5	5.5	7.5	7.0	6.5	5.5	9.0	8.5	10.5	10.0
24	14.0	13.0	7.0	6.5	7.5	7.0	5.5	5.5	9.0	9.0	12.0	9.5
25	14.0	13.5	8.0	7.0	7.0	7.0	6.0	5.5	9.0	9.0	12.0	10.0
26	13.5	12.5	8.0	7.5	7.0	7.0	6.5	6.0	9.5	8.5	12.5	10.5
27	12.5	12.5	8.0	8.0	7.5	7.0	6.5	6.5	9.0	8.5	13.0	10.5
28	12.5	12.0	8.0	7.5	8.0	7.5	6.5	6.5	8.5	7.5	13.0	10.0
29	12.0	11.5	8.0	8.0	8.0	8.0	6.5	6.5	---	---	11.5	10.0
30	11.5	10.5	8.0	8.0	8.0	7.0	6.5	6.5	---	---	13.0	10.5
31	11.5	10.5	---	---	7.0	6.0	6.5	6.0	---	---	12.5	10.5
MONTH	16.5	10.5	11.5	5.0	8.5	5.5	7.5	5.5	9.5	5.5	13.0	7.0

## KLAMATH RIVER BASIN

11527000 TRINITY RIVER NEAR BURNT RANCH, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.5	9.5	14.0	11.0	17.0	13.5	19.5	18.0	---	---	19.5	17.5
2	9.5	9.0	15.0	12.0	17.0	14.5	18.5	18.0	---	---	19.5	18.0
3	9.5	9.0	14.5	12.5	17.0	14.5	19.5	18.0	---	---	19.5	18.0
4	9.5	8.0	13.5	11.5	17.5	15.5	20.5	18.5	23.5	21.5	18.5	17.5
5	9.0	8.0	14.0	11.0	17.5	16.0	20.5	18.5	24.0	21.5	17.5	17.0
6	9.0	7.5	14.5	10.5	17.5	15.5	21.0	18.5	24.0	21.5	17.0	16.0
7	10.5	8.0	15.5	11.5	17.0	15.0	21.0	19.5	24.0	21.5	17.5	15.5
8	11.5	8.5	16.0	12.5	17.5	15.5	21.5	19.5	23.5	21.0	17.0	15.5
9	13.0	9.0	15.0	13.0	16.5	14.0	21.5	19.5	23.5	21.0	17.0	16.0
10	13.5	10.0	14.0	12.5	17.0	14.5	20.5	19.0	23.0	21.0	16.5	15.0
11	13.5	10.5	14.0	12.5	17.5	14.5	20.5	18.5	22.5	20.5	17.5	15.0
12	12.0	10.0	15.0	12.0	17.0	16.0	20.5	18.5	21.0	20.0	18.5	15.5
13	12.5	10.0	15.0	13.0	17.0	15.5	20.5	18.5	21.5	19.0	17.5	14.5
14	11.0	10.0	14.0	12.0	17.0	15.0	21.0	19.0	21.5	19.0	18.0	15.0
15	10.0	8.5	12.0	11.0	17.0	15.0	20.5	19.0	21.0	19.5	18.0	15.5
16	9.0	8.0	14.0	10.5	18.0	15.5	---	---	20.5	19.0	18.0	15.5
17	9.5	8.5	15.5	12.0	18.0	16.0	---	---	21.0	18.0	17.0	14.5
18	10.5	9.0	16.0	13.0	18.0	17.0	---	---	21.0	18.5	17.0	13.5
19	10.5	9.5	16.0	13.5	18.0	16.5	---	---	21.0	19.0	17.5	13.0
20	9.5	9.0	16.0	14.0	18.5	16.5	---	---	20.5	18.5	17.5	13.0
21	10.5	9.0	15.5	13.5	18.5	17.0	---	---	19.5	18.5	17.5	13.5
22	10.5	8.5	14.5	12.5	19.0	17.5	---	---	20.0	17.5	18.0	14.5
23	12.5	9.5	13.0	11.5	18.5	17.0	---	---	19.5	17.5	18.0	14.5
24	12.0	10.5	12.5	11.5	18.0	17.0	---	---	19.5	18.5	18.5	15.5
25	11.5	10.5	13.5	11.0	18.0	16.5	---	---	19.5	18.0	18.0	15.5
26	12.5	11.0	13.5	11.5	19.5	17.0	---	---	19.5	17.0	18.0	15.5
27	14.0	11.0	16.0	12.0	19.5	17.5	---	---	20.0	17.0	18.0	16.0
28	13.5	12.0	16.5	14.5	19.5	19.0	---	---	20.0	17.5	17.0	15.0
29	14.0	12.0	16.5	14.0	19.0	18.5	---	---	20.0	18.5	17.5	14.5
30	12.5	11.5	16.5	14.0	19.5	18.0	---	---	20.0	19.0	17.0	14.5
31	---	---	16.5	13.0	---	---	---	---	20.0	18.5	---	---
MONTH	14.0	7.5	16.5	10.5	19.5	13.5	21.5	18.0	24.0	17.0	19.5	13.0



## 11528700 SOUTH FORK TRINITY RIVER BELOW HYAMPOM, CA

LOCATION.--Lat 40°39'00", long 123°29'35", in NW¼SW¼ sec.10, T.3 N., R.6 E., Trinity County, Hydrologic Unit 18010212, Trinity National Forest, on left bank 0.3 mi (0.5 km) downstream from Big Creek, 3.0 mi (4.8 km) northeast of Hyampom, and 3.5 mi (5.6 km) downstream from Hayfork Creek.

DRAINAGE AREA.--764 mi<sup>2</sup> (1,979 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,211.37 ft (369.226 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--13 years, 1,503 ft<sup>3</sup>/s (42.56 m<sup>3</sup>/s), 1,089,000 acre-ft/yr (1.34 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69,300 ft<sup>3</sup>/s (1,960 m<sup>3</sup>/s) Jan. 16, 1974, gage height, 26.68 ft (8.132 m), from rating curve extended above 23,000 ft<sup>3</sup>/s (651 m<sup>3</sup>/s) on basis of flood-routing study at gage height 30.45 ft (9.281 m); minimum daily, 14 ft<sup>3</sup>/s (0.40 m<sup>3</sup>/s) Aug. 24, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 30.45 ft (9.281 m), from floodmarks, discharge, 88,000 ft<sup>3</sup>/s (2,490 m<sup>3</sup>/s), on basis of flood-routing study.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8,600 ft<sup>3</sup>/s (244 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Dec. 15	0545	13100	371	13.11	3.996	Jan. 17	0015	*26000	736	17.47	5.325
Jan. 5	1230	10500	297	12.08	3.682	Feb. 7	1900	15000	425	13.88	4.231
Jan. 9	1300	17900	507	14.91	4.545	Mar. 8	1600	17700	501	14.88	4.535

Minimum daily discharge, 44 ft<sup>3</sup>/s (1.25 m<sup>3</sup>/s) Oct. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	131	589	2900	1860	2030	2630	1580	603	316	143	95
2	84	112	518	4040	2510	2300	2300	1490	576	312	134	95
3	72	100	463	5570	2720	2520	2110	1390	555	304	131	89
4	65	109	432	4800	2430	3880	2230	1370	540	304	119	86
5	60	289	405	8930	3600	5310	2320	1350	520	295	116	122
6	55	343	386	7120	5810	4600	3230	1280	505	287	109	152
7	54	231	368	5100	10300	3890	2970	1220	476	279	106	152
8	54	182	336	5700	9660	12100	2770	1180	440	271	100	140
9	54	153	308	13300	8140	10400	2550	1160	413	267	95	161
10	52	135	283	8530	6110	6660	2380	1140	391	252	92	256
11	51	124	458	5980	4950	5360	2230	1110	378	244	89	248
12	51	131	900	5100	4460	4620	2080	1070	378	234	86	206
13	50	131	1060	6680	4080	4110	1960	1050	378	234	86	174
14	48	124	7950	10700	3790	3740	1870	1050	370	223	86	158
15	48	115	10300	15400	3570	3380	1940	1270	366	220	86	149
16	47	109	4670	21500	3320	3100	1930	1180	362	213	86	140
17	47	104	4430	18700	3230	2920	1820	1070	353	210	86	134
18	47	100	3820	10400	3190	2770	1780	1020	349	210	86	131
19	47	97	2630	10200	3360	2670	1820	987	349	203	86	122
20	45	95	1940	7420	3490	2550	2030	955	341	196	86	119
21	45	283	1710	5570	3550	2550	2000	930	333	193	86	119
22	44	1710	2080	4630	3470	2620	1920	905	324	187	100	119
23	47	1740	5490	4000	3320	2770	1850	874	320	180	106	119
24	55	1560	4860	3570	3060	2740	1800	849	324	174	106	119
25	78	1550	3430	3150	2830	2480	2070	837	324	165	116	112
26	82	1870	2720	2820	2600	2320	2020	801	316	165	125	109
27	84	1460	3890	2520	2350	2250	1900	772	312	161	125	106
28	82	1070	4660	2280	2150	2150	1790	731	316	155	119	103
29	118	816	4370	2090	---	2070	1700	702	349	152	109	100
30	165	673	4320	1970	---	2080	1640	663	333	146	103	98
31	161	---	3560	1840	---	2070	---	630	---	143	98	---
TOTAL	2092	15647	83336	212510	113910	115010	63640	32616	11894	6895	3201	4033
MEAN	67.5	522	2688	6855	4068	3710	2121	1052	396	222	103	134
MAX	165	1870	10300	21500	10300	12100	3230	1580	603	316	143	256
MIN	44	95	283	1840	1860	2030	1640	630	312	143	86	86
AC-FT	4150	31040	165300	421500	225900	228100	126200	64690	23590	13680	6350	8000
CAL YR 1977	TOTAL	141301	MEAN	387	MAX	10300	MIN	14	AC-FT	280300		
WTR YR 1978	TOTAL	664784	MEAN	1821	MAX	21500	MIN	44	AC-FT	1319000		

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water year 1977.

WATER TEMPERATURES: Water years 1966 to current year.

SEDIMENT RECORDS: Water years 1967-70.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1965 to current year.

SEDIMENT RECORDS: October 1966 to September 1970.

INSTRUMENTATION.--Temperature recorder since October 1965.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 29.0°C June 30, July 1, 3, 1967, Aug. 1, 2, 1968; minimum, 0.0°C on several days in 1965, 1967-68, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.5°C Aug. 6; minimum, 3.0°C Nov. 21, 22.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.5	16.5	---	---	9.0	8.5	6.0	5.5	---	---	---	---
2	21.0	16.0	---	---	9.0	8.0	6.5	6.0	---	---	---	---
3	22.0	16.5	---	---	9.5	8.5	7.0	6.5	---	---	9.0	7.5
4	22.0	16.0	---	---	10.5	9.0	7.5	7.0	---	---	8.0	7.5
5	21.0	16.0	12.0	10.5	10.5	9.5	7.0	7.0	---	---	8.0	7.5
6	19.0	15.5	13.0	10.5	9.5	8.5	7.5	7.0	---	---	9.5	8.0
7	19.5	16.5	13.0	10.5	10.0	8.5	7.5	7.0	---	---	9.0	8.5
8	20.5	16.5	12.5	10.5	9.0	7.0	9.0	7.0	---	---	8.5	8.5
9	---	---	12.5	9.5	7.5	6.0	7.5	6.0	---	---	9.5	8.0
10	---	---	12.5	9.5	8.0	6.0	8.0	6.0	---	---	9.0	8.0
11	---	---	11.5	10.0	7.5	7.0	7.5	7.0	---	---	9.0	8.0
12	---	---	13.0	10.5	7.0	6.5	8.0	6.0	---	---	8.0	6.0
13	---	---	13.0	11.0	8.5	7.0	---	---	---	---	8.5	7.0
14	---	---	13.0	10.5	9.5	8.0	---	---	---	---	9.0	6.5
15	---	---	14.0	11.5	9.5	7.0	---	---	6.5	5.0	9.0	6.0
16	---	---	13.5	11.0	7.0	5.0	---	---	5.5	4.5	10.0	6.5
17	---	---	11.5	10.0	5.5	5.0	---	---	7.0	5.5	11.0	7.5
18	---	---	10.0	8.0	6.0	5.5	---	---	9.0	7.0	11.0	8.0
19	---	---	9.0	7.0	5.5	5.0	---	---	9.0	7.5	12.0	9.0
20	---	---	7.5	3.5	5.5	4.5	---	---	9.0	7.0	11.5	9.0
21	---	---	4.0	3.0	6.0	5.5	---	---	9.5	7.0	11.5	10.0
22	---	---	4.0	3.0	6.5	6.0	---	---	9.5	7.0	11.0	10.0
23	---	---	4.5	4.0	7.0	6.5	---	---	9.5	7.5	11.0	9.5
24	---	---	6.0	4.5	7.0	6.5	---	---	9.5	8.5	11.5	9.0
25	---	---	7.0	6.0	6.5	6.0	---	---	10.0	8.5	12.0	9.0
26	---	---	8.0	7.0	6.5	6.0	---	---	9.5	7.0	13.0	10.0
27	---	---	8.5	8.0	7.0	6.5	---	---	---	---	13.5	10.5
28	---	---	8.5	8.0	7.5	7.0	---	---	---	---	13.0	9.5
29	---	---	9.0	8.0	7.5	7.5	---	---	---	---	12.0	9.5
30	---	---	9.0	8.5	7.5	6.5	---	---	---	---	13.5	12.0
31	---	---	---	---	6.5	5.5	---	---	---	---	12.0	10.5
MONTH	22.0	15.5	14.0	3.0	10.5	4.5	9.0	5.5	10.0	4.5	13.5	6.0

11528700 SOUTH FORK TRINITY RIVER BELOW HYAMPOM, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.5	9.0	13.5	8.0	20.0	13.0	21.5	16.5	25.5	18.0	24.5	17.5
2	10.5	8.0	14.5	9.5	20.0	13.5	20.0	15.5	26.0	17.5	25.0	18.0
3	8.5	7.5	14.5	10.0	21.0	14.0	21.5	15.5	26.0	18.5	24.5	18.0
4	9.0	7.0	14.5	10.0	22.0	15.0	22.5	16.0	25.5	19.0	19.5	17.5
5	8.0	7.0	14.0	9.5	22.0	15.5	23.5	15.5	26.5	19.0	18.5	17.0
6	9.0	7.0	15.0	9.0	22.5	15.5	23.5	16.0	27.5	19.5	20.5	17.0
7	10.0	7.0	16.0	10.0	21.5	15.5	24.5	17.5	26.5	19.5	20.0	15.5
8	11.0	7.0	17.5	11.0	22.0	15.5	25.0	17.5	26.0	19.5	20.5	16.0
9	12.5	8.0	17.0	12.0	21.0	15.5	24.0	18.0	27.0	19.5	19.5	16.5
10	13.5	9.0	17.0	12.0	19.5	15.5	23.5	17.0	25.5	19.5	19.0	16.0
11	14.0	10.0	14.5	12.0	21.0	14.0	23.5	16.5	25.0	18.5	20.0	15.5
12	13.0	9.0	17.0	10.5	20.5	15.5	24.5	16.5	20.5	17.5	21.5	16.0
13	12.0	8.5	17.0	12.0	20.5	15.0	25.0	17.5	23.5	17.0	20.5	16.5
14	9.5	8.0	15.0	11.5	20.0	14.0	25.5	17.5	25.0	17.0	21.5	15.5
15	8.0	6.5	11.5	10.0	19.5	13.5	23.5	18.0	24.0	18.0	22.0	15.5
16	7.5	6.5	14.5	9.0	21.0	13.5	23.5	17.5	23.0	17.5	21.5	15.5
17	9.5	6.5	16.5	10.5	21.5	13.5	24.5	17.5	23.5	16.0	18.5	14.5
18	10.0	6.5	18.0	11.5	21.0	15.5	26.0	18.0	24.0	16.5	19.5	13.5
19	8.5	7.5	17.5	12.0	22.0	14.5	26.0	18.5	23.5	16.5	20.5	13.0
20	8.0	6.5	18.5	12.5	22.0	15.5	26.0	18.0	24.0	16.5	21.0	13.5
21	9.5	6.0	18.5	13.0	22.5	16.0	26.5	19.0	19.0	17.0	20.0	14.5
22	9.0	6.5	16.5	12.0	22.0	15.5	---	---	22.0	16.0	21.5	15.5
23	11.0	7.0	15.0	11.0	21.0	15.5	26.0	19.5	23.0	15.5	22.0	15.0
24	10.5	8.5	13.5	10.5	19.5	15.0	26.5	19.0	20.5	17.0	22.5	15.5
25	12.0	9.0	14.5	10.0	20.5	14.5	25.0	19.5	21.5	17.0	21.5	16.0
26	12.5	9.5	14.0	9.5	21.5	14.5	26.5	19.5	22.5	16.5	22.0	15.5
27	13.5	9.5	17.5	10.0	23.0	15.0	25.0	18.5	23.0	16.0	21.5	16.5
28	13.0	10.0	19.0	13.0	23.0	17.0	25.5	17.5	23.5	16.0	21.5	16.5
29	13.0	9.0	19.0	12.5	22.0	17.0	26.0	18.0	24.0	17.0	22.0	15.5
30	12.0	9.0	19.5	12.5	22.0	16.5	25.0	18.0	24.0	18.5	21.5	15.5
31	---	---	19.5	12.0	---	---	25.5	18.0	24.0	18.5	---	---
MONTH	14.0	6.0	19.5	8.0	23.0	13.0	26.5	15.5	27.5	15.5	25.0	13.0

## KLAMATH RIVER BASIN

## 11530000 TRINITY RIVER AT HOOPA, CA

LOCATION.--Lat 41°03'00", long 123°40'15", in SE¼NW¼ 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 (0.6 km) upstream from Supply Creek.

DRAINAGE AREA.--2,853 mi<sup>2</sup> (7,389 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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. Datum of gage is 274.82 ft (83.765 m) National Geodetic Vertical Datum of 1929. Prior to October 1931, nonrecording gage at site 0.4 mi (0.6 km) upstream at different datum. October 1931 to Dec. 22, 1964, water-stage recorder at site 2.5 mi (4.0 km) upstream at datum 31.67 ft (9.653 m) higher.

REMARKS.--Records good. Flow regulated since November 1960 by Clair Engle Lake (station 11525400) 84 mi (135 km) upstream. Small diversions above station for mining and irrigation.

AVERAGE DISCHARGE (unadjusted).--51 years (water years 1912-13, 1917-18, 1932-78), 5,324 ft<sup>3</sup>/s (150.8 m<sup>3</sup>/s), 3,857,000 acre-ft/yr (4.76 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 231,000 ft<sup>3</sup>/s (6,540 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 57.0 ft (17.37 m) present site and datum, from floodmarks; minimum, 162 ft<sup>3</sup>/s (4.59 m<sup>3</sup>/s) Oct. 4, 1931.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 22,000 ft<sup>3</sup>/s (623 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Dec. 14	1930	49000	1390	30.70	9.357	Jan. 17	0445	*62200	1760	33.33	10.159
Jan. 5	1945	24000	680	25.03	7.629	Feb. 8	0030	33400	946	27.11	8.263
Jan. 9	2000	37900	1070	28.33	8.635	Mar. 8	2400	38500	1090	28.36	8.644

Minimum daily discharge, 419 ft<sup>3</sup>/s (11.9 m<sup>3</sup>/s) Oct. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	983	1070	3240	6510	5720	6100	7820	5370	3060	1870	944	647
2	769	959	2790	6640	6980	6170	7440	5160	3000	1800	863	740
3	653	1040	2560	10000	9330	6680	6610	5140	2980	1720	834	633
4	581	1030	2700	8750	8800	8540	6980	5070	3020	1620	806	633
5	531	1830	2790	18100	9380	12300	7230	4930	3140	1560	802	767
6	506	2310	2460	18600	16300	12500	9990	4660	3210	1550	791	1540
7	498	1730	2400	13400	22600	10700	9820	4500	3090	1580	770	980
8	484	1400	2180	11900	29700	24800	8810	4420	2890	1620	752	860
9	471	1200	1960	28200	26500	34100	8190	4540	2840	1590	731	1030
10	458	1070	1780	27600	20700	23800	8070	4570	2680	1580	708	2200
11	448	1000	2280	17600	15800	17400	8050	4430	2490	1660	691	1600
12	439	1010	4320	13500	13100	14000	7490	4250	2330	1670	681	1250
13	429	1010	8640	13700	11700	11900	6850	4150	2290	1650	686	1030
14	426	971	39600	22600	10100	10400	6340	4270	2250	1610	692	940
15	423	935	42700	37900	9300	9030	6310	4790	2180	1590	688	900
16	419	924	24200	50900	8590	8010	6470	4570	2110	1480	673	865
17	444	877	18200	55900	8340	7320	5950	4070	2010	1330	664	845
18	454	820	12900	38300	8480	6860	5630	3860	2030	1240	662	830
19	450	775	8010	34800	8800	6410	5770	3820	2070	1210	660	815
20	458	758	6060	28400	9300	6240	6620	3900	2090	1200	646	800
21	460	1420	5130	21400	9550	6250	6450	4010	2070	1180	647	795
22	455	5400	5230	16700	9430	7010	6090	4040	2050	1140	706	780
23	470	6390	9850	13000	9120	7440	5790	3750	2010	1120	741	770
24	540	11100	12300	11000	8710	8220	5610	3490	1860	1170	723	760
25	797	10800	8120	9640	8190	7220	6230	3320	1790	1410	758	750
26	1420	11800	6420	8620	7580	6710	6740	3120	1720	1510	778	745
27	1020	8550	7070	7660	7000	6570	6350	3000	1740	1490	782	740
28	820	5620	9660	7040	6470	6480	6030	3050	1870	1450	740	736
29	877	4290	8820	6540	---	6290	5750	3190	2370	1350	704	739
30	1380	3770	9440	6190	---	6510	5540	3240	2070	1150	676	740
31	1400	---	7880	5850	---	6370	---	3150	---	1030	656	---
TOTAL	19963	91859	281690	576940	325570	318330	207020	127830	71310	45130	22655	27360
MEAN	644	3062	9087	18610	11630	10270	6901	4124	2377	1456	731	912
MAX	1420	11800	42700	55900	29700	34100	9990	5370	3210	1870	944	2200
MIN	419	758	1780	5850	5720	6100	5540	3000	1720	1030	646	633
AC-FT	39600	182200	558700	1144000	645800	631400	410600	253600	141400	89520	44940	54270
CAL YR 1977	TOTAL	626574	MEAN	1717	MAX	42700	MIN	244	AC-FT	1243000		
WTR YR 1978	TOTAL	2115657	MEAN	5796	MAX	55900	MIN	419	AC-FT	4196000		

11530000 TRINITY RIVER AT HOOPA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

CHEMICAL ANALYSES: Water years 1951 to current year.

WATER TEMPERATURES: Water years 1957 to current year.

SEDIMENT RECORDS.--Water years 1955 to current year.

Prior to October 1964, published as "near Hoopa."

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1956 to current year.

SEDIMENT RECORDS: November 1956 to current year.

REVISED RECORDS.--WDR CA-70-P2: 1969, sediment.

INSTRUMENTATION.--Temperature recorder since March 1964.

REMARKS.--Measurement of suspended sediment made at bridge on State Highway 96, 1.0 mi (1.6 km) downstream from gaging station. No appreciable inflow between sampling point and gaging station except during periods of heavy runoff.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 28.0°C July 16, 1977; minimum recorded, 1.5°C Jan. 9, 1977.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 20,400 mg/L Dec. 23, 1964; minimum daily mean, 1 mg/L on many days in 1957-64, 1968-70, 1976-77.

SEDIMENT DISCHARGE: Maximum daily, 8,900,000 tons (8,070,000 metric tons) Dec. 23, 1964; minimum daily, 0.76 ton (0.69 metric ton) July 27, 1977.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.5°C Aug. 5-9; minimum, 3.5°C Nov. 21.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,020 mg/L Jan. 16; minimum daily mean, 1 mg/L Oct. 14, 15.

SEDIMENT DISCHARGE: Maximum daily, 281,000 tons (255,000 metric tons) Jan. 16; minimum daily, 1.1 ton (1.0 metric ton) Oct. 15.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT										
11...	0845	450	202	7.9	15.0	.00	9.6	91	--	--
NOV										
01...	1015	1070	172	7.8	13.0	1.0	10.5	--	--	--
DEC										
06...	0930	2420	162	7.4	9.0	3.0	10.6	--	--	--
JAN										
03...	1030	10600	152	7.8	8.0	60	12.0	--	--	--
FEB										
07...	1030	19400	124	7.9	9.0	75	11.8	62	2	16
MAR										
06...	1030	12800	142	7.6	10.0	40	10.6	--	--	--
APR										
03...	1030	6590	--	7.7	10.5	9.0	10.6	71	--	--
MAY										
08...	0915	4390	143	7.6	14.5	5.0	9.9	--	--	--
JUN										
05...	0845	3030	132	7.6	19.0	2.0	9.1	--	--	--
JUL										
10...	0915	1530	138	7.9	21.0	1.0	9.1	--	--	--
AUG										
07...	0845	780	165	7.8	25.0	.00	8.8	89	--	--
SEP										
11...	0945	1840	--	7.6	16.0	.00	9.5	67	--	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

		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 (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)			
DATE													
OCT 11...		--	5.0	--	.2	--	77	--	7.2	--			
NOV 01...		--	--	--	--	--	--	--	--	--			
DEC 06...		--	--	--	--	--	--	--	--	--			
JAN 03...		--	--	--	--	--	--	--	--	--			
FEB 07...		5.1	2.4	8	.1	.6	59	5.1	1.1	83			
MAR 06...		--	--	--	--	--	--	--	--	--			
APR 03...		--	2.1	--	.1	--	66	--	.7	--			
MAY 08...		--	--	--	--	--	--	--	--	--			
JUN 05...		--	--	--	--	--	--	--	--	--			
JUL 10...		--	--	--	--	--	--	--	--	--			
AUG 07...		--	4.2	--	.2	--	76	--	4.4	--			
SEP 11...		--	3.1	--	.2	--	61	--	3.6	--			
DATE		SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRATE DIS- SOLVED (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, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)			
OCT 11...		--	--	.02	.00	.10	.10	.02	.00	.00			
NOV 01...		--	--	.00	.01	.00	.01	.00	.00	.00			
DEC 06...		--	--	.04	.00	.00	.00	.02	.02	.06			
JAN 03...		--	--	.03	.08	.10	.18	.16	.01	.03			
FEB 07...		59	.11	.45	.01	.20	.21	.32	.01	.03			
MAR 06...		--	--	.03	.04	.20	.24	.14	.01	.03			
APR 03...		--	--	.01	.02	.20	.22	.03	.00	.00			
MAY 08...		--	--	.00	.00	.30	.30	.02	.01	.03			
JUN 05...		--	--	.00	.05	.60	.65	.02	.01	.03			
JUL 10...		--	--	.02	.00	.30	.30	.01	.00	.00			
AUG 07...		--	--	.01	.02	.60	.62	.02	.00	.00			
SEP 11...		--	--	.06	.00	.20	.20	.02	.00	.00			
DATE		TIME	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT 11...		0845	--	--	100	--	--	--	--	--	--	--	--
FEB 07...		1030	--	--	0	--	--	--	--	--	--	--	--
APR 03...		1030	0	0	0	0	0	0	70	0	0	.0	0
AUG 07...		0845	--	--	0	--	--	--	--	--	--	--	--
SEP 11...		0945	0	0	100	0	0	10	40	10	0	.0	0

11530000 TRINITY RIVER AT HOOPA, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	18.0	15.5	13.0	11.0	9.5	8.5	7.0	6.5	7.5	7.0	8.5	7.5
2	18.0	15.5	13.0	11.5	9.0	8.5	7.5	6.5	7.0	6.5	9.0	8.5
3	18.0	16.0	12.0	10.5	9.0	8.5	8.0	7.5	8.5	7.0	10.0	9.0
4	18.0	16.0	11.0	9.5	10.0	9.0	8.5	7.5	8.5	8.0	9.5	9.0
5	17.5	16.0	9.5	9.5	10.0	9.0	8.5	7.5	9.0	8.5	9.5	8.5
6	16.5	14.5	10.5	9.5	9.5	9.0	8.5	8.0	9.0	8.5	10.0	9.0
7	17.0	15.0	10.5	9.5	9.5	8.5	8.5	7.5	8.5	8.0	9.5	9.0
8	17.0	15.0	10.5	9.0	8.5	7.5	9.0	8.5	8.5	8.0	9.5	9.0
9	17.0	15.0	9.5	8.5	7.5	7.0	9.5	9.0	8.5	8.0	9.5	9.0
10	17.0	15.0	9.5	8.5	7.0	6.0	9.0	9.0	8.0	7.5	10.0	9.0
11	17.0	15.0	9.0	8.5	7.5	7.0	9.0	8.5	7.5	6.5	9.5	9.0
12	17.5	15.5	10.0	9.0	8.0	7.5	9.0	8.5	7.0	7.0	9.0	8.5
13	17.5	15.5	10.5	9.5	9.0	8.0	9.5	9.0	7.5	7.0	9.0	8.0
14	17.5	15.5	10.5	9.5	10.0	9.0	9.0	9.0	8.0	7.5	9.5	8.0
15	17.5	16.0	11.0	10.0	10.0	8.0	9.0	8.0	8.5	8.0	9.5	8.0
16	17.0	15.0	11.0	10.0	8.0	7.0	8.5	8.0	8.0	7.0	10.0	8.5
17	17.0	15.0	10.5	9.5	7.0	6.5	9.0	8.5	8.0	7.0	11.0	9.0
18	16.5	15.0	10.0	8.0	7.0	6.5	9.0	8.5	9.0	8.0	11.5	9.5
19	16.5	15.0	8.0	7.0	7.0	5.5	8.5	8.5	9.5	9.0	12.0	10.0
20	15.5	14.0	7.0	6.0	6.0	5.5	9.0	8.5	9.5	8.5	12.0	10.5
21	15.0	13.0	6.0	3.5	7.0	6.0	9.0	8.5	9.5	9.0	11.5	11.0
22	14.0	13.0	5.5	5.0	7.5	6.5	8.5	7.5	10.0	8.5	11.5	11.0
23	14.0	13.0	6.0	5.5	8.0	7.5	7.5	7.0	10.0	9.0	11.0	10.5
24	14.5	13.5	7.5	6.0	8.0	7.5	7.0	6.5	9.5	9.0	11.0	10.0
25	14.5	14.0	8.5	7.5	7.5	7.0	7.0	6.0	10.0	9.0	12.0	10.0
26	14.5	13.5	9.0	8.5	7.0	6.5	8.0	7.0	10.0	9.0	13.0	11.0
27	14.0	13.5	9.0	8.5	8.0	7.0	7.5	7.5	9.5	8.5	13.0	11.5
28	13.5	12.5	9.0	8.5	8.5	7.5	7.5	7.0	9.0	8.0	12.5	11.5
29	12.5	12.0	9.5	8.5	9.0	8.5	8.0	7.0	---	---	12.5	11.5
30	13.0	11.5	9.5	8.5	8.5	8.0	8.0	7.0	---	---	13.0	11.0
31	12.5	11.0	---	---	8.0	6.5	8.0	7.0	---	---	12.5	11.5
MONTH	18.0	11.0	13.0	3.5	10.0	5.5	9.5	6.0	10.0	6.5	13.0	7.5
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	11.5	10.0	14.0	11.0	18.5	14.5	20.0	18.5	26.0	21.0	22.5	19.0
2	10.5	9.5	15.0	12.5	18.0	15.5	19.5	18.0	26.0	22.0	22.5	19.5
3	10.0	9.0	15.5	13.0	19.5	16.0	20.0	17.0	26.0	23.0	22.0	19.5
4	10.0	8.5	15.0	13.0	19.5	16.5	21.5	18.0	26.5	23.0	20.5	18.5
5	9.5	9.0	14.0	11.5	20.5	17.0	22.0	18.0	27.5	23.5	18.5	18.0
6	9.0	8.5	14.0	11.5	20.5	17.0	22.5	18.5	27.5	24.0	18.0	17.0
7	10.0	8.5	15.0	12.0	20.0	16.5	23.5	19.5	27.5	24.0	18.5	16.0
8	11.0	9.0	15.5	12.5	20.0	16.5	24.0	20.0	27.5	24.0	17.5	16.0
9	12.0	9.5	15.5	13.5	19.0	17.0	23.5	20.5	27.5	24.0	17.5	16.0
10	12.5	11.0	14.5	13.0	17.5	16.5	23.5	20.0	26.5	24.0	17.0	15.5
11	13.5	11.5	14.0	12.5	19.0	15.0	23.0	19.0	26.0	22.5	18.0	15.0
12	12.5	11.5	15.5	12.0	19.0	16.5	23.0	19.0	23.5	21.0	19.0	15.5
13	13.0	11.0	15.5	13.0	18.5	16.5	23.0	19.5	23.5	20.0	18.5	16.5
14	11.5	10.5	14.0	13.0	19.0	16.0	24.0	20.5	24.0	20.0	19.5	16.0
15	10.5	9.5	13.0	11.0	18.5	16.0	23.0	20.0	22.5	21.0	19.5	17.0
16	9.5	8.5	13.5	10.0	19.0	16.0	23.5	19.5	23.0	20.5	19.5	17.0
17	10.0	9.0	14.5	11.5	19.5	16.5	24.0	19.5	23.0	19.0	18.0	16.0
18	11.0	9.5	15.5	12.5	19.0	17.5	24.5	21.0	23.0	19.5	17.5	15.0
19	10.5	10.0	16.5	13.0	18.5	18.0	24.0	21.0	22.5	19.5	17.0	14.5
20	10.0	9.5	16.5	13.5	21.0	18.0	25.5	21.5	22.5	19.5	17.5	15.0
21	10.5	9.0	19.5	13.5	21.5	18.5	26.5	21.5	20.5	19.0	17.5	15.0
22	10.0	9.5	18.0	17.5	21.5	18.5	25.0	22.0	21.5	18.5	17.5	15.0
23	11.0	9.5	17.5	17.5	20.0	18.0	26.0	22.0	21.0	18.0	18.5	15.5
24	11.5	10.5	17.5	17.0	19.0	18.0	25.5	22.0	19.5	19.0	19.0	16.5
25	12.5	11.0	17.0	17.0	19.5	16.5	25.0	22.0	20.5	18.0	19.0	17.0
26	13.0	11.5	17.0	17.0	21.5	17.0	24.5	21.5	21.0	18.0	19.5	17.0
27	14.0	12.0	17.0	17.0	22.5	18.0	23.5	20.5	21.5	18.0	19.0	17.0
28	13.5	12.5	17.0	17.0	22.0	19.5	23.5	20.0	21.5	18.0	19.0	17.0
29	14.0	12.5	17.0	16.5	22.0	19.5	24.5	20.0	22.0	19.0	19.0	16.0
30	13.0	12.0	18.0	16.5	21.0	18.0	24.0	20.0	22.0	19.5	18.5	17.0
31	---	---	18.0	14.5	---	---	25.0	20.5	22.5	20.0	---	---
MONTH	14.0	8.5	19.5	10.0	22.5	14.5	26.5	17.0	27.5	18.0	22.5	14.5

11530000 TRINITY RIVER AT HOOPA, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCTOBER				NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	983	25	66	1070	21	61	3240	118	1030	
2	769	10	21	959	19	49	2790	105	791	
3	653	10	18	1040	19	53	2560	102	705	
4	581	10	16	1030	17	47	2700	106	773	
5	531	10	14	1830	28	171	2790	103	776	
6	506	10	14	2310	26	162	2460	95	631	
7	498	11	15	1730	20	93	2400	113	732	
8	484	11	14	1400	18	68	2180	97	571	
9	471	9	11	1200	17	55	1960	78	413	
10	458	7	8.7	1070	16	46	1780	64	308	
11	448	5	6.0	1000	15	40	2280	117	818	
12	439	3	3.6	1010	14	38	4320	280	3270	
13	429	2	2.3	1010	13	35	8640	400	11500	
14	426	1	1.2	971	11	29	39600	1680	191000	
15	423	1	1.1	935	9	23	42700	1490	172000	
16	419	2	2.3	924	8	20	24200	605	42400	
17	444	2	2.4	877	8	19	18200	630	31000	
18	454	2	2.5	820	8	18	12900	570	19900	
19	450	2	2.4	775	8	17	8010	570	12300	
20	458	2	2.5	758	8	16	6060	370	6050	
21	460	2	2.5	1420	54	322	5130	210	2910	
22	455	2	2.5	5400	435	6630	5230	225	3180	
23	470	2	2.5	6390	290	5000	9850	812	26400	
24	540	2	2.9	11100	725	23800	12300	741	26300	
25	797	4	8.6	10800	360	10500	8120	180	3950	
26	1420	28	114	11800	374	12400	6420	72	1250	
27	1020	16	44	8550	212	4890	7070	609	12900	
28	820	10	22	5620	138	2090	9660	455	12000	
29	877	12	28	4290	116	1340	8820	95	2260	
30	1380	24	89	3770	123	1250	9440	108	2750	
31	1400	26	98	---	---	---	7880	73	1550	
TOTAL	19963	---	638.0	91859	---	69282	281690	---	592418	
DAY	JANUARY				FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	6510	61	1070	5720	143	2210	6100	86	1420	
2	6640	79	1420	6980	172	3240	6170	73	1220	
3	10000	450	12200	9330	145	3650	6680	86	1550	
4	8750	298	7040	8800	162	3850	8540	220	5500	
5	18100	703	37300	9380	153	3870	12300	300	9960	
6	18600	380	19100	16300	279	12300	12500	160	5400	
7	13400	185	6690	22600	870	62700	10700	117	3380	
8	11900	300	9640	29700	1090	87400	24800	1030	84200	
9	28200	1290	106000	26500	485	34700	34100	835	76900	
10	27600	906	70300	20700	330	18400	23800	432	27800	
11	17600	280	13300	15800	350	14900	17400	302	14200	
12	13500	175	6380	13100	200	7070	14000	220	8320	
13	13700	385	14200	11700	120	3790	11900	168	5400	
14	22600	676	41300	10100	97	2650	10400	124	3480	
15	37900	1400	145000	9300	67	1680	9030	90	2190	
16	50900	2020	281000	8590	52	1210	8010	66	1430	
17	55900	1640	248000	8340	46	1040	7320	52	1030	
18	38300	750	77600	8480	41	939	6860	50	926	
19	34800	515	48400	8800	62	1470	6410	47	813	
20	28400	400	30700	9300	113	2840	6240	46	775	
21	21400	360	20800	9550	146	3760	6250	49	827	
22	16700	337	15200	9430	145	3690	7010	57	1080	
23	13000	307	10800	9120	139	3420	7440	62	1250	
24	11000	276	8200	8710	127	2990	8220	147	3260	
25	9640	244	6350	8190	125	2760	7220	127	2480	
26	8620	212	4930	7580	123	2520	6710	102	1850	
27	7660	190	3930	7000	114	2150	6570	87	1540	
28	7040	180	3420	6470	101	1760	6480	75	1310	
29	6540	173	3050	---	---	---	6290	50	849	
30	6190	168	2810	---	---	---	6510	57	1000	
31	5850	147	2320	---	---	---	6370	32	550	
TOTAL	576940	---	1258450	325570	---	292959	318330	---	271890	



11530000 TRINITY RIVER AT HOOPA, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

	APRIL				MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	7820	77	1630	5370	40	580	3060	28	231	
2	7440	53	1060	5160	67	933	3000	18	146	
3	6610	37	660	5140	65	902	2980	14	113	
4	6980	75	1410	5070	63	862	3020	15	122	
5	7230	140	2730	4930	61	812	3140	20	170	
6	9990	308	8310	4660	57	717	3210	30	260	
7	9820	113	3000	4500	54	656	3090	24	200	
8	8810	68	1620	4420	51	609	2890	20	156	
9	8190	45	995	4540	49	601	2840	15	115	
10	8070	38	828	4570	46	568	2680	10	72	
11	8050	35	761	4430	45	538	2490	10	67	
12	7490	35	708	4250	44	505	2330	9	57	
13	6850	33	610	4150	44	493	2290	9	56	
14	6340	35	599	4270	46	530	2250	10	61	
15	6310	45	767	4790	58	750	2180	12	71	
16	6470	55	961	4570	52	642	2110	15	85	
17	5950	50	803	4070	48	527	2010	15	81	
18	5630	47	714	3860	44	459	2030	15	82	
19	5770	61	950	3820	40	413	2070	15	84	
20	6620	88	1570	3900	40	421	2090	15	85	
21	6450	67	1170	4010	37	401	2070	18	101	
22	6090	49	806	4040	34	371	2050	17	94	
23	5790	38	594	3750	31	314	2010	15	81	
24	5610	30	454	3490	28	264	1860	14	70	
25	6230	47	791	3320	24	215	1790	13	63	
26	6740	60	1090	3120	23	194	1720	12	56	
27	6350	50	857	3000	22	178	1740	10	47	
28	6030	40	651	3050	20	165	1870	20	101	
29	5750	30	466	3190	25	215	2370	50	320	
30	5540	24	359	3240	64	560	2070	40	224	
31	---	---	---	3150	40	340	---	---	---	
TOTAL	207020	---	37924	127830	---	15735	71310	---	3471	

DAY	JULY				AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	1870	35	177	944	13	33	647	4	7.0	
2	1800	30	146	863	12	28	640	3	5.2	
3	1720	27	125	834	6	14	633	3	5.1	
4	1620	25	109	806	4	8.7	633	2	3.4	
5	1560	24	101	802	3	6.5	767	4	8.3	
6	1550	22	92	791	3	6.4	1540	12	50	
7	1580	19	81	770	5	10	980	6	16	
8	1620	17	74	752	6	12	860	4	9.3	
9	1590	15	64	731	7	14	1030	14	39	
10	1580	14	60	708	7	13	2200	44	261	
11	1660	22	99	691	8	15	1600	28	121	
12	1670	20	90	681	8	15	1250	19	64	
13	1650	19	85	686	8	15	1030	15	42	
14	1610	19	83	692	9	17	940	13	33	
15	1590	15	64	688	6	11	900	9	22	
16	1480	11	44	673	5	9.1	865	7	16	
17	1330	7	25	664	4	7.2	845	4	9.1	
18	1240	7	23	662	3	5.4	830	3	6.7	
19	1210	7	23	660	3	5.3	815	2	4.4	
20	1200	7	23	646	3	5.2	800	2	4.3	
21	1180	6	19	647	4	7.0	795	3	6.4	
22	1140	6	18	706	4	7.6	780	5	11	
23	1120	6	18	741	5	10	770	4	8.3	
24	1170	8	25	723	5	9.8	760	3	6.2	
25	1410	15	57	758	5	10	750	3	6.1	
26	1510	28	114	778	6	13	745	3	6.0	
27	1490	20	80	782	7	15	740	3	6.0	
28	1450	18	70	740	6	12	736	3	6.0	
29	1350	16	58	704	7	13	739	3	6.0	
30	1150	15	47	676	6	11	740	3	6.0	
31	1030	14	39	656	5	8.9	---	---	---	
TOTAL	45130	---	2133	22655	---	368.1	27360	---	794.8	
YEAR	2115657		2546062.9							

11530000 TRINITY RIVER AT HOOPA, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

			STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
DATE	TIME	TEMPER- ATURE (DEG C)						
NOV 24...	1800	6.0	14200	1020	39100	13	18	23
DEC 14...	0730	10.0	34500	1240	116000	17	23	31
15...	0730	10.0	45700	1550	191000	17	22	30
16...	0730	8.0	26400	799	57000	21	27	33
JAN 05...	1520	8.0	23000	1000	62100	11	16	25
17...	0730	9.0	61300	1960	324000	14	20	28
FEB 07...	1810	8.0	27000	1350	98400	10	13	19
10...	1700	8.0	19500	404	21300	16	22	29
MAR 10...	1155	10.0	23100	426	26600	--	--	--
APR 06...	1530	--	10600	273	7810	--	--	--
		SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
DATE								
NOV 24...	29	35	40	49	65	89	100	--
DEC 14...	40	49	58	72	90	98	100	--
15...	39	48	57	70	88	98	100	--
16...	40	48	54	65	84	95	99	100
JAN 05...	34	44	53	65	79	91	98	100
17...	38	49	59	73	90	98	100	--
FEB 07...	26	32	39	51	74	93	99	100
10...	36	42	47	54	67	85	96	100
MAR 10...	--	--	56	66	81	96	100	--
APR 06...	--	--	46	55	70	90	99	100

## 11530300 BLUE CREEK NEAR KLAMATH, CA

LOCATION.--Lat 41°27'00", long 123°53'40", in NE¼NW¼ sec.12, T.12 N., R.2 E., Humboldt County, Hydrologic Unit 18010209, on left bank 600 ft (183 m) downstream from West Fork, 3.0 mi (4.8 km) upstream from mouth, and 9.2 mi (14.8 km) southeast of Klamath.

DRAINAGE AREA.--120 mi<sup>2</sup> (311 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1965 to September 1978 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 140.65 ft (42.870 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor including those for period of no gage-height record, Nov. 18 to Feb. 22. No regulation or diversion above station.

AVERAGE DISCHARGE.--13 years, 747 ft<sup>3</sup>/s (21.16 m<sup>3</sup>/s), 541,200 acre-ft/yr (667 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft<sup>3</sup>/s (935 m<sup>3</sup>/s) Mar. 2, 1972, gage height, 1810 ft (5.517 m), from rating curve extended above 1,000 ft<sup>3</sup>/s (28.3 m<sup>3</sup>/s) on basis of step-backwater computation at 21.55 ft (6.568 m); minimum daily, 43 ft<sup>3</sup>/s (1.22 m<sup>3</sup>/s) Nov. 1, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 21.55 ft (6.568 m), from floodmarks, discharge, 48,000 ft<sup>3</sup>/s (1,360 m<sup>3</sup>/s), by step-backwater computation.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 7,000 ft<sup>3</sup>/s (198 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Nov. 21	unknown	7000	198	unknown		Dec. 14	unknown	*17000	481	unknown	
Nov. 24	do	8000	227	do		Feb. 3	do	11000	312	do	

Minimum daily discharge, 67 ft<sup>3</sup>/s (1.90 m<sup>3</sup>/s) Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	308	506	910	1500	780	688	470	729	312	178	88	73
2	246	562	810	1330	2500	682	579	688	301	178	85	72
3	212	475	890	1440	8600	682	603	671	283	177	85	72
4	191	603	1200	1720	4500	775	707	631	274	174	85	87
5	178	1980	1010	2500	1800	752	1220	579	263	170	84	174
6	191	1870	960	3700	2450	752	1260	539	258	165	85	150
7	186	1100	1050	2200	3530	759	960	512	250	160	81	111
8	169	847	900	1800	3050	1580	814	496	242	157	78	174
9	160	682	765	2050	2400	1260	767	480	234	150	76	562
10	155	585	690	1800	1950	1010	855	455	250	148	75	1010
11	148	550	2020	1550	1600	881	872	455	240	145	75	528
12	143	491	1760	1550	1380	783	775	422	235	143	75	305
13	138	517	3700	1480	1240	752	707	403	242	138	76	228
14	138	475	12000	1330	1170	688	665	455	235	136	76	193
15	134	475	9000	1600	1210	648	722	933	229	132	73	169
16	132	460	6200	5000	1140	609	707	806	222	129	75	155
17	132	417	4000	3500	1110	585	700	688	220	129	75	143
18	127	390	2400	1900	1220	567	707	626	220	125	73	134
19	127	370	1900	2550	1190	545	924	562	215	121	72	127
20	125	350	1490	2400	1130	528	1200	517	209	117	67	123
21	121	6200	1290	2050	1080	517	1140	485	202	113	73	121
22	121	5000	1200	1740	1020	539	1040	455	199	109	78	117
23	123	4000	1800	1620	993	677	1000	426	198	105	75	113
24	150	7000	2700	1300	985	715	968	431	197	102	93	109
25	924	5100	1900	1110	960	626	1010	417	196	98	174	105
26	556	3500	1640	970	872	579	968	390	187	95	98	102
27	343	2500	1520	880	798	545	889	377	181	93	84	102
28	290	1700	1590	810	737	512	855	360	179	93	78	102
29	579	1300	1720	750	---	485	798	351	177	90	76	100
30	1170	1050	2000	710	---	470	783	335	178	88	76	100
31	682	---	1780	680	---	455	---	324	---	88	76	---
TOTAL	8399	51055	72795	55520	51395	21646	25665	15998	6828	4046	2540	5661
MEAN	271	1702	2348	1791	1836	698	856	516	228	131	81.9	189
MAX	1170	7000	12000	5000	8600	1580	1260	933	312	178	174	1010
MIN	121	350	690	680	737	455	470	324	177	88	67	72
AC-FT	16660	101300	144400	110100	101900	42930	50910	31730	13540	8030	5040	11230

CAL YR 1977 TOTAL 185575 MEAN 508 MAX 12000 MIN 51 AC-FT 368100  
WTR YR 1978 TOTAL 321548 MEAN 881 MAX 12000 MIN 67 AC-FT 637800

## KLAMATH RIVER BASIN

11530300 BLUE CREEK NEAR KLAMATH, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to September 1978 (discontinued).

CHEMICAL ANALYSES: Water year 1977.

WATER TEMPERATURES: Water years 1966 to September 1978 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1965 to September 1978 (discontinued).

INSTRUMENTATION.--Temperature recorder since October 1965.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 27.0°C July 23, 1970; minimum recorded, 3.5°C Dec. 11, 12, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 21.5°C July 21.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.5	12.0	12.5	12.0	8.5	8.0	---	---	---	---	8.5	8.0
2	13.0	12.0	12.5	11.5	8.5	8.5	---	---	---	---	9.0	8.5
3	13.0	12.5	11.5	11.0	8.5	8.5	---	---	---	---	9.0	8.5
4	13.0	12.5	11.5	11.0	8.5	8.5	---	---	---	---	9.0	8.5
5	13.5	13.5	11.0	11.0	8.5	8.0	---	---	---	---	9.0	8.5
6	13.5	13.5	11.0	10.5	8.5	8.5	---	---	---	---	9.0	8.0
7	13.5	13.0	11.0	10.5	8.5	8.5	---	---	---	---	9.0	9.0
8	13.5	13.0	11.0	10.0	8.5	8.0	---	---	---	---	9.0	9.0
9	13.5	13.0	10.5	10.0	8.0	8.0	---	---	---	---	9.0	8.5
10	13.5	13.0	11.0	10.0	8.0	8.0	---	---	---	---	9.0	8.5
11	13.5	13.0	10.5	10.0	8.5	8.0	---	---	---	---	9.0	8.0
12	13.5	13.5	10.5	10.0	8.5	8.0	---	---	---	---	8.5	7.5
13	13.5	13.5	11.0	10.5	8.5	8.0	---	---	---	---	9.0	8.0
14	13.5	13.5	10.5	10.5	---	---	---	---	---	---	8.5	7.5
15	13.5	13.5	11.0	10.5	---	---	---	---	---	---	9.0	8.0
16	13.5	13.0	10.5	10.0	---	---	---	---	---	---	9.5	8.0
17	13.5	13.0	10.0	9.5	---	---	---	---	---	---	9.5	8.5
18	13.5	13.5	10.0	9.0	---	---	---	---	---	---	9.5	8.5
19	13.5	12.5	9.0	8.5	---	---	---	---	---	---	9.0	9.0
20	13.5	13.5	9.0	8.5	---	---	---	---	---	---	10.0	9.0
21	13.5	13.0	9.0	9.0	---	---	---	---	---	---	9.5	9.5
22	13.5	13.0	9.5	9.0	---	---	---	---	---	---	10.0	9.5
23	13.5	13.5	9.0	9.0	---	---	---	---	---	---	9.5	9.0
24	13.5	13.5	9.0	9.0	---	---	---	---	9.0	8.5	10.0	9.0
25	13.5	13.0	9.5	9.0	---	---	---	---	9.0	8.5	10.0	9.0
26	13.5	13.0	9.0	8.5	---	---	---	---	9.0	8.5	10.0	9.0
27	13.0	12.5	8.5	8.5	---	---	---	---	9.0	8.5	10.0	9.0
28	13.5	12.5	8.5	8.5	---	---	---	---	9.0	8.0	10.0	9.0
29	12.5	12.5	8.5	8.5	---	---	---	---	---	---	10.0	9.5
30	12.5	11.5	8.5	8.5	---	---	---	---	---	---	9.5	9.0
31	12.5	12.0	---	---	---	---	---	---	---	---	9.5	8.5
MONTH	13.5	11.5	12.5	8.5	8.5	8.0	---	---	9.0	8.0	10.0	7.5

11530300 BLUE CREEK NEAR KLAMATH, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	8.5	12.5	11.0	15.0	13.5	16.0	16.0	19.0	18.0	17.5	16.5
2	9.5	9.0	12.5	11.5	15.0	14.0	16.0	16.0	19.0	18.0	17.5	16.5
3	9.5	9.0	12.5	11.5	15.0	14.0	16.5	15.5	19.0	18.0	17.0	17.0
4	9.5	9.0	12.5	11.5	15.5	14.0	17.0	16.0	19.0	18.0	17.0	16.5
5	9.0	9.0	12.5	11.0	16.0	14.5	17.0	16.0	19.0	18.0	16.5	16.5
6	9.5	9.0	12.5	11.5	16.0	15.0	17.5	16.0	19.5	18.5	17.0	16.5
7	10.0	8.5	13.5	12.0	16.0	15.0	18.0	16.5	19.5	17.5	16.5	16.0
8	10.5	9.0	13.5	12.5	16.0	15.0	18.5	16.5	20.0	17.5	16.0	16.0
9	11.0	9.5	13.0	12.5	15.5	15.0	18.0	17.0	19.5	18.0	16.0	15.5
10	11.0	10.0	13.0	12.5	15.5	14.5	18.0	17.0	19.0	18.0	15.5	15.5
11	11.0	10.0	13.0	12.5	15.5	14.0	18.0	16.5	18.5	17.5	16.0	15.0
12	11.0	10.0	13.5	12.0	15.5	15.0	18.0	17.0	18.5	18.0	16.0	15.0
13	10.5	10.0	13.0	12.5	16.0	15.0	18.0	17.0	18.5	17.0	15.5	15.0
14	10.0	9.5	13.0	12.5	16.0	14.5	19.5	17.0	18.0	16.5	16.0	15.0
15	9.5	9.5	12.5	12.0	16.0	14.5	18.5	18.5	18.5	17.5	16.0	15.0
16	10.0	9.5	13.5	12.0	16.0	14.5	19.5	18.0	18.0	17.0	16.0	15.0
17	10.5	9.5	13.5	12.5	16.5	15.0	20.5	18.5	18.0	16.5	16.0	15.0
18	10.5	10.0	13.0	12.5	16.0	15.0	20.5	18.0	18.0	16.5	16.0	15.0
19	10.0	10.0	14.0	12.5	16.5	15.0	21.0	18.5	18.0	16.5	15.0	14.0
20	10.0	10.0	14.0	12.5	16.0	15.5	20.5	18.5	17.0	17.0	15.0	14.5
21	10.5	10.0	13.5	13.0	16.0	15.0	21.5	19.0	17.0	17.0	15.0	14.5
22	10.5	10.0	14.0	12.5	16.0	15.0	21.0	19.0	17.5	17.0	15.5	15.0
23	11.5	10.5	13.5	12.5	16.0	15.0	21.0	19.0	17.5	17.0	15.5	14.5
24	11.5	11.0	13.0	12.5	16.5	15.5	21.0	19.0	17.0	15.5	15.5	15.0
25	11.5	11.0	13.5	12.0	16.0	15.0	20.0	19.0	15.5	15.0	15.5	15.0
26	11.5	11.0	13.5	13.0	16.5	15.0	20.0	19.0	17.0	16.0	15.5	15.0
27	11.5	11.0	14.5	13.0	16.5	15.5	19.0	18.0	17.5	16.0	15.5	15.0
28	11.5	11.0	14.5	13.5	16.5	15.5	19.0	17.5	17.0	16.5	15.5	15.0
29	11.5	11.0	15.0	13.5	16.0	15.5	19.5	18.0	17.0	16.5	---	---
30	11.5	11.5	15.0	13.5	16.5	16.0	19.0	18.0	17.5	16.5	---	---
31	---	---	15.0	13.5	---	---	19.0	18.0	17.5	16.5	---	---
MONTH	11.5	8.5	15.0	11.0	16.5	13.5	21.5	15.5	20.0	15.0	17.5	14.0

## 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 SW¼ sec.13, T.13 N., R.2 E., Del Norte County, Hydrologic Unit 18010209, on right bank 0.2 mi (0.3 km) upstream from Turwar Creek, and 2.2 mi (3.5 km) southeast of Klamath.

DRAINAGE AREA.--12,100 mi<sup>2</sup> (31,340 km<sup>2</sup>), 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.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to June 1926, nonrecording gage at site 2.6 mi (4.2 km) upstream at different datum. June 1926 to Oct. 2, 1975, at site 2.6 mi (4.2 km) upstream at datum 5.60 ft (1.707 m) higher.

REMARKS.--Records fair including those for period of no gage-height record, Dec. 11-16. Flow generally affected by tide. Flow considerably regulated by reservoirs and powerplants above station. Large diversions for irrigation above station.

AVERAGE DISCHARGE.--44 years, 17,470 ft<sup>3</sup>/s (494.8 m<sup>3</sup>/s), 12,660,000 acre-ft/yr (15.6 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 557,000 ft<sup>3</sup>/s (15,800 m<sup>3</sup>/s) Dec. 23, 1964, gage height, 55.3 ft (16.86 m) former datum, from floodmarks, from rating curve extended above 230,000 ft<sup>3</sup>/s (6,510 m<sup>3</sup>/s) on basis of flood-routing study; minimum daily, 1,310 ft<sup>3</sup>/s (37.1 m<sup>3</sup>/s) Sept. 4, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 90,000 ft<sup>3</sup>/s (2,550 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 26	unknown	189000 5350	unknown
Dec. 14	do	*312000 8840	do
Jan. 17	1045	128000 3620	22.22 6.773

Minimum daily discharge, 3,240 ft<sup>3</sup>/s (91.8 m<sup>3</sup>/s) Aug. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6370	7100	25000	33100	23000	21600	25700	20400	12500	7690	3860	3400
2	5030	6390	20000	30200	28000	21200	27100	19500	12400	7350	3700	3340
3	4410	6500	21000	32200	55500	21500	25000	19500	12100	7160	3820	3610
4	4170	6670	25000	32000	52000	23300	25500	19700	12200	7040	3770	3840
5	4010	12600	22000	40500	41800	26600	26700	18900	12600	6770	3700	4380
6	4000	15200	20000	52300	46200	28700	30800	17800	12900	6440	3600	5860
7	3920	11100	17000	45200	54800	27300	30300	16700	12700	6320	3520	6120
8	3830	9090	15200	39300	74600	41300	27800	16400	12200	6270	3460	5600
9	3740	7950	14500	50900	68400	62100	25900	17200	11900	6300	3490	6710
10	3630	7070	13300	62900	59700	50000	25400	17800	11500	6050	3490	13100
11	3510	6640	20000	49900	51700	44000	26200	17500	10800	6070	3430	12700
12	3530	6590	35000	43000	46000	38000	26600	16800	10100	5980	3400	8570
13	3500	6570	100000	39100	42100	34000	25500	16300	9760	5890	3350	6860
14	3500	6550	260000	46500	38800	31000	24800	17000	9520	5740	3340	5970
15	3530	6300	170000	65900	35600	29000	24700	20800	9300	5560	3300	5480
16	3540	6460	105000	95600	32500	27000	24700	20400	8970	5350	3360	5210
17	3500	6540	82300	122000	31200	25000	23700	17900	8590	5110	3340	5070
18	3670	6250	65600	96800	30200	23400	22500	16600	8250	4900	3260	4890
19	3620	6000	51100	89000	29900	23100	22600	16200	8220	4860	3260	4790
20	3460	5840	40600	80300	29600	23000	25200	16800	8360	4830	3280	4700
21	3500	16000	33300	66600	29400	23300	24500	17500	8420	4610	3240	4580
22	3460	42500	30500	57300	29200	24400	23600	17800	8330	4490	3400	4490
23	4130	40000	32900	49300	28700	26900	22300	17200	8040	4440	3660	4350
24	3510	80000	43600	42800	27600	29400	21700	16200	7830	4330	3870	4320
25	5900	70000	37800	37400	26500	26700	21200	14700	7510	4420	4070	4250
26	8520	140000	32400	32900	25200	24900	22400	13800	7080	4560	4160	4210
27	7200	100000	31600	30200	24000	24400	22200	12900	6920	4540	3950	4150
28	5840	56000	37800	27900	22700	24300	21600	12400	7070	4500	3750	4110
29	5650	40000	37100	25700	---	23800	21200	12800	8100	4450	3650	4090
30	8450	31000	40400	24400	---	23800	20800	12800	8310	4250	3550	4050
31	9040	---	37900	23300	---	23900	---	12400	---	3990	3400	---
TOTAL	143670	768910	1517900	1564500	1084900	896900	738200	520700	292480	170260	110430	162800
MEAN	4635	25630	48960	50470	38750	28930	24610	16800	9749	5492	3562	5427
MAX	9040	140000	260000	122000	74600	62100	30800	20800	12900	7690	4160	13100
MIN	3460	5840	13300	23300	22700	21200	20800	12400	6920	3990	3240	3340
AC-FT	285000	1525000	3011000	3103000	2152000	1779000	1464000	1033000	580100	337700	219000	322900
CAL YR 1977	TOTAL	3527830	MEAN	9665	MAX	260000	MIN	1310	AC-FT	6997000		
WTR YR 1978	TOTAL	7971650	MEAN	21840	MAX	260000	MIN	3240	AC-FT	15810000		

## 11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

CHEMICAL ANALYSES: Water years 1951 to current year.

BIOLOGICAL DATA: Water years 1975 to current year.

SPECIFIC CONDUCTANCE: Water years 1975 to current year.

WATER TEMPERATURES: Water years 1966 to current year.

SEDIMENT RECORDS: Water years 1955-56, 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to current year.

WATER TEMPERATURES: November 1965 to current year.

INSTRUMENTATION.--Temperature recorder since November 1965.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 26.0°C Aug. 29, 30, Sept. 4, 1977, Aug. 14, 1978; minimum recorded, 2.5°C Feb. 2, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 26.0°C Aug. 14; minimum recorded, 4.5°C Dec. 13.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW (CFS)	STREAM- INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	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)
OCT											
19...	1530	3620	3580	205	8.1	15.5	2.0	10.5	--	K5	13
NOV											
22...	1545	42500	41300	100	7.3	--	170	11.6	--	110	180
DEC											
29...	1500	37100	36500	129	7.9	8.5	55	11.9	--	31	120
JAN											
25...	1645	37400	36100	135	8.2	7.0	60	12.0	98	K11	110
25...	1650	37400	36100	135	8.2	7.0	--	--	--	--	--
FEB											
16...	1345	32500	32300	--	--	--	--	--	--	--	--
16...	1400	32500	32200	136	7.9	8.0	45	12.0	--	K7	84
MAR											
21...	1300	23300	23200	145	8.0	11.5	25	10.7	--	K3	K3
21...	1330	23300	23000	145	8.0	11.5	--	--	--	--	--
APR											
28...	1345	21600	21300	143	7.8	12.5	20	10.2	96	K2	K2
MAY											
25...	1350	14700	14300	--	--	--	--	--	--	--	--
25...	1400	14700	14300	137	7.9	13.0	5.2	10.3	--	K4	K1
JUN											
27...	1630	6920	6870	146	8.1	20.5	1.5	9.0	--	K2	K1
JUL											
26...	1300	4560	4650	170	7.9	22.0	1.0	9.5	--	K3	K1
AUG											
23...	1350	3660	3640	--	--	--	--	--	--	--	--
23...	1400	3660	3640	178	8.3	19.5	2.5	10.2	--	K5	K2
SEP											
25...	1600	4250	4110	190	8.5	19.0	1.1	11.0	--	12	K2

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

## KLAMATH RIVER BASIN

11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CAC03)
OCT 19...	83	0	18	9.2	12	23	.6	1.8	110	0	90
NOV 22...	43	3	9.8	4.6	3.5	15	.2	.7	49	0	40
DEC 29...	62	10	15	6.0	5.1	15	.3	1.1	63	0	52
JAN 25...	62	1	14	6.6	4.7	14	.3	.9	75	0	62
25...	--	--	--	--	--	--	--	--	--	--	--
FEB 16...	--	--	--	--	--	--	--	--	--	--	--
16...	69	6	16	7.0	4.4	12	.2	.9	77	0	63
MAR 21...	72	4	17	7.2	5.7	14	.3	.9	83	0	68
21...	--	--	--	--	--	--	--	--	--	--	--
APR 28...	68	2	16	6.7	5.6	15	.3	.9	80	0	66
MAY 25...	--	--	--	--	--	--	--	--	--	--	--
25...	66	4	16	6.3	5.6	15	.3	.8	--	--	62
JUN 27...	68	1	16	6.8	5.1	14	.3	.9	--	--	67
JUL 26...	73	0	17	7.5	6.4	16	.3	1.2	--	--	75
AUG 23...	--	--	--	--	--	--	--	--	--	--	--
23...	75	0	17	7.8	7.9	18	.4	1.5	--	--	81
SEP 25...	79	0	18	8.2	9.1	20	.4	1.5	--	--	85

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT 19...	13	6.0	.1	20	126	134	.17	.05	.03	--
NOV 22...	10	3.1	.1	11	61	67	.08	.15	.03	--
DEC 29...	6.7	2.8	.1	16	89	84	.12	.19	.09	--
JAN 25...	7.0	2.5	.1	17	101	90	.14	.16	.04	.03
25...	--	--	--	--	--	--	--	--	--	--
FEB 16...	--	--	--	--	--	--	--	--	--	--
16...	9.7	2.4	.1	17	85	95	.12	.18	.01	.01
MAR 21...	8.3	9.3	.1	15	94	104	.13	.08	.01	.48
21...	--	--	--	--	--	--	--	--	--	--
APR 28...	8.7	2.3	.1	15	92	95	.13	.09	.11	.27
MAY 25...	--	--	--	--	--	--	--	--	--	--
25...	7.9	2.3	.1	13	83	83	.11	.02	.01	--
JUN 27...	5.5	2.6	.1	14	85	92	.12	.01	.01	.19
JUL 26...	6.5	3.6	.1	12	97	99	.13	.01	.00	.16
AUG 23...	--	--	--	--	--	--	--	--	--	--
23...	7.9	4.2	.5	17	110	113	.15	.00	.01	.29
SEP 25...	11	5.1	.1	19	118	123	.16	.13	.01	.28



11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED TOTAL (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	PCB, TOTAL (UG/L)
OCT 19...	--	--	.20	--	.09	.09	4.1	--	--	--
NOV 22...	--	--	.22	--	.47	.06	12	--	--	ND
DEC 29...	--	--	.31	--	.30	.28	--	2.1	.7	--
JAN 25...	.07	.00	.10	.23	.14	.04	--	--	--	--
FEB 25...	--	--	--	--	--	--	2.1	--	--	--
MAR 16...	--	--	--	--	--	--	--	--	--	ND
MAR 16...	.02	.00	.06	.20	.11	.04	2.9	--	--	--
MAR 21...	.49	.21	.28	.57	.02	.03	--	2.3	--	--
MAR 21...	--	--	--	--	--	--	--	--	--	--
APR 28...	.38	.15	.23	.47	.06	.01	2.2	2.9	.4	--
MAY 25...	--	--	--	--	--	--	--	--	--	ND
MAY 25...	--	--	.24	--	.03	.04	2.0	--	--	--
JUN 27...	.20	.08	.12	.21	.03	.02	--	1.4	.2	--
JUL 26...	.16	.00	.20	.17	.02	.02	2.2	--	--	--
AUG 23...	--	--	--	--	--	--	--	--	--	ND
SEP 23...	.30	.00	.30	.30	.06	.05	3.6	--	--	--
SEP 25...	.29	.00	.32	.42	.05	.05	--	3.3	.1	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS- PENDED TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, SUS- PENDED RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED TOTAL (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDED RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED TOTAL (UG/L AS CD)
DEC 29...	1500	2	1	1	100	100	0	4	3	1
APR 28...	1345	2	1	1	100	100	0	1	0	1
JUN 27...	1630	1	0	1	200	0	200	1	1	0
SEP 25...	1600	3	1	2	0	0	0	4	2	2

DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDED RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED TOTAL (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, SUS- PENDED RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED TOTAL (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDED RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED TOTAL (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
DEC 29...	40	30	10	4	4	0	33	31	2	7000
APR 28...	10	10	0	2	2	0	8	6	2	2400
JUN 27...	5	0	5	0	0	0	12	9	3	460
SEP 25...	10	0	10	0	0	0	11	10	1	140

DATE	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED TOTAL (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDED RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED TOTAL (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED TOTAL (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG)
DEC 29...	--	50	69	63	6	140	140	0	.1	.1
APR 28...	--	20	22	15	7	60	60	0	.0	.0
JUN 27...	410	50	18	12	6	20	10	10	.0	.0
SEP 25...	90	50	52	35	17	10	0	10	.0	.0

ND Material specifically analyzed for but not detected.

## KLAMATH RIVER BASIN

11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDED TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, SUS- PENDED RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDED RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 29...	.0	0	0	0	1	1	0	60	50	10
APR 28...	.0	0	0	0	0	0	0	30	20	10
JUN 27...	.0	0	0	0	0	0	0	20	10	10
SEP 25...	.0	0	0	0	0	0	0	30	30	0

DATE	TIME	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	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 29...	1500	100	98	<1.2	2.8	1.4	2.7	1.2	2.5	.01	.12
JUN 27...	1630	--	--	--	--	--	--	--	--	--	.16

DATE	TIME	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)
NOV 22...	1545	ND	ND	ND	ND	ND	ND	ND
FEB 16...	1345	ND	ND	ND	ND	ND	ND	ND
MAY 25...	1350	ND	ND	ND	ND	ND	ND	ND
AUG 23...	1350	ND	--	ND	ND	ND	ND	ND

DATE	DI- ELDRIN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)
NOV 22...	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 16...	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY 25...	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 23...	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	SIMA- ZINE TOTAL COUL- SON COND. (UG/L)
NOV 22...	ND	ND	ND	ND	ND	ND	ND	ND
FEB 16...	ND	ND	ND	ND	ND	ND	ND	ND
MAY 25...	ND	ND	ND	ND	--	--	--	ND
AUG 23...	ND	ND	ND	ND	--	--	--	--

ND Material specifically analyzed for but not detected.

11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PHYTOPLANKTON

DATE TIME	NOV 22,77 1545	MAR 21,78 1330	MAY 25,78 1400	JUN 27,78 1630				
TOTAL CELLS/ML	1700	590	9200	810				
DIVERSITY: DIVISION	0.0	0.2	1.6	0.8				
..CLASS	0.0	0.2	1.6	0.8				
...ORDER	0.0	0.4	2.2	0.8				
...FAMILY	1.8	0.4	2.6	1.5				
....GENUS	2.1	0.4	2.9	1.5				
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	130	1	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	14	2	89	1	--	-
....CHLORELLA	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	* 0		--	-
....OOCYSTIS	--	-	--	-	360	4	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	360	4	--	-
...SCENEDESMUS	--	-	--	-	--	-	--	-
....TETRASTRUM	--	-	--	-	180	2	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-
...VOLVOCAEAE								
....PANDORINA	--	-	--	-	800	9	--	-
CHRYSOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	540#	93	2700#	30	--	-
....MELOSIRA	* 0		--	-	--	-	--	-
....STEPHANODISCUS	--	-	--	-	630	7	--	-
...PENNALES								
....ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	89	1	--	-
....COCCONEIS	190	11	--	-	--	-	44	5
....RHOICOSPHENIA	* 0		--	-	--	-	--	-
...CYMBELLACEAE								
....CYMBELLA	190	11	--	-	--	-	--	-
....EPITHEMIA	380#	22	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	* 0		--	-	270	3	73	9
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	--	-	89	1	--	-
...FRAGILARIA	* 0		--	-	--	-	--	-
....SYNEDRA	* 0		27	5	89	1	--	-
...GOMPHONEMACEAE								
....GOMPHONEIS	--	-	--	-	--	-	--	-
....GOMPHONEA	190	11	* 0		--	-	44	5
...NAVICULACEAE								
....NAVICULA	760#	44	--	-	310	3	29	4
...NITZSCHACEAE								
....NITZSCHIA	* 0		--	-	89	1	--	-
...TABELLARIACEAE								
....TABELLARIA	--	-	--	-	--	-	29	4
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...HORMOGONALES								
...OSCILLATORIACEAE								
....PHORMIDIUM	--	-	--	-	--	-	--	-
...CHROCCOCCALES								
...CHROCCOCCAEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	--	-	2800#	30	--	-
...HORMOGONALES								
...NOSTOCACEAE								
....APHANIZOMENON	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	590#	73
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	130	1	--	-

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

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

## KLAMATH RIVER BASIN

11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PHYTOPLANKTON

DATE TIME	JUL 26,78 1300		AUG 23,78 1400		SEP 25,78 1515	
TOTAL CELLS/ML	9000		84000		1700	
DIVERSITY: DIVISION	1.1		0.2		1.2	
..CLASS	1.1		0.2		1.2	
...ORDER	1.7		0.6		1.6	
...FAMILY	2.2		0.6		2.3	
....GENUS	2.4		0.7		2.3	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
....MICRACTINIACEAE						
.....GOLENKINIA	--	-	--	-	--	-
....OOCYSTACEAE						
.....ANKISTRODESMUS	*	0	--	-	--	-
.....CHLORELLA	--	-	--	-	14	1
.....DICTYOSPHAERIUM	350	4	--	-	--	-
.....KIRCHNERIELLA	150	2	--	-	--	-
.....OOCYSTIS	--	-	--	-	--	-
.....SELENASTRUM	--	-	--	-	14	1
.....TETRAEDRON	*	0	--	-	--	-
....SCENEDESMACEAE						
.....ACTINASTRUM	--	-	--	-	--	-
....SCENEDESMUS	530	6	970	1	56	3
.....TETRASTRUM	--	-	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	220	2	--	-	42	2
...VOLVOCAEAE						
....PANDORINA	--	-	--	-	--	-
CHRYSOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
....COSCINODISCACEAE						
.....CYCLOTELLA	330	4	--	-	42	2
....MELOSIRA	--	-	--	-	--	-
....STEPHANODISCUS	--	-	--	-	--	-
...PENNALES						
....ACHNANTHACEAE						
.....ACHNANTHES	--	-	--	-	--	-
....COCCONEIS	110	1	--	-	83	5
....RHOICOSPHEA	--	-	--	-	14	1
....CYMBELLACEAE						
.....CYMBELLA	*	0	--	-	14	1
.....EPITHEMIA	150	2	--	-	--	-
....DIATOMACEAE						
.....DIATOMA	*	0	--	-	42	2
....FRAGILARIACEAE						
.....ASTERIONELLA	--	-	--	-	--	-
....FRAGILARIA	--	-	--	-	--	-
.....SYNEDRA	--	-	--	-	28	2
....GOMPHONEMACEAE						
.....GOMPHONEIS	--	-	--	-	28	2
.....GOMPHONEA	*	0	--	-	--	-
....NAVICULACEAE						
.....NAVICULA	110	1	--	-	70	4
....NITZSCHACEAE						
.....NITZSCHIA	180	2	1200	1	170	10
....TABELLARIACEAE						
.....TABELLARIA	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...HORMOGONALES						
....OSCILLATORIACEAE						
.....PHORMIDIUM	--	-	74000#	89	--	-
...CHROCOCCALES						
....CHROCOCCACEAE						
.....AGMENELLUM	180	2	1400	2	--	-
.....ANACYSTIS	690	8	6100	7	56	3
...HORMOGONALES						
....NOSTOCACEAE						
.....APHANIZOMENON	5500#	61	--	-	--	-
....OSCILLATORIACEAE						
.....OSCILLATORIA	310	3	--	-	1000#	61
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
....EUGLENACEAE						
.....EUGLENA	*	0	--	-	--	-
....TRACHELONAS	--	-	--	-	--	-

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

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

11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll <sup>a</sup> (mg/m <sup>2</sup> )	Chlorophyll <sup>b</sup> (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
Apr. 28	39	19.0	17.2	21.0	0.000	85.7	Polyethylene strip do do
Aug. 23	29	3.39	2.28	.91	.150	1220	
Sept. 25	34	4.09	2.76	2.78	.460	478	

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170	203	222	---	222				---	---	---	---
2	118	215	203	---	216				---	---	173	186
3	127	215	203	---	216				---	---	---	178
4	---	211	203	133	237				---	---	176	171
5	---	207	215	136	237				---	---	---	---
6	---	207	211	138	226				---	---	---	166
7	127	200	191	138	---				---	149	175	166
8	136	211	191	130	---				---	158	---	168
9	127	189	---	---	---				---	156	173	161
10	136	189	201	144	---				---	156	---	153
11	194	---	212	---	---				---	155	179	143
12	200	189	205	---	---				---	159	---	136
13	184	200	205	---	---				---	163	---	173
14	200	200	189	170	---				---	160	179	179
15	184	203	142	200	---				---	139	---	158
16	189	205	145	---	---				---	175	180	176
17	189	208	127	---	---				---	172	---	175
18	189	218	127	191	---				---	170	183	176
19	205	218	124	---	---				---	171	---	---
20	211	205	124	---	---				---	167	---	154
21	211	211	118	---	---				---	169	173	182
22	200	---	127	191	---				---	164	---	---
23	203	211	133	201	---				---	163	---	---
24	216	196	---	205	---				---	157	---	174
25	216	196	---	---	---				---	167	---	175
26	218	207	133	205	---				145	160	---	---
27	224	207	130	---	---				147	---	---	195
28	216	216	127	---	---				148	159	185	196
29	205	227	127	211	---				138	---	---	189
30	216	211	130	211	---				143	166	191	---
31	---	---	---	---	---				---	---	184	---
MEAN	186	206	165	174	226				144	162	179	171

11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	15.5	15.0	8.5	8.0	8.5	8.0	6.5	6.5	9.5	9.0
2	---	---	16.0	15.0	8.5	8.0	8.5	7.5	6.5	6.0	9.0	9.0
3	---	---	15.5	15.0	8.0	8.0	---	---	6.0	5.0	9.5	9.0
4	---	---	---	---	8.0	7.5	---	---	6.0	5.5	9.5	9.0
5	---	---	---	---	8.0	8.0	---	---	6.5	6.0	9.5	9.0
6	---	---	---	---	8.0	8.0	---	---	6.5	6.0	9.5	9.0
7	---	---	---	---	8.0	7.5	---	---	6.5	6.5	9.5	9.0
8	---	---	---	---	7.5	7.0	---	---	7.5	6.5	9.5	9.0
9	---	---	---	---	8.0	7.5	---	---	7.0	7.0	9.5	9.0
10	---	---	---	---	7.5	6.0	---	---	7.5	7.0	9.5	9.0
11	---	---	---	---	6.0	5.0	---	---	8.0	7.0	10.0	9.5
12	---	---	---	---	5.5	5.0	---	---	8.0	7.5	10.0	9.5
13	---	---	---	---	5.0	4.5	---	---	8.0	7.5	10.0	9.5
14	---	---	---	---	---	---	---	---	8.0	7.5	10.5	10.0
15	---	---	---	---	---	---	---	---	8.5	7.5	10.5	10.0
16	---	---	---	---	---	---	---	---	8.0	7.5	11.0	10.0
17	---	---	---	---	---	---	---	---	7.5	7.0	11.0	10.5
18	---	---	---	---	---	---	---	---	8.0	7.0	11.5	10.5
19	16.0	15.5	---	---	---	---	---	---	8.0	7.5	11.0	10.5
20	16.0	15.5	---	---	---	---	---	---	8.5	7.5	11.5	11.0
21	16.0	15.0	---	---	---	---	---	---	8.5	8.0	11.5	11.0
22	15.5	14.5	7.5	6.5	---	---	---	---	9.0	8.0	11.5	10.5
23	16.0	15.0	7.0	6.5	---	---	---	---	9.0	8.5	11.5	11.0
24	17.0	16.0	7.5	7.0	---	---	---	---	9.0	8.5	11.5	11.0
25	17.0	16.5	8.0	7.5	---	---	7.0	6.0	9.5	9.0	11.5	11.0
26	17.0	16.0	7.5	7.5	---	---	6.5	6.0	10.0	9.0	12.0	11.0
27	16.5	15.0	8.0	7.5	---	---	6.5	6.0	10.0	9.5	12.0	11.0
28	15.5	15.5	8.5	8.0	---	---	6.0	6.0	10.0	9.0	12.0	11.5
29	15.5	15.0	8.5	8.0	8.5	8.0	6.0	6.0	---	---	12.0	11.5
30	15.5	15.0	8.5	8.0	9.5	8.5	6.5	6.0	---	---	12.5	12.0
31	15.5	15.0	---	---	9.5	8.5	7.0	6.0	---	---	12.5	12.0
MONTH	17.0	14.5	16.0	6.5	9.5	4.5	8.5	6.0	10.0	5.0	12.5	9.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.5	12.0	13.0	12.5	17.5	17.5	20.0	19.5	23.5	20.5	23.5	19.0
2	12.0	11.5	13.0	12.5	18.0	17.5	19.5	19.0	23.5	20.0	24.0	19.5
3	12.0	11.5	13.5	13.0	18.5	17.5	21.0	19.0	23.5	20.0	20.5	19.0
4	11.5	11.5	13.5	13.5	20.0	18.5	20.5	20.0	24.0	20.0	19.0	18.0
5	11.5	11.0	13.5	13.5	21.0	19.0	21.5	19.5	23.5	20.0	18.0	17.0
6	11.5	11.0	13.5	13.0	21.0	19.5	22.5	20.0	25.0	20.0	17.5	16.5
7	11.5	11.0	13.5	13.0	20.5	19.5	23.0	20.5	25.0	21.0	18.0	16.5
8	11.5	11.0	14.0	13.5	20.0	19.5	23.0	20.5	25.5	21.0	17.0	16.5
9	11.5	10.5	14.0	14.0	20.0	19.5	22.5	20.5	24.0	21.0	16.5	16.5
10	12.5	11.5	14.0	14.0	19.5	19.5	23.5	20.5	23.5	20.5	17.0	16.5
11	13.0	12.0	14.0	14.0	19.5	19.0	23.0	21.0	24.0	20.0	17.0	16.5
12	13.5	12.5	14.0	14.0	19.0	19.0	22.5	20.5	22.5	19.5	16.5	16.5
13	13.0	12.5	14.0	13.5	19.5	18.5	22.5	20.5	23.5	19.5	17.0	16.5
14	12.5	12.5	14.0	13.5	19.0	18.5	23.5	20.5	26.0	19.5	18.5	16.5
15	12.5	12.0	14.0	13.5	19.5	18.5	22.0	20.5	21.5	20.0	19.5	17.5
16	12.0	11.5	13.5	13.5	19.5	19.0	24.0	20.5	22.5	19.5	20.0	17.5
17	11.5	11.5	13.5	13.5	19.5	19.0	25.0	21.5	23.5	19.0	18.0	17.0
18	11.5	11.5	14.0	13.5	19.5	19.5	24.5	21.0	23.0	19.5	18.5	16.5
19	11.5	11.5	14.5	14.0	20.5	19.0	23.5	21.5	23.0	19.0	19.0	16.5
20	11.5	11.5	15.0	14.5	20.0	19.5	23.5	21.0	20.5	19.0	19.0	16.5
21	11.5	11.5	15.0	14.5	19.5	19.0	25.0	20.0	21.5	18.5	19.0	16.0
22	11.5	11.5	14.5	14.5	19.0	19.0	24.5	21.5	22.0	18.0	19.5	16.5
23	11.5	11.0	14.5	14.0	19.5	18.5	24.5	21.0	21.5	18.5	21.0	17.0
24	11.5	11.5	14.0	13.0	19.0	18.5	25.0	21.0	18.5	18.0	20.5	18.0
25	12.0	11.5	13.5	13.0	19.0	18.5	24.0	21.0	21.0	17.5	21.5	18.0
26	12.0	12.0	13.5	13.0	20.5	19.0	23.5	21.0	21.0	17.5	21.5	18.5
27	12.5	12.0	14.0	13.5	21.5	20.0	24.5	21.0	20.5	18.0	21.5	18.5
28	13.0	12.5	15.0	14.5	20.5	19.5	23.0	21.0	21.5	18.0	21.5	18.0
29	12.5	12.5	16.5	15.5	20.0	19.5	23.0	20.5	18.5	16.5	20.5	18.0
30	12.5	12.5	17.0	16.0	20.0	19.5	23.0	20.0	18.0	17.5	21.0	18.0
31	---	---	17.5	17.0	---	---	24.0	20.0	22.5	17.5	---	---
MONTH	13.5	10.5	17.5	12.5	21.5	17.5	25.0	19.0	26.0	16.5	24.0	16.0

11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT 19...	1440	15.5	3620	3580	3	29	--	--	--
NOV 22...	1525	7.5	42500	41200	837	96000	14	20	28
DEC 29...	1425	8.5	37100	36500	274	27400	--	--	--
JAN 25...	1410	7.0	37400	36900	290	29300	23	29	37
FEB 16...	1420	8.0	32500	32100	200	17600	--	--	--
MAR 21...	1400	11.5	23300	23000	170	10700	--	--	--
APR 28...	1420	13.0	21600	21400	97	5660	--	--	--
MAY 25...	1315	13.5	14700	14400	52	2060	--	--	--
JUN 27...	1610	20.5	6920	6870	12	224	--	--	--
JUL 26...	1320	22.0	4560	4650	6	74	--	--	--
AUG 23...	1400	19.5	3660	3640	7	69	--	--	--
SEP 25...	1400	18.5	4250	4150	2	23	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 19...	--	--	60	--	--	--	--	--
NOV 22...	38	46	52	64	84	97	100	--
DEC 29...	--	--	43	51	68	92	100	--
JAN 25...	44	52	58	71	89	98	100	--
FEB 16...	--	--	53	67	86	99	100	--
MAR 21...	--	--	32	39	52	71	95	100
APR 28...	--	--	50	--	--	--	--	--
MAY 25...	--	--	48	--	--	--	--	--
JUN 27...	--	--	70	--	--	--	--	--
JUL 26...	--	--	83	--	--	--	--	--
AUG 23...	--	--	69	--	--	--	--	--
SEP 25...	--	--	48	--	--	--	--	--

## SMITH RIVER BASIN

11532000 SOUTH FORK SMITH RIVER NEAR CRESCENT CITY, CA

LOCATION.--Lat 41°47'28", long 124°01'29", unsurveyed, Del Norte County, Hydrologic Unit 18010101, Six Rivers National Forest, on left bank 0.1 mi (0.2 km) downstream from Craigs Creek, 2.0 mi (3.2 km) upstream from mouth, and 9.2 mi (14.8 km) northeast of Crescent City.

DRAINAGE AREA.--291 mi<sup>2</sup> (754 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1911 to September 1913, August 1954 to September 1961, August 1977 to current year. Annual maximums, water years 1962-76.

GAGE.--Water-stage recorder. Altitude of gage is 150 ft (46 m), from topographic map. Sept. 9, 1911, to Sept. 30, 1913, nonrecording gage at site 1.8 mi (2.9 km) downstream at different datum. Aug. 17, 1954, to Sept. 30, 1961, at site 100 ft (30 m) upstream at same datum. Oct. 1, 1961, to Sept. 30, 1976, crest-stage gage only, at site 100 ft (30 m) upstream at same datum.

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

AVERAGE DISCHARGE.--10 years, 1,942 ft<sup>3</sup>/s (55.00 m<sup>3</sup>/s), 1,407,000 acre-ft/yr (1.73 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 162,000 ft<sup>3</sup>/s (4,590 m<sup>3</sup>/s) Dec. 22, 1964, gage-height, 43.8 ft (13.35 m), from floodmarks, site then in use, from rating curve extended above 42,000 ft<sup>3</sup>/s (1,190 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 36.95 ft (11.262 m); minimum daily, 90 ft<sup>3</sup>/s (2.55 m<sup>3</sup>/s) Sept. 13-15, 1977.

EXTREMES FOR CURRENT PERIOD.--August to September 1977: Maximum discharge during period, 8,450 ft<sup>3</sup>/s (239 m<sup>3</sup>/s) Sept. 28, gage height, 13.40 ft (4.084 m), no peak above base of 30,000 ft<sup>3</sup>/s (850 m<sup>3</sup>/s); minimum daily, 90 ft<sup>3</sup>/s (2.55 m<sup>3</sup>/s) Sept. 13-15.

Water year 1978: Maximum discharge, 34,100 ft<sup>3</sup>/s (966 m<sup>3</sup>/s) Dec. 14 (1600 hrs), gage height, 25.90 ft (7.894 m), from rating curve extended above 10,000 ft<sup>3</sup>/s (283 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow, no other peak above base of 30,000 ft<sup>3</sup>/s (850 m<sup>3</sup>/s); minimum daily, 148 ft<sup>3</sup>/s (4.19 m<sup>3</sup>/s) Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											---	109
2											---	106
3											---	104
4											---	104
5											---	104
6											---	104
7											---	101
8											---	97
9											---	94
10											---	93
11											---	92
12											---	92
13											---	90
14											---	90
15											---	90
16											---	97
17											104	166
18											104	249
19											104	684
20										†155	104	516
21											104	308
22											106	210
23											104	176
24											127	419
25											158	330
26											175	236
27											142	213
28											122	4690
29											122	3130
30											119	1320
31											116	---
TOTAL											---	14214
MEAN											---	474
MAX											---	4690
MIN											---	90
AC-FT											---	28190

† Result of discharge measurement.



## 11532000 SOUTH FORK SMITH RIVER NEAR CRESCENT CITY, CA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	838	1410	2320	3350	1810	1380	1130	1650	656	334	185	167
2	622	1550	1980	3190	6150	1340	1330	1520	642	336	180	163
3	505	1370	2620	3840	17700	1340	1600	1460	618	334	180	163
4	430	1650	2890	3850	8000	1580	1900	1340	602	318	177	278
5	377	5790	2560	5980	5910	1690	3700	1220	593	311	177	564
6	393	4910	2480	7400	6000	1850	3100	1130	563	301	174	456
7	387	2820	2650	5140	8980	1900	2400	1070	534	291	169	338
8	333	2040	2340	4370	7900	4640	1980	1030	522	284	164	386
9	305	1610	1980	5210	6620	3460	1840	1020	505	277	160	2450
10	283	1330	1710	4320	4960	2630	1800	975	533	269	155	4770
11	266	1230	5520	3690	3890	2210	1610	967	509	265	153	2230
12	251	1130	5600	3650	3370	1920	1480	891	482	261	156	1220
13	241	1290	17200	3430	2980	1770	1400	846	489	261	166	889
14	231	1270	28800	3420	2700	1630	1380	1010	459	254	164	710
15	219	1270	20800	4920	2660	1490	1700	2340	447	248	159	587
16	208	1290	12500	10800	2490	1370	1740	2200	433	253	158	507
17	206	1130	11400	9200	2440	1290	2020	1760	417	245	157	452
18	198	1010	7040	7100	2570	1220	2000	1530	412	236	154	426
19	192	919	4970	7680	2560	1170	2400	1350	409	232	150	393
20	188	840	3890	6430	2440	1120	3200	1210	394	226	148	365
21	181	13700	3310	5100	2280	1100	3000	1110	386	226	170	343
22	178	18200	3000	4470	2120	1140	2900	1030	381	221	192	330
23	204	10200	5010	3770	1970	2070	2900	946	375	217	174	318
24	286	16400	5830	3240	1840	2720	2550	956	378	211	272	305
25	2980	12400	4170	2840	1830	2000	2380	915	375	203	601	292
26	1900	16300	3310	2510	1740	1680	2200	857	360	198	272	281
27	1130	7410	3560	2230	1610	1500	2010	813	351	201	209	278
28	864	4800	3560	2000	1480	1340	1910	779	337	197	189	265
29	1170	3590	3900	1830	---	1230	1760	758	334	196	178	256
30	3200	2840	5550	1700	---	1170	1720	718	334	193	171	246
31	1990	---	4230	1600	---	1100	---	686	---	191	172	---
TOTAL	20756	141699	186680	138260	117000	54050	63040	36087	13830	7790	5886	20428
MEAN	670	4723	6022	4460	4179	1744	2101	1164	461	251	190	681
MAX	3200	18200	28800	10800	17700	4640	3700	2340	656	336	601	4770
MIN	178	840	1710	1600	1480	1100	1130	686	334	191	148	163
AC-FT	41170	281100	370300	274200	232100	107200	125000	71580	27430	15450	11670	40520
WTR YR 1978	TOTAL	805506	MEAN	2207	MAX	28800	MIN	148	AC-FT	1598000		

## SMITH RIVER BASIN

11532000 SOUTH FORK SMITH RIVER NEAR CRESCENT CITY, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water year 1977.

WATER TEMPERATURES: October 1977 to September 1978.

SEDIMENT RECORDS: November 1977 to September 1978.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1977 to September 1978.

SEDIMENT RECORDS: November 1977 to September 1978.

REMARKS.--Zero bedload observed at flows less than 2,100 ft<sup>3</sup>/s (59.5 m<sup>3</sup>/s).

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,330 mg/L Dec. 14; minimum daily mean, 1 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily mean, 106,000 tons (96,200 metric tons) Dec. 14; minimum daily mean, 0.42 ton (0.38 metric ton) Aug. 12.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	9.0	7.0	---	---	---	---	16.0	---	---	---
2	---	---	10.0	9.5	10.0	---	8.0	---	---	18.5	---	---
3	---	---	11.0	9.0	10.0	---	---	---	---	---	---	---
4	---	---	12.0	9.0	9.0	9.0	---	12.5	17.5	---	---	---
5	---	---	9.0	9.0	9.5	---	8.5	---	---	19.5	---	15.5
6	---	---	10.0	9.0	---	9.5	---	---	---	---	25.0	---
7	---	---	10.0	9.0	9.0	---	---	---	---	---	---	---
8	---	---	8.0	10.5	---	9.5	---	14.5	17.5	---	---	---
9	---	---	6.5	10.0	8.0	---	---	---	---	20.5	24.0	---
10	---	---	7.0	9.0	---	9.0	13.0	---	---	---	---	---
11	---	---	10.0	9.0	---	---	---	13.0	---	---	---	---
12	---	10.0	7.0	9.5	---	8.0	---	---	---	19.5	---	---
13	---	---	10.0	10.0	7.0	---	10.5	---	---	---	---	14.0
14	---	9.0	---	10.0	---	9.0	---	---	---	---	22.0	---
15	---	---	10.0	9.0	8.5	---	---	10.0	---	---	---	---
16	---	9.0	9.0	10.0	---	11.0	---	---	---	---	---	16.0
17	---	---	9.0	9.5	8.0	---	---	---	---	22.5	21.0	---
18	---	7.0	9.0	---	---	11.5	---	15.5	---	---	---	---
19	13.0	13.0	6.0	10.0	10.0	---	---	---	---	---	---	14.5
20	---	4.5	8.0	---	---	12.0	---	---	---	22.0	19.0	---
21	---	10.0	9.5	9.5	---	---	---	---	---	---	---	---
22	---	9.0	10.0	---	---	11.0	---	13.0	---	---	---	---
23	---	9.0	10.0	8.0	9.5	---	10.0	---	10.0	22.0	18.5	---
24	---	11.0	9.0	---	---	---	---	10.0	---	22.5	---	16.0
25	---	11.0	9.5	9.0	9.5	---	---	11.5	15.0	---	15.5	---
26	---	---	9.0	---	---	11.0	---	---	---	20.5	---	---
27	---	---	10.5	8.0	7.0	---	9.0	---	---	---	---	15.5
28	---	10.0	10.0	---	---	---	---	---	---	---	20.0	---
29	---	10.0	9.5	8.5	---	10.5	---	17.0	17.0	---	---	---
30	---	10.0	9.0	---	---	---	10.0	---	---	20.5	---	---
31	---	---	6.5	9.0	---	---	---	---	---	---	---	---
MEAN	13.0	9.5	9.0	9.0	9.0	10.0	10.0	13.0	15.5	21.0	20.5	15.5

11532000 SOUTH FORK SMITH RIVER NEAR CRESCENT CITY, CA--Continued  
 SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), NOVEMBER 1977 TO SEPTEMBER 1978

DAY	NOVEMBER <sup>1</sup>			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	---	---	---	2320	6	38
2	---	---	---	1980	4	21
3	---	---	---	2620	14	108
4	---	---	---	2890	9	70
5	---	---	---	2560	7	48
6	---	---	---	2480	5	33
7	---	---	---	2650	8	57
8	---	---	---	2340	5	32
9	---	---	---	1980	5	27
10	---	---	---	1710	2	9.2
11	---	---	---	5520	83	1660
12	1130	2	6.1	5600	70	1060
13	1290	2	7.0	17200	670	43200
14	1270	2	6.9	28800	1330	106000
15	1270	1	3.4	20800	625	35100
16	1290	1	3.5	12500	235	7930
17	1130	1	3.1	11400	200	6160
18	1010	1	2.7	7040	118	2240
19	919	1	2.5	4970	48	644
20	840	1	2.3	3890	25	263
21	13700	626	41700	3310	21	188
22	18200	536	27200	3000	13	105
23	10200	210	5780	5010	67	976
24	16400	435	20500	5830	40	630
25	12400	272	11200	4170	24	270
26	16300	358	18900	3310	13	116
27	7410	90	1800	3560	15	144
28	4800	38	492	3560	16	154
29	3590	19	184	3900	16	168
30	2840	15	115	5550	34	514
31	---	---	---	4230	18	206
TOTAL	115989	---	127908.5	186680	---	208171.2

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	3350	11	99	1810	4	20	1380	2	7.5
2	3190	10	86	6150	123	3920	1340	2	7.2
3	3840	17	176	17700	410	20800	1340	1	3.6
4	3850	10	104	8000	109	2350	1580	3	13
5	5980	44	720	5910	37	590	1690	2	9.1
6	7400	64	1310	6000	28	454	1850	3	15
7	5140	26	361	8980	97	2480	1900	4	27
8	4370	18	212	7900	69	1470	4640	40	516
9	5210	35	512	6620	45	804	3460	14	131
10	4320	16	187	4960	20	268	2630	7	50
11	3690	11	110	3890	13	137	2210	4	24
12	3650	9	89	3370	8	73	1920	2	10
13	3430	8	74	2980	6	48	1770	2	9.6
14	3420	8	74	2700	5	36	1630	2	8.8
15	4920	43	820	2660	4	29	1490	2	8.0
16	10800	157	4800	2490	4	27	1370	2	7.4
17	9200	96	2380	2440	4	26	1290	2	7.0
18	7100	26	498	2570	4	28	1220	1	3.3
19	7680	63	1330	2560	4	28	1170	1	3.2
20	6430	40	694	2440	4	26	1120	1	3.0
21	5100	34	468	2280	4	25	1100	1	3.0
22	4470	20	241	2120	3	17	1140	2	6.2
23	3770	11	112	1970	3	16	2070	2	11
24	3240	7	61	1840	3	15	2720	2	15
25	2840	6	46	1830	3	15	2000	2	11
26	2510	3	20	1740	2	9.4	1680	2	9.1
27	2230	2	12	1610	2	8.7	1500	2	8.1
28	2000	2	11	1480	2	8.0	1340	2	7.2
29	1830	2	9.9	---	---	---	1230	2	6.6
30	1700	2	9.2	---	---	---	1170	2	6.3
31	1600	2	8.6	---	---	---	1100	2	5.9
TOTAL	138260	---	15634.7	117000	---	33728.1	54050	---	953.1

## SMITH RIVER BASIN

11532000 SOUTH FORK SMITH RIVER NEAR CRESCENT CITY, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), NOVEMBER 1977 TO SEPTEMBER 1978

APRIL				MAY				JUNE			
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)		
1	1130	2	6.1	1650	3	13	656	1	1.8		
2	1330	3	11	1520	2	8.2	642	1	1.7		
3	1600	5	22	1460	2	7.9	618	1	1.7		
4	1900	7	36	1340	2	7.2	602	1	1.6		
5	3700	20	200	1220	2	6.6	593	1	1.6		
6	3100	10	84	1130	2	6.1	563	1	1.5		
7	2400	5	32	1070	2	5.8	534	1	1.4		
8	1980	3	16	1030	2	5.6	522	2	2.8		
9	1840	3	15	1020	2	5.5	505	2	2.7		
10	1800	3	15	975	2	5.3	533	2	2.9		
11	1610	3	13	967	2	5.2	509	1	1.4		
12	1480	2	8.0	891	2	4.8	482	1	1.3		
13	1400	2	7.6	846	2	4.6	489	1	1.3		
14	1380	2	7.5	1010	3	8.2	459	1	1.2		
15	1700	3	14	2340	7	44	447	1	1.2		
16	1740	3	14	2200	3	18	433	1	1.2		
17	2020	4	22	1760	3	14	417	1	1.1		
18	2000	4	22	1530	3	12	412	1	1.1		
19	2400	5	32	1350	2	7.3	409	1	1.1		
20	3200	7	60	1210	2	6.5	394	1	1.1		
21	3000	6	49	1110	1	3.0	386	1	1.0		
22	2900	5	39	1030	1	2.8	381	1	1.0		
23	2900	4	31	946	2	5.1	375	1	1.0		
24	2550	4	28	956	2	5.2	378	1	1.0		
25	2380	4	26	915	1	2.5	375	1	1.0		
26	2200	4	24	857	1	2.3	360	1	.97		
27	2010	5	27	813	1	2.2	351	1	.95		
28	1910	4	21	779	1	2.1	337	1	.91		
29	1760	3	14	758	1	2.0	334	1	.90		
30	1720	3	14	718	1	1.9	334	1	.90		
31	---	---	---	686	1	1.9	---	---	---		
TOTAL	63040	---	910.2	36087	---	226.8	13830	---	41.33		

JULY				AUGUST				SEPTEMBER			
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)		
1	334	1	.90	185	2	1.0	167	1	.45		
2	336	2	1.8	180	2	.97	163	1	.44		
3	334	2	1.8	180	2	.97	163	1	.44		
4	318	1	.86	177	2	.96	278	2	1.5		
5	311	1	.84	177	2	.96	564	10	15		
6	301	1	.81	174	2	.94	456	3	3.7		
7	291	1	.79	169	2	.91	338	1	.91		
8	284	1	.77	164	2	.89	386	2	2.1		
9	277	2	1.5	160	2	.86	2450	22	210		
10	269	2	1.5	155	2	.84	4770	32	441		
11	265	2	1.4	153	2	.83	2230	11	66		
12	261	2	1.4	156	1	.42	1220	4	13		
13	261	2	1.4	166	1	.45	889	2	4.8		
14	254	2	1.4	164	1	.44	710	2	3.8		
15	248	1	.67	159	1	.43	587	1	1.6		
16	253	1	.68	158	2	.85	507	1	1.4		
17	245	1	.66	157	4	1.7	452	1	1.2		
18	236	1	.64	154	4	1.7	426	1	1.2		
19	232	2	1.3	150	4	1.6	393	1	1.1		
20	226	4	2.4	148	4	1.6	365	1	.99		
21	226	3	1.8	170	3	1.4	343	1	.93		
22	221	3	1.8	192	2	1.0	330	1	.89		
23	217	3	1.8	174	1	.47	318	1	.86		
24	211	2	1.1	272	2	1.5	305	1	.82		
25	203	2	1.1	601	4	6.5	292	1	.79		
26	198	3	1.6	272	3	2.2	281	1	.76		
27	201	3	1.6	209	2	1.1	278	1	.75		
28	197	2	1.1	189	1	.51	265	1	.72		
29	196	2	1.1	178	1	.48	256	1	.69		
30	193	2	1.0	171	1	.46	246	1	.66		
31	191	2	1.0	172	1	.46	---	---	---		
TOTAL	7790	---	38.52	5886	---	35.40	20428	---	778.50		

PERIOD 759040388426.35

11532000 SOUTH FORK SMITH RIVER NEAR CRESCENT CITY, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
NOV								
21...	1105	9.0	11400	323	9940	--	--	--
21...	1430	10.0	23600	1190	75800	10	15	22
22...	0900	9.0	15200	452	18600	19	24	33
22...	1450	9.0	18600	453	22800	17	22	30
23...	1220	9.0	9190	174	4320	24	34	48
24...	0830	10.0	17300	460	21500	18	22	30
24...	1435	11.0	20500	624	34500	16	23	33
25...	0715	11.0	10600	201	5750	--	--	--
DEC								
18...	1505	9.0	6670	110	1980	--	--	--
FEB								
02...	1620	10.0	9370	208	5260	--	--	--
03...	1045	10.0	22300	502	30200	--	--	--

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
NOV								
21...	--	--	32	42	60	83	97	100
21...	30	37	43	53	70	89	97	100
22...	41	50	56	66	80	93	99	100
22...	37	45	51	61	76	91	99	100
23...	62	72	79	87	96	99	100	--
24...	38	45	51	60	74	89	99	100
24...	44	54	62	72	84	94	98	100
25...	--	--	61	70	81	93	99	100
DEC								
18...	--	--	45	54	69	89	100	--
FEB								
02...	--	--	36	46	60	79	94	100
03...	--	--	54	65	79	92	98	100

PARTICLE-SIZE DISTRIBUTION OF SEDIMENT IN TRANSIT WITHIN 0.25 FOOT OF BED SURFACE,  
WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (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
NOV								
23...	1325	9.0	8	8890	160	1770	0	1
DEC								
21...	1245	8.0	7	3310	145	311	--	0
FEB								
08...	1450	8.0	7	7180	155	139	0	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
NOV								
23...	7	23	36	51	69	87	96	100
DEC								
21...	5	27	49	65	81	94	100	--
FEB								
08...	20	35	87	94	97	98	100	--

## 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 SW¼SW¼ sec.10, T.16 N., R.1 E. (unsurveyed), Del Norte County, Hydrologic Unit 18010101, Six Rivers National Forest, on left bank 0.5 mi (0.8 km) downstream from South Fork, and 8 mi (13 km) east of Crescent City.

DRAINAGE AREA.--609 mi<sup>2</sup> (1,577 km<sup>2</sup>).

## 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 (27.313 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--47 years, 3,837 ft<sup>3</sup>/s (108.7 m<sup>3</sup>/s), 2,780,000 acre-ft/yr (3.43 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 228,000 ft<sup>3</sup>/s (6,460 m<sup>3</sup>/s) Dec. 22, 1964, gage height, 48.5 ft (14.78 m), from floodmarks, from rating curve extended above 110,000 ft<sup>3</sup>/s (3,120 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 39.51 ft (12.043 m); minimum daily, 160 ft<sup>3</sup>/s (4.53 m<sup>3</sup>/s) Oct. 24, 25, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 36,000 ft<sup>3</sup>/s (1,020 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Nov. 21	1915	68200	1930	28.69	8.745	Dec. 14	1645	*102000	2890	33.44	10.193
Nov. 25	1945	78000	2210	30.17	9.196	Feb. 3	0815	66600	1890	28.43	8.665

Minimum daily discharge, 288 ft<sup>3</sup>/s (8.16 m<sup>3</sup>/s) Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1690	2920	5140	7230	3980	3010	2350	3200	1400	698	363	337
2	1260	3380	4500	6560	18200	2910	3020	2920	1360	694	351	326
3	1020	2960	7020	8580	50100	2870	3510	2760	1310	698	347	328
4	874	3180	7590	9610	19100	3200	4830	2540	1270	666	347	564
5	768	11900	6340	16600	13300	3520	8780	2360	1230	636	343	1240
6	820	7600	6030	20800	13400	3900	8090	2210	1170	613	335	1040
7	838	5200	6670	13300	21300	3960	5680	2090	1130	590	324	800
8	718	3560	5760	10500	18600	9760	4650	2010	1090	577	316	875
9	658	3050	4880	12000	15700	7220	4120	1980	1070	560	307	5280
10	609	2520	4230	9860	11100	5490	4130	1900	1130	545	300	10700
11	566	2350	12400	8270	8350	4600	3990	1910	1090	535	295	5130
12	535	2190	13300	8210	7280	3950	3440	1780	1020	524	300	2720
13	511	2670	47200	7650	6420	3630	3050	1690	1050	519	321	1910
14	491	2670	81300	7570	5910	3330	2970	1940	994	504	325	1510
15	470	2900	53800	11500	6110	3030	3800	5220	951	494	310	1240
16	453	3010	29200	28100	5710	2780	4010	5440	919	499	307	1060
17	442	2510	29100	22900	5610	2600	4650	3960	893	489	303	945
18	432	2200	16900	15300	6120	2480	4510	3250	875	464	296	884
19	422	1990	11300	16700	5900	2350	5860	2790	868	454	292	802
20	411	1840	8520	15000	5410	2250	7570	2490	847	445	288	730
21	404	42400	6930	11900	4940	2210	7000	2280	826	436	331	685
22	396	40900	6220	10700	4510	2240	6580	2110	808	424	393	652
23	477	22800	13100	8620	4160	3840	6480	1950	793	416	356	616
24	921	43900	14400	7070	3860	5970	5550	2010	806	412	508	593
25	7560	38000	9360	6120	3830	4610	5240	2000	809	400	1350	566
26	4540	30300	7070	5240	3690	3780	4770	1860	764	392	600	543
27	2640	14500	7530	4680	3450	3300	4200	1770	733	392	437	541
28	1990	10100	7570	4220	3210	2930	3900	1690	703	387	391	527
29	2310	7580	8630	3860	---	2670	3550	1610	697	387	367	503
30	6820	6110	13900	3560	---	2490	3390	1530	700	379	351	485
31	4200	---	9650	3360	---	2340	---	1460	---	375	347	---
TOTAL	46246	327190	465540	325570	279250	113220	143670	74710	29306	15604	11801	44132
MEAN	1492	10910	15020	10500	9973	3652	4789	2410	977	503	381	1471
MAX	7560	43900	81300	28100	50100	9760	8780	5440	1400	698	1350	10700
MIN	396	1840	4230	3360	3210	2210	2350	1460	697	375	288	326
AC-FT	91730	649000	923400	645800	553900	224600	285000	148200	58130	30950	23410	87540
CAL YR 1977 TOTAL	1167498		MEAN	3199	MAX	81300	MIN	189	AC-FT	2316000		
WTR YR 1978 TOTAL	1876239		MEAN	5140	MAX	81300	MIN	288	AC-FT	3722000		

11532500 SMITH RIVER NEAR CRESCENT CITY, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1952 to current year.

BIOLOGICAL DATA: Water year 1978.

WATER TEMPERATURES: Water years 1966 to current year.

SEDIMENT RECORDS: Water years 1955-56, November 1977 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1965 to current year.

SEDIMENT RECORDS: November 1977 to current year.

INSTRUMENTATION.--Temperature recorder since October 1965.

REMARKS.--Where no maximum or minimum is shown, temperature is once-daily reading.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 24.5°C July 15, 1972, July 26, 27, 1973; minimum recorded, 0.5°C Dec. 10, 11, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 23.0°C Aug. 7-9; minimum, 6.0°C Nov. 20, 21.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 725 mg/L Dec. 14, minimum daily mean, 1 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily, 159,000 tons (144,000 metric tons) Dec. 14; minimum daily, 0.78 ton (0.71 metric ton) Aug. 20.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT										
11...A	1515	566	565	146	7.8	15.0	.00	10.3	--	--
NOV										
01...A	1615	2920	2740	113	7.6	12.0	1.0	10.8	--	--
DEC										
06...A	1530	6030	6410	105	7.4	10.5	2.0	11.5	--	--
JAN										
04...A	0900	9610	9700	90	7.3	9.5	2.0	12.3	--	--
24...	1600	7070	6810	92	8.2	7.0	2.0	11.9	K2	65
FEB										
07...A	1700	21300	27200	72	7.4	9.5	18	12.8	--	--
17...	1155	5610	5570	102	7.8	8.0	2.0	12.4	K4	11
MAR										
22...	1500	2240	2220	102	8.0	10.5	1.0	11.2	K1	K2
APR										
03...A	1600	3510	3300	95	7.4	9.0	10	11.3	--	--
26...	1715	4770	4610	85	8.0	11.0	1.0	11.4	K1	10
MAY										
08...A	1445	2010	2040	93	7.8	14.0	1.0	10.4	--	--
24...	1800	2010	2100	95	8.1	11.0	.50	10.9	K2	K2
JUN										
05...A	1530	1230	1250	107	7.9	19.0	.00	9.5	--	--
23...	1530	793	788	108	8.3	16.5	.50	10.3	K3	K1
JUL										
10...A	1530	545	540	121	8.2	21.0	1.0	9.5	--	--
25...	1350	400	396	134	8.2	22.0	.40	9.2	K7	K1
25...	1405	400	396	134	8.2	22.0	--	--	--	--
AUG										
07...A	1515	324	324	140	8.1	24.0	.00	9.1	--	--
24...	1315	508	396	127	8.2	17.0	.60	9.5	K61	42
SEP										
22...	0900	652	655	--	--	--	--	--	K2	K2
22...	1325	652	644	121	7.9	14.0	.50	10.6	--	--

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

## SMITH RIVER BASIN

11532500 SMITH RIVER NEAR CRESCENT CITY, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)
OCT 11...	--	--	--	--	--	--	--	--	--	--
NOV 01...	--	--	--	--	--	--	--	--	--	--
DEC 06...	--	--	--	--	--	--	--	--	--	--
JAN 04...	--	--	--	--	--	--	--	--	--	--
24...	45	4	4.7	8.1	1.4	6	.1	.3	50	0
FEB 07...	--	--	--	--	--	--	--	--	--	--
17...	46	4	4.8	8.3	1.4	6	.1	.3	51	0
MAR 22...	48	2	5.5	8.4	1.5	6	.1	.3	56	0
APR 03...	--	--	--	--	--	--	--	--	--	--
26...	47	1	4.8	8.4	1.2	5	.1	.2	55	0
MAY 08...	--	--	--	--	--	--	--	--	--	--
24...	49	1	5.1	8.8	1.9	8	.1	.2	--	--
JUN 05...	--	--	--	--	--	--	--	--	--	--
23...	62	6	6.7	11.	2.3	7	.1	.3	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--
25...	68	2	7.6	12	2.8	8	.1	.4	--	--
25...	--	--	--	--	--	--	--	--	--	--
AUG 07...	--	--	--	--	--	--	--	--	--	--
24...	64	0	7.6	11	2.6	8	.1	.4	--	--
SEP 22...	--	--	--	--	--	--	--	--	--	--
22...	59	1	7.0	10	2.0	7	.1	.3	--	--

DATE	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT 11...	--	--	--	--	--	--	--	--	--	--
NOV 01...	--	--	--	--	--	--	--	--	--	--
DEC 06...	--	--	--	--	--	--	--	--	--	--
JAN 04...	--	--	--	--	--	--	--	--	--	--
24...	41	2.3	2.4	.1	14	62	58	.08	.02	.07
FEB 07...	--	--	--	--	--	--	--	--	--	--
17...	42	6.4	2.3	.0	14	48	63	.07	.01	.01
MAR 22...	46	3.5	2.3	.0	13	55	62	.07	.02	.01
APR 03...	--	--	--	--	--	--	--	--	--	--
26...	45	2.5	1.9	.1	13	56	59	.08	.02	.00
MAY 08...	--	--	--	--	--	--	--	--	--	--
24...	48	2.8	2.0	.0	13	57	57	.08	.01	.01
JUN 05...	--	--	--	--	--	--	--	--	--	--
23...	56	3.2	2.3	.0	14	65	74	.09	.02	.00
JUL 10...	--	--	--	--	--	--	--	--	--	--
25...	66	3.7	2.7	.0	13	68	82	.09	.02	.00
25...	--	--	--	--	--	--	--	--	--	--
AUG 07...	--	--	--	--	--	--	--	--	--	--
24...	64	4.1	2.9	.1	13	74	80	.10	.01	.02
SEP 22...	--	--	--	--	--	--	--	--	--	--
22...	58	7.7	2.6	.0	14	64	79	.09	.01	.01



11532500 SMITH RIVER NEAR CRESCENT CITY, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. 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)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 11...	--	--	--	--	--	--	--	--	--	--
NOV 01...	--	--	--	--	--	--	--	--	--	--
DEC 06...	--	--	--	--	--	--	--	--	--	--
JAN 04...	--	--	--	--	--	--	--	--	--	--
24...	.00	.05	.00	.06	.07	.02	.02	.6	--	--
FEB 07...	--	--	--	--	--	--	--	--	--	--
17...	.01	.02	.00	--	.03	.07	.04	1.1	--	--
MAR 22...	.14	.15	.00	.15	.17	.00	.01	--	.7	--
APR 03...	--	--	--	--	--	--	--	--	--	--
26...	.27	.27	.12	.15	.29	.01	.00	.8	--	.5
MAY 08...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	.02	--	.01	.01	.8	--	--
JUN 05...	--	--	--	--	--	--	--	--	--	--
23...	.06	.06	.00	.39	.08	.02	.02	--	.8	.2
JUL 10...	--	--	--	--	--	--	--	--	--	--
25...	.41	.41	.29	.12	.43	.00	.01	.3	--	--
25...	--	--	--	--	--	--	--	--	--	--
AUG 07...	--	--	--	--	--	--	--	--	--	--
24...	.13	.15	.00	--	.16	.02	.02	2.8	--	--
SEP 22...	--	--	--	--	--	--	--	--	--	--
22...	.19	.20	.02	.18	.21	.01	.01	--	1.2	.2

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS- PENDED TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIIUM, SUS- PENDED RECOV- ERABLE (UG/L AS BA)	BARIIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDED RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)
APR 26...	1715	2	1	1	0	0	0	1	0	1
JUN 23...	1530	1	1	0	200	100	100	2	2	0
SEP 22...	1325	0	0	1	0	0	0	2	0	2

DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDED RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, SUS- PENDED RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDED RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
APR 26...	20	20	0	0	0	1	1	0	1	70
JUN 23...	10	5	5	0	0	0	12	11	1	90
SEP 22...	10	10	0	0	0	0	1	1	0	40

DATE	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDED RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG)
APR 26...	--	30	14	4	10	0	0	0	.0	.0
JUN 23...	50	40	40	33	7	0	0	0	.0	.0
SEP 22...	20	20	17	3	14	0	0	0	.0	.0

## SMITH RIVER BASIN

11532500 SMITH RIVER NEAR CRESCENT CITY, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDED TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, SUS- PENDED RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDED RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
APR 26...	.1	0	0	0	0	0	0	10	10	0
JUN 23...	.0	0	0	0	0	0	0	20	20	5
SEP 22...	.0	0	0	0	0	0	0	10	10	0

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON EXTRAC- TION (UG/L)
JUN 23...	1530	<.6	<.4	<.4	.05 .28

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## PHYTOPLANKTON

DATE TIME	MAR 22,78 1500		MAY 24,78 1800		JUN 23,78 1530		JUL 25,78 1405		AUG 24,78 1315		SEP 22,78 1325	
TOTAL CELLS/ML	41		0		73		220		35		29	
DIVERSITY: DIVISION	0.0		0.0		0.0		0.5		1.4		0.0	
..CLASS	0.0		0.0		0.0		0.5		1.4		0.0	
...ORDER	0.0		0.0		0.0		0.5		1.4		0.0	
....FAMILY	0.0		0.0		1.5		2.2		1.8		1.0	
.....GENUS	0.0		0.0		1.5		2.7		2.0		1.0	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
..CHLOROPHYCEAE												
...CHLOROCOCCALES												
....OOCYSTACEAE												
.....KIRCHNERIELLA	--	-	--	-	--	-	22	10	--	-	--	-
...SCENEDESMACEAE												
....SCENEDESMUS	--	-	--	-	--	-	--	-	4	12	--	-
CHRYSOPHYTA												
..BACILLARIOPHYCEAE												
...PENNIALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	--	-	22	10	3	8	14#	50
....COCCONEIS	--	-	--	-	--	-	44#	20	4	12	--	-
...CYMBELLACEAE												
....CYMBELLA	--	-	--	-	29#	40	22	10	--	-	--	-
....EPITHEMIA	--	-	--	-	--	-	22	10	--	-	--	-
...DIATOMACEAE												
....DIATOMA	--	-	--	-	15#	20	--	-	--	-	--	-
...FRAGILARIACEAE												
....SYNEDRA	41#	100	--	-	--	-	--	-	--	-	--	-
...GOMPHONEMACEAE												
....GOMPHONEMA	--	-	--	-	--	-	44#	20	--	-	--	-
...NAVICULACEAE												
....NAVICULA	--	-	--	-	--	-	44#	20	--	-	14#	50
...NITZSCHACEAE												
....NITZSCHIA	--	-	--	-	29#	40	--	-	7#	19	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
..CYANOPHYCEAE												
...HORMOGONALES												
...NOSTOCACEAE												
....ANABAENA	--	-	--	-	--	-	--	-	18#	50	--	-

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

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

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll a (mg/m <sup>2</sup> )	Chlorophyll b (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
May 11	16	1.97	1.10	0.890	0.100	978	Polyethylene strip
June 23	19	.236	.079	.160	.030	981	do
July 25	33	2.44	1.50	2.17	.000	433	do
Aug. 24	31	1.18	.709	.530	.090	889	do
Sept. 22	30	4.41	3.31	6.09	.120	181	do

11532500 SMITH RIVER NEAR CRESCENT CITY, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCT		NOV		DEC		JAN		FEB		MAR	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	DAILY		DAILY		DAILY		DAILY		DAILY		DAILY	
1	13.0	-- 12.0	12.0	-- 11.0	10.5	-- 10.0	--	--	8.5	-- 8.5	8.5	-- 7.5
2	13.5	-- 12.5	12.0	-- 10.5	10.5	-- 10.0	--	--	9.0	-- 8.5	9.0	-- 8.5
3	13.5	-- 12.5	10.5	-- 9.5	11.0	-- 10.5	--	--	9.5	-- 9.0	10.0	-- 9.0
4	14.0	-- 13.0	9.5	-- 9.0	11.0	-- 10.5	--	--	9.5	-- 9.0	10.0	-- 9.5
5	14.0	-- 13.0	10.5	-- 9.5	10.5	-- 9.0	--	--	9.5	-- 9.0	10.0	-- 9.5
6	13.0	-- 12.5	10.5	-- 9.5	10.5	-- 9.0	--	--	9.0	-- 8.5	10.0	-- 9.0
7	13.0	-- 12.0	10.0	-- 9.5	10.5	-- 9.5	--	--	9.0	-- 8.5	10.0	-- 9.5
8	13.5	-- 12.5	9.5	-- 8.5	9.5	-- 7.5	--	--	8.5	-- 8.5	9.5	-- 9.0
9	13.5	-- 12.5	9.0	-- 8.0	8.0	-- 7.5	--	--	8.5	-- 8.0	10.0	-- 9.0
10	13.5	-- 12.5	9.0	-- 8.0	8.5	-- 7.5	--	--	8.0	-- 7.0	9.5	-- 8.5
11	13.5	-- 13.0	9.5	-- 9.0	10.0	-- 8.5	--	--	7.0	-- 6.5	9.5	-- 8.5
12	13.5	-- 13.0	9.5	-- 9.0	10.0	-- 9.5	--	--	8.5	-- 7.0	9.0	-- 7.5
13	13.5	-- 13.0	10.0	-- 9.5	10.5	-- 9.5	--	--	8.5	-- 7.5	9.0	-- 8.5
14	14.0	-- 13.5	10.0	-- 9.5	11.0	-- 10.5	--	--	8.5	-- 8.0	9.0	-- 7.5
15	14.5	-- 14.0	11.0	-- 10.0	11.0	-- 9.0	--	--	8.5	-- 7.5	9.0	-- 7.5
16	14.0	-- 13.5	11.0	-- 9.5	9.0	-- 9.0	--	--	8.0	-- 7.5	10.0	-- 8.0
17	13.5	-- 13.0	9.5	-- 8.5	9.5	-- 9.0	--	--	8.5	-- 8.0	10.5	-- 9.0
18	13.5	-- 13.5	8.5	-- 7.0	9.0	-- 8.0	9.0	-- 9.0	9.5	-- 8.5	11.0	-- 9.5
19	13.5	-- 13.0	7.0	-- 6.5	8.0	-- 7.5	9.5	-- 9.0	9.5	-- 8.5	11.5	-- 10.0
20	13.5	-- 13.0	6.5	-- 6.0	8.5	-- 7.0	9.5	-- 9.0	9.5	-- 8.5	11.5	-- 10.0
21	13.0	-- 12.0	10.0	-- 6.0	9.5	-- 8.5	9.5	-- 8.5	9.5	-- 9.0	11.5	-- 11.0
22	12.5	-- 12.0	9.5	-- 9.0	9.5	-- 9.0	8.5	-- 8.0	9.5	-- 8.5	11.0	-- 10.5
23	13.0	-- 12.5	10.0	-- 9.5	--	--	8.0	-- 7.0	9.5	-- 9.0	11.0	-- 9.5
24	14.0	-- 13.0	10.5	-- 10.0	--	--	7.5	-- 6.5	9.5	-- 9.5	10.0	-- 9.0
25	14.0	-- 12.5	11.5	-- 10.5	--	--	8.5	-- 7.5	9.5	-- 9.5	11.0	-- 9.0
26	12.5	-- 11.5	11.0	-- 10.5	--	--	8.5	-- 8.0	9.5	-- 9.0	11.5	-- 10.0
27	12.0	-- 11.0	10.5	-- 10.0	--	--	8.5	-- 7.5	9.0	-- 8.0	12.0	-- 10.5
28	11.5	-- 11.0	10.5	-- 10.0	--	--	8.5	-- 7.5	8.5	-- 7.5	12.0	-- 10.5
29	11.5	-- 11.0	11.0	-- 10.5	--	--	8.5	-- 8.0	--	--	11.5	-- 10.5
30	11.5	-- 11.0	11.0	-- 10.5	--	--	8.5	-- 7.5	--	--	12.0	-- 10.5
31	11.5	-- 10.5	--	--	--	--	9.0	-- 8.5	--	--	12.0	-- 10.5
MONTH	14.5	-- 10.5	12.0	-- 6.0	--	--	--	--	9.5	-- 6.5	12.0	-- 7.5

DAY	APR		MAY		JUN		JUL		AUG		SEP	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	DAILY		DAILY		DAILY		DAILY		DAILY		DAILY	
1	10.5	-- 9.5	11.5	-- 8.5	16.5	-- 14.5	16.0	-- 15.0	21.0	-- 20.0	--	--
2	9.5	-- 9.0	12.5	-- 10.0	16.5	-- 15.0	15.0	-- 15.0	21.0	-- 20.0	--	--
3	9.5	-- 8.5	12.5	-- 10.5	17.0	-- 15.0	17.5	-- 14.5	21.0	-- 20.0	--	--
4	9.0	-- 8.0	12.0	-- 10.0	18.0	-- 15.5	18.0	-- 16.5	20.5	-- 19.5	--	--
5	9.0	-- 8.5	11.5	-- 9.0	19.0	-- 16.5	18.5	-- 17.0	21.0	-- 20.0	-- 15.5	--
6	9.0	-- 8.0	12.0	-- 9.5	19.0	-- 17.5	19.5	-- 17.5	22.5	-- 20.5	--	--
7	10.0	-- 7.5	13.0	-- 10.5	18.5	-- 16.5	20.0	-- 19.0	23.0	-- 21.5	--	--
8	10.5	-- 8.0	13.5	-- 11.5	18.0	-- 16.5	20.5	-- 19.0	23.0	-- 22.0	--	--
9	11.5	-- 9.0	13.5	-- 12.0	18.0	-- 16.5	20.5	-- 19.0	23.0	-- 22.0	--	--
10	12.5	-- 10.0	12.5	-- 11.0	16.5	-- 15.0	20.5	-- 19.0	22.5	-- 21.5	--	--
11	12.0	-- 10.0	12.5	-- 11.0	17.0	-- 14.5	20.0	-- 19.0	21.5	-- 21.0	--	--
12	11.5	-- 9.5	12.5	-- 11.0	17.0	-- 16.0	20.0	-- 18.5	21.0	-- 19.5	--	--
13	11.0	-- 9.5	12.5	-- 11.5	16.0	-- 15.0	20.0	-- 18.5	19.5	-- 18.5	-- 14.5	--
14	10.5	-- 9.5	12.5	-- 11.5	16.0	-- 14.0	20.5	-- 19.5	20.0	-- 18.5	--	--
15	9.5	-- 8.5	11.5	-- 9.5	16.5	-- 14.5	20.5	-- 19.0	20.0	-- 19.5	--	--
16	8.5	-- 8.0	12.0	-- 9.0	17.5	-- 15.0	20.0	-- 18.0	19.5	-- 18.5	-- 16.0	--
17	9.5	-- 8.0	13.0	-- 10.0	18.0	-- 15.5	21.0	-- 19.0	19.5	-- 18.0	--	--
18	10.0	-- 9.0	14.0	-- 11.5	18.0	-- 16.5	21.0	-- 19.5	19.5	-- 18.0	--	--
19	10.0	-- 8.5	14.5	-- 12.5	18.0	-- 15.5	21.0	-- 20.0	19.5	-- 18.5	-- 14.5	--
20	8.5	-- 7.5	15.0	-- 13.0	18.0	-- 16.5	21.5	-- 20.0	19.5	-- 18.5	--	--
21	9.5	-- 8.0	15.0	-- 12.5	16.5	-- 16.0	22.5	-- 20.5	18.5	-- 18.0	--	--
22	9.5	-- 8.5	13.5	-- 11.0	16.0	-- 16.0	22.5	-- 21.5	18.5	-- 17.5	14.5	-- 13.0
23	10.5	-- 8.5	13.0	-- 11.5	16.5	-- 16.0	21.5	-- 20.5	18.0	-- 17.5	15.0	-- 13.5
24	10.5	-- 9.0	12.0	-- 10.5	16.0	-- 15.0	21.5	-- 20.5	17.5	-- 16.5	15.5	-- 14.5
25	11.0	-- 10.0	11.5	-- 10.0	16.0	-- 14.5	22.0	-- 21.0	17.5	-- 15.5	15.5	-- 15.0
26	11.0	-- 9.5	11.5	-- 11.0	18.0	-- 15.5	21.0	-- 20.0	18.0	-- 16.0	16.0	-- 15.5
27	10.5	-- 9.0	14.5	-- 11.0	19.5	-- 17.5	21.0	-- 20.0	18.0	-- 17.0	16.0	-- 15.5
28	11.5	-- 10.0	16.0	-- 13.5	19.0	-- 18.0	20.5	-- 19.5	18.5	-- 16.5	16.0	-- 16.0
29	11.0	-- 9.5	16.0	-- 14.0	18.0	-- 17.0	20.5	-- 19.5	--	--	16.0	-- 15.0
30	10.5	-- 9.5	15.5	-- 13.5	17.0	-- 16.0	20.5	-- 19.5	--	--	16.0	-- 15.5
31	--	--	16.5	-- 14.0	--	--	21.0	-- 20.0	--	--	--	--
MONTH	12.5	-- 7.5	16.5	-- 8.5	19.5	-- 14.0	22.5	-- 14.5	23.0	-- 15.5	--	--

## SMITH RIVER BASIN

11532500 SMITH RIVER NEAR CRESCENT CITY, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), NOVEMBER 1977 TO SEPTEMBER 1978

DAY	NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	---	---	---	5140	6	83
2	---	---	---	4500	5	61
3	---	---	---	7020	19	412
4	---	---	---	7590	8	164
5	---	---	---	6340	4	68
6	---	---	---	6030	5	81
7	---	---	---	6670	6	108
8	---	---	---	5760	4	62
9	---	---	---	4880	2	26
10	---	---	---	4230	2	23
11	---	---	---	12400	86	4010
12	2190	2	12	13300	57	2150
13	2670	2	14	47200	388	70000
14	2670	2	14	81300	725	159000
15	2900	2	16	53800	475	73800
16	3010	1	8.1	29200	228	18000
17	2510	1	6.8	29100	140	11000
18	2200	1	5.9	16900	57	2600
19	1990	1	5.4	11300	30	915
20	1840	1	5.0	8520	22	506
21	42400	381	63400	6930	13	243
22	40900	263	30200	6220	8	134
23	22800	95	5850	13100	37	1570
24	43900	287	36300	14400	20	778
25	38000	258	38300	9360	10	253
26	30300	265	25500	7070	7	134
27	14500	72	2820	7530	10	203
28	10100	29	791	7570	10	204
29	7580	14	287	8630	11	306
30	6110	7	115	13900	49	1840
31	---	---	---	9650	9	234
TOTAL	278570	---	203650.2	465540	---	348968

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	7230	4	78	3980	6	75	3010	2	16
2	6560	6	106	18200	78	7360	2910	1	7.9
3	8580	12	278	50100	284	41200	2870	1	7.7
4	9610	7	182	19100	76	4300	3200	2	17
5	16600	37	1690	13300	40	1440	3520	3	29
6	20800	50	2910	13400	25	904	3900	3	32
7	13300	15	539	21300	80	4600	3960	4	43
8	10500	12	340	18600	47	2360	9760	24	661
9	12000	28	907	15700	28	1190	7220	9	175
10	9860	14	373	11100	14	420	5490	4	59
11	8270	10	223	8350	8	180	4600	3	37
12	8210	6	133	7280	6	118	3950	3	32
13	7650	5	103	6420	5	87	3630	3	29
14	7570	4	82	5910	4	64	3330	2	18
15	11500	27	1340	6110	4	66	3030	2	16
16	28100	125	9900	5710	3	46	2780	2	15
17	22900	79	4980	5610	3	45	2600	2	14
18	15300	35	1450	6120	3	50	2480	2	13
19	16700	32	1440	5900	2	32	2350	2	13
20	15000	23	931	5410	2	29	2250	2	12
21	11900	17	546	4940	2	27	2210	2	12
22	10700	11	318	4510	2	24	2240	2	12
23	8620	6	140	4160	2	22	3840	7	101
24	7070	6	115	3860	2	21	5970	8	129
25	6120	5	83	3830	2	21	4610	5	62
26	5240	4	57	3690	2	20	3780	3	31
27	4680	3	38	3450	2	19	3300	3	27
28	4220	3	34	3210	2	17	2930	2	16
29	3860	2	21	---	---	---	2670	2	14
30	3560	2	19	---	---	---	2490	2	13
31	3360	2	18	---	---	---	2340	1	6.3
TOTAL	325570	---	29374	279250	---	64737	113220	---	1669.9

11532500 SMITH RIVER NEAR CRESCENT CITY, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), NOVEMBER 1977 TO SEPTEMBER 1978

APRIL				MAY				JUNE			
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)		
1	2350	1	6.3	3200	2	17	1400	1	3.8		
2	3020	4	33	2920	1	7.9	1360	1	3.7		
3	3510	5	47	2760	1	7.5	1310	2	7.1		
4	4830	10	130	2540	1	6.9	1270	2	6.9		
5	8780	20	566	2360	1	6.4	1230	2	6.6		
6	8090	11	240	2210	1	6.0	1170	2	6.3		
7	5680	5	77	2090	1	5.6	1130	2	6.1		
8	4650	4	50	2010	1	5.4	1090	2	5.9		
9	4120	3	33	1980	1	5.3	1070	2	5.8		
10	4130	2	22	1900	1	5.1	1130	2	6.1		
11	3990	2	22	1910	1	5.2	1090	2	5.9		
12	3440	2	19	1780	1	4.8	1020	2	5.5		
13	3050	2	16	1690	1	4.6	1050	2	5.7		
14	2970	2	16	1940	1	5.2	994	1	2.7		
15	3800	3	31	5220	7	99	951	1	2.6		
16	4010	3	32	5440	5	73	919	1	2.5		
17	4650	4	50	3960	3	32	893	1	2.4		
18	4510	4	49	3250	1	8.8	875	1	2.4		
19	5860	5	79	2790	1	7.5	868	1	2.3		
20	7570	7	143	2490	2	13	847	1	2.3		
21	7000	6	113	2280	2	12	826	1	2.2		
22	6580	5	89	2110	2	11	808	1	2.2		
23	6480	3	52	1950	2	11	793	1	2.1		
24	5550	4	60	2010	2	11	806	1	2.2		
25	5240	3	42	2000	1	5.4	809	1	2.2		
26	4770	4	52	1860	1	5.0	764	1	2.1		
27	4200	3	34	1770	1	4.8	733	1	2.0		
28	3900	2	21	1690	1	4.6	703	1	1.9		
29	3550	2	19	1610	1	4.3	697	1	1.9		
30	3390	2	18	1530	1	4.1	700	1	1.9		
31	---	---	---	1460	1	3.9	---	---	---		
TOTAL	143670	---	2161.3	74710	---	403.3	29306	---	113.3		
JULY				AUGUST				SEPTEMBER			
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)		
1	698	1	1.9	363	1	.98	337	1	.91		
2	694	1	1.9	351	1	.95	326	1	.88		
3	698	1	1.9	347	1	.94	328	1	.89		
4	666	1	1.8	347	1	.94	564	2	3.0		
5	636	1	1.7	343	2	1.9	1240	7	23		
6	613	1	1.7	335	4	3.6	1040	3	8.4		
7	590	1	1.6	324	2	1.7	800	1	2.2		
8	577	1	1.6	316	1	.85	875	2	4.7		
9	560	1	1.5	307	1	.83	5280	16	349		
10	545	1	1.5	300	1	.81	10700	32	970		
11	535	1	1.4	295	1	.80	5130	12	182		
12	524	1	1.4	300	1	.81	2720	5	37		
13	519	1	1.4	321	1	.87	1910	2	10		
14	504	1	1.4	325	1	.88	1510	1	4.1		
15	494	1	1.3	310	1	.84	1240	1	3.3		
16	499	2	2.7	307	1	.83	1060	1	2.9		
17	489	2	2.6	303	1	.82	945	1	2.6		
18	464	1	1.3	296	1	.80	884	1	2.4		
19	454	1	1.2	292	1	.79	802	1	2.2		
20	445	1	1.2	288	1	.78	730	1	2.0		
21	436	1	1.2	331	1	.89	685	1	1.8		
22	424	1	1.1	393	1	1.1	652	1	1.8		
23	416	1	1.1	356	1	.96	616	1	1.7		
24	412	1	1.1	508	1	1.4	593	1	1.6		
25	400	1	1.1	1350	1	3.6	566	1	1.5		
26	392	1	1.1	600	1	1.6	543	1	1.5		
27	392	1	1.1	437	2	2.4	541	1	1.5		
28	387	1	1.0	391	4	4.2	527	1	1.4		
29	387	1	1.0	367	2	2.0	503	1	1.4		
30	379	1	1.0	351	1	.95	485	1	1.3		
31	375	1	1.0	347	1	.94	---	---	---		
TOTAL	15604	---	44.8	11801	---	41.76	44132	---	1626.98		
PERIOD	1781373		652790.54								

## SMITH RIVER BASIN

11532500 SMITH RIVER NEAR CRESCENT CITY, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
NOV									
21...	1135	9.5	42400	65000	262	30000	--	--	--
21...	1455	10.0	42400	58200	849	97200	11	16	23
22...	0935	9.5	40900	38100	256	28300	--	--	--
22...	1515	9.0	40900	48900	233	25700	--	--	--
24...	1455	--	43900	43600	455	53900	19	24	33
25...	0740	11.5	38000	21000	111	11400	--	--	--
DEC									
13...	1620	10.0	47200	71800	591	75300	14	19	26
17...	1610	9.0	29100	25900	115	9040	--	--	--
18...	1530	9.0	16900	15100	48	2190	--	--	--
19...	1615	--	11300	10500	30	915	--	--	--
20...	1610	8.0	8520	8150	21	483	--	--	--
21...	1555	--	6930	6720	11	206	--	--	--
22...	1125	9.0	6220	6150	15	252	--	--	--
FEB									
03...	1110	--	50100	62600	329	44500	--	--	--

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
NOV								
21...	--	--	33	43	60	84	100	--
21...	32	40	46	57	71	86	96	100
22...	--	--	61	73	88	98	100	--
22...	--	--	61	73	87	96	100	--
24...	43	53	59	72	84	93	97	100
25...	--	--	73	83	93	99	100	--
DEC								
13...	34	43	51	62	77	91	98	100
17...	--	--	56	--	--	--	--	--
18...	--	--	59	--	--	--	--	--
19...	--	--	67	--	--	--	--	--
20...	--	--	60	--	--	--	--	--
21...	--	--	69	--	--	--	--	--
22...	--	--	63	--	--	--	--	--
FEB								
03...	--	--	53	63	76	88	98	100

## 11532620 MILL CREEK NEAR CRESCENT CITY, CA

LOCATION.--Lat 41°44'32", long 124°06'06", in NE¼NE¼ sec.31, T.16 N., R.1 E., Del Norte County, Hydrologic Unit 18010101, Redwood National Park, on left bank 200 ft (61 m) downstream from small left-bank tributary, 0.9 mi (1.4 km) downstream from confluence of West Branch and East Fork Mill Creeks, and 4.9 mi (7.9 km) east of Crescent City.

DRAINAGE AREA.--28.6 mi<sup>2</sup> (74.1 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

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

REMARKS.--Records good except those for period of no gage-height record, Jan. 13 to Mar. 5, which are fair. Minor regulation and diversion above station for lumber mill and park campground use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,460 ft<sup>3</sup>/s (126 m<sup>3</sup>/s) Mar. 18, 1975, gage height, 8.51 ft (2.594 m); minimum daily, 2.5 ft<sup>3</sup>/s (0.071 m<sup>3</sup>/s) Oct. 2-5, 23, 24, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft<sup>3</sup>/s (57 m<sup>3</sup>/s), revised, and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 21	2130	2490 70.5	5.98 1.823	Dec. 14	1515	3160 89.5	6.94 2.115
Nov. 25	2315	*3430 97.1	7.29 2.222	Feb. 3	unknown	3240 91.8	7.05 2.149

Minimum daily discharge, 3.0 ft<sup>3</sup>/s (0.085 m<sup>3</sup>/s) Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	143	193	300	158	142	92	90	34	18	6.7	10
2	84	194	166	261	290	132	136	82	33	18	6.3	9.2
3	66	154	251	354	2500	125	179	75	32	18	5.7	10
4	56	198	272	408	1700	128	307	69	31	17	5.7	46
5	50	608	242	643	970	132	433	64	30	16	5.4	105
6	58	488	242	852	940	136	376	61	28	15	5.4	55
7	52	304	245	550	1500	174	265	57	27	14	5.1	40
8	46	212	213	400	1300	541	204	53	27	14	4.5	42
9	42	161	184	477	1080	361	166	52	27	14	4.0	268
10	39	130	160	365	760	272	141	51	28	13	3.7	404
11	36	123	477	328	540	219	123	49	27	12	3.7	184
12	33	107	400	328	440	187	109	46	26	12	4.0	113
13	32	125	1380	315	370	163	99	44	27	12	4.5	82
14	30	111	2730	303	340	146	111	67	25	12	4.5	64
15	29	105	1480	300	345	132	202	132	23	12	4.3	53
16	29	98	973	970	310	121	187	121	23	12	4.3	45
17	28	89	1170	740	300	113	196	90	22	11	3.7	41
18	27	82	685	540	305	105	171	75	21	10	3.7	38
19	26	75	455	590	275	96	248	66	21	9.6	3.0	34
20	24	70	335	460	245	90	279	59	20	9.2	3.2	31
21	24	1220	265	380	228	86	296	55	20	9.2	4.8	29
22	24	1660	229	330	210	85	282	51	20	8.8	8.1	27
23	29	928	518	290	195	184	245	47	20	8.4	6.3	26
24	72	1190	541	260	184	176	204	49	20	8.4	61	24
25	450	1290	372	230	178	141	179	46	20	7.7	78	23
26	266	1620	279	200	170	123	150	44	20	7.3	27	23
27	168	696	293	183	160	113	132	43	19	7.0	19	22
28	128	429	258	169	152	105	119	40	18	7.0	15	21
29	157	303	388	155	---	99	107	39	18	7.0	13	19
30	265	235	541	146	---	90	99	36	18	7.0	12	19
31	187	---	396	140	---	86	---	35	---	7.0	11	---
TOTAL	2672	13148	16333	11967	16145	4803	5837	1888	725	353.6	346.6	1907.2
MEAN	86.2	438	527	386	577	155	195	60.9	24.2	11.4	11.2	63.6
MAX	450	1660	2730	970	2500	541	433	132	34	18	78	404
MIN	24	70	160	140	152	85	92	35	18	7.0	3.0	9.2
AC-FT	5300	26080	32400	23740	32020	9530	11580	3740	1440	701	687	3780

CAL YR 1977 TOTAL 43305.1 MEAN 119 MAX 2730 MIN 3.4 AC-FT 85900  
WTR YR 1978 TOTAL 76125.4 MEAN 209 MAX 2730 MIN 3.0 AC-FT 151000

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

CHEMICAL ANALYSES: Water years 1974-75, 1977.

WATER TEMPERATURES: Water years 1974 to current year.

SEDIMENT RECORDS: Water years 1974 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: February 1974 to current year.

INSTRUMENTATION.--Temperature recorder since February 1974.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 23.5°C July 25, 1974; minimum recorded, 3.5°C Feb. 6, 1976, Jan. 28, 29, 1977.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 21.5°C July 21, Aug. 8; minimum, 6.5°C Nov. 20.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.5	11.0	12.0	11.0	11.0	10.0	9.5	8.5	10.5	9.0	10.0	7.0
2	13.5	11.0	11.5	10.5	11.0	10.5	10.0	9.5	10.5	9.0	10.0	9.0
3	13.0	11.0	11.0	9.5	11.5	10.5	10.0	9.5	10.5	10.0	10.5	9.0
4	13.0	11.0	10.0	9.0	11.5	10.5	10.5	9.5	10.5	10.0	---	---
5	12.5	11.5	11.0	10.0	10.5	9.5	10.0	9.5	10.5	10.0	---	---
6	12.5	11.0	11.0	10.0	11.0	10.0	10.5	9.5	10.5	10.0	11.0	9.5
7	13.0	11.0	11.0	10.0	10.5	9.5	10.5	9.5	10.5	10.0	10.0	9.5
8	13.0	11.0	10.0	9.0	9.5	8.5	11.0	10.5	10.0	9.5	10.0	9.5
9	13.0	11.0	10.0	8.5	9.5	8.0	11.0	10.0	10.0	9.0	11.5	9.5
10	13.0	11.0	10.5	8.5	9.0	8.0	10.0	9.0	9.5	8.0	10.5	9.0
11	13.0	10.5	10.0	9.5	10.5	9.5	10.0	9.0	9.0	7.5	11.0	9.0
12	13.0	11.0	10.5	9.0	10.5	10.0	10.5	9.5	10.0	8.0	10.5	8.0
13	13.0	11.0	10.5	10.0	11.0	10.5	10.5	10.0	10.0	8.5	10.5	9.0
14	13.0	11.0	11.0	10.0	11.5	11.0	10.5	9.5	9.5	9.0	11.0	7.5
15	13.0	11.5	11.5	10.5	11.0	10.0	10.0	9.5	9.5	8.0	11.0	7.5
16	12.5	11.0	11.0	10.0	10.5	10.0	10.5	10.0	9.5	8.0	12.0	8.0
17	12.5	10.5	10.0	9.0	10.5	9.5	10.5	9.5	9.5	8.5	12.5	8.5
18	12.0	11.0	9.0	7.5	10.0	9.0	10.5	9.5	11.0	9.5	13.0	9.0
19	12.0	11.0	8.0	7.0	9.0	8.5	10.5	9.5	11.0	9.0	12.5	9.5
20	12.5	11.0	7.5	6.5	9.5	8.0	10.5	10.0	11.0	9.5	13.0	10.0
21	12.0	10.0	10.5	7.5	10.0	9.5	10.5	9.5	11.0	9.5	11.5	10.5
22	11.5	10.0	10.5	10.0	10.5	9.5	9.5	9.0	11.0	9.5	12.0	10.5
23	12.5	11.0	10.5	10.0	10.5	10.0	9.0	8.0	11.0	9.5	11.5	10.5
24	13.5	12.0	11.0	10.5	10.5	9.5	9.0	7.5	10.5	9.5	12.5	10.0
25	12.5	11.5	11.5	11.0	9.5	9.0	9.5	8.0	11.0	9.5	13.0	9.5
26	12.0	11.0	11.0	11.0	10.0	9.0	9.5	8.5	11.0	9.0	13.0	10.0
27	11.5	11.0	11.0	10.5	10.5	9.5	9.5	8.0	10.5	8.0	12.5	10.5
28	12.0	10.5	11.0	10.5	11.0	10.0	10.0	8.0	10.5	7.5	12.0	10.5
29	11.5	10.5	11.5	10.5	10.5	9.5	9.5	9.0	---	---	11.5	10.5
30	11.5	11.0	11.0	10.5	10.0	9.0	9.5	8.0	---	---	14.0	10.5
31	12.0	10.5	---	---	9.0	8.5	10.0	8.5	---	---	11.5	10.5
MONTH	13.5	10.0	12.0	6.5	11.5	8.0	11.0	7.5	11.0	7.5	14.0	7.0



11532620 MILL CREEK NEAR CRESCENT CITY, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.0	9.5	13.5	9.5	16.5	13.5	15.0	14.0	19.5	15.5		
2	11.0	9.5	14.0	10.0	16.0	13.0	15.5	13.5	19.0	15.5		
3	11.0	9.0	14.0	11.0	16.5	13.0	18.5	13.5	18.5	15.0		
4	11.0	9.0	12.5	9.5	17.5	13.5	17.0	14.5	19.0	15.0		
5	10.5	9.5	13.5	9.0	18.5	14.0	18.0	13.5	19.5	15.0		
6	10.5	9.5	14.0	9.0	18.0	14.0	19.0	14.0	20.5	15.5		
7	11.5	8.5	15.0	10.0	17.5	14.0	19.0	15.0	21.0	17.0		
8	12.5	9.0	15.0	10.5	16.5	14.5	19.5	15.0	21.5	17.5		
9	13.5	9.5	13.0	11.5	16.5	14.0	19.0	15.0	21.0	17.0		
10	14.0	10.0	12.0	11.0	16.5	14.0	19.0	14.5	20.0	17.0		
11	13.5	10.0	14.5	11.0	17.0	12.5	18.5	14.5	19.5	16.5		
12	13.5	9.5	13.5	11.0	15.5	13.5	18.5	14.5	17.5	16.0		
13	12.5	9.0	13.0	11.0	16.0	13.0	19.0	15.0	19.0	15.0		
14	10.5	9.5	12.5	11.0	16.5	12.5	19.5	15.5	19.5	15.0		
15	10.5	9.0	11.5	10.5	16.5	13.0	18.0	16.0	17.5	16.0		
16	10.5	8.5	14.0	9.5	17.5	13.0	19.5	15.5	18.0	15.0		
17	11.0	9.0	14.5	10.0	17.5	13.5	20.0	15.0	18.0	14.0		
18	11.5	9.5	16.0	11.0	16.0	14.5	21.0	16.0	18.5	14.5		
19	10.5	9.5	15.5	11.5	17.5	13.5	20.0	16.0	18.5	14.5		
20	10.5	9.0	16.0	12.0	15.5	14.0	20.5	16.0	16.5	15.5		
21	11.0	9.0	14.0	12.0	14.5	13.5	21.5	16.5	---	---		
22	10.5	9.5	14.5	10.5	14.5	13.0	20.5	16.5	---	---		
23	11.5	9.0	14.0	10.0	16.0	13.0	20.0	16.0	---	---		
24	11.5	9.5	12.5	11.0	16.0	13.5	20.5	16.0	---	---		
25	12.5	10.5	13.0	10.5	16.5	13.0	19.5	16.0	---	---		
26	13.0	10.0	12.5	11.0	18.0	13.0	18.0	16.0	---	---		
27	11.5	10.0	16.0	11.5	19.0	14.5	19.5	15.5	---	---		
28	13.0	10.5	16.5	13.0	16.0	15.0	18.0	16.0	---	---		
29	13.5	10.0	16.5	11.5	15.0	14.0	17.5	15.5	---	---		
30	12.5	10.0	16.5	12.0	15.5	14.0	18.5	15.5	---	---		
31	---	---	17.5	12.5	---	---	19.5	15.5	---	---		
MONTH	14.0	8.5	17.5	9.0	19.0	12.5	21.5	13.5	21.5	14.0		

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC							
16...	1305	10.5	--	998	74	199	63
JAN							
05...	1010	10.0	--	613	40	66	74
09...	1040	11.0	--	518	16	22	57
16...	1435	--	--	1480	176	703	57
23...	1700	9.0	--	286	4	3.1	--
FEB							
01...	0900	--	158	--	44	19	86
02...	0905	--	290	--	175	137	67
03...	0850	--	--	2910	415	3260	62
03...	1345	--	--	2150	229	1330	65
04...	1250	--	1700	--	46	211	49
05...	1720	--	970	--	34	89	55
06...	1825	--	940	--	20	51	55
07...	0855	--	1500	--	72	292	--
07...	0915	--	1500	--	89	360	60
07...	1040	--	1500	--	78	316	--
07...	1445	--	1500	--	57	231	66
08...	0930	--	1300	--	19	67	57
MAR							
06...	1500	--	--	136	2	.73	--
23...	1045	10.5	--	196	280	148	98
APR							
05...	1305	--	--	569	60	92	58
06...	0950	--	--	396	13	14	67
26...	1215	12.5	--	153	10	4.1	78
MAY							
23...	1440	12.0	--	47	2	.25	--
JUN							
22...	1600	14.5	--	20	1	.05	--
JUL							
24...	1415	20.5	--	8.4	1	.02	--
AUG							
25...	1635	17.0	--	47	2	.25	--

11532620 MILL CREEK NEAR CRESCENT CITY, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW (CFS)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
DEC 16...	1305	10.5	--	998	74	199	--	--	--
JAN 16...	1435	--	--	1480	176	703	--	--	--
FEB 02...	0905	--	290	--	175	137	--	--	--
03...	0850	--	--	2910	415	3260	19	25	33
03...	1345	--	--	2150	229	1330	23	29	38
MAR 23...	1045	10.5	--	196	280	148	50	67	83

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 16...	--	--	63	70	77	83	88	100
JAN 16...	--	--	57	69	81	92	99	100
FEB 02...	--	--	67	74	81	90	97	100
03...	42	53	62	76	87	94	97	100
03...	47	57	65	76	87	95	98	100
MAR 23...	94	97	98	99	100	--	--	--

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low- or flood-flow analyses, depending on the type of data collected.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations and the second is a table of annual maximum discharge at crest-stage stations.

## Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same or practically the same site.

Discharge measurements made at low-flow partial-record stations during water year 1978

Station No.	Station name		Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
San Jose Creek basin						
11143100	San Jose Creek near Carmel, CA	Lat 36°31'23", long 121°55'31", in San Jose Y Sur Chiquito Grant, Monterey County, Hydrologic Unit 18060006, at bridge on State Highway 1, 0.2 mi (0.3 km) up- stream from mouth, and 2.3 mi (3.7 km) south of Carmel Post Office.	14.2	1977-78	10-6-77	0
Salinas River basin						
11147010	Jack Creek at mouth, near Templeton, CA	Lat 35°32'57", long 120°47'35", in Paso de Robles Grant, San Luis Obispo County, Hydrologic Unit 18060005, 200 ft (61 m) upstream from mouth and 5.0 mi (8.0 km) west of Templeton.	26.8	1977-78	10-6-77 12-6-77	0 0
11147055	Paso Robles Creek at York Mountain Road, near Temple- ton, CA	Lat 35°32'55", long 120°47'30", in Paso de Robles Grant, San Luis Obispo County, Hydrologic Unit 18060005, at old York Mountain Road bridge, 250 ft (76 m) downstream from Jack Creek, and 4.9 mi (7.9 km) west of Templeton.	30.6	1977-78	10-6-77	0
11147090	Paso Robles Creek near Templeton, CA	Lat 35°32'15", long 120°43'33", in Paso de Robles Grant, San Luis Obispo County, Hydrologic Unit 18060005, 250 ft (76 m) downstream from Cayucos Road, 1.4 mi (2.3 km) southwest of Templeton, and 1.8 mi (2.9 km) upstream from mouth.	65.8	1977-78	10-6-77 12-5-77	0 0
Pajaro River basin						
11158000	Tres Pinos Creek at highway bridge, near Tres Pinos, CA	Lat 36°45'54", long 121°17'54", in NE¼ sec.34, T.13 S., R.6 E., San Benito County, Hydrologic Unit 18060002, at bridge on State Highway 25, 0.2 mi (0.3 km) southeast of Bolado Park, 2.1 mi (3.4 km) south- east of town of Tres Pinos, and 4.8 mi (7.7 km) upstream from mouth.	208	1923†, 1940-41†, 1978	7-18-78 8-16-78 9-20-78	a5.32 a16.6 a6.69
11158100	Tres Pinos Creek at road ford, near Tres Pinos, CA	Lat 36°46'43", long 121°19'03", in NW¼ sec.28, T.13 S., R.6 E., San Benito County, Hydrologic Unit 18060002, at road ford, 0.8 mi (1.3 km) south of town of Tres Pinos, and 3.2 mi (5.1 km) upstream from mouth.	212	1978	7-18-78 8-16-78 9-20-78	a5.08 a16.3 a5.06
11158200	Tres Pinos Creek at Tres Pinos, CA	Lat 36°47'18", long 121°19'36", in NE¼SE¼ sec.20, T.13 S., R.6 E., San Benito County, Hydrologic Unit 18060002, at culvert on Southside Road, 0.4 mi (0.6 km) west of town of Tres Pinos, and 2.2 mi (3.5 km) upstream from mouth.	214	1978	7-18-78 8-16-78 9-20-78	a2.32 a10.3 a3.60
11158300	Tres Pinos Creek at Southside Road, near Tres Pinos, CA	Lat 36°47'19", long 121°21'29", in NE¼SW¼ sec.19, T.13 S., R.6 E., San Benito County, Hydrologic Unit 18060002, 100 ft (30 m) upstream from Southside Road bridge, 0.4 mi (0.6 km) upstream from mouth, and 2.1 mi (3.4 km) west of town of Tres Pinos.	217	1978	7-18-78 8-16-78 9-20-78	0 a5.81 a.83

See footnotes at end of table.

## DISCHARGE AT PARTIAL-RECORD STATIONS

Discharge measurements made at low-flow partial-record stations during water year 1978--Continued

Station No.	Station name		Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
Pajaro River basin--Continued						
11158520	San Benito River at Hospital Road, near Hollister, CA	Lat 36°48'56", long 121°23'28", in San Justo Grant, San Benito County, Hydrologic Unit 18060002, at culvert on Hospital Road, 2.7 mi (4.3 km) southeast of Hollister.	593	1978	7-18-78 8-16-78 9-20-78	a29.2 a28.1 a13.9
11158550	San Benito River at Cienega Road, near Hollister, CA	Lat 36°49'34", long 121°24'04", in San Justo Grant, San Benito County, Hydrologic Unit 18060002, at percolation dike just upstream from Cienega Road, 1.8 mi (2.9 km) south of Hollister.	601	1978	7-18-78 8-16-78 9-20-78	a17.1 a22.3 a10.5
11158700	San Benito River at Mitchell Road, near Hollister, CA	Lat 36°51'27", long 121°27'15", in San Justo Grant, San Benito County, Hydrologic Unit 18060002, at north end of Mitchell Road, 2.9 mi (4.7 km) west of Hollister.	610	1978	7-18-78 8-16-78 9-20-78	a4.14 a4.93 0
San Lorenzo River basin						
11160036	Kings Creek near Boulder Creek, CA	Lat 37°09'35", long 122°07'32", in SE¼SW¼ sec.7, T.9 S., R.2 W., Santa Cruz County, Hydrologic Unit 18060001, at upstream side of bridge on Kings Creek Road at Redwood Grove, 0.7 mi (1.1 km) upstream from mouth, and 2.3 mi (3.7 km) north of town of Boulder Creek.	7.56	1973-76b, 1978	1-23-78	17.5
11160430	Bean Creek near Felton, CA	Lat 37°03'14", long 122°02'53", in SE¼ sec.14, T.10 S., R.2 W., Santa Cruz County, Hydrologic Unit 18060001, 0.8 mi (1.3 km) upstream from mouth, and 1.4 mi (2.3 km) east of Felton.	9.18	1973b, 1976b, 1978	1-23-78	31.5
11161400	Carbonera Creek at Santa Cruz, CA	Lat 36°59'12", long 122°00'48", in NW¼SW¼ sec.7, T.11 S., R.1 W., Santa Cruz County, Hydrologic Unit 18060001, at downstream side of bridge, in Santa Cruz, 250 ft (76 m) upstream from mouth.	7.42	1974-76b, 1978	1-25-78	10.4
Calabazas Creek basin						
11169581	Calabazas Creek at Mt. Eden Road, near Saratoga, CA	Lat 37°16'03", long 122°03'31", in SE¼NE¼ sec.3, T.8 S., R.2 W., Santa Clara County, Hydrologic Unit 18050003, at culvert on Mt. Eden Road, 100 ft (30 m) upstream from small left-bank tributary, and 1.7 mi (2.7 km) northwest of Saratoga Post Office.	.49	1973-75b, 1978c	1-4-78 1-5-78 2-6-78	a1.65 20.0 a6.79
11169586	Calabazas Creek tributary No. 3 at Mt. Eden Road, near Saratoga, CA	Lat 37°15'54", long 122°03'19", in NW¼SW¼ sec.2, T.8 S., R.2 W., Santa Clara County, Hydrologic Unit 18050003, at culvert on Mt. Eden Road, 200 ft (61 m) upstream from mouth, and 1.4 mi (2.3 km) northwest of Saratoga Post Office.	.11	1973-75b, 1978c	1-4-78 1-5-78 2-6-78	a.61 7.50 1.38
11169588	Calabazas Creek tributary No. 4 at Mt. Eden Road, near Saratoga, CA	Lat 37°15'54", long 122°03'18" in NW¼SW¼ sec.2, T.8 S., R.2 W., Santa Clara County, Hydrologic Unit 18050003, at culvert on Mt. Eden Road, 400 ft (122 m) upstream from mouth and 1.4 mi (2.3 km) northwest of Saratoga Post Office.	.26	1973-75b, 1978c	1-4-78 1-5-78 2-6-78	a4.13 10.6 a5.80
11169610	Prospect Creek at Maria Lane, near Saratoga, CA	Lat 37°17'38", long 122°02'34", in SE¼NE¼ sec.26, T.7 S., R.2 W., Santa Clara County, Hydrologic Unit 18050003, on right bank at downstream side of bridge on Prospect Road, 20 ft (6 m) downstream from Maria Lane, 0.6 mi (1.0 km) upstream from mouth, and 2.5 mi (4.0 km) northwest of Saratoga Post Office.	.76	1973b, 1978c	1-4-78 1-5-78 2-6-78 2-6-78	a1.11 43.5 11.2 6.70

See footnotes at end of table.

Discharge measurements made at low-flow partial-record stations during water year 1978--Continued

Station No.	Station name	Drainage area (mi <sup>2</sup> )	Period of record	Measurements		
				Date	Discharge (ft <sup>3</sup> /s)	
Calabazas Creek basin--Continued						
11169611	Prospect Creek tributary near Saratoga, CA	Lat 37°17'38", long 122°02'34", in SE¼NE¼ sec.26, T.7 S., R.2 W., Santa Clara County, Hydrologic Unit 18050003, on left bank at culvert on Prospect Road, at mouth, 22 ft (7 m) downstream from Maria Lane, and 2.5 mi (4.0 km) northwest of Saratoga Post Office.	.014	1973b, 1978c	2-6-78 2-6-78	a.29 a.05
Alameda Creek basin						
11174200	Alameda Creek at Sunol, CA	Lat 37°35'15", long 121°53'21" in Valle de San Jose Grant, Alameda County, Hydrologic Unit 18050004, on left bank 50 ft (15 m) upstream from road ford, 600 ft (183 m) upstream from Arroyo de la Laguna, and 0.6 mi (1.0 km) south of Sunol.	198	1975-76b, 1977-78	1-5-78	0
11174600	Alamo Canal near Pleasanton, CA	Lat 37°41'10", long 121°54'54", in Santa Rita Grant, Alameda County, Hydrologic Unit 18050004, on right bank 30 ft (9 m) upstream from VCS wasteway, 0.7 mi (1.1 km) upstream from Arroyo Mocho, 3 mi (5 km) northwest of Pleasanton.	--	1975-76b, 1977-78c	10-12-77 1-6-78 5-4-78 5-5-78 5-9-78 6-5-78	a0.23 31.0 a2.80 a2.22 a2.46 a1.66
11176150	Arroyo Las Positas near Livermore, CA	Lat 37°41'52", long 121°48'15", in Valle de San Jose Grant, Alameda County, Hydrologic Unit 18050004, on right bank, 15 ft (5 m) upstream from Kitty Hawk Road, 800 ft (244 m) upstream from Collier Creek, and 2.3 mi (3.7 km) northwest of Livermore.	64.6	1912-19†, 1921-30†, 1975-76b, 1977-78c	1-5-78 1-11-78 1-17-78 1-26-78	a10.1 a1.48 150 a.81
11177200	Vallecitos Creek at Sunol, CA	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 (213 m) upstream from mouth, and 0.3 mi (0.5 km) east of Sunol.	7.48	1975-76b 1977-78d	1-5-78 5-4-78 9-13-78	28.4 a.48 a.06
11177300	Sinbad Creek at Sunol, CA	Lat 37°35'41", long 121°53'07", in Valle de San Jose Grant, Alameda County, Hydrologic Unit 18050004, on left bank at culvert on Western Pacific Railroad in Sunol, 900 ft (274 m) upstream from mouth.	6.50	1975-76b, 1977-78c	1-5-78 1-17-78 6-8-78	a6.44 58.7 0
11178400	Stonybrook Creek near Niles, CA	Lat 37°35'54", long 126°56'51", in SE¼ sec.11, T.4 S., R.1 W., Alameda County, Hydrologic Unit 18050004, on right bank at culvert on State Highway 84, 50 ft (15 m) upstream from mouth, and 2.5 mi (4.0 km) north of Niles.	6.89	1975-76b, 1977-78c	1-6-78 1-11-78 1-17-78 5-9-78	21.1 a5.98 48.1 a1.46
Napa River basin						
*11455860	Napa River at Greenwood Avenue, near Calistoga, CA	Lat 38°35'22", long 122°35'48" in Carne Humana Grant, Napa County, Hydrologic Unit 18050002, on left bank at culvert on Greenwood Avenue, 1.2 mi (1.9 km) northwest of Calistoga.	5.39	1976b, 1977-78c	11-22-77 1-5-78	a6.2 347
*11455865	Blossom Creek near Calistoga, CA	Lat 38°35'36", long 122°36'47", in Carne Humana Grant, Napa County, Hydrologic Unit 18050002, on left bank at upstream side of private road bridge, 1.1 mi (1.8 km) upstream from mouth, and 2.2 mi (3.5 km) northwest of Calistoga.	2.01	1976b, 1978c	11-22-77 12-15-77 1-5-78	a1.4 a24 210

See footnotes. at end of table.

## DISCHARGE AT PARTIAL-RECORD STATIONS

Discharge measurements made at low-flow partial-record stations during water year 1978--Continued

Station No.	Station name	Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
				Date	Discharge (ft <sup>3</sup> /s)
Napa River basin--Continued					
*11455880	Garnett Creek near Calistoga, CA	Lat 38°35'36", long 122°35'26", in Carne Humana Grant, Napa County, Hydrologic Unit 18050002, on right bank at upstream side of bridge on Greenwood Avenue, 0.6 mi (1.0 km) upstream from mouth, 1.2 mi (1.9 km) northwest of Calistoga.	7.66	1976b, 1977-78c	11-22-77 a16 12-15-77 a53 1-5-78 323 1-16-78 513
*11455890	Cyrus Creek at Calistoga, CA	Lat 38°34'51", long 122°35'38", in Carne Humana Grant, Napa County, Hydrologic Unit 18050002, on right bank at downstream side of bridge on State Highway 128, 0.5 mi (0.8 km) upstream from mouth, and 0.8 mi (1.3 km) west of Calistoga.	3.03	1976b, 1978c	11-22-77 a11 1-5-78 155
Elk River basin					
11479700	Elk River near Falk, CA	Lat 40°42'10", long 124°09'20", in NW¼ sec.26, T.4 N., R.1 W., Humboldt County, Hydrologic Unit 18010102, 500 ft (152 m) downstream from Clapp Gulch, 1,300 ft (396 m) downstream from confluence of North and South Forks, 2 mi (3 km) northwest of Falk, and 5 mi (8 km) south of Eureka.	44.2	1958-67†, 1977-78	10-3-77 a2.4
Mad River basin					
11480780	Mad River near Blue Lake, CA	Lat 40°50'47", long 123°58'54", in NW¼ sec.5, T.5 N., R.2 E., Humboldt County, Hydrologic Unit 18010102, 0.3 mi (0.5 km) upstream from small left-bank tributary, and 2.4 mi (3.9 km) south of town of Blue Lake.	393	1973-76†, 1977-78	10-12-77 a68.
11480790	Mad River at Blue Lake, CA	Lat 40°52'30", long 123°59'26", in NW¼SE¼ sec.30, T.6 N., R.2 E., Humboldt County, Hydrologic Unit 18010102, 400 ft (122 m) upstream from North Fork Mad River, 0.5 mi (0.8 km) south of town of Blue Lake	397	1977-78	10-12-77 a58.7
11480820	North Fork Mad River at Korbel, CA	Lat 40°52'12", long 123°57'35", in SE¼SW¼ sec.28, T.6 N., R.2 E., Humboldt County, Hydrologic Unit 18010102, at Korbel, 100 ft (30 m) downstream from bridge, 200 ft (61 m) upstream from Sullivan Gulch.	44.4	1977-78	10-12-77 a3.1
11480830	North Fork Mad River at Blue Lake, CA	Lat 40°52'34", long 123°59'24", in NW¼SE¼ sec.30, T.6 N., R.2 E., Humboldt County, Hydrologic Unit 18010102, 400 ft (122 m) upstream from bridge, 0.4 mi (0.6 km) south of town of Blue Lake.	49.0	1977-78	10-12-77 a.4
11480900	Mad River at Glendale, CA	Lat 40°54'08", long 124°01'51", in NW¼SE¼ sec.14, T.6 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, 0.1 mi (0.2 km) downstream from Lindsay Creek, 0.8 mi (1.3 km) west of Glendale, and 3.6 mi (5.8 km) northeast of Arcata.	481	1977-78	10-12-77 a76.7
11481010	Mad River below U.S. Highway 299, near Arcata, CA	Lat 40°54'44", long 124°04'13", in NW¼NE¼ sec.16, T.6 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, 0.7 mi (1.1 km) downstream from bridge on U.S. Highway 299, 3.1 mi (5.0 km) north of Arcata.	485	1977-78	10-12-77 a12.5
11481020	Mad River below U.S. Highway 101, near Arcata, CA	Lat 40°54'57", long 124°05'42", in SW¼SW¼ sec.8, T.6 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, 900 ft (274 m) downstream from bridge on U.S. Highway 101, 3.3 mi (5.3 km) northwest of Arcata.	487	1977-78	10-12-77 a13.8

See footnotes at end of table.

Discharge measurements made at low-flow partial-record stations during water year 1978--Continued

Station No.	Station name		Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
Redwood Creek basin						
11482350	Christie Creek near Orick, CA	Lat 41°17'45", long 124°01'39", in NE¼SW¼ sec.35, T.11 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, 0.6 mi (1.0 km) upstream from mouth and 1.8 mi (2.9 km) northeast of Orick.	0.26	1978	10-20-77	a0.09
11482352	Christie Creek tributary near Orick, CA	Lat 41°18'00", long 124°02'01", in NW¼NW¼ sec.35., T.11 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, 250 ft (76 m) upstream from mouth and 1.7 mi (2.7 km) northeast of Orick.	.02	1978	10-20-77	a.04
11482440	Streeelow Creek near Orick, CA	Lat 41°20'42", long 124°01'53", in NE¼NW¼ sec.14, T.11 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, at upstream side of bridge 200 ft (61 m) upstream from mouth and 4.3 mi (6.9 km) northeast of Orick.	2.79	1978	10-21-77	a1.52
Squashan Creek basin						
11482510	Squashan Creek near Orick, CA	Lat 41°23'06", long 124°03'59", in NW¼ sec.33, T.12 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, 0.5 mi (0.8 km) upstream from mouth and 6.8 mi (10.9 km) north of Orick.	1.55	1978	10-20-77	a1.55
Klamath River basin						
11512000	Fall Creek at Copco, CA	Lat 41°58'31", long 122°21'49", in NE¼ sec.36, T.48 N., R.5 W., Siskiyou County, 1,500 ft (457 m) upstream from mouth and 0.8 mi (1.3 km) south of Fall Creek powerplant and Copco Post Office.	14.6	1928-59†, 1964-75b, 1976-78	10-5-77 9-7-78	a32.7 a31.3
11516528	Bogus Creek near Hornbrook, CA	Lat 41°55'43", long 122°26'24", in NE¼ sec.17, T.47 N., R.3 W., Siskiyou County, 0.5 mi (0.8 km) downstream from Iron Gate Dam and 6.0 mi (9.7 km) northeast of Hornbrook.	53.5	1965-75b, 1976-78	10-5-77 9-7-78	a17.7 a22.4
11516750	Shasta River near Edgewood, CA	Lat 41°28'21", long 122°26'21", in SE¼NE¼ sec.20, T.42 N., R.5 W., Siskiyou County, at county bridge 1.1 mi (1.8 km) northwest of Edgewood, and 4.2 mi (6.8 km) northwest of Weed.	70.3	1977-78e	10-3-77	a15.6
11517800	Beaver Creek near Klamath River, CA	Lat 41°53'42", long 122°49'21", in NE¼SW¼ sec.30, T.47 N., R.8 W., Siskiyou County, 1.9 mi (3.1 km) upstream from mouth and 14.8 mi (23.8 km) northwest of Yreka.	106	1953-58, 1959-65†, 1967-75b, 1976-78	10-6-77 9-6-78	a14.6 a57.8
11518050	East Fork Scott River at Callahan, CA	Lat 41°18'15", long 122°46'32", in SE¼NW¼ sec.22, T.40 N., R.8 W., Siskiyou County, 1.0 mi (1.6 km) downstream from Big Mill Creek, and 1.4 mi (2.3 km) east of Callahan.	110	1960-74†, 1977-78	10-4-77 9-5-78	a4.90 a103
11518200	South Fork Scott River near Callahan, CA	Lat 41°17'45", long 122°48'32", in SW¼SE¼ sec.20, T.40 N., R.8 W., Siskiyou County, opposite unnamed tributary 1.1 mi (1.8 km) southwest of Callahan, and 1.5 mi (2.4 km) upstream from East Fork Scott River.	41.5	1958-60†, 1964, 1966-75b, 1976-78	10-4-77 9-5-78	a9.53 a78.5
11520800	Thompson Creek near Happy Camp, CA	Lat 41°51'48", long 123°18'34", in SE¼ sec.17, T.17 N., R.8 E., Siskiyou County, 50 ft (15 m) upstream from highway bridge, 0.1 mi (0.2 km) upstream from mouth, and 6.0 mi (9.7 km) northeast of Happy Camp.	34.9	1968-75b, 1976-78	10-6-77 9-5-78	a11.7 a25.5
11522200	Elk Creek near Happy Camp, CA	Lat 41°44'36", long 123°21'16", in NW¼NE¼ sec.36, T.16 N., R.7 E., Siskiyou County, 0.1 mi (0.2 km) downstream from East Fork, 4.0 mi (6.4 km) upstream from mouth, and 4.0 mi (6.4 km) south of Happy Camp.	90.4	1956-64†, 1967-75b, 1976-78	10-6-77 9-5-78	a28.1 a83.5

See footnotes at end of table.

Discharge measurements made at low-flow partial-record stations during water year 1978--Continued

Station No.	Station name		Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
Klamath River basin--Continued						
11522260	Ti Creek near Somes Bar, CA	Lat 41°31'30", long 123°31'35", unsurveyed, Siskiyou County, Hydrologic Unit 18010209, Klamath National Forest, at bridge on State Highway 96, 10.5 mi (16.9 km) north of Somes Bar.	9.46	1960-64†, 1965-69f, 1977-78	10-5-77	a2.22
*11522300	South Fork Salmon River near Forks of Salmon, CA	Lat 41°13'20", long 123°15'00", in SE¼ sec.30, T.39 N., R.12 W., Siskiyou County, Hydrologic Unit 18010210, 100 ft (30 m) downstream from Methodist Creek and 4.5 mi (7.2 km) southeast of town of Forks of Salmon.	252	1953-57, 1957-65†, 1966-76f, 1977-78	10-5-77	a48.1
11522400	North Fork Salmon River near Forks of Salmon, CA	Lat 41°16'02", long 123°18'12", in NE¼ sec.18, T.10 N., R.8 E., Siskiyou County, Hydrologic Unit 18010210, 0.4 mi (0.6 km) downstream from Pollocks Gulch, 1.2 mi (1.9 km) upstream from Forks of Salmon, and 1.3 mi (2.1 km) upstream from mouth.	203	1958-64, 1965f, 1977-78	10-5-77	a41.0
11523030	Red Cap Creek near Orleans, CA	Lat 41°14'25", long 123°32'35", in SW¼ sec.19, T.10 N., R.6 E., Humboldt County, Hydrologic Unit 18010209, Six Rivers National Forest, 0.5 mi (0.8 km) downstream from Leary Creek, 4.4 mi (7.1 km) south of Orleans, and 4.9 mi (7.9 km) upstream from mouth.	56.1	1958-65†, 1977-78	10-6-77	a17.9
11523050	Bluff Creek near Weitchpec, CA	Lat 41°14'25", long 123°39'25", in SW¼ sec.19, T.10 N., R.5 E., Humboldt County, Hydrologic Unit 18010209, Six Rivers National Forest, 0.8 mi (1.3 km) upstream from Aikens Creek, 1.2 mi (1.9 km) upstream from mouth, and 4.4 mi (7.1 km) northeast of Weitchpec.	74.6	1951-57, 1955-56f, 1958-65†, 1977-78	10-6-77	a70.6
11523700	Coffee Creek near Trinity Center, CA	Lat 41°05' 35", long 122°45'10", in NW¼SW¼ sec.2, T.37 N., R.8 W., Trinity County, 0.8 mi (1.3 km) upstream from Little Boulder Creek, 3.2 mi (5.1 km) upstream from mouth, and 8 mi (13 km) northwest of new location of Trinity Center.	107	1957-66†, 1968-75b, 1976-78	10-4-77 8-30-78	a31.5 a75.3
11525520	Deadwood Creek at Lewiston, CA	Lat 40°43'02", long 122°48'04", in SW¼NW¼ sec.17, T.33 N., R.8 W., Trinity County, 300 ft (91 m) upstream from mouth and 0.7 mi (1.7 km) northeast of Lewiston.	9.10	1965-75, 1976-78	10-11-77 1-6-78 2-6-78 5-4-78 8-30-78	a.41 a29.8 48.1 111.0 a.78
11525800	Weaver Creek near Douglas City, CA	Lat 40°40'06", long 122°56'31", in NE¼SE¼ sec.36, T.33 N., R.10 W., Trinity County, 0.2 mi (0.3 km) downstream from highway bridge, and 1.3 mi (2.1 km) north of Douglas City.	48.4	1958-70†, 1971b, 1977-78	10-4-77	a1.89
11525900	Browns Creek near Douglas City, CA	Lat 40°38'35", long 122°58'45", in NE¼SW¼ sec.10, T.32 N., R.10 W., Trinity County, 2 mi (3 km) upstream from mouth, and 2.1 mi (3.4 km) west of Douglas City.	71.6	1957-67†, 1970-71b, 1977-78	10-11-77	a4.61
11527400	New River at Denny, CA	Lat 40°56'45", long 123°22'55", in NE¼ sec.33, T.7 N., R.7 E., Trinity County, Hydrologic Unit 18010211, Trinity National Forest, at private road bridge, 0.3 mi (0.5 km) northeast of Denny, and 0.5 mi (0.8 km) downstream from Quinby Creek.	173	1928-29†, 1959-69†, 1977-78	10-6-77	a34.1
11528400	Hayfork Creek near Hayfork, CA	Lat 40°31'10", long 123°05'05", in SW¼ sec.23, T.31 N., R.11 W., Trinity County, Hydrologic Unit 18010212, Trinity National Forest, 5.8 mi (9.3 km) south- west of Hayfork.	86.7	1956-65†, 1966-72f, 1974-76f, 1977-78	10-7-77	a4.90

See footnotes at end of table.



Discharge measurements made at low-flow partial-record stations during water year 1978--Continued

Station No.	Station name		Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
Klamath River basin--Continued						
11528500	Hayfork Creek near Hyampom, CA	Lat 40°37'34", long 123°26'01", in SE¼NW¼ sec.19, T.3 N., R.7 E., Trinity County, Hydrologic Unit 18010212, Trinity National Forest, 1.2 mi (1.9 km) upstream from mouth, and 1.3 mi (2.1 km) northeast of Hyampom.	378	1953-74†, 1977-78	10-7-77	a17.0
11529000	South Fork Trinity River near Salyer, CA	Lat 40°50'30", long 123°34'00", in SE¼ sec.1, T.5 N., R.5 E., Humboldt County, Hydrologic Unit 18010212, Six Rivers National Forest, 4 mi (6 km) south of Salyer, and 8 mi (13 km) upstream from mouth.	898	1912-13†, 1951-67†, 1977-78	10-11-77	a69.7
11529800	Willow Creek near Willow Creek, CA	Lat 40°56'50", long 123°39'35", in SE¼SW¼ sec.30, T.7 N., R.5 E., Humboldt County, Hydrologic Unit 18010209, 0.1 mi (0.2 km) upstream from Boise Creek, 1.5 mi (2.4 km) northwest of town of Willow Creek, and 1.8 mi (2.9 km) upstream from mouth.	41.0	1959-74†, 1977-78	10-6-77	a11.5
11530510	Richardson Creek at Klamath, CA	Lat 41°31'15", long 124°03'17", in NE¼NE¼ sec.16, T.13 N., R.1 E., Del Norte County, Hydrologic Unit 18010209, just downstream from small right-bank tributary and 1.0 mi (1.6 km) southeast of Klamath.	1.25	1978	10-20-77	a.50
Wilson Creek basin						
11530610	Wilson Creek near Klamath, CA	Lat 41°37'49", long 124°04'43", in SE¼ sec.5, T.14 N., R.1 E., Del Norte County, Hydrologic Unit 18010101, 0.2 mi (0.3 km) upstream from small left-bank tributary, 2.6 mi (4.2 km) upstream from mouth, and 7.5 mi (12.1 km) northwest of Klamath.	8.65	1978	10-20-77	a1.43
Smith River basin						
11530870	Siskiyou Fork near Gasquet, CA	Lat 41°52'37", long 123°48'09", in SE¼SW¼ sec.11, T.17 N., R.3 E., Del Norte County, Hydrologic Unit 18010101, Six Rivers National Forest, 400 ft (122 m) downstream from bridge, 0.7 mi (1.1 km) upstream from mouth, 8.7 mi (14.0 km) northeast of Gasquet.	26.9	1977-78c	10-4-77 12-14-77 12-14-77 1-10-78 1-24-78 2-6-78 2-14-78 2-28-78 3-7-78 3-16-78 3-23-78	a30.3 2120 2430 449 253 578 209 108 151 107 230
11530920	Patrick Creek near Gasquet, CA	Lat 41°52'51", long 123°51'09", in NE¼SE¼ sec.8, T.17 N., R.3 E., Del Norte County, Hydrologic Unit 18010101, Six Rivers National Forest, 0.5 mi (0.8 km) downstream from Twelvemile Creek, 0.8 mi (1.3 km) upstream from mouth, and 6.4 mi (10.3 km) northeast of Gasquet.	22.0	1977-78	10-4-77	a21.3
11531000	Middle Fork Smith River at Gasquet, CA	Lat 41°50'51", long 123°57'59", in NE¼SE¼ sec.20, T.17 N., R.2 E., Del Norte County, Hydrologic Unit 18010101, Six Rivers National Forest, at bridge, at Gasquet, 0.1 mi (0.2 km) upstream from confluence with North Fork Smith River.	131	1911-18†, 1952-57, 1954-56†, 1958-65†, 1977-78c	10-7-77 10-20-77 12-13-77 1-23-78 2-8-78 2-14-78 2-23-78 2-28-78 3-7-78 3-16-78 3-23-78 3-30-78	a115 a66.0 11900 1770 3500 1200 900 619 743 560 966 535
11531750	Hurdygurdy Creek near Big Flat, CA	Lat 41°43'04", long 123°53'48", in SW¼SE¼ sec.1, T.15 N., R.2 E., Del Norte County, Hydrologic Unit 18010101, Six Rivers National Forest, at bridge, 4.0 mi (6.4 km) upstream from mouth, 2.3 mi (3.7 km) northeast of Big Flat, and 16 mi (26 km) southeast of Crescent City.	26.9	1978c	12-13-77 1-24-78 2-9-78 2-15-78 2-24-78 3-1-78 3-8-78 3-17-78 3-24-78 3-30-78	1330 313 610 280 167 127 408 123 330 115

See footnotes at end of table.

## DISCHARGE AT PARTIAL-RECORD STATIONS

Discharge measurements made at low-flow partial-record stations during water year 1978--Continued

Station No.	Station name	Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
				Date	Discharge (ft <sup>3</sup> /s)
Smith River basin--Continued					
11531800	South Fork Smith River at Big Flat, CA	Lat 41°41'03", long 123°54'52", in SW¼NE¼, sec.23, T.15 N., R.2 E., Del Norte County, Hydrologic Unit 18010101, Six Rivers National Forest, 200 ft (61 m) downstream from Hurdygurdy Creek, 0.3 mi (0.5 km) southwest of Big Flat guard station, and 15.9 mi (25.6 km) southeast of Crescent City.	174	1977-78c	10-5-77 a211 10-18-77 a118 12-15-77 15200 1-24-78 2120 2-7-78 6370
11531850	Goose Creek at Big Flat, CA	Lat 41°41'06", long 123°55'23", in NW¼NW¼ sec.23, T.15 N., R.2 E., Del Norte County, Hydrologic Unit 18010101, Six Rivers National Forest, 200 ft (61 m) upstream from mouth, 0.7 mi (1.1 km) southwest of Big Flat guard station, and 15.4 mi (24.8 km) southeast of Crescent City.	40.5	1977-78	10-5-77 a73.2 10-18-77 a49.2
11531900	South Fork Smith River near Big Flat, CA	Lat 41°41'38", long 123°55'45", in NE¼SE¼ sec.15, T.15 N., R.2 E., Del Norte County, Hydrologic Unit 18010101, Six Rivers National Forest, at bridge, 0.6 mi (1.0 km) downstream from Goose Creek, 1.1 mi (1.8 km) northwest of Big Flat guard station, and 14.9 mi (24.0 km) southeast of Crescent City.	216	1957-61, 1958-60f, 1978c	12-15-77 16800 1-25-78 2310 2-7-78 7850 2-15-78 2200 2-24-78 1640 3-1-78 1260 3-8-78 3550 3-17-78 1180 3-24-78 2040 3-30-78 a982
11531950	Rock Creek near Big Flat, CA	Lat 41°44'05", long 123°59'01", in NE¼SE¼ sec.31, T.16 N., R.2 E., Del Norte County, Hydrologic Unit 18010101, Six Rivers National Forest, 400 ft (122 m) upstream from bridge, 500 ft (152 m) upstream from mouth, 5.0 mi (8.0 km) northwest of Big Flat guard station, and 11.5 mi (18.5 km) southeast of Crescent City.	16.1	1977-78	10-4-77 a36.8 10-18-77 a15.5

\* Also a crest-stage partial-record station.

† Operated as a continuous-record gaging station.

a Base flow.

b Published as a miscellaneous measurement.

c Water-quality data for current year published in partial-record section of this report.

d Water-quality data for current year published in this report.

e Data are available since 1938 in reports of California Department of Water Resources.

f Operated as a crest-stage partial-record station.

## Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for the current water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been obtained.

Annual maximum discharge at crest-stage partial-record stations during water year 1978

					Annual maximum		
Station No.	Station name	Location	Drain- age area (mi <sup>2</sup> )	Period of record	Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
Napa River basin							
*11455860	Napa River at Greenwood Avenue, near Calistoga, CA	Lat 38°35'22", long 122°35'48", in Carne Humana Grant, Napa County, Hydrologic Unit 18050002, on left bank at culvert on Greenwood Avenue, 1.2 mi (1.9 km) northwest of Calistoga.	5.39	1976 1977 1978a	-- -- 1-16-78	-- -- 12.60	bc bc 2300
*11455865	Blossom Creek near Calistoga, CA	Lat 38°35'36", long 122°36'47", in Carne Humana Grant, Napa County, Hydrologic Unit 18050002, on left bank at upstream side of private road bridge, 1.1 mi (1.8 km) upstream from mouth, and 2.2 mi (3.5 km) northwest of Calistoga.	2.01	1976-78a	1-16-78	7.81	1250
*11455880	Garnett Creek near Calistoga, CA	Lat 38°35'36", long 122°35'26", in Carne Humana Grant, Napa County, Hydrologic Unit 1805002, on right bank at upstream side of bridge on Greenwood Avenue, 0.6 mi (1.0 km) upstream from mouth, and 1.2 mi (1.9 km) northwest of Calistoga.	7.66	1976-78a	1-16-78	13.39	1800
*11455890	Cyrus Creek at Calistoga, CA	Lat 38°34'51", long 122°35'38" in Carne Humana Grant, Napa County, Hydrologic Unit 18050002, on right bank at downstream side of bridge on State Highway 128, 0.5 mi (0.8 km) upstream from mouth, and 0.8 mi (1.3 km) west of Calistoga.	3.03	1976-78a	1-16-78	2.13	48
11458140	Milliken Creek at Napa, CA	Lat 38°19'31", long 122°16'24", in Yajome Grant, Napa County, Hydrologic Unit 18050002, on right bank at upstream side of West Trancas Road bridge, at Napa, and 0.7 mi (1.1 km) upstream from mouth.	20.8	1971-78	1-16-78	57.95	--
11458150	Sarco Creek near Napa, CA	Lat 38°19'56", long 122°15'06", in Tulucay Grant, Napa County, Hydrologic Unit 18050002, on left bank at culvert on Vichy Avenue, 3 mi (5 km) northwest of Napa.	3.56	1971-78	1-9-78	57.94	896
Russian River basin							
11460940	Russian River near Redwood Valley, CA	Lat 39°19'10", long 123°13'20", in NW¼ sec.20, T.17 N., R.12 W., Mendocino County, Hydrologic Unit 18010110, on left bank 600 ft (183 km) upstream from Rocky Creek and 3.8 mi (6.1 km) north of town of Redwood Valley.	14.1	1964-68d, 1969-78	12-14-77	5.92	969
Albion River basin							
11468010	Albion River near Comptche, CA	Lat 39°15'40", long 123°37'00", in SW¼ sec.11, T.16 N., R.16 W., Mendocino County, Hydrologic Unit 18010108, on right bank 2,000 ft (610 m) downstream from Morrison Gulch and 1.7 mi (2.7 km) west of Comptche.	14.4	1961-69d, 1970-78	1-16-78	7.69	1010
Eel River basin							
11469600	Hull Creek near Potter Valley, CA	Lat 39°32'39", long 122°55'34", in SW¼NE¼ sec.35, T.20 N., R.10 W., Mendocino County, Hydrologic Unit 18010103, Mendocino National Forest, at culvert on Hull Creek Road, 18 mi (29 km) northeast of Potter Valley.	1.49	1970-78	1-16-78	55.31	365

See footnotes at end of table.

## DISCHARGE AT PARTIAL-RECORD STATIONS

Annual maximum discharge at crest-stage partial-record stations during water year 1978--Continued

					Annual maximum		
Station No.	Station name	Location	Drain- age area (mi <sup>2</sup> )	Period of record	Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
Eel River basin--Continued							
11469650	Corbin Creek near Elk Creek, CA	Lat 39°32'56", long 122°43'28", in NW¼NE¼ sec.35, T.20 N., R.8 W., Glenn County, Hydrologic Unit 18010103, Mendocino National Forest, at culvert on Elk Creek-Potter Valley Road, 11 mi (18 km) southwest of town of Elk Creek.	6.18	1971-78	1-16-78	55.75	600
11469800	Cold Creek tributary near Elk Creek, CA	Lat 39°26'18", long 122°45'35", Lake County, Hydrologic Unit 18010103, Mendocino National Forest, at culvert on Pacific Crest Road, 4 mi (6 km) upstream from mouth, and 16.5 mi (26.5 km) south- west of town of Elk Creek.	.81	1969-70d, 1971-78	1-16-78	4.11	116
11472700	Hammerhorn Creek near Covelo, CA	Lat 39°56'42", long 122°59'50", in SW¼SW¼ sec.8, T.24 N., R.10 W., Mendocino County, Hydrologic Unit 18010104, Mendocino National Forest, at culvert on Six Rivers-Clear Lake Road, 17 mi (27 km) northeast of Covelo.	3.36	1969-78	12-14-77	54.86	300
11475500	South Fork Eel River near Branscomb, CA	Lat 39°43'09", long 123°39'06", in NW¼ sec.32, T.22 N., R.16 W., Mendocino County, Hydrologic Unit 18010106, on right bank 0.4 mi (0.6 km) upstream from Jack of Hearts Creek and 4.7 mi (7.6 km) north of Branscomb.	43.9	1946-70c, 1972-76, 1978	12-14-77	10.50	7700
11475700	Tenmile Creek near Layton- ville, CA	Lat 39°45'45", long 123°32'30", in NW¼ sec.16, T.22 N., R.15 W., Mendocino County, Hydrologic Unit 18010106, on right bank 0.1 mi (0.2 km) downstream from Step Gulch Creek and 6.0 mi (9.7 km) northwest of Layton- ville.	50.3	1957-74d, 1975-76, 1978	12-14-77	13.28	9080
Klamath River basin							
*11522300	South Fork Salmon River near Forks of Salmon, CA	Lat 41°13'20", long 123°15'00", in SE¼ sec.30, T.39 N., R.12 W., Siskiyou County, Hydrologic Unit 18010210, on left bank 100 ft (30 m) downstream from Methodist Creek and 4.5 mi (7.2 km) southeast of town of Forks of Salmon.	252	1958-66d, 1967-78	12-14-77	6.98	2630

\* Also a low-flow partial-record station.

a Water-quality data for current year published in partial-record section of this report.

b Not previously published.

c Peak discharge did not reach base of gage.

d Operated as a continuous-record gaging station.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## GUADALUPE RIVER BASIN

11167970 LOS GATOS CREEK ABOVE LEXINGTON RESERVOIR, NEAR LOS GATOS, CA

LOCATION.--Lat 37°10'02", long 121°58'43", in SE¼NW¼ sec.9, T.9 S., R.1 W., Santa Clara County,  
Hydrologic Unit 18050003, 400 ft (122 m) upstream from inflow to Lexington Reservoir, 0.3 mi  
(0.5 km) north of Chemeketa Park, and 4.1 mi (6.6 km) south of Los Gatos.

DRAINAGE AREA.--19.1 mi<sup>2</sup> (49.5 km<sup>2</sup>).

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water year 1978.

BIOLOGICAL DATA: Water year 1978.

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)
JUN 16...	1200	490	8.5	16.0	9.8	28	130	230	57	58
AUG 23...	1200	391	8.2	18.0	10.7	40	--	270	52	65

DATE	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)
JUN 16...	21	20	16	.6	1.7	210	1	170	78	18
AUG 23...	25	21	15	.6	2.0	260	0	210	79	13

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N)
JUN 16...	.2	18	321	.44	.24	.21	.01	.01	.36	.27
AUG 23...	.2	18	352	.48	.08	.08	.01	.01	.16	--

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DIS-SOLVED (MG/L AS P04)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)
JUN 16...	.37	.09	.28	.61	.01	.04	.12	80	0
AUG 23...	.17	.00	--	.25	.06	.06	.18	90	<10

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

GUADALUPE RIVER BASIN--Continued  
 11167970 LOS GATOS CREEK ABOVE LEXINGTON RESERVOIR, NEAR LOS GATOS, CA--Continued

## PHYTOPLANKTON

DATE AUG 23, 78  
 TIME 1200  
 TOTAL CELLS/ML 630  
 DIVERSITY: DIVISION 0.1  
 .CLASS 0.1  
 ..ORDER 0.1  
 ...FAMILY 1.8  
 ....GENUS 2.0

ORGANISM	CELLS /ML	PER- CENT
CHRYSTOPHYTA (GREEN ALGAE)		
.BACILLARIOPHYCEAE		
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	40	6
....COCCONEIS	120#	19
...FRAGILARIACEAE		
....SYNEDRA	17	3
...NAVICULACEAE		
....NAVICULA	280#	45
...NITZSCHACEAE		
....NITZSCHIA	150#	25
CRYPTOPHYTA		
.CRYPTOPHYCEAE		
..CRYPTOMONIDALES		
...CRYPTOMONODACEAE		
....CRYPTOMONAS	11	2

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

CALABAZAS CREEK BASIN  
 11169581 CALABAZAS CREEK AT MT. EDEN ROAD, NEAR SARATOGA, CA

LOCATION.--Lat 37°16'03", long 122°03'31", in SE¼NE¼ sec.3, T.8 S., R.2 W., Santa Clara County,  
 Hydrologic Unit 18050003, at culvert on Mt. Eden Road, 100 ft (30 m) upstream from small left  
 -bank tributary, and 1.7 mi (2.7 km) northwest of Saratoga Post Office.

DRAINAGE AREA.--0.49 mi<sup>2</sup> (1.27 km<sup>2</sup>).

PERIOD OF RECORD.--

SEDIMENT RECORDS: Water years 1973-75, 1978 (discontinued).

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
JAN										
04...	1540	11.0	1.6	318	1.4	64	--	--	--	--
05...	1355	11.0	20	9150	494	60	--	--	--	--
FEB										
06...	1050	11.0	6.8	3670	67	78	90	97	99	100

DATE	TIME	TEMPER- ATURE (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 .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
JAN								
04...	1530	11.0	13	1.6	7.0	.33	1	2
05...	1400	11.0	6	20	8.0	18	1	3
FEB								
06...	1045	11.0	14	6.8	8.5	2.5	2	5

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	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
JAN								
04...	19	47	62	73	87	100	--	--
05...	18	36	48	58	66	73	86	100
FEB								
06...	34	61	75	84	90	95	100	--

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

 CALABAZAS CREEK BASIN--Continued  
 11169586 CALABAZAS CREEK TRIBUTARY NO.3 AT MT. EDEN ROAD, NEAR SARATOGA, CA

LOCATION.--Lat 37°15'54", long 122°03'19", in NW¼SW¼ sec.2 T.8 S., R.2 W., Santa Clara County, Hydrologic Unit 18050003, at culvert on Mt. Eden Road, 200 ft (61 m) upstream from mouth, and 1.4 mi (2.3 km) northwest of Saratoga Post Office.

DRAINAGE AREA.--0.11 mi<sup>2</sup> (0.28 km<sup>2</sup>).

PERIOD OF RECORD.--

SEDIMENT RECORDS: Water years 1973-75, 1978 (discontinued).

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. 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 04...	1430	11.5	.61	146	.24	93	--	--	--	--	--
05...	1205	11.0	7.5	44400	899	72	84	93	97	98	99
FEB 06...	1135	11.0	2.5	2250	15	49	66	71	81	92	100

DATE	TIME	TEMPER- ATURE (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 .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
JAN 04...	1430	11.5	--	.61	2.6	.00	--	--
05...	1200	11.0	8	7.5	4.3	4.3	8	24
FEB 06...	1130	11.0	4	2.5	1.5	7.0	--	0

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	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
JAN 04...	--	--	--	--	--	--	--	--
05...	60	85	94	97	99	100	--	--
FEB 06...	3	12	28	46	58	70	91	100

## 11169588 CALABAZAS CREEK TRIBUTARY NO. 4 AT MT. EDEN ROAD, NEAR SARATOGA, CA

LOCATION.--Lat 37°15'54", long 122°03'18", in NW¼SW¼ sec.2, T.8 S., R.2 W., Santa Clara County, Hydrologic Unit 18050003, at culvert on Mt. Eden Road, 400 ft (122 m) upstream from mouth, and 1.4 mi (2.3 km) northwest of Saratoga Post Office.

DRAINAGE AREA.--0.26 mi<sup>2</sup> (0.67 km<sup>2</sup>).

PERIOD OF RECORD.--

SEDIMENT RECORDS: Water years 1973-75, 1978 (discontinued).

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. 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 04...	1330	11.5	4.1	8140	90	57	--	--	--	--	--
05...	1110	--	10	20500	553	62	76	86	94	97	99
FEB 06...	1255	12.0	5.8	8090	127	67	74	83	94	99	100

DATE	TIME	TEMPER- ATURE (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 .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
JAN 04...	1320	11.5	7	4.1	5.0	27	0	1	5
05...	1100	--	9	10	5.0	18	1	3	14
FEB 06...	1245	12.0	8	5.8	4.5	17	0	1	8

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

CALABAZAS CREEK BASIN--Continued  
 11169588 CALABAZAS CREEK TRIBUTARY NO. 4 AT MT. EDEN ROAD -Continued

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
JAN 04...	8	11	14	20	36	74	96	100
05...	36	50	60	72	86	94	100	--
FEB 06...	23	37	51	63	79	96	100	--

11169610 PROSPECT CREEK AT MARIA LANE, NEAR SARATOGA, CA

LOCATION.--Lat 37°17'38", long 122°02'34", in SE¼NE¼ sec.26, T.7 S., R.2 W., Santa Clara County, Hydrologic Unit 18050003, on right bank at downstream side of bridge on Prospect Road, 20 ft (6 m) downstream from Maria Lane, 0.6 mi (1.0 km) upstream from mouth, and 2.5 mi (4.0 km) northwest of Saratoga Post Office.

DRAINAGE AREA.--0.76 mi<sup>2</sup> (1.97 km<sup>2</sup>).

PERIOD OF RECORD.--

SEDIMENT RECORDS: Water years 1973, 1978 (discontinued).

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT 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
JAN 04...	1345	12.5	1.1	860	2.6	99	--	--	--	--
04...	1515	12.0	1.1	346	1.0	98	--	--	--	--
05...	1420	11.0	44	10700	1270	77	91	99	100	--
FEB 06...	1120	11.5	11	5340	159	69	83	93	98	100
06...	1355	12.5	6.7	1910	35	69	--	--	--	--

DATE	TIME	TEMPER- ATURE (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEUS (CFS)	STREAM WIDTH (FT)	SEDI- MENT CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
JAN 04...	1345	12.5	--	1.1	5.4	.00	--	--
05...	1330	11.0	20	--	14	2.4	7	23
05...	1400	11.0	20	44	14	4.5	6	19
FEB 06...	1355	12.5	--	6.7	6.0	.00	--	--

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
JAN 04...	--	--	--	--	--	--	--
05...	49	66	78	88	96	99	100
05...	45	59	69	79	89	96	100
FEB 06...	--	--	--	--	--	--	--



## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

CALABAZAS CREEK BASIN--Continued  
 11169611 PROSPECT CREEK TRIBUTARY NEAR SARATOGA, CA

LOCATION.--Lat 37°17'38", long 122°02'34", in SE¼NE¼ sec.26, T.7 S., R.2 W., Santa Clara County, Hydrologic Unit 18050003, on left bank at culvert on Prospect Road, at mouth, 22 ft (7 m) downstream from Maria Lane, and 2.5 mi (4.0 km) northwest of Saratoga Post Office.

DRAINAGE AREA.--0.014 mi<sup>2</sup> (0.036 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1973, 1978 (discontinued).

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, TOTAL (MG/L)	SEDI- MENT DISCH. TOTAL, SUSP.+ BEDLOAD (T/DAY)	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
JAN											
04...	1320	12.5	.05	95	.01	92	--	--	--	--	--
04...	1505	12.0	.04	91	.01	75	--	--	--	--	--
05...	1305	11.0	2.5	1400	9.4	51	60	76	89	96	100
FEB											
06...	1200	15.0	.29	544	.43	49	71	94	100	--	--
06...	1415	16.0	.05	196	.03	78	--	--	--	--	--

		TEMPER- ATURE (DEG C)	NUMBER OF SAM- PLING POINTS	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
DATE	TIME						
JAN 05...	1410	16.0	1	1.0	.52	2	6
DATE	TIME	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
JAN 05...	18	54	79	93	99	100	

ALAMEDA CREEK BASIN  
 11174600 ALAMO CANAL NEAR PLEASANTON, CA

LOCATION.--Lat 37°41'10", long 121°54'54", in Santa Rita Grant, Alameda County, Hydrologic Unit 18050004, on right bank 30 ft (9 m) upstream from VCSD wasteway, 0.7 mi (1.1 km) upstream from Arroyo Mocho, 3 mi (5 km) northwest of Pleasanton.

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1975 to current year.

COOPERATION.--Chemical-quality samples were collected by Valley Community Services District.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
NOV										
01...	0830	.43	1470	7.0	--	4.0	1300	20	470	100
APR										
25...	1030	--	740	7.1	25.0	20	--	--	240	56
JUL										
25...	0845	--	1570	7.2	25.0	2.0	--	--	410	86
DATE	TIME	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
NOV										
01...		54	210	900	1.22	.60	.00	.52	.14	.09
APR										
25...		25	70	456	.62	.82	.04	.86	.03	.20
JUL										
25...		48	210	873	1.19	.59	.02	.61	.05	.10

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

ALAMEDA CREEK BASIN--Continued  
11176150 ARROYO LAS POSITAS NEAR LIVERMORE, CA

LOCATION.--Lat 37°41'52", long 121°48'15", in Valle de San Jose Grant, Alameda County, Hydrologic Unit 18050004, on right bank, 15 ft (5 m) upstream from Kitty Hawk Road, 800 ft (244 m) upstream from Collier Creek, and 2.3 mi (3.7 km) northwest of Livermore.

DRAINAGE AREA.--64.6 mi<sup>2</sup> (167.3 km<sup>2</sup>).

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1976 to current year.

COOPERATION.--Chemical-quality samples were collected by City of Livermore.

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
JAN 26...	0800	2480	7.8	25.0	8.0	390	110	29	
APR 26...	1100	750	7.8	--	110	150	28	19	
DATE	TIME	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
JAN 26...	530		1570	2.14	5.5	.07	5.6	.61	.20
APR 26...	150		439	.60	1.1	.04	1.1	.05	.20

## 11177300 SINBAD CREEK AT SUNOL, CA

LOCATION.--37°35'41", long 121°53'07", in Valle de San Jose Grant, Alameda County, Hydrologic Unit 18050004, on left bank at culvert on Western Pacific Railroad in Sunol, 900 ft (274 m) upstream from mouth.

DRAINAGE AREA.--6.50 mi<sup>2</sup> (16.84 km<sup>2</sup>).

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1975, 1978.

COOPERATION.--Chemical-quality samples collected by Alameda County Water District.

		SPE- CIFIC CON- DUCT- ANCE	PH	TEMPER- ATURE	TUR- BID- ITY	HARD- NESS	CALCIUM DIS- SOLVED	MAGNE- SIUM, DIS- SOLVED
DATE	TIME	(MICRO- MHOS)	(UNITS)	(DEG C)	(NTU)	AS CAC03)	(MG/L AS CA)	(MG/L AS MG)
JAN 25...	1345	505	8.2	12.0	2.0	230	54	23
APR 26...	0955	571	8.2	14.0	2.0	260	63	25
		SOLIDS, RESIDUE AT 180 DEG. C	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
DATE		(MG/L)						
JAN 25...	38	333	.45	2.3	.01	2.3	.02	.10
APR 26...	25	369	.50	.46	.00	.46	.01	.00

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

ALAMEDA CREEK BASIN--Continued  
11178400 STONYBROOK CREEK NEAR NILES, CA

LOCATION.--Lat 37°35'54", long 121°56'51", in SE¼ sec.11, T.4 S., R.1 W., Alameda County, Hydrologic Unit 18050004, on right bank at culvert on State Highway 84, 50 ft (15 m) upstream from mouth, and 2.5 mi (4.0 km) north of Niles.

DRAINAGE AREA.--6.89 mi<sup>2</sup> (17.85 km<sup>2</sup>).

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1975, 1978.

COOPERATION.--Chemical-quality samples collected by Alameda County Water District.

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JAN 25...	0950	566	7.4	8.0	2.0	250	59	26
APR 26...	0935	640	8.2	13.5	--	280	66	28

DATE	TIME	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
JAN 25...	30		371	.50	2.8	.01	2.8	.06	.10
APR 26...	20		418	.57	.71	.01	.72	.11	.00

## 11179010 SAN FRANCISCO RELEASE AT NILES RESERVOIR, AT NILES, CA

LOCATION.--Lat 37°34'55", long 121°57'35", in SW¼ sec.15, T.4 S., R.1 W., Alameda County, Hydrologic Unit 18050004, at Niles Reservoir 1 mi (2 km) northeast of Niles.

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1975 to current year.

COOPERATION.--Chemical-quality samples were collected by Alameda County Water District.

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JAN 25...	0920	711	8.1	9.0	4.0	300	66	33
APR 26...	0915	706	8.3	15.0	2.1	330	71	37
AUG 02...	0915	570	8.7	18.5	.30	230	57	22

DATE	TIME	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
JAN 25...	54		456	.62	3.5	.01	3.5	.02	.10
APR 26...	45		443	.60	4.8	.00	4.8	.00	.10
AUG 02...	26		322	.44	2.9	.00	2.9	.02	.00

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

ALAMEDA CREEK BASIN--Continued  
11179040 KAISER PIT AT NILES, CA

LOCATION.--Lat 37°34'08", long 121°58'56", in SW¼ sec.21, T.4 S., R.1 W., Alameda County, Hydrologic Unit 18050004, at Kaiser recharge pit, 0.6 mi (1.0 km) south of Niles.

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1975 to current year.

COOPERATION.--Chemical-quality samples were collected by Alameda County Water District.

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 09...	0915	1090	7.3	17.0	3.0	210	33	30
JAN 25...	0900	1040	7.5	13.0	8.0	220	39	30
APR 26...	0850	798	8.9	18.5	3.4	290	63	31
AUG 02...	0850	728	9.4	23.0	2.4	220	44	27

DATE	TIME	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
NOV 09...	240		644	.88	3.9	.24	4.1	.04	.10
JAN 25...	210		615	.84	4.6	.06	4.7	.02	.10
APR 26...	110		528	.72	2.4	.07	2.5	.01	.10
AUG 02...	87		451	.61	2.4	.36	2.8	.01	.20

## 11179050 SHINN PIT AT NILES, CA

LOCATION.--Lat 37°34'12", long 121°59'15", in Arroyo de la Arroyo Grant, Alameda County, Hydrologic Unit 18050004, 0.6 mi (1.0 km) south of Niles.

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1975 to current year.

COOPERATION.--Chemical-quality samples were collected by Alameda County Water District.

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 09...	1330	1100	8.9	20.0	3.0	200	34	29
JAN 25...	1420	1000	7.8	15.0	8.0	220	39	29
APR 26...	1310	777	9.5	20.0	2.6	270	60	29
AUG 02...	1310	697	10.1	26.5	3.2	210	43	25

DATE	TIME	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
NOV 09...	240		636	.86	2.1	.20	2.3	.19	.10
JAN 25...	200		587	.80	3.9	.04	3.9	.14	.10
APR 26...	99		487	.66	1.6	.06	1.7	.01	.10
AUG 02...	86		440	.60	2.3	.16	2.5	.12	.20

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

NAPA RIVER BASIN  
11455850 NAPA RIVER AT TUBBS LANE, NEAR CALISTOGA, CA

LOCATION.--Lat 38°36'03", long 122°35'51", in Carne Humana Grant, Napa County, Hydrologic Unit 18050002, on right bank at upstream side of Tubbs Lane bridge, 1.8 mi (2.9 km) northwest of Calistoga.  
DRAINAGE AREA.--4.87 mi<sup>2</sup> (12.61 km<sup>2</sup>).

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water year 1976 to current year.

COOPERATION.--Chemical-quality samples were collected by Napa County Flood Control and Water Conservation District.

DATE	TIME	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)
JAN										
19...	0805	43	7	7.9	5.6	4.8	19	.3	1.3	44
FEB										
15...	0815	56	9	10	7.5	5.1	16	.3	1.4	57
MAR										
08...	0905	42	3	7.7	5.5	3.8	16	.3	1.2	47
APR										
05...	0740	78	9	13	11	5.6	13	.3	1.3	84
MAY										
03...	0850	80	15	14	11	7.0	16	.3	1.2	80
JUN										
07...	0845	92	2	17	12	35	45	1.6	2.1	110
SEP										
27...	1100	85	--	16	11	62	60	2.9	2.6	--

DATE	ALKA- LITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
JAN										
19...	36	5.6	4.5	.1	23	77	.10	.61	40	170
FEB										
15...	47	9.4	4.4	.1	11	78	.11	.27	70	60
MAR										
08...	39	8.3	2.8	.1	20	80	.11	1.7	30	60
APR										
05...	69	13	4.2	.1	23	115	.16	.58	60	50
MAY										
03...	66	14	5.3	.1	9.4	123	.17	4.8	110	60
JUN										
07...	90	27	40	.8	36	228	.31	.32	2000	30
SEP										
27...	130	7.6	61	1.5	40	--	--	.04	3500	60

## 11455860 NAPA RIVER AT GREENWOOD AVENUE, NEAR CALISTOGA, CA

LOCATION.--Lat 38°35'22", long 122°35'48", in Carne Humana Grant, Napa County, Hydrologic Unit 18050002, on left bank at culvert on Greenwood Avenue, 1.2 mi (1.9 km) northwest of Calistoga.  
DRAINAGE AREA.--5.39 mi<sup>2</sup> (13.96 km<sup>2</sup>).

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water year 1976 to current year.

COOPERATION.--The letter "A" following a date indicates chemical-quality samples were collected by Napa County Flood Control and Water Conservation District.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO
NOV												
22...	1330	6.2	338	12.5	25	60	26	11	7.9	41	58	2.3
JAN												
05...	1520	347	92	11.5	55	51	19	12	5.0	5.1	17	.3
16...	1350	--	74	12.5	90	32	6	6.4	4.0	3.3	17	.3
19...A	0925	--	--	--	--	41	3	7.6	5.3	6.1	24	.4
FEB												
09...	1305	--	105	12.0	20	46	6	9.0	5.6	5.3	20	.3
15...	1305	--	135	12.0	11	56	7	10	7.5	6.8	21	.4
MAR												
08...A	0845	--	--	--	--	41	0	8.1	5.1	7.6	28	.5
APR												
05...A	0855	--	--	--	--	74	2	13	10	15	30	.8
MAY												
03...A	0815	--	--	--	--	83	7	15	11	18	32	.9
JUN												
07...A	0820	--	--	--	--	87	0	15	12	59	59	2.8
JUL												
05...A	0840	--	--	--	--	87	--	15	12	86	67	4.0
SEP												
27...A	1040	--	--	--	--	170	6	27	24	150	66	5.1

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

NAPA RIVER BASIN--Continued  
 11455860 NAPA RIVER AT GREENWOOD AVENUE, NEAR CALISTOGA, CA--Continued

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
NOV 22...	3.5	42	34	16	52	1.4	33	210	.29	4.9	1900	--
JAN 05...	1.7	38	31	9.0	5.0	.1	20	80	.11	.62	100	80
16...	1.4	32	26	3.4	3.3	.0	18	57	.08	.40	30	70
19...	1.3	46	38	6.0	5.0	.1	24	81	.11	.62	110	190
FEB 09...	1.1	48	39	7.7	4.2	.1	14	72	.10	.28	80	50
15...	1.2	59	48	9.7	5.7	.1	24	97	.13	.51	130	70
MAR 08...	1.7	50	41	6.5	5.8	.3	18	80	.11	.40	210	90
APR 05...	1.5	87	71	13	12	.4	27	137	.19	.46	420	70
MAY 03...	1.7	92	75	19	12	.1	9.6	153	.21	4.7	690	100
JUN 07...	2.9	120	98	25	69	2.2	50	298	.41	.13	3000	180
JUL 05...	3.0	--	82	10	110	4.3	57	--	--	.24	5000	210
SEP 27...	3.9	--	160	4.2	230	3.5	59	--	--	.01	9000	230

11455865 BLOSSOM CREEK NEAR CALISTOGA, CA

LOCATION.--Lat 38°35'36", long 122°36'47", in Carne Humana Grant, Napa County, Hydrologic Unit 18050002, on left bank at upstream side of private road bridge, 1.1 mi (1.8 km) upstream from mouth, and 2.2 mi (3.5 km) northwest of Calistoga.  
 DRAINAGE AREA.--2.01 mi<sup>2</sup> (5.21 km<sup>2</sup>).  
 PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water year 1976 to current year.  
 COOPERATION.--The letter "A" following a date indicates chemical-quality samples were collected by Napa County Flood Control and Water Conservation District.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO
NOV 22...	1420	1.4	124	10.0	40	35	21	8.9	3.2	8.8	32	.6
DEC 15...	1345	24	83	12.5	70	25	10	6.2	2.2	5.7	30	.5
JAN 05...	1350	210	66	11.5	120	23	7	5.6	2.1	4.6	27	.4
16...	1440	--	61	12.5	90	24	8	6.3	2.0	4.4	26	.4
19...A	0837	--	--	--	--	26	4	6.1	2.6	5.8	30	.5
FEB 09...	1335	--	75	12.5	25	28	5	6.9	2.5	5.4	28	.4
15...	1335	--	96	12.5	15	33	6	7.6	3.4	6.6	29	.5
MAR 08...A	0930	--	--	--	--	24	2	5.9	2.2	4.3	26	.4
APR 05...A	0915	--	--	--	--	52	9	10	6.5	8.4	25	.5
MAY 03...A	0920	--	--	--	--	61	14	12	7.6	8.9	23	.5
JUN 07...A	0915	--	--	--	--	72	12	13	9.6	11	24	.6
JUL 05...A	0930	--	--	--	--	73	--	14	9.3	13	27	.7

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

NAPA RIVER BASIN--Continued  
11455865 BLOSSOM CREEK NEAR CALISTOGA, CA--Continued

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
NOV 22...	4.7	17	14	12	8.9	.1	33	107	.15	4.3	60	--
DEC 15...	3.4	18	15	8.7	6.4	.1	31	80	.11	1.7	40	100
JAN 05...	3.1	19	16	7.8	4.9	.1	27	68	.09	.77	40	170
16...	2.5	19	16	5.4	4.1	.0	28	64	.09	.47	20	60
19...	2.4	27	22	7.6	4.6	.0	33	79	.11	.64	20	410
FEB 09...	2.0	28	23	7.5	4.1	.0	35	79	.11	.46	20	130
15...	2.0	33	27	9.0	4.8	.0	37	90	.12	.66	20	110
MAR 08...	2.0	27	22	4.9	3.2	.1	23	60	.08	.28	30	110
APR 05...	1.9	52	43	15	5.4	.0	43	120	.16	.92	30	160
MAY 03...	1.9	58	48	20	5.9	.0	41	132	.18	1.4	30	110
JUN 07...	2.1	73	60	35	6.1	.0	36	151	.21	.51	30	40
JUL 05...	2.5	--	63	20	10	.1	39	--	--	.12	60	40

## 11455880 GARNETT CREEK NEAR CALISTOGA, CA

LOCATION.--Lat 38°35'36", long 122°35'26", in Carne Humana Grant, Napa County, Hydrologic Unit 18050002, on right bank at upstream side of bridge on Greenwood Avenue, 0.6 mi (1.0 km) upstream from mouth, and 1.2 mi (1.9 km) northwest of Calistoga.

DRAINAGE AREA.--7.66 mi<sup>2</sup> (19.84 km<sup>2</sup>).

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water year 1976 to current year.

COOPERATION.--The letter "A" following a date indicates chemical-quality samples were collected by Napa County Flood Control and Water Conservation District.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO
NOV 22...	1250	16	102	11.5	21	36	10	9.9	2.7	6.0	26	.4
DEC 15...	1505	53	96	12.5	20	38	7	10	3.1	5.6	23	.4
JAN 05...	1610	323	73	11.5	37	30	0	8.2	2.2	4.6	24	.4
16...	1305	513	69	12.0	75	27	5	7.5	2.1	4.2	24	.4
19...A	0941	--	--	--	--	32	2	8.5	2.6	5.8	27	.4
FEB 09...	1250	--	95	12.0	11	36	5	9.8	2.9	5.3	23	.4
15...	1250	--	112	12.0	4.6	41	5	11	3.2	6.1	24	.4
MAR 08...A	0835	--	--	--	--	36	4	9.9	2.8	5.2	23	.4
APR 05...A	0830	--	--	--	--	50	10	13	4.2	7.5	24	.5
MAY 03...A	0740	--	--	--	--	52	8	14	4.2	7.0	22	.4
JUN 07...A	0750	--	--	--	--	54	8	14	4.5	8.6	25	.5
JUL 05...A	1000	--	--	--	--	55	--	14	4.9	9.4	26	.6

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

NAPA RIVER BASIN--Continued  
11455880 GARNETT CREEK NEAR CALISTOGA, CA--Continued

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
NOV 22...	1.8	32	26	11	4.7	.1	28	84	.11	.84	70	170
DEC 15...	1.7	38	31	17	3.9	.1	29	91	.12	.41	40	120
JAN 05...	1.6	36	30	6.6	4.5	.1	25	72	.10	.24	30	80
16...	1.5	27	22	4.2	3.6	.0	24	62	.08	.28	30	70
19...	1.5	36	30	8.9	4.0	.1	29	80	.11	.47	40	170
FEB 09...	1.3	38	31	9.5	3.7	.0	29	82	.11	.28	20	70
15...	1.4	43	35	12	4.1	.1	29	90	.12	.40	30	40
MAR 08...	1.5	39	32	9.2	3.3	.1	26	78	.11	.16	30	60
APR 05...	1.5	49	40	17	4.1	.1	32	105	.14	.34	30	50
MAY 03...	1.5	54	44	18	4.6	.0	33	112	.15	.68	50	40
JUN 07...	1.2	55	45	21	5.5	.1	33	116	.16	.29	80	30
JUL 05...	1.5	--	50	13	6.3	.1	35	--	--	.32	110	50

## 11455890 CYRUS CREEK AT CALISTOGA, CA

LOCATION.--Lat 38°34'51", long 122°35'38", in Carne Humana Grant, Napa County, Hydrologic Unit 18050002, on right bank at downstream side of bridge on State Highway 128, 0.5 mi (0.8 km) upstream from mouth, (1.3 km) west of Calistoga.

DRAINAGE AREA.--3.03 mi<sup>2</sup> (7.85 km<sup>2</sup>).

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water year 1976 to current year.

COOPERATION.--The letter "A" following a date indicates chemical-quality samples were collected by Napa County Flood Control and Water Conservation District.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO
NOV 22...	1450	11	391	14.0	24	36	0	9.0	3.2	67	77	4.9
JAN 05...	1210	155	52	11.0	190	19	4	5.7	1.2	5.2	33	.5
16...	1510	--	61	12.5	60	28	9	8.7	1.6	5.3	26	.4
19...A	0900	--	--	--	--	20	0	5.0	1.8	6.3	37	.6
FEB 09...	1400	--	72	12.0	19	23	0	6.4	1.7	6.4	35	.6
15...A	0507	--	--	--	--	22	0	5.5	2.0	7.1	38	.7
MAR 08...A	1000	--	--	--	--	13	0	3.6	1.0	4.0	35	.5
APR 05...A	0940	--	--	--	--	25	0	6.0	2.4	9.3	41	.8
MAY 03...A	0955	--	--	--	--	28	0	6.9	2.5	9.3	39	.8

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
NOV 22...	6.8	84	69	8.4	64	1.9	62	274	.37	1.5	3500	390
JAN 05...	3.3	18	15	5.2	4.9	.1	31	69	.09	.60	50	320
16...	3.0	24	20	3.8	4.6	.0	34	76	.10	.77	30	150
19...	2.7	26	21	4.4	4.8	.1	38	81	.11	.99	40	180
FEB 09...	2.7	28	23	4.7	4.5	.0	38	81	.11	.54	20	130
15...	2.7	31	25	5.2	5.0	.0	45	91	.12	.77	30	110
MAR 08...	2.2	19	16	4.1	3.5	.1	27	57	.08	.35	40	160
APR 05...	3.0	40	33	4.2	5.1	.1	42	95	.13	.58	40	170
MAY 03...	3.0	45	37	4.5	5.5	.1	50	104	.14	--	40	120



## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

NAPA RIVER BASIN--Continued  
11455940 NAPA RIVER AT DEER PARK ROAD, NEAR ST. HELENA, CA

LOCATION.--Lat 38°31'23", long 122°28'42", in Carne Humana Grant, Napa County, Hydrologic Unit 18050002, at downstream side of Deer Park Road bridge, 1.5 mi (2.4 km) north of St. Helena.  
DRAINAGE AREA.--63.0 mi<sup>2</sup> (163.2 km<sup>2</sup>).  
PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water year 1978.  
COOPERATION.--Chemical-quality samples were collected by Napa County Flood Control and Water Conservation District.

DATE	TIME	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)
JUN 07...	1145	65	2	15	6.6	26	45	1.4	76
JUL 05...	0820	69	--	15	7.6	31	48	1.6	--
SEP 27...	0945	89	--	20	9.5	39	47	1.8	--

DATE	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
JUN 07...	62	16	28	.7	36	170	.23	.00	920	50
JUL 05...	62	16	38	1.0	41	--	--	.03	1300	50
SEP 27...	71	14	68	.8	39	--	--	.00	2200	50

## 11458050 NAPA RIVER AT NAPA, CA

LOCATION.--Lat 38°19'30", long 122°17'29", in Napa Grant, Napa County, Hydrologic Unit 18050002, on right bank 10 ft (3 m) downstream from West Trancas Road bridge in town of Napa and 0.1 mi (0.2 km) downstream from small right-bank tributary.  
DRAINAGE AREA.--234 mi<sup>2</sup> (606 km<sup>2</sup>).  
PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water year 1976 to current year.  
COOPERATION.--Chemical-quality samples were collected by Napa County Flood Control and Water Conservation District.

DATE	TIME	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)
JAN 19...	1125	53	12	10	6.9	9.0	26	.5	51
FEB 15...	1145	89	21	16	12	9.9	19	.5	83
MAR 08...	1200	83	13	15	11	9.5	20	.5	85
APR 05...	1145	99	9	20	12	11	19	.5	110
MAY 03...	1210	130	27	24	18	16	20	.6	130
JUN 07...	1245	150	20	26	21	23	25	.8	160
JUL 05...	0740	170	--	28	24	24	23	.8	--
SEP 27...	0836	190	--	32	26	35	29	1.1	--

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

NAPA RIVER BASIN--Continued  
11458050 NAPA RIVER AT NAPA, CA--Continued

DATE	ALKA- LINIT (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
JAN 19...	42	13	8.4	.1	27	111	.15	1.9	70	580
FEB 15...	68	18	8.6	.1	30	147	.20	2.0	120	50
MAR 08...	70	16	7.7	.1	27	138	.19	1.7	90	70
APR 05...	90	22	9.8	.1	29	158	.21	--	170	50
MAY 03...	110	31	11	.1	33	210	.29	2.3	210	20
JUN 07...	130	37	23	.2	18	238	.32	1.9	360	20
JUL 05...	140	32	19	.2	14	--	--	3.1	400	40
SEP 27...	170	40	37	.2	20	--	--	.52	470	20

## 11458310 NAPA RIVER AT THIRD STREET, AT NAPA, CA

LOCATION.--Lat 38°17'54", long 122°16'58", in Entre Napa Grant, Napa County, Hydrologic Unit 18050002, on right bank at upstream side of Third Street bridge in Napa, 0.1 mi (0.2 km) downstream from Napa Creek. DRAINAGE AREA.--283 mi<sup>2</sup> (733 km<sup>2</sup>).

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water year 1976 to current year.

COOPERATION.--Chemical-quality samples were collected by Napa County Flood Control and Water Conservation District.

DATE	TIME	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)
JAN 19...	1138	79	17	18	8.2	14	27	.7	3.0	75
FEB 15...	1230	83	18	15	11	12	23	.6	2.4	79
MAR 08...	1220	80	14	16	9.8	11	22	.5	2.0	81
APR 05...	1220	94	16	18	12	19	30	.9	2.3	96
MAY 03...	1245	130	26	25	17	25	29	.9	2.4	130
JUN 07...	1315	150	12	26	21	51	42	1.8	3.6	170
JUL 05...	0730	380	--	44	66	390	68	8.7	18	--
SEP 27...	0805	1800	--	130	350	3100	78	32	110	--

DATE	ALKA- LINIT (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
JAN 19...	62	21	11	.1	20	145	.20	2.8	90	480
FEB 15...	65	18	14	.1	27	146	.20	1.7	100	70
MAR 08...	66	20	9.2	.1	26	140	.19	1.4	80	50
APR 05...	79	23	18	.1	18	165	.22	1.7	150	60
MAY 03...	110	31	25	.1	32	230	.31	1.9	200	30
JUN 07...	140	41	66	.2	11	309	.42	1.1	340	20
JUL 05...	150	100	670	.2	.9	--	--	.09	490	40
SEP 27...	130	780	5700	.4	13	--	--	.03	1500	50

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN  
11462050 RUSSIAN RIVER AT UKIAH, CA

LOCATION.--Lat 39°08'03", long 123°11'07", in Yokaya Grant, Mendocino County, Hydrologic Unit 18010110, 200 ft (61 m) downstream from River Road bridge, 0.1 mi (0.2 km) downstream from Mill Creek, and 1 mi (2 km) east of Ukiah.

DRAINAGE AREA.--283 mi<sup>2</sup> (733 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1908, 1952-58, 1977-79 (discontinued).

CHEMICAL ANALYSES: Water years 1908, 1952-58, 1977-79 (discontinued). Published as "near Ukiah" in 1908, 1952-56.

BIOLOGICAL DATA: Water years 1977-79 (discontinued).

COOPERATION.--Chemical-quality samples and biological data were collected by California Regional Water Quality Control Board, North Coast Region.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)
MAY, 1978										
16...	1140	182	186	8.0	14.5	8.8	10.3	102	1100	170
23...	1135	199	176	--	14.5	8.2	10.9	108	--	170
30...	1235	329	159	8.4	16.5	13	12.0	124	--	20
JUN										
06...	1105	303	151	8.0	15.0	8.5	11.6	116	--	20
16...	1145	277	156	--	15.0	9.1	10.8	108	--	--
20...	1310	270	161	8.0	17.0	3.7	10.7	111	--	--
28...	1200	206	164	7.7	14.5	8.5	10.4	103	--	--
JUL										
07...	1120	229	167	7.6	16.0	7.2	10.3	105	--	--
12...	1055	249	166	8.0	15.0	6.2	10.4	104	--	30
19...	1355	287	162	8.0	18.5	4.5	10.3	111	--	23
26...	1115	264	167	7.6	16.5	5.0	10.1	104	--	13
AUG										
01...	1215	266	164	7.7	18.0	3.6	9.8	104	--	8
09...	1035	262	162	8.0	17.0	2.7	9.5	99	--	23
15...	1110	277	164	7.5	17.5	1.6	9.4	99	--	33
23...	1100	259	169	7.9	18.0	1.6	9.4	100	--	<2
SEP										
01...	1100	259	167	7.2	19.0	1.3	9.2	100	--	180
06...	1105	255	181	7.4	18.5	1.4	9.2	99	--	70
12...	1230	151	178	7.6	20.0	1.6	9.3	103	--	1600
20...	1100	180	203	7.8	18.5	1.6	9.4	101	--	13
27...	1130	185	184	7.7	20.0	1.6	9.5	106	--	9
OCT										
12...	0945	--	183	7.7	18.0	--	--	--	--	--

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOC- CI FECAL, KF AGAR (COLS./ PER 100 ML)	STREP- TOCOC- CI FECAL (MPN)	PSEUDO- MONAS AERU- GINOSA IN H2O (MPN/ 100 ML)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	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)
MAY, 1978										
16...	47	49	460	33	--	--	--	--	--	--
23...	K14	33	140	--	.14	.09	.01	.01	.15	.10
30...	K6	15	50	--	--	--	--	--	--	--
JUN										
06...	K9	22	20	--	.07	.08	.01	.01	.08	.09
16...	K4	K9	--	--	--	--	--	--	--	--
20...	K6	K10	--	--	.07	.09	.01	.01	.08	.10
28...	13	29	--	--	--	--	--	--	--	--
JUL										
07...	12	29	--	--	.06	.08	.01	.01	.07	.09
12...	K5	14	30	9	--	--	--	--	--	--
19...	8	19	3	--	.00	.03	.01	.01	.01	.04
26...	16	20	2	--	--	--	--	--	--	--
AUG										
01...	8	15	13	--	.02	.02	.01	.01	.03	.03
09...	10	24	170	--	--	--	--	--	--	--
15...	23	21	17	1700	.02	.02	.00	.00	.02	.02
23...	K6	10	7	--	--	--	--	--	--	--
SEP										
01...	K97	25	2	--	.01	.02	.00	.01	.01	.03
06...	58	29	7	--	--	--	--	--	--	--
12...	11	26	23	90	.04	.05	.01	.01	.05	.06
20...	11	19	33	--	--	--	--	--	--	--
27...	11	15	49	--	.02	.01	.00	.01	.02	.02
OCT										
12...	--	--	--	--	--	--	--	--	--	--

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

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
11462050 RUSSIAN RIVER AT UKIAH, CA--Continued

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)
MAY , 1978										
16...	--	--	--	--	--	--	--	--	--	--
23...	.01	.00	.53	.21	.54	.21	.69	.02	.01	.03
30...	--	--	--	--	--	--	--	--	--	--
JUN										
06...	.01	.00	.59	.58	.60	.58	.68	.03	.01	.03
16...	--	--	--	--	--	--	--	--	--	--
20...	.01	.00	.29	.22	.30	.22	.38	.02	.01	.03
28...	--	--	--	--	--	--	--	--	--	--
JUL										
07...	.00	.01	.23	.07	.23	.08	.30	.03	.02	.06
12...	--	--	--	--	--	--	--	--	--	--
19...	.00	.01	.32	.25	.32	.26	.33	.02	.01	.03
26...	--	--	--	--	--	--	--	--	--	--
AUG										
01...	.00	.02	.17	--	.17	--	.20	.02	.01	.03
09...	--	--	--	--	--	--	--	--	--	--
15...	.00	.01	.26	.22	.26	.23	.28	.02	.01	.03
23...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	.00	.00	.12	.11	.12	.11	.13	.04	.03	.09
06...	--	--	--	--	--	--	--	--	--	--
12...	.01	.01	.72	.26	.73	.27	.78	.03	.02	.06
20...	--	--	--	--	--	--	--	--	--	--
27...	.00	.01	.18	.11	.18	.12	.20	.02	.01	.03
OCT										
12...	--	--	--	--	--	--	--	--	--	--

## PHYTOPLANKTON

Date	Time	Potential algal growth bottle test (mg/L)	Biomass (mg/L)		Chlorophyll a (µg/L)	Chlorophyll b (µg/L)	Biomass pigment ratio
			Dry weight	Ash weight			
May 23	1135	7.4	33.7	33.3	1.07	0.000	374
June 20	1310	7.0	70.7	69.3	1.27	.000	1102
July 19	1355	.6	72.0	70.7	1.09	.000	1193
Aug. 15	1110	--	37.6	37.0	.550	.070	1091
Sept. 12	1230	2.9	36.3	35.7	.480	.000	1250

## PERIPHYTE

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll a (mg/m <sup>2</sup> )	Chlorophyll b (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
Oct. 12, 1978	31	0.900	0.551	0.210	0.120	1662	Polyethylene strip

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
11462690 RUSSIAN RIVER AT HOPLAND, CA

LOCATION.--Lat 38°58'18", long 123°06'20", in Sanel Grant, Mendocino County, Hydrologic Unit 18010110, 100 ft (30 m) upstream from bridge on State Highway 175, 0.5 mi (0.8 km) west of Hopland.  
DRAINAGE AREA.--389 mi<sup>2</sup> (1,008 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1977-79 (discontinued).

CHEMICAL ANALYSES: Water years 1977-79 (discontinued).

BIOLOGICAL DATA: Water years 1977-78 (discontinued).

COOPERATION.--Chemical-quality samples and biological data were collected by California Regional Water Quality Control Board, North Coast Region.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)
MAY, 1978										
16...	1020	274	217	7.8	15.0	7.5	9.5	95	5400	130
23...	1330	224	197	--	17.5	5.2	10.3	108	--	20
30...	1400	363	186	7.9	18.5	8.0	10.4	112	--	20
JUN										
06...	1250	298	171	7.6	18.0	6.2	10.3	110	--	40
16...	1320	287	178	--	17.5	7.1	10.2	107	--	--
20...	1515	265	182	7.7	19.5	3.2	12.0	132	--	--
28...	1430	196	190	7.5	16.5	6.0	9.8	101	--	--
JUL										
07...	0945	204	182	7.3	17.5	6.7	8.9	94	--	--
12...	0945	220	177	7.8	17.0	5.9	9.2	96	--	40
19...	1600	246	180	7.8	21.5	4.0	9.8	111	--	22
26...	0955	231	178	7.4	18.0	3.9	9.2	98	--	70
AUG										
01...	1505	245	160	7.7	21.5	2.8	10.2	116	--	23
09...	0920	266	177	7.6	19.5	2.3	8.4	92	--	130
15...	1310	274	171	7.8	20.0	1.5	10.4	116	--	23
23...	0930	251	177	7.9	17.0	1.3	9.4	98	--	70
SEP										
01...	1245	258	181	7.5	21.0	1.2	10.4	118	--	49
06...	0935	263	191	7.0	18.0	1.1	8.6	91	--	17
12...	1400	190	193	7.6	21.5	1.0	10.0	114	--	49
20...	0930	184	200	7.5	16.5	.80	9.2	95	--	13
27...	1310	201	200	8.0	21.0	1.3	12.0	136	--	280
OCT										
12...	1030	--	198	7.6	17.5	--	--	--	--	--

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOC- CI, FE- CAL, KF AGAR (COLS., PER 100 ML)	STREP- TOCOC- CI, FE- CAL (MPN)	PSEUDO- MONAS AERU- GINOSA IN H2O (MPN/ 100 ML)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	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)
MAY, 1978										
16...	98	K13	46	46	--	--	--	--	--	--
23...	19	16	27	--	.64	.63	.01	.01	.65	.64
30...	K9	19	33	--	--	--	--	--	--	--
JUN										
06...	15	12	5	--	.36	.37	.01	.01	.37	.38
16...	10	11	--	--	--	--	--	--	--	--
20...	K8	36	--	--	.38	.41	.01	.01	.39	.42
28...	12	34	--	--	--	--	--	--	--	--
JUL										
07...	K24	31	--	--	.44	.43	.01	.01	.45	.44
12...	21	32	7	17	--	--	--	--	--	--
19...	22	13	3	--	.20	.22	.01	.01	.21	.23
26...	26	35	17	--	--	--	--	--	--	--
AUG										
01...	K13	K10	14	--	.15	.00	.01	.00	.16	.00
09...	33	58	17	--	--	--	--	--	--	--
15...	19	17	8	110	.29	.22	.01	.01	.30	.23
23...	46	28	13	--	--	--	--	--	--	--
SEP										
01...	60	18	17	--	.15	.18	.00	.01	.15	.19
06...	53	32	11	--	--	--	--	--	--	--
12...	52	28	23	40	.31	.35	.01	.01	.32	.36
20...	K13	27	49	--	--	--	--	--	--	--
27...	K8	K7	13	--	.54	.17	.00	.01	.54	.18
OCT										
12...	--	--	--	--	--	--	--	--	--	--

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

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

 RUSSIAN RIVER BASIN--Continued  
 11462690 RUSSIAN RIVER AT HOPLAND, CA--Continued

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	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, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)
MAY, 1978										
16...	--	--	--	--	--	--	--	--	--	--
23...	.00	.00	1.0	.54	1.0	.54	1.7	.02	.01	.03
30...	--	--	--	--	--	--	--	--	--	--
JUN										
06...	.00	.00	.52	.52	.52	.52	.89	.02	.00	.00
16...	--	--	--	--	--	--	--	--	--	--
20...	.00	.00	.34	.05	.34	.05	.73	.02	.01	.03
28...	--	--	--	--	--	--	--	--	--	--
JUL										
07...	.00	.01	.08	.10	.08	.11	.53	.03	.02	.06
12...	--	--	--	--	--	--	--	--	--	--
19...	.00	.01	.24	--	.24	--	.45	.02	.01	.03
26...	--	--	--	--	--	--	--	--	--	--
AUG										
01...	.00	.01	.27	.17	.27	.18	.43	.02	.01	.03
09...	--	--	--	--	--	--	--	--	--	--
15...	.02	.01	.22	.24	.24	.25	.54	.02	.01	.03
23...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	.01	.01	.13	.10	.14	.11	.29	.03	.02	.06
06...	--	--	--	--	--	--	--	--	--	--
12...	.00	.01	.31	.20	.31	.21	.63	.03	.02	.06
20...	--	--	--	--	--	--	--	--	--	--
27...	.00	.01	.48	.35	.48	.36	1.0	.03	.01	.03
OCT										
12...	--	--	--	--	--	--	--	--	--	--

## PHYTOPLANKTON

Date	Time	Potential algal growth bottle test (mg/L)	Biomass (mg/L)		Chlorophyll a (µg/L)	Chlorophyll b (µg/L)	Biomass pigment ratio
			Dry weight	Ash weight			
May 23	1330	7.6	--	--	--	--	--
June 20	1515	12	114	112	0.850	0.000	2353
July 19	1600	.7	73.3	72.0	1.27	.000	1024
Aug. 15	1310	5.3	31.9	30.8	1.44	.000	764
Sept. 12	1400	9.5	25.4	24.9	.630	.000	794

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
11463150 RUSSIAN RIVER AT PRESTON, CA

LOCATION.--Lat 38°49'56", long 123°00'38", in NE¼ sec.6, T.11 N., R.10 W., Sonoma County, Hydrologic Unit 18010110, 150 ft (46 m) downstream from bridge on U.S. Highway 101, 0.4 mi (0.6 km) southeast of Preston, and 1.9 mi (3.1 km) northeast of Cloverdale.

DRAINAGE AREA.--519 mi<sup>2</sup> (1,344 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1977-79 (discontinued).

CHEMICAL ANALYSES: Water years 1977-79 (discontinued).

BIOLOGICAL DATA: Water years 1977-79 (discontinued).

COOPERATION.--Chemical-quality samples and biological data were collected by California Regional Water Quality Control Board, North Coast Region.

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
MAY, 1978										
15...	1315	230	8.4	17.0	6.2	10.4	108	350	33	28
23...	1540	213	--	18.0	4.3	10.3	110	--	22	K4
31...	0925	196	8.2	18.0	6.8	9.6	102	--	23	28
JUN										
05...	1355	191	--	21.0	5.9	10.7	122	--	23	28
16...	1525	192	--	20.0	5.2	10.5	117	--	--	18
19...	1440	203	8.4	20.5	2.5	10.1	113	--	--	K14
27...	1415	195	8.6	19.0	5.4	10.6	115	--	--	10
JUL										
06...	1430	297	8.4	22.0	4.2	10.6	122	--	--	--
11...	1030	205	7.8	19.0	3.7	9.5	103	--	11	17
18...	1450	193	8.4	23.0	3.7	10.3	121	--	49	35
25...	1030	194	7.8	20.5	3.0	9.2	103	--	49	19
AUG										
02...	1005	190	7.9	19.5	3.0	9.1	100	--	49	24
08...	1245	187	8.4	22.5	2.5	10.0	116	--	70	10
16...	0900	192	7.9	19.5	2.0	8.6	95	--	79	16
22...	1315	190	8.8	19.0	1.7	11.0	120	--	13	11
31...	1040	191	7.8	20.0	1.8	9.2	102	--	79	44
SEP										
05...	1340	196	7.3	19.5	2.0	8.9	98	--	14	K84
13...	1015	213	7.1	19.5	2.2	8.9	98	--	31	41
19...	1310	206	8.4	18.5	1.2	11.6	125	--	11	K5
26...	1040	209	7.8	19.5	1.7	9.1	100	--	11	14
OCT										
12...	1140	202	8.2	18.5	--	--	--	--	--	--

DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	STREP- TOCOCCI FECAL (MPN)	PSEUDO- MONAS AERU- GINOSA IN H2O (MPN/ 100 ML)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	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)
MAY, 1978										
15...	K12	79	<2	--	--	--	--	--	--	--
23...	K12	9	--	.55	.56	.00	.01	.55	.57	.01
31...	50	<2	--	--	--	--	--	--	--	--
JUN										
05...	19	27	--	.25	.29	.01	.01	.26	.30	.01
16...	11	--	--	--	--	--	--	--	--	--
19...	10	--	--	.33	.36	.01	.01	.34	.37	.00
27...	12	--	--	--	--	--	--	--	--	--
JUL										
06...	17	--	--	.29	.29	.01	.01	.30	.30	.01
11...	33	14	6	--	--	--	--	--	--	--
18...	15	23	--	.17	.21	.01	.01	.18	.22	.00
25...	18	15	--	--	--	--	--	--	--	--
AUG										
02...	31	27	--	.14	.16	.01	.01	.15	.17	.00
08...	12	5	--	--	--	--	--	--	--	--
16...	38	14	80	.14	.16	.01	.01	.15	.17	.00
22...	10	14	--	--	--	--	--	--	--	--
31...	9	5	--	.08	.11	.00	.00	.08	.11	.01
SEP										
05...	43	22	--	--	--	--	--	--	--	--
13...	31	49	<2	.31	.33	.00	.01	.31	.34	.01
19...	K6	9	--	--	--	--	--	--	--	--
26...	10	9	--	.10	.11	.01	.01	.11	.12	.01
OCT										
12...	--	--	--	--	--	--	--	--	--	--

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

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

 RUSSIAN RIVER BASIN--Continued  
 11463150 RUSSIAN RIVER AT PRESTON, CA--Continued

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)
MAY, 1978									
15...	--	--	--	--	--	--	--	--	--
23...	.00	.63	.12	.64	.12	1.2	.02	.01	.03
31...	--	--	--	--	--	--	--	--	--
JUN									
05...	.00	.53	.24	.54	.24	.80	.01	.01	.03
16...	--	--	--	--	--	--	--	--	--
19...	.00	.21	--	.21	--	.55	.02	.01	.03
27...	--	--	--	--	--	--	--	--	--
JUL									
06...	.00	.17	.20	.18	.20	.48	.02	.00	.00
11...	--	--	--	--	--	--	--	--	--
18...	.00	.33	.07	.33	.07	.51	.02	.00	.00
25...	--	--	--	--	--	--	--	--	--
AUG									
02...	.01	.21	--	.21	--	.36	.02	.01	.03
08...	--	--	--	--	--	--	--	--	--
16...	.03	.24	.20	.24	.23	.39	.01	.01	.03
22...	--	--	--	--	--	--	--	--	--
31...	.01	.26	.19	.27	.20	.35	.01	.00	.00
SEP									
05...	--	--	--	--	--	--	--	--	--
13...	.02	.30	.29	.31	.31	.62	.03	.01	.03
19...	--	--	--	--	--	--	--	--	--
26...	.01	.24	.28	.25	.29	.36	.01	.01	.03
OCT									
12...	--	--	--	--	--	--	--	--	--

## PHYTOPLANKTON

Date	Time	Potential algal growth bottle test (mg/L)	Biomass (mg/L)		Chlorophyll a (µg/L)	Chlorophyll b (µg/L)	Biomass pigment ratio
			Dry weight	Ash weight			
May 23	1540	6.8	35.7	34.7	1.76	0.000	568
June 19	1440	5.5	--	--	--	--	--
July 18	1450	.7	78.7	77.3	1.10	.000	1273
Aug. 16	0900	2.9	51.2	50.0	2.15	.000	558
Sept. 13	1015	7.7	124	119	2.86	.000	1748

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll a (mg/m <sup>2</sup> )	Chlorophyll b (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
July 18	33	21.3	18.7	27.7	3.10	94	Polyethylene strip



## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
11463210 BIG SULPHUR CREEK AT MOUTH, NEAR CLOVERDALE, CA

LOCATION.--Lat 38°49'23", long 123°00'12", in Rincon de Musalacon Grant, Sonoma County, Hydrologic Unit 18010110, 0.5 mi (0.8 km) upstream from mouth and 1.5 mi (2.4 km) northeast of Cloverdale.

DRAINAGE AREA.--85.7 mi<sup>2</sup> (222.0 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1977-79 (discontinued).

CHEMICAL ANALYSES: Water years 1977-79 (discontinued).

BIOLOGICAL DATA: Water years 1977-79 (discontinued).

COOPERATION.--Chemical-quality samples and biological data were collected by California Regional Water Quality Control Board, North Coast Region.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)
MAY , 1978										
15...	1445	92	284	8.7	17.5	2.0	9.8	103	110	79
22...	1430	64	292	9.0	21.0	1.1	9.2	105	--	33
31...	1015	46	305	8.6	19.0	1.1	10.2	111	--	70
JUN										
05...	1250	34	316	8.2	24.0	1.3	11.5	139	--	7
15...	1430	25	327	--	23.5	.60	11.7	139	--	--
19...	1545	20	322	9.1	26.0	.30	10.3	129	--	--
27...	1320	19	345	8.9	21.5	.40	11.5	131	--	--
JUL										
06...	1315	13	330	8.8	24.5	1.1	11.6	141	--	--
11...	1115	12	343	8.4	21.0	.50	11.2	127	--	70
18...	1345	8.4	341	8.8	26.5	.90	11.6	145	--	14
25...	1110	6.8	354	8.6	23.0	1.0	11.9	140	--	49
AUG										
02...	1100	5.0	339	8.5	22.0	.60	11.2	129	--	8
08...	1120	4.3	357	8.7	24.0	1.0	11.2	135	--	21
16...	0955	4.2	360	8.2	20.5	1.4	7.8	88	--	22
22...	1155	3.6	365	9.0	20.0	.70	11.7	130	--	130
31...	1130	2.9	376	8.4	22.0	.50	10.5	121	--	13
SEP										
05...	1205	4.9	397	7.9	20.5	.70	9.2	103	--	79
13...	1150	7.0	359	8.4	19.0	1.6	9.9	108	--	79
19...	1200	4.3	414	8.4	17.0	.70	10.7	111	--	17
26...	1120	4.0	414	8.3	18.5	1.2	10.2	110	--	350
OCT										
12...	1155	--	425	8.3	16.5	--	10.4	107	--	--

DATE	COLI- FORM, FECAL, 0.7 UM-HF (COLS./ 100 ML)	STREP- TOCOCCI KF AGAR (COLS. PER 100 ML)	PSEUDO- MONAS AERU- GINOSA IN H2O (MPN/ 100 ML)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)
MAY , 1978									
15...	23	K52	26	<2	--	--	--	--	--
22...	--	35	920	--	.61	.70	.02	.01	.63
31...	46	52	7	--	--	--	--	--	--
JUN									
05...	K24	23	49	--	.51	.55	.01	.01	.52
15...	K7	17	--	--	--	--	--	--	--
19...	K9	19	--	--	.61	.64	.01	.01	.62
27...	13	21	--	--	--	--	--	--	--
JUL									
06...	--	43	--	--	.68	.68	.01	.02	.69
11...	15	21	2	9	--	--	--	--	--
18...	14	60	<3	--	.64	.67	.01	.01	.65
25...	17	39	21	--	--	--	--	--	--
AUG									
02...	15	70	63	--	.32	.42	.01	.01	.33
08...	K7	120	170	--	--	--	--	--	--
16...	24	K320	22	220	.14	.18	.01	.01	.15
22...	K130	140	17	--	--	--	--	--	--
31...	K10	200	110	--	.49	.53	.01	.01	.50
SEP									
05...	K140	K1200	220	--	--	--	--	--	--
13...	82	170	26	2	1.7	1.9	.01	.02	1.7
19...	58	K52	8	--	--	--	--	--	--
26...	99	170	79	--	1.3	1.4	.01	.01	1.3
OCT									
12...	--	--	--	--	--	--	--	--	--

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
11463210 BIG SULPHUR CREEK AT MOUTH, NEAR CLOVERDALE, CA--Continued

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)
MAY, 1978										
15...	--	--	--	--	--	--	--	--	--	--
22...	.01	.01	.49	.41	.50	.42	1.1	.01	.00	.00
31...	--	--	--	--	--	--	--	--	--	--
JUN										
05...	.00	.00	.24	.17	.24	.17	.76	.00	.01	.03
15...	--	--	--	--	--	--	--	--	--	--
19...	.00	.00	.35	.08	.35	.08	.97	.00	.01	.03
27...	--	--	--	--	--	--	--	--	--	--
JUL										
06...	.01	.00	.12	.15	.13	.15	.82	.00	--	--
11...	--	--	--	--	--	--	--	--	--	--
18...	.00	.01	.23	.14	.23	.15	.88	.01	.00	.00
25...	--	--	--	--	--	--	--	--	--	--
AUG										
02...	.00	.02	.20	.21	.20	.23	.53	.01	.01	.03
08...	--	--	--	--	--	--	--	--	--	--
16...	.00	.02	.24	.27	.24	.29	.39	.00	.01	.03
22...	--	--	--	--	--	--	--	--	--	--
31...	.01	.02	.24	.27	.25	.29	.75	.01	.00	.00
SEP										
05...	--	--	--	--	--	--	--	--	--	--
13...	.01	.02	.27	.30	.28	.32	2.0	.01	.00	.00
19...	--	--	--	--	--	--	--	--	--	--
26...	.01	.02	.30	.32	.31	.34	1.6	.00	.01	.03
OCT										
12...	--	--	--	--	--	--	--	--	--	--

## PHYTOPLANKTON

Date	Time	Potential algal growth bottle test (mg/L)	Biomass (mg/L)		Chlorophyll a (µg/L)	Chlorophyll b (µg/L)	Biomass pigment ratio
			Dry weight	Ash weight			
May 22	1430	7.8	32.7	32.3	0.3400	0.000	1176
June 19	1545	.9	66.7	65.3	3.06	.000	458
July 18	1345	.8	74.0	72.0	4.39	.000	456
Aug. 16	0955	.6	40.7	38.3	6.62	.430	363
Sept. 13	1150	1.1	28.8	27.8	1.34	.000	746

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll a (mg/m <sup>2</sup> )	Chlorophyll b (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
July 6	22	96.5	84.5	53.4	0.000	225	Polyethylene strip do
Oct. 12, 1978	30	24.3	20.1	22.7	2.50	185	

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
11463400 RUSSIAN RIVER AT ASTI, CA

LOCATION.--Lat 38°45'48", long 122°57'58", in Rincon de Musalacon Grant, Sonoma County, Hydrologic Unit 18010110, 400 ft (122 m) downstream from bridge, 0.4 mi (0.6 km) east of Asti Post Office, 0.5 mi (0.8 km) downstream from Crocker Creek.

DRAINAGE AREA.--636 mi<sup>2</sup> (1,647 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1977-79 (discontinued).

CHEMICAL ANALYSES: Water years 1977-79 (discontinued).

BIOLOGICAL DATA: Water years 1977-79 (discontinued).

COOPERATION.--Chemical-quality samples and biological data were collected by California Regional Water Quality Control Board, North Coast Region.

DATE	TIME	STREAM- FLOW- INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)
MAY, 1978										
15...	1230	455	253	8.3	18.0	4.7	10.1	107	920	13
22...	1300	357	237	8.8	19.5	3.0	9.6	105	--	21
31...	1225	425	225	8.4	20.5	4.5	10.5	118	--	7
JUN										
05...	1110	364	207	7.9	21.0	4.9	9.8	111	--	11
15...	1315	349	217	--	20.0	4.0	10.5	117	--	--
19...	1245	319	220	8.4	21.0	1.7	10.0	114	--	--
27...	1115	288	212	8.5	18.0	3.9	9.6	102	--	--
JUL										
06...	1115	234	214	8.3	21.0	2.7	10.4	118	--	--
11...	1340	246	216	8.5	22.5	2.1	11.6	135	--	17
18...	1200	261	206	8.4	23.5	2.5	10.3	123	--	13
25...	1305	234	208	8.5	23.0	2.5	11.2	132	--	13
AUG										
02...	1220	245	197	8.4	18.0	2.4	11.4	121	--	9
08...	1015	279	201	8.4	22.0	1.8	9.8	113	--	79
16...	1145	252	198	8.4	22.0	1.9	11.8	136	--	49
22...	1045	266	201	8.6	18.5	2.3	10.6	114	--	5
31...	1255	245	202	8.4	23.0	1.5	11.1	131	--	11
SEP										
05...	1035	265	209	7.2	19.5	1.9	8.3	91	--	23
13...	1310	200	228	8.6	21.0	1.6	13.0	148	--	5
19...	1040	202	218	8.4	17.5	1.0	12.1	127	--	5
26...	1240	213	222	8.3	20.0	1.3	12.4	138	--	2
OCT										
12...	1235	--	218	8.4	19.5	--	11.6	127	--	--

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCEI FECAL, KF AGAR (COLS. PER 100 ML)	STREP- TOCOCCEI (MPN)	PSEUDO- MONAS AERU- GINOSA IN H2O (MPN/100 ML)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	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)
MAY, 1978										
15...	22	210	20	<2	--	--	--	--	--	--
22...	--	K6	240	--	.58	.60	.01	.01	.59	.61
31...	12	K6	<2	--	--	--	--	--	--	--
JUN										
05...	27	8	7	--	.29	.31	.01	.01	.30	.32
15...	K5	9	--	--	--	--	--	--	--	--
19...	10	K5	--	--	.32	.33	.01	.01	.33	.34
27...	24	13	--	--	--	--	--	--	--	--
JUL										
06...	15	K5	--	--	.22	.24	.01	.01	.23	.25
11...	K8	K3	5	2	--	--	--	--	--	--
18...	10	K4	43	--	.12	.14	.01	.01	.13	.15
25...	9	K5	<3	--	--	--	--	--	--	--
AUG										
02...	9	K5	5	--	.04	.04	.01	.01	.05	.05
08...	K38	10	13	--	--	--	--	--	--	--
16...	9	7	110	50	.04	.03	.01	.01	.05	.04
22...	8	7	2	--	--	--	--	--	--	--
31...	14	K2	2	--	.02	.02	.01	.00	.03	.02
SEP										
05...	K46	19	27	--	--	--	--	--	--	--
13...	K7	K4	17	<2	.18	.19	.00	.01	.18	.20
19...	K2	K4	6	--	--	--	--	--	--	--
26...	7	K4	6	--	.02	.02	.00	.01	.02	.03
OCT										
12...	--	--	--	--	--	--	--	--	--	--

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

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
11463400 RUSSIAN RIVER AT ASTI, CA--Continued

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)
MAY , 1978										
15...	--	--	--	--	--	--	--	--	--	--
22...	.00	.00	.31	.31	.31	.31	.90	.01	.00	.00
31...	--	--	--	--	--	--	--	--	--	--
JUN										
05...	.01	.00	.53	.35	.54	.35	.84	.00	.01	.03
15...	--	--	--	--	--	--	--	--	--	--
19...	.00	.00	.62	.37	.62	.37	.95	.01	.00	.00
27...	--	--	--	--	--	--	--	--	--	--
JUL										
06...	.01	.01	.14	.11	.15	.12	.38	.02	.04	.12
11...	--	--	--	--	--	--	--	--	--	--
18...	.01	.00	.20	.16	.21	.16	.34	.02	.01	.03
25...	--	--	--	--	--	--	--	--	--	--
AUG										
02...	.00	.02	.18	.17	.18	.19	.23	.02	.03	.09
08...	--	--	--	--	--	--	--	--	--	--
16...	.00	.02	.32	.23	.32	.25	.37	.01	.00	.00
22...	--	--	--	--	--	--	--	--	--	--
31...	.01	.01	.20	.14	.21	.15	.24	.01	.00	.00
SEP										
05...	--	--	--	--	--	--	--	--	--	--
13...	.00	.01	.26	.24	.26	.25	.44	.03	.00	.00
19...	--	--	--	--	--	--	--	--	--	--
26...	.01	.02	.43	.31	.44	.33	.46	.01	.01	.03
OCT										
12...	--	--	--	--	--	--	--	--	--	--

## PHYTOPLANKTON

Date	Time	Potential algal growth bottle test (mg/L)	Biomass (mg/L)		Chlorophyll a (ug/L)	Chlorophyll b (ug/L)	Biomass pigment ratio
			Dry weight	Ash weight			
May 22	1300	9.1	32.0	32.0	1.64	0.000	0.000
June 19	1245	8.1	69.3	68.0	1.380	.000	3421
July 18	1200	--	73.3	72.0	1.33	.000	977
Aug. 16	1145	1.3	44.4	42.8	3.67	.260	436
Sept. 13	1310	6.5	39.0	37.7	3.10	.000	419

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll a (mg/m <sup>2</sup> )	Chlorophyll b (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
July 6	22	0.945	0.551	0.150	0.000	2627	Polyethylene strip
Oct. 12, 1978	30	14.2	11.3	43.2	1.49	67	do

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
11463500 RUSSIAN RIVER AT GEYSERVILLE, CA

LOCATION.--Lat 38°42'40", long 122°53'32" in Tzabaco Grant, Sonoma County, Hydrologic Unit 18010110, 0.2 mi (0.3 km) downstream from bridge on State Highway 128 and 0.6 mi (1.0 km) northeast of Geyserville.

DRAINAGE AREA.--655 mi<sup>2</sup> (1,696 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1911-13, 1977-79 (discontinued).

CHEMICAL ANALYSES: Water years 1911-13, 1977-79 (discontinued).

BIOLOGICAL DATA: Water years 1977-79 (discontinued).

COOPERATION.--Chemical-quality samples and biological data were collected by California Regional Water Quality Control Board, North Coast Region.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)
MAY, 1978										
15...	1052	458	266	8.2	17.0	4.5	9.6	100	540	13
22...	1115	379	249	8.6	17.5	3.3	9.5	100	--	17
31...	1415	409	224	8.4	24.0	3.7	10.2	123	--	17
JUN										
05...	0945	378	226	8.0	19.5	3.9	8.9	98	--	11
15...	1150	312	226	--	18.5	3.0	10.0	108	--	--
19...	1030	301	233	8.1	19.0	1.7	9.1	99	--	--
27...	0945	285	225	8.1	17.5	3.8	8.6	91	--	--
JUL										
06...	0945	238	231	8.1	19.5	2.0	8.8	97	--	--
11...	1455	226	227	8.4	24.0	1.6	10.5	127	--	5
18...	1000	221	219	7.9	21.0	2.2	8.5	97	--	2
25...	1415	215	218	8.5	23.0	2.2	10.5	124	--	<2
AUG										
02...	1400	229	208	8.3	23.5	1.9	10.1	120	--	5
08...	0900	233	211	7.8	21.0	1.8	7.4	84	--	5
16...	1330	242	204	8.1	23.0	2.1	9.2	108	--	11
22...	0935	231	208	8.2	18.0	2.2	8.3	88	--	17
31...	1400	222	210	8.0	23.5	1.6	10.2	121	--	5
SEP										
05...	0925	240	213	7.5	20.0	1.2	7.3	81	--	7
13...	1435	179	223	8.6	22.0	1.0	13.8	159	--	<2
19...	0916	185	230	7.9	16.0	2.0	8.6	88	--	2
26...	1420	181	229	7.9	20.5	1.1	10.0	112	--	2
OCT										
12...	1330	--	227	8.3	20.0	--	10.8	120	--	--

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	PSEUDO- MONAS AERU- GINOSA IN H2O (MPN/ 100 ML)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)
MAY, 1978										
15...	K14	--	170	<2	--	--	--	--	--	--
22...	--	K8	240	--	.50	.56	.01	.00	.51	.56
31...	K5	K5	<2	--	--	--	--	--	--	--
JUN										
05...	--	7	33	--	.28	.31	.01	.01	.29	.32
15...	K5	K5	--	--	--	--	--	--	--	--
19...	9	10	--	--	.29	.31	.01	.01	.30	.32
27...	28	24	--	--	--	--	--	--	--	--
JUL										
06...	7	11	--	--	.16	.18	.01	.01	.17	.19
11...	K3	9	<2	2	--	--	--	--	--	--
18...	10	10	15	--	.07	.10	.01	.01	.08	.11
25...	K2	K7	9	--	--	--	--	--	--	--
AUG										
02...	K5	17	5	--	.00	.01	.01	.00	.01	.01
08...	10	17	23	--	--	--	--	--	--	--
16...	K3	8	11	80	.02	.00	.00	.01	.02	.01
22...	11	12	17	--	--	--	--	--	--	--
31...	K4	13	17	--	.00	.01	.01	.00	.01	.01
SEP										
05...	K62	31	9	--	--	--	--	--	--	--
13...	K3	K5	<2	<2	.05	.03	.00	.01	.05	.04
19...	K4	12	34	--	--	--	--	--	--	--
26...	6	16	49	--	.01	.00	.01	.01	.02	.01
OCT										
12...	--	--	--	--	--	--	--	--	--	--

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

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

 RUSSIAN RIVER BASIN--Continued  
 11463500 RUSSIAN RIVER AT GEYSERVILLE, CA--Continued

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	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, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)
MAY , 1978										
15...	--	--	--	--	--	--	--	--	--	--
22...	.00	.01	.25	--	.25	--	.76	.01	.00	.00
31...	--	--	--	--	--	--	--	--	--	--
JUN										
05...	.03	.00	.63	.28	.66	.28	.95	.00	.01	.03
15...	--	--	--	--	--	--	--	--	--	--
19...	.00	.00	.27	.26	.27	.26	.57	.01	.00	.00
27...	--	--	--	--	--	--	--	--	--	--
JUL										
06...	.01	.00	.12	.12	.13	.12	.30	.00	.01	.03
11...	--	--	--	--	--	--	--	--	--	--
18...	.00	.01	.32	.26	.32	.27	.40	.01	.00	.00
25...	--	--	--	--	--	--	--	--	--	--
AUG										
02...	.00	.01	.17	.18	.17	.19	.18	.01	.01	.03
08...	--	--	--	--	--	--	--	--	--	--
16...	.00	.02	.30	.21	.30	.23	.32	.00	.00	.00
22...	--	--	--	--	--	--	--	--	--	--
31...	.01	.01	.21	.21	.22	.22	.23	.01	.00	.00
SEP										
05...	--	--	--	--	--	--	--	--	--	--
13...	.01	.01	.26	--	.27	--	.32	.02	.00	.00
19...	--	--	--	--	--	--	--	--	--	--
26...	.01	.01	.37	.15	.38	.16	.40	.00	.01	.03
OCT										
12...	--	--	--	--	--	--	--	--	--	--

## PHYTOPLANKTON

Date	Time	Potential algal growth bottle test (mg/L)	Biomass (mg/L)		Chlorophyll a (µg/L)	Chlorophyll b (µg/L)	Biomass pigment ratio
			Dry weight	Ash weight			
May 22	1115	2.9	100	98.0	1.30	0.000	1538
June 19	1030	7.4	104	102	.690	.000	2899
July 18	1000	.7	72.7	71.3	.920	.000	1522
Aug. 16	1330	.7	40.7	39.0	1.88	.000	904
Sept. 13	1435	1.8	37.7	36.3	4.40	.000	318

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll a (mg/m <sup>2</sup> )	Chlorophyll b (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
July 6	22	16.8	11.6	18.5	0.750	281	Polyethyelene strip
Oct. 12, 1978	30	158	139	37.6	8.18	505	do

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
11463680 RUSSIAN RIVER AT ALEXANDER VALLEY ROAD BRIDGE, CA

LOCATION.--Lat 38°39'34", long 122°49'44", in Sotoyome Grant, Sonoma County, Hydrologic Unit 18010110, 250 ft (76 m) upstream from Alexander Valley Road bridge, 250 ft (76 m) downstream from small right-bank tributary, and 3.9 mi (6.3 km) northwest of Healdsburg.

DRAINAGE AREA.--684 mi<sup>2</sup> (1,772 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1977-79 (discontinued).

CHEMICAL ANALYSES: Water years 1977-79 (discontinued).

BIOLOGICAL DATA: Water years 1977-79 (discontinued).

COOPERATION.--Chemical-quality samples and biological data were collected by California Regional Water Quality Control Board, North Coast Region.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)
MAY, 1978										
15...	1110	--	283	8.2	18.0	4.0	9.3	98	540	23
22...	1040	406	276	8.1	18.0	3.0	9.1	96	--	8
30...	1415	451	235	8.0	23.0	3.3	9.0	107	--	8
JUN										
05...	0935	404	249	7.6	19.5	3.0	8.4	91	--	23
15...	0925	336	238	8.0	17.5	2.3	9.2	96	--	--
20...	1445	328	234	8.0	23.0	2.3	9.6	112	--	--
27...	0950	275	336	7.8	18.0	2.2	8.8	93	--	--
29...	0940	230	252	7.6	18.0	2.0	8.8	93	--	--
JUL										
07...	1330	231	246	7.6	23.0	1.6	9.2	107	--	--
11...	0930	209	240	7.7	20.0	1.4	8.4	92	--	23
19...	1250	247	226	8.2	24.0	1.3	9.1	108	--	2
25...	0925	219	233	7.8	20.0	1.4	9.0	99	--	<2
AUG										
02...	1325	232	214	8.2	23.5	1.5	9.8	115	--	<2
08...	0900	229	218	7.5	21.0	1.7	7.9	89	--	11
16...	1325	233	217	8.1	23.0	1.5	--	--	--	8
22...	0925	250	218	7.8	18.5	1.6	9.0	96	--	5
SEP										
01...	1300	226	223	8.4	23.5	.90	10.7	126	--	5
05...	0930	225	222	7.3	20.0	1.0	7.7	85	--	13
13...	1305	196	238	8.7	21.5	.80	11.7	133	--	7
19...	0910	194	224	8.2	16.5	.70	9.4	96	--	2
27...	1235	195	243	8.4	21.0	1.0	10.4	117	--	6
OCT										
11...	1625	--	240	8.4	21.5	--	11.1	126	--	--

DATE	COLI- FORM, FECAL, 0.7 UM-WF (COLS./ 100 ML)	STREP- TOCOC- CI, FECAL, KF AGAR (COLS./ PER 100 ML)	STREP- TOCOC- CI (MPN)	PSEUDO- MONAS AERU- GINOSA IN H2O (MPN/ 100 ML)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
MAY, 1978										
15...	K5	K3	27	<2	--	--	--	--	--	--
22...	K6	K8	220	--	.55	.62	.01	.01	.56	.63
30...	K3	K6	11	--	--	--	--	--	--	--
JUN										
05...	10	10	49	--	.34	.37	.01	.01	.35	.38
15...	K21	10	--	--	--	--	--	--	--	--
20...	K3	9	--	--	.31	.32	.01	.01	.32	.33
27...	--	--	--	--	--	--	--	--	--	--
29...	16	15	--	--	--	--	--	--	--	--
JUL										
07...	K2	10	--	--	.23	.22	.01	.01	.24	.23
11...	K31	13	4	6	--	--	--	--	--	--
19...	K3	17	3	--	.11	.13	.01	.01	.12	.14
25...	11	17	<3	--	--	--	--	--	--	--
AUG										
02...	K4	K8	5	--	.06	.05	.01	.01	.07	.06
08...	K4	23	14	--	--	--	--	--	--	--
16...	K2	11	110	20	.04	.05	.01	.01	.05	.06
22...	6	20	4	--	--	--	--	--	--	--
SEP										
01...	K4	10	<2	--	.03	.05	.00	.00	.03	.05
05...	K18	K45	23	--	--	--	--	--	--	--
13...	K4	16	4	<20	.06	.07	.00	.01	.06	.08
19...	K4	12	2	--	--	--	--	--	--	--
27...	K3	10	5	--	.06	.04	.00	.01	.06	.05
OCT										
11...	--	--	--	--	--	--	--	--	--	--

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

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

 RUSSIAN RIVER BASIN--Continued  
 11463680 RUSSIAN RIVER AT ALEXANDER VALLEY ROAD BRIDGE, CA--Continued

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	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, ORTH. DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTH. DIS- SOLVED (MG/L AS P04)
MAY , 1978										
15...	--	--	--	--	--	--	--	--	--	--
22...	.00	.00	.31	.15	.31	.15	.87	.01	.00	.00
30...	--	--	--	--	--	--	--	--	--	--
JUN										
05...	.01	.00	.53	.54	.54	.54	.89	.00	.01	.03
15...	--	--	--	--	--	--	--	--	--	--
20...	.00	.00	.74	.73	.74	.73	1.1	.01	.00	.00
27...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
JUL										
07...	.00	.01	.17	--	.17	--	.41	.01	.01	.03
11...	--	--	--	--	--	--	--	--	--	--
19...	.00	.01	.35	.29	.35	.30	.47	.01	.00	.00
25...	--	--	--	--	--	--	--	--	--	--
AUG										
02...	.00	.00	.33	.27	.33	.27	.40	.01	.01	.03
08...	--	--	--	--	--	--	--	--	--	--
16...	.00	.01	.17	.19	.17	.20	.22	.00	.00	.00
22...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	.01	.01	.12	.11	.13	.12	.16	.02	.01	.03
05...	--	--	--	--	--	--	--	--	--	--
13...	.01	.01	.23	--	.24	--	.30	.01	.00	.00
19...	--	--	--	--	--	--	--	--	--	--
27...	.00	.00	.35	.25	.35	.25	.41	.01	.00	.00
OCT										
11...	--	--	--	--	--	--	--	--	--	--

## PHYTOPLANKTON

Date	Time	Potential algal growth bottle test (mg/L)	Biomass (mg/L)		Chlorophyll a (µg/L)	Chlorophyll b (µg/L)	Biomass pigment ratio
			Dry weight	Ash weight			
May 22	1040	4.9	100	99	1.19	0.000	840
June 20	1445	5.0	106	105	.63	.000	1587
July 19	1250	--	--	--	1.43	.260	--
Aug. 16	1325	1.2	114	112	1.89	.000	1058

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll a (mg/m <sup>2</sup> )	Chlorophyll b (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
July 7	23	16.1	12.4	30.8	2.99	120	Polyethylene strip
Oct. 11, 1978	29	8.35	6.30	41.6	3.50	49	do



## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
11464010 RUSSIAN RIVER AT HEALDSBURG, CA

LOCATION.--Lat 38°35'54", long 122°51'23", in Sotoyome Grant, Sonoma County, Hydrologic Unit 18010110, 0.4 mi (0.6 km) downstream from bridge on U.S. Highway 101, 0.9 mi (1.4 km) upstream from Dry Creek, and 1.0 mi (1.6 km) south of Healdsburg.

DRAINAGE AREA.--794 mi<sup>2</sup> (2,056 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1977-79 (discontinued).

CHEMICAL ANALYSES: Water years 1977-79 (discontinued).

BIOLOGICAL DATA: Water years 1977-79 (discontinued).

COOPERATION.--Chemical-quality samples and biological data were collected by California Regional Water Quality Control Board, North Coast Region.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)
MAY, 1978										
15...	1340	632	281	8.2	19.0	4.0	9.9	106	170	11
22...	1330	420	278	8.5	20.5	3.0	9.8	109	--	33
30...	1240	480	250	8.0	23.0	2.6	8.3	97	--	13
JUN										
05...	1100	413	255	8.2	22.5	2.6	8.7	100	--	33
15...	1100	339	244	8.3	21.5	2.0	9.2	105	--	--
20...	1245	304	250	8.3	22.5	1.6	8.8	101	--	--
27...	1125	298	279	8.1	21.0	1.8	8.9	100	--	--
29...	1135	244	246	8.2	19.5	2.0	9.3	101	--	--
JUL										
07...	1115	210	259	8.0	23.5	1.9	8.7	102	--	--
11...	1100	209	252	8.0	23.5	1.4	8.8	104	--	23
19...	1105	238	245	8.3	24.5	1.8	8.4	100	--	17
25...	1035	216	242	8.2	23.5	2.0	8.8	104	--	49
AUG										
02...	1140	223	227	8.2	23.5	1.8	8.7	102	--	23
08...	1010	231	224	7.8	24.0	1.5	8.7	104	--	4
16...	1130	236	217	8.1	23.0	1.5	8.7	101	--	79
22...	1040	256	229	8.2	21.5	1.8	8.9	101	--	8
SEP										
01...	1100	209	228	7.9	23.0	1.4	8.8	102	--	<30
05...	1025	224	227	8.0	22.5	1.2	8.6	99	--	9
13...	1100	204	250	8.3	20.0	2.2	8.9	110	--	49
19...	1030	195	232	8.0	17.5	1.4	9.6	100	--	79
27...	1045	186	244	8.3	19.5	2.2	9.1	99	--	17
OCT										
11...	1540	--	244	8.0	20.0	--	9.5	104	--	--

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	STREP- TOCOCCI FECAL (MPN)	PSEUDO- MONAS AERU- GINOSA IN H2O (MPN/ 100 ML)	NITRO- GEN, NITRATE (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	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)
MAY, 1978										
15...	K4	K3	22	<2	--	--	--	--	--	--
22...	K9	10	350	--	.46	.52	.01	.01	.47	.53
30...	25	26	33	--	--	--	--	--	--	--
JUN										
05...	22	22	11	--	.30	.32	.01	.01	.31	.33
15...	23	17	--	--	--	--	--	--	--	--
20...	K8	K9	--	--	.24	.26	.01	.01	.25	.27
27...	--	--	--	--	--	--	--	--	--	--
29...	11	18	--	--	--	--	--	--	--	--
JUL										
07...	16	23	--	--	.14	.15	.01	.01	.15	.16
11...	16	10	2	2	--	--	--	--	--	--
19...	14	17	3	--	.04	.05	.01	.01	.05	.06
25...	33	14	3	--	--	--	--	--	--	--
AUG										
02...	27	25	2	--	.01	.00	.01	.00	.02	.00
08...	16	15	5	--	--	--	--	--	--	--
16...	11	13	22	20	.01	.00	.01	.01	.02	.01
22...	20	15	7	--	--	--	--	--	--	--
SEP										
01...	K4	9	4	--	.00	.00	.00	.01	.00	.01
05...	K26	48	12	--	--	--	--	--	--	--
13...	60	43	17	70	.05	.07	.00	.01	.05	.08
19...	20	22	49	--	--	--	--	--	--	--
27...	16	14	49	--	.02	.00	.00	.01	.02	.01
OCT										
11...	--	--	--	--	--	--	--	--	--	--

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

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

 RUSSIAN RIVER BASIN--Continued  
 11464010 RUSSIAN RIVER AT HEALDSBURG, CA--Continued

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)
MAY, 1978										
15...	--	--	--	--	--	--	--	--	--	--
22...	.00	.00	.58	.38	.58	.38	1.1	.01	.00	.00
30...	--	--	--	--	--	--	--	--	--	--
JUN										
05...	.01	.00	.21	.23	.22	.23	.53	.00	.01	.03
15...	--	--	--	--	--	--	--	--	--	--
20...	.00	.00	.42	.21	.42	.21	.67	.01	.00	.00
27...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
JUL										
07...	.00	.01	--	--	--	--	--	.01	.01	.03
11...	--	--	--	--	--	--	--	--	--	--
19...	.00	.01	.29	.29	.29	.30	.34	.01	.00	.00
25...	--	--	--	--	--	--	--	--	--	--
AUG										
02...	.00	.01	.22	.21	.22	.22	.24	.02	.01	.03
08...	--	--	--	--	--	--	--	--	--	--
16...	.00	.01	.28	.19	.28	.20	.30	.01	.00	.00
22...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	.01	.01	.27	.09	.28	.10	.28	.02	.00	.00
05...	--	--	--	--	--	--	--	--	--	--
13...	.01	.01	.33	.22	.34	.23	.39	.01	.00	.00
19...	--	--	--	--	--	--	--	--	--	--
27...	.02	.01	--	.38	--	.39	--	.02	.00	.00
OCT										
11...	--	--	--	--	--	--	--	--	--	--

## PHYTOPLANKTON

Date	Time	Potential algal growth bottle test (mg/L)	Biomass (mg/L)		Chlorophyll a (µg/L)	Chlorophyll b (µg/L)	Biomass pigment ratio
			Dry weight	Ash weight			
May 22	1330	4.5	101	100	1.16	0.000	862
June 20	1245	2.9	114	111	.76	.000	3947
July 19	1105	.7	49.8	49.0	1.73	.350	462
Aug. 16	1130	1.4	59.0	58.0	1.86	.000	538
Sept. 13	1100	.3	124	121	2.47	.000	1215

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll a (mg/m <sup>2</sup> )	Chlorophyll b (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
July 25	19	15.7	12.2	30.8	2.22	114	Polyethylene strip do
Oct. 11, 1978	29	10.2	8.35	45.4	3.48	41	

## DRY CREEK NEAR ASTI, CA

LOCATION.--Lat 38°43'46", long 123°02'17", in SE¼NE¼ sec.11, T.10 N., R.11 W., Sonoma County, Hydrologic Unit 18010110, at upstream side of Rockpile Road bridge, 4.1 mi (6.6 km) southwest of Asti.

DRAINAGE AREA.--92.3 mi<sup>2</sup> (239.1 km<sup>2</sup>).

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1974 to current year.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
NOV											
28...	1050	25	262	6.7	11.0	1.0	10.5	96	120	6	27
JAN											
26...	1035	247	173	7.7	9.5	10	11.4	101	79	0	17
MAY											
23...	1025	27	249	8.1	15.5	.00	9.6	97	110	2	22
AUG											
24...	0945	.07	258	7.8	22.0	.60	5.8	67	110	8	26

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
DRY CREEK NEAR ASTI, CA--Continued

DATE	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)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 28...	13	16	22	.6	1.0	140	0	110	23	6.8	.2
JAN 26...	8.8	7.8	18	.4	.8	96	0	79	12	4.3	.2
MAY 23...	13	12	19	.5	.9	130	0	110	15	6.8	.1
AUG 24...	12	14	21	.6	1.2	130	0	110	20	6.3	.2

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIOS, 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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN+AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN+NH4 + ORG. SUSP. TOTAL (MG/L AS N)
NOV 28...	13	171	.23	.23	.25	.00	.00	.18	.05	.18	.13
JAN 26...	18	118	.16	--	--	.01	.02	.04	.05	.05	.00
MAY 23...	16	150	.20	.00	.00	.00	.00	.45	.04	.45	.41
AUG 24...	17	162	.22	.07	.10	.02	.01	.17	.20	.19	.00

DATE	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, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)
NOV 28...	.05	.41	.03	.06	.18	2	1	4	880	<10	0
JAN 26...	.07	--	.05	.06	.18	1	1	3	130	0	5
MAY 23...	.04	.45	.02	.01	.03	1	1	4	270	0	1
AUG 24...	.21	.26	.03	.02	.06	1	1	5	450	0	<1

DATE	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 28...	0	0	0	32	10	1	10	70	6	1
JAN 26...	<1	0	0	--	20	0	2	50	5	7
MAY 23...	0	0	5	23	0	1	160	20	5	4
AUG 24...	0	0	--	30	0	0	80	<10	8	0

DATE	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/L AS HG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
NOV 28...	5	.0	.0	.06	0	0	39	3.5	.3
JAN 26...	<10	.0	.0	.11	10	10	100	1.1	.2
MAY 23...	8	.1	.0	.03	0	0	18	.7	.1
AUG 24...	20	.0	.0	.04	40	3	20	1.0	.4

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

 RUSSIAN RIVER BASIN--Continued  
 WARM SPRINGS CREEK ABOVE LITTLE WARM SPRINGS CREEK, AT SKAGGS SPRINGS, CA

LOCATION.--Lat 38°41'42", long 123°01'39", in SW¼SE¼ sec.24, T.10 N., R.11 W., Sonoma County, Hydrologic Unit 18010110, 200 ft (61 m) upstream from Little Warm Springs Creek, 0.1 mi (0.2 km) northwest of Skaggs Springs.  
 DRAINAGE AREA.--30.7 mi<sup>2</sup> (79.5 km<sup>2</sup>).  
 PERIOD OF RECORD.--  
 CHEMICAL ANALYSES: Water years 1974 to current year.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS (AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
NOV 28...	1055	9.1	257	6.7	10.0	2.0	10.4	93	120	23	28
JAN 26...	1025	97	158	8.1	9.0	30	11.4	100	66	1	15
MAY 23...	1050	15	208	8.0	15.0	.00	9.9	99	100	2	26
AUG 24...	1025	.37	258	7.5	19.0	.60	8.4	91	110	0	24

DATE	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)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 28...	12	12	18	.5	1.0	120	0	100	30	5.8	.1
JAN 26...	6.9	6.4	17	.3	.7	79	0	65	9.9	3.7	.1
MAY 23...	9.5	9.3	16	.4	.7	120	0	98	18	4.4	.1
AUG 24...	11	17	26	.7	1.2	150	0	120	15	5.3	.2

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, 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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)
NOV 28...	15	164	.22	.15	.10	.00	.00	.06	--	.06	--
JAN 26...	18	100	.14	.06	.01	.02	.01	.03	.06	.05	.00
MAY 23...	17	144	.20	.02	.00	.00	.00	.28	.13	.28	.15
AUG 24...	17	166	.23	.02	.04	.02	.03	.24	.26	.26	.00

DATE	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, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)
NOV 28...	--	.21	.03	.01	.03	1	1	4	220	<10	0
JAN 26...	.07	.11	.08	.03	.09	1	0	5	60	0	2
MAY 23...	.13	.30	.02	.00	.00	1	1	5	100	0	1
AUG 24...	.29	.28	.03	.02	.06	2	2	4	780	0	0

DATE	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 28...	0	0	0	20	<10	0	10	50	8	3
JAN 26...	<1	10	0	40	20	1	13	40	3	5
MAY 23...	0	5	0	17	0	0	110	30	4	4
AUG 24...	0	0	0	30	0	1	65	20	3	0

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
WARM SPRINGS CREEK ABOVE LITTLE WARM SPRINGS CREEK, AT SKAGGS SPRINGS, CA--Continued

DATE	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/L AS HG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
NOV 28...	2	.0	.0	.02	0	0	17	1.3	.2
JAN 26...	<10	.1	.0	.03	10	10	27	1.0	.3
MAY 23...	8	.1	.0	.03	30	5	15	.6	.1
AUG 24...	--	.0	.0	.03	40	0	20	1.4	.3

## LITTLE WARM SPRINGS CREEK AT SKAGGS SPRINGS, CA

LOCATION.--Lat 38°41'41", long 123°01'34", in SW¼SE¼ sec.24, T.10 N., R.11 W., Sonoma County, Hydrologic Unit 18010110, at downstream side of Skaggs Springs Road bridge at Skaggs Springs.  
DRAINAGE AREA.--1.92 mi<sup>2</sup> (4.97 km<sup>2</sup>).  
PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1974 to current year.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
NOV 28...	1110	.31	1090	7.5	13.5	1.0	9.8	95	130	0	28
JAN 26...	1040	4.9	270	8.1	10.0	8.0	10.8	96	83	0	18
MAY 23...	1100	.80	484	8.3	16.0	1.0	11.0	112	110	0	25
AUG 24...	1000	.09	2380	8.2	19.5	1.4	3.8	42	140	0	32

DATE	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)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 28...	15	230	78	8.7	8.4	700	0	570	39	19	.3
JAN 26...	9.2	20	34	1.0	1.3	130	0	110	14	5.2	.3
MAY 23...	12	80	60	3.3	3.4	300	0	250	17	8.9	.9
AUG 24...	15	600	90	22	4.4	1690	0	1390	14	38	6.2

DATE	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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)
NOV 28...	35	742	1.01	.22	.21	.21	.28	.10	.00	.31	.10
JAN 26...	17	151	.21	.03	.04	.02	.04	.01	.01	.03	.00
MAY 23...	21	323	.44	.01	.00	.00	.00	.67	.20	.67	.47
AUG 24...	60	1670	2.27	.20	.27	.03	.03	.41	.23	.44	.18

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
LITTLE WARM SPRINGS CREEK AT SKAGGS SPRINGS, CA--Continued

DATE	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, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)
NOV 28...	.21	.53	.08	.07	.21	7	7	3	21000	<10	3
JAN 26...	.05	.06	.05	.03	.09	2	1	3	1300	0	2
MAY 23...	.20	.68	.02	.00	.00	5	6	5	6700	0	1
AUG 24...	.26	.64	.12	.12	.37	40	36	7	61000	0	0

DATE	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 28...	0	0	0	16	10	1	9	60	3	2
JAN 26...	<1	10	0	30	15	1	14	110	4	3
MAY 23...	0	0	5	24	0	1	--	20	5	6
AUG 24...	0	20	0	10	0	2	75	30	5	0

DATE	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/L AS HG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)
NOV 28...	4	.0	.0	.22	0	0	18	1.7	.2
JAN 26...	10	.1	.0	.06	0	0	27	1.2	.2
MAY 23...	6	.1	.0	.09	0	5	26	4.4	.1
AUG 24...	12	.0	.0	.18	10	10	20	2.5	.3

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
11465400 RUSSIAN RIVER AT WOHLER BRIDGE, CA

LOCATION.--Lat 38°30'29", long 122°52'55", in Molinos Grant, Sonoma County, Hydrologic Unit 18010110, 200 ft (61 m) upstream from Wohler bridge, 0.5 mi (0.8 km) downstream from Porter Creek, and 1.2 mi (1.9 km) north-east of Mirabel Heights.

DRAINAGE AREA.--1,040 mi<sup>2</sup> (2,694 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1977-78 (discontinued).

CHEMICAL ANALYSES: Water years 1977-78 (discontinued).

BIOLOGICAL DATA: Water years 1977-78 (discontinued).

COOPERATION.--Chemical-quality samples and biological data were collected by California Regional Water Quality Control Board, North Coast Region.

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	COLIFORM, CONFIRMED (MPN)	COLIFORM, FECAL, EC BROTH (MPN)
MAY, 1978										
15...	1500	276	8.1	19.0	6.3	9.6	103	--	240	22
23...	1530	281	--	19.0	4.9	10.5	113	8	--	49
30...	1110	257	8.0	22.5	3.9	8.5	98	--	--	49
JUN										
05...	1235	257	7.9	23.0	3.2	8.6	100	5	--	26
15...	1220	252	8.2	21.0	2.4	9.1	102	--	--	--
20...	1115	262	7.9	20.5	3.0	8.4	93	9	--	--
27...	1325	283	7.8	20.5	3.3	8.4	93	--	--	--
29...	1325	255	7.8	20.0	2.3	8.7	96	--	--	--
JUL										
07...	0950	270	7.4	21.0	6.3	7.6	85	16	--	--
11...	1245	262	8.1	24.0	1.5	8.6	102	--	--	13
19...	1000	257	8.3	25.0	2.1	8.3	100	14	--	13
25...	1205	244	8.2	24.5	2.7	8.6	102	--	--	7
AUG										
02...	1020	244	8.1	22.5	2.5	8.2	94	38	--	46
08...	1155	235	8.2	25.0	2.4	10.2	123	--	--	17
16...	1015	235	8.1	22.0	2.3	8.2	93	21	--	79
22...	1215	233	8.1	22.0	2.8	9.3	106	--	--	4
SEP										
01...	0955	242	7.8	23.0	2.8	8.1	94	7	--	<30
05...	1155	241	7.8	22.0	2.7	7.5	85	--	--	7
13...	0955	265	8.1	20.0	2.5	6.5	71	1	--	23
19...	1210	246	--	18.5	2.0	8.7	93	--	--	8
27...	0940	262	8.0	18.5	5.9	8.3	88	30	--	23

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)	STREP-TOCOCCI FECAL (MPN)	PSEUDOMONAS AERUGINOSA IN H2O (MPN/100 ML)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N)
MAY, 1978										
15...	K17	K15	22	34	--	--	--	--	--	--
23...	24	60	49	--	.43	.44	.01	.01	.44	.45
30...	29	19	33	--	--	--	--	--	--	--
JUN										
05...	K64	50	22	--	.32	.34	.01	.01	.33	.35
15...	K11	K5	--	--	--	--	--	--	--	--
20...	K83	38	--	--	.29	.32	.01	.01	.30	.33
27...	--	--	--	--	--	--	--	--	--	--
29...	K8	K8	--	--	--	--	--	--	--	--
JUL										
07...	20	29	--	--	.22	.26	.01	.01	.23	.27
11...	12	9	5	<2	--	--	--	--	--	--
19...	20	23	3	--	.07	.08	.01	.01	.08	.09
25...	10	K4	<3	--	--	--	--	--	--	--
AUG										
02...	28	14	7	--	.04	.04	.01	.01	.05	.05
08...	22	89	49	--	--	--	--	--	--	--
16...	10	K280	110	50	.00	.03	.01	.00	.01	.03
22...	K4	K4	4	--	--	--	--	--	--	--
SEP										
01...	10	15	11	--	.02	.03	.00	.01	.02	.04
05...	14	18	21	--	--	--	--	--	--	--
13...	K75	52	17	80	.13	.15	.00	.01	.13	.16
19...	8	23	7	--	--	--	--	--	--	--
27...	15	21	7	--	.05	.04	.00	.01	.05	.05

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

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

 RUSSIAN RIVER BASIN--Continued  
 11465400 RUSSIAN RIVER AT WOHLER BRIDGE, CA--Continued

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHOPHOS- PHATE, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHOPHOS- PHATE, DIS- SOLVED (MG/L AS P)
MAY , 1978										
15...	--	--	--	--	--	--	--	--	--	--
23...	.00	.00	.53	.43	.53	.43	.97	.03	.00	.00
30...	--	--	--	--	--	--	--	--	--	--
JUN										
05...	.01	.00	.52	.45	.53	.45	.86	.00	.00	.00
15...	--	--	--	--	--	--	--	--	--	--
20...	.00	.01	.33	.12	.33	.13	.63	.01	.01	.03
27...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
JUL										
07...	.00	.01	.15	.11	.15	.12	.38	.02	.02	.06
11...	--	--	--	--	--	--	--	--	--	--
19...	.00	.01	.41	.24	.41	.25	.49	.02	.01	.03
25...	--	--	--	--	--	--	--	--	--	--
AUG										
02...	.00	.01	.38	.20	.38	.21	.43	.02	.01	.03
08...	--	--	--	--	--	--	--	--	--	--
16...	.00	.01	.25	.18	.25	.19	.26	.01	.01	.03
22...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	.01	.01	.17	.17	.18	.18	.20	.01	.00	.00
05...	--	--	--	--	--	--	--	--	--	--
13...	.01	.02	.20	.20	.21	.22	.34	.01	.01	.03
19...	--	--	--	--	--	--	--	--	--	--
27...	.01	.01	.18	.21	.19	.22	.24	.02	.00	.00

## PHYTOPLANKTON

Date	Time	Potential algal growth bottle test (mg/L)	Biomass (mg/L)		Chlorophyll a ( $\mu$ g/L)	Chlorophyll b ( $\mu$ g/L)	Biomass pigment ratio
			Dry weight	Ash weight			
May 23	1530	4.4	122	119	1.91	0.000	1571
June 20	1115	4.7	118	116	1.86	.000	1075
July 19	1000	3.5	100	98	2.48	.000	806
Aug. 16	1015	1.5	115	113	2.33	.000	858
Sept. 13	0955	.3	121	118	1.91	.000	1571

## PERIPHYTON

Date	Length of exposure (days)	Biomass ( $g/m^2$ )		Chlorophyll a ( $mg/m^2$ )	Chlorophyll b ( $mg/m^2$ )	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
July 7	23	12.9	11.0	5.33	1.93	356	Polyethylene strip



## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
11466800 MARK WEST CREEK NEAR MIRABEL HEIGHTS, CA

LOCATION.--Lat 38°29'39", long 122°51'08", in Molinos Grant, Sonoma County, Hydrologic Unit 18010110, 100 ft (30 m) downstream from county road bridge, 2.1 mi (3.4 km) east of Mirabel Heights, and 2.7 mi (4.3 km) upstream from mouth.

DRAINAGE AREA.--251 mi<sup>2</sup> (650 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1977-79 (discontinued).

CHEMICAL ANALYSES: Water years 1977-79 (discontinued).

BIOLOGICAL DATA: Water years 1977-79 (discontinued).

COOPERATION.--Chemical-quality samples and biological data were collected by California Regional Water Quality Control Board, North Coast Region.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)
MAY , 1978											
15...	1550	46	486	8.1	21.5	--	8.6	98	--	5400	260
22...	1510	26	437	8.4	23.0	22	9.3	108	25	--	1300
30...	0915	20	426	8.2	23.0	--	8.2	95	--	--	330
JUN											
05...	1515	16	444	8.4	27.0	20	10.1	126	20	--	170
15...	1320	3.8	510	8.0	24.0	28	6.5	77	--	--	--
20...	1005	8.5	517	8.0	22.5	23	6.1	70	12	--	--
28...	0925	.25	632	7.5	19.5	30	3.4	37	--	--	--
JUL											
07...	0845	5.6	514	7.5	21.0	16	5.2	58	21	--	--
11...	1335	4.7	555	8.0	25.0	18	8.8	106	--	--	110
18...	0905	3.2	554	7.8	20.0	27	6.1	67	14	--	80
25...	1240	3.0	600	8.0	25.0	--	9.3	112	--	--	79
AUG											
02...	0915	2.2	576	7.9	19.0	23	6.6	71	39	--	280
08...	1255	1.0	550	8.0	24.5	14	10.4	124	--	--	23
16...	0855	2.0	655	7.8	19.5	32	5.6	61	27	--	540
22...	1300	2.0	624	8.3	23.0	19	9.6	112	--	--	33
SEP											
01...	0900	2.2	684	7.6	18.5	30	6.0	64	14	--	430
05...	1245	2.2	648	7.9	21.0	8.9	7.3	82	--	--	49
13...	0845	8.0	424	7.9	20.0	27	6.8	75	37	--	920
19...	1300	3.9	529	8.4	20.5	18	10.2	113	--	--	79
27...	0845	3.8	578	8.0	17.0	--	6.4	66	31	--	27
OCT											
11...	1500	--	631	8.1	21.0	--	--	--	--	--	--

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOC- CI KF AGAR (COLS. PER 100 ML)	STREP- TOCOC- CI FECAL (MPN)	PSEUDO- MONAS AERU- GINOSA IN H2O (MPN/ 100 ML)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	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)
MAY , 1978										
15...	270	140	790	490	--	--	--	--	--	--
22...	K150	90	790	--	.41	--	.10	.01	.51	--
30...	200	180	130	--	--	--	--	--	--	--
JUN										
05...	190	180	70	--	.00	.01	.01	.01	.01	.02
15...	83	170	--	--	--	--	--	--	--	--
20...	91	200	--	--	.00	.01	.01	.00	.01	.01
28...	K290	K430	--	--	--	--	--	--	--	--
JUL										
07...	150	290	--	--	.01	.02	.01	.00	.02	.02
11...	65	120	130	20	--	--	--	--	--	--
18...	K39	190	90	--	.00	.00	.01	.01	.01	.01
25...	K40	90	23	--	--	--	--	--	--	--
AUG										
02...	47	100	110	--	.01	.00	.01	.01	.02	.01
08...	21	52	220	--	--	--	--	--	--	--
16...	35	97	130	230	.01	.00	.01	.01	.02	.01
22...	23	52	46	--	--	--	--	--	--	--
SEP										
01...	K190	K1100	1600	--	.00	.01	.00	.01	.00	.02
05...	94	680	33	--	--	--	--	--	--	--
13...	K510	380	170	2400	.10	.12	.04	.05	.14	.17
19...	K48	540	79	--	--	--	--	--	--	--
27...	110	120	79	--	.08	.00	.00	.01	.08	.00
OCT										
11...	--	--	--	--	--	--	--	--	--	--

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

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
11466800 MARK WEST CREEK NEAR MIRABEL HEIGHTS, CA--Continued

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)
MAY, 1978										
15...	--	--	--	--	--	--	--	--	--	--
22...	.25	.23	1.2	.64	1.4	.87	1.9	.89	.73	2.2
30...	--	--	--	--	--	--	--	--	--	--
JUN										
05...	.03	.00	.90	.48	.93	.48	.94	.46	.35	1.1
15...	--	--	--	--	--	--	--	--	--	--
20...	.00	.00	.73	.36	.73	.36	.74	.51	.42	1.3
28...	--	--	--	--	--	--	--	--	--	--
JUL										
07...	.00	.03	.54	.53	.54	.56	.56	.42	.36	1.1
11...	--	--	--	--	--	--	--	--	--	--
18...	.00	.02	.76	.43	.76	.45	.77	.54	.45	1.4
25...	--	--	--	--	--	--	--	--	--	--
AUG										
02...	.00	.01	.68	.59	.68	.60	.70	.54	.48	1.5
08...	--	--	--	--	--	--	--	--	--	--
16...	.02	.02	.90	.42	.92	.44	.94	.57	.49	1.5
22...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	.03	.01	.62	.39	.65	.40	.65	.54	.57	1.7
05...	--	--	--	--	--	--	--	--	--	--
13...	.05	.01	.88	.59	.93	.60	1.1	.61	.54	1.7
19...	--	--	--	--	--	--	--	--	--	--
27...	.01	.01	.69	.43	.70	.44	.78	.54	.52	1.6
OCT										
11...	--	--	--	--	--	--	--	--	--	--

## PHYTOPLANKTON

Date	Time	Potential algal growth bottle test (mg/L)	Biomass (mg/L)		Chlorophyll a (µg/L)	Chlorophyll b (µg/L)	Biomass pigment ratio
			Dry weight	Ash weight			
May 22	1510	34	170	168	28.4	5.23	70.4
June 20	1005	7.8	214	207	14.8	.000	473
July 18	0905	6.7	202	196	16.7	3.16	359
Aug. 16	0855	--	267	261	16.8	.000	357
Sept. 13	0845	7.0	30.3	29.5	3.64	.000	220

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll a (mg/m <sup>2</sup> )	Chlorophyll b (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
July 7	23	2.83	1.73	9.84	2.52	112	Polyethylene strip
Oct. 11, 1978	29	17.0	13.0	9.32	1.31	429	do

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
11466850 RUSSIAN RIVER AT MIRABEL HEIGHTS, CA

LOCATION.--Lat 38°29'44", long 122°53'43", in Molinos Grant, Sonoma County, Hydrologic Unit 18010110, from left bank, 0.2 mi (0.3 km) downstream from Mark West Creek, 0.3 mi (0.5 km) northwest of Mirabel Heights.  
DRAINAGE AREA.--1,296 mi<sup>2</sup> (3,357 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1977-79 (discontinued).

CHEMICAL ANALYSES: Water years 1977-79 (discontinued).

BIOLOGICAL DATA: Water years 1977-79 (discontinued).

COOPERATION.--Chemical-quality samples and biological data were collected by California Regional Water Quality Control Board, North Coast Region.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)
MAY, 1978											
16...	0935	--	307	8.0	17.5	6.3	9.1	95	--	350	23
23...	1425	--	294	--	19.0	5.0	9.3	100	9	--	49
29...	1430	589	262	8.1	23.0	--	9.1	106	--	--	23
JUN											
05...	1330	466	269	7.9	22.5	4.3	8.7	100	5	--	33
16...	0845	273	265	8.2	23.0	2.6	8.7	101	--	--	--
20...	0855	253	276	8.0	23.0	3.0	8.3	97	6	--	--
27...	1525	278	268	7.9	21.0	2.8	8.9	100	--	--	--
29...	1420	247	249	8.0	21.0	2.3	9.2	103	--	--	--
JUL											
06...	1415	229	272	8.1	25.5	2.6	8.6	105	28	--	--
11...	1440	180	280	8.1	25.5	2.0	9.2	112	--	--	5
18...	1400	175	235	8.2	27.5	2.7	9.3	118	5	--	9
25...	1345	177	252	8.1	25.0	2.5	9.3	112	--	--	11
AUG											
01...	1400	184	250	8.3	26.0	2.1	9.0	111	22	--	33
08...	1330	184	241	8.1	26.0	2.0	8.8	109	--	--	23
15...	1410	196	247	8.2	25.0	1.6	9.0	108	23	--	8
22...	1355	198	240	8.4	24.0	1.5	8.9	106	--	--	9
31...	1340	180	250	8.1	25.0	1.6	9.1	110	13	--	33
SEP											
05...	1325	206	244	7.9	22.5	1.6	8.8	101	--	--	46
12...	1505	356	248	8.0	21.0	2.8	8.9	100	12	--	23
19...	1355	187	253	8.2	19.5	1.4	9.9	108	--	--	11
26...	1350	172	265	8.1	21.0	5.1	9.4	106	18	--	8
OCT											
11...	1435	--	268	8.2	20.0	--	--	--	--	--	--

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOC- CI, KF AGAR (COLS. PER 100 ML)	PSEUDO- MONAS AERU- GINOSA IN H2O (MPN/ 100 ML)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	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)
MAY, 1978									
16...	35	35	49	7	--	--	--	--	--
23...	16	24	20	--	.44	.45	.02	.01	.46
29...	31	36	50	--	--	--	--	.46	.46
JUN									
05...	20	20	20	--	.32	.33	.01	.01	.33
16...	11	12	--	--	--	--	--	--	--
20...	22	27	--	--	.27	.30	.01	.01	.28
27...	--	--	--	--	--	--	--	--	--
29...	K7	33	--	--	--	--	--	--	--
JUL									
06...	14	24	--	--	.24	.21	.01	.02	.25
11...	8	22	70	2	--	--	--	--	--
18...	9	21	40	--	.06	.07	.01	.01	.07
25...	15	28	7	--	--	--	--	--	--
AUG									
01...	18	22	13	--	.03	.02	.01	.01	.04
08...	13	38	8	--	--	--	--	--	--
15...	K7	25	8	20	.03	.01	.01	.01	.04
22...	14	15	7	--	--	--	--	--	--
31...	7	22	13	--	.01	.03	.00	.00	.01
SEP									
05...	14	36	2	--	--	--	--	--	--
12...	47	27	17	130	.08	.11	.01	.01	.09
19...	K6	35	<2	--	--	--	--	--	--
26...	10	8	5	--	.04	.04	.01	.01	.05
OCT									
11...	--	--	--	--	--	--	--	--	--

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

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

 RUSSIAN RIVER BASIN--Continued  
 11466850 RUSSIAN RIVER AT MIRABEL HEIGHTS, CA--Continued

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)
MAY, 1978										
16...	--	--	--	--	--	--	--	--	--	--
23...	.01	.00	.51	.13	.52	.13	.98	.10	.05	.15
29...	--	--	--	--	--	--	--	--	--	--
JUN										
05...	.01	.00	.81	.33	.82	.33	1.2	.03	.05	.15
16...	--	--	--	--	--	--	--	--	--	--
20...	.00	.01	--	--	--	--	--	.04	.06	.18
27...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
JUL										
06...	.01	.00	.09	.01	.10	.01	.35	.03	.03	.09
11...	--	--	--	--	--	--	--	--	--	--
18...	.00	.01	.25	.17	.25	.18	.32	.02	.01	.03
25...	--	--	--	--	--	--	--	--	--	--
AUG										
01...	.00	.01	.25	.28	.25	.29	.29	.02	.02	.06
08...	--	--	--	--	--	--	--	--	--	--
15...	.00	.02	.23	.25	.23	.27	.27	.02	.01	.03
22...	--	--	--	--	--	--	--	--	--	--
31...	.01	.00	.28	.19	.29	.19	.30	.02	.01	.03
SEP										
05...	--	--	--	--	--	--	--	--	--	--
12...	.01	.01	.32	.25	.33	.26	.42	.03	.02	.06
19...	--	--	--	--	--	--	--	--	--	--
26...	.01	.01	.44	.27	.45	.28	.50	.02	.02	.06
OCT										
11...	--	--	--	--	--	--	--	--	--	--

## PHYTOPLANKTON

Date	Time	Potential algal growth bottle test (mg/L)	Biomass (mg/L)		Chlorophyll a (µg/L)	Chlorophyll b (µg/L)	Biomass pigment ratio
			Dry weight	Ash weight			
May 23	1425	39	112	110	4.60	0.620	435
June 20	0855	15	117	114	3.06	.000	980
July 18	1400	.8	84.0	83.0	4.94	.000	202
Aug. 15	1410	3.3	59.5	58.0	1.95	.000	769
Sept. 12	1505	4.0	114	113	4.74	.000	211

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll a (mg/m <sup>2</sup> )	Chlorophyll b (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
July 6	21	26.5	22.8	33.2	2.58	111	Polyethylene strip do
Oct. 11, 1978	30	74.3	63.2	18.6	1.65	597	

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
11467002 RUSSIAN RIVER AT JOHNSON'S BEACH, CA

LOCATION.--Lat 38°29'58", long 122°59'50", in NW¼NW¼ sec.32, T.8 N., R.10 W., Sonoma County, Hydrologic Unit 18010110, from left bank at Johnson's Beach, at Guerneville, 0.1 mi (0.2 km) downstream from Pocket Canyon.

DRAINAGE AREA.--1,353 mi<sup>2</sup> (3,504 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1977-79 (discontinued).

CHEMICAL ANALYSES: Water years 1977-79 (discontinued).

BIOLOGICAL DATA: Water years 1977-78 (discontinued).

COOPERATION.--Chemical-quality samples and biological data were collected by California Regional Water Quality Control Board, North Coast Region.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)
MAY , 1978										
16...	1315	--	292	8.1	20.0	--	10.1	111	220	46
23...	1230	--	289	--	20.0	4.5	9.4	103	--	79
29...	1200	--	255	8.1	22.5	5.2	8.5	98	--	17
JUN										
06...	1045	--	275	7.8	22.0	5.4	8.5	97	--	33
16...	1015	--	264	8.2	22.5	3.4	8.9	102	--	--
19...	1325	--	267	8.0	24.0	5.0	9.2	110	--	--
28...	1125	266	254	8.0	21.5	4.4	8.6	98	--	--
JUL										
06...	1235	--	280	7.8	24.0	5.3	9.4	112	--	--
12...	0950	--	284	8.1	23.5	4.2	8.8	104	--	23
18...	1220	--	267	8.1	25.5	5.0	9.0	110	--	46
26...	1005	--	255	8.1	23.5	4.5	8.6	101	--	49
AUG										
01...	1215	--	260	8.2	24.0	4.6	8.5	101	--	17
09...	1145	--	245	7.8	25.0	4.3	7.9	95	--	17
15...	1200	--	247	7.9	22.0	3.5	8.3	94	--	33
23...	0935	--	233	8.2	21.5	3.0	8.1	92	--	79
31...	1155	--	249	7.7	23.0	3.2	8.1	94	--	11
SEP										
06...	0955	--	251	7.7	21.0	1.8	7.9	89	--	33
12...	1310	--	239	8.2	20.5	3.7	9.3	103	--	170
20...	0940	--	262	8.1	19.0	2.3	9.0	97	--	49
26...	1150	--	268	7.9	21.5	4.0	8.1	92	--	33
OCT										
11...	1340	--	272	8.0	19.0	--	--	--	--	--
DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCEI FECAL, KF AGAR (COLS. PER 100 ML)	STREP- TOCOCCEI FECAL (MPN)	PSEUDO- MONAS AERU- GINOSA IN H2O (MPN/ 100 ML)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	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)
MAY , 1978										
16...	41	34	140	9	--	--	--	--	--	--
23...	21	K11	50	--	.46	.42	.01	.01	.47	.43
29...	30	32	20	--	--	--	--	--	--	--
JUN										
06...	24	33	50	--	--	.31	.01	.01	--	.32
16...	24	18	--	--	--	--	--	--	--	--
19...	21	K10	--	--	.19	.19	.01	.01	.20	.20
28...	24	41	--	--	--	--	--	--	--	--
JUL										
06...	28	41	--	--	.11	.11	.01	.01	.12	.12
12...	25	36	30	<3	--	--	--	--	--	--
18...	45	69	90	--	.00	.01	.01	.00	.01	.01
26...	41	51	4	--	--	--	--	--	--	--
AUG										
01...	25	28	11	--	.00	.00	.01	.00	.01	.00
09...	30	35	2	--	--	--	--	--	--	--
15...	38	51	33	80	.00	.01	.01	.00	.01	.01
23...	34	52	22	--	--	--	--	--	--	--
31...	28	29	22	--	.00	.00	.01	.00	.01	.00
SEP										
06...	15	49	13	--	--	--	--	--	--	--
12...	K220	76	110	330	.01	.02	.01	.01	.02	.03
20...	K14	38	33	--	--	--	--	--	--	--
26...	16	19	11	--	.02	.02	.00	.01	.02	.03
OCT										
11...	--	--	--	--	--	--	--	--	--	--

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

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

 RUSSIAN RIVER BASIN--Continued  
 11467002 RUSSIAN RIVER AT JOHNSON'S BEACH, CA--Continued

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	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, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)
MAY , 1978										
16...	--	--	--	--	--	--	--	--	--	--
23...	.00	.00	.35	.32	.35	.32	.82	.07	.02	.06
29...	--	--	--	--	--	--	--	--	--	--
JUN										
06...	.00	.00	--	.28	--	.28	--	.02	.01	.03
16...	--	--	--	--	--	--	--	--	--	--
19...	.01	.00	.24	.25	.25	.25	.45	.03	.01	.03
28...	--	--	--	--	--	--	--	--	--	--
JUL										
06...	.01	.00	.17	.00	.18	.00	.30	.03	.01	.03
12...	--	--	--	--	--	--	--	--	--	--
18...	.00	.00	.39	.07	.39	.07	.40	.03	.00	.00
26...	--	--	--	--	--	--	--	--	--	--
AUG										
01...	.00	.01	.37	.18	.37	.19	.38	.03	.01	.03
09...	--	--	--	--	--	--	--	--	--	--
15...	.00	.01	.25	.25	.25	.26	.26	.02	.01	.03
23...	--	--	--	--	--	--	--	--	--	--
31...	.01	.01	.28	.23	.29	.24	.30	.02	.01	.03
SEP										
06...	--	--	--	--	--	--	--	--	--	--
12...	.00	.00	.49	.34	.49	.34	.51	.05	.03	.09
20...	--	--	--	--	--	--	--	--	--	--
26...	.01	.01	.39	.18	.40	.19	.42	.03	.02	.06
OCT										
11...	--	--	--	--	--	--	--	--	--	--

## PHYTOPLANKTON

Date	Time	Potential algal growth bottle test (mg/L)	Biomass (mg/L)		Chlorophyll a (µg/L)	Chlorophyll b (µg/L)	Biomass pigment ratio
			Dry weight	Ash weight			
May 23	1230	19	116	113	3.92	0.000	765
June 19	1325	7.6	121	118	12.6	.000	238
July 18	1220	.7	109	105	14.9	1.20	268
Aug. 15	1200	3.6	119	117	3.76	.000	532
Sept. 12	1310	2.3	105	103	9.36	1.22	214

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
11467006 RUSSIAN RIVER AT VACATION BEACH, CA

LOCATION.--Lat 38°29'03", long 123°00'41", unsurveyed, Sonoma County, Hydrologic Unit 18010110, from right bank 0.4 mi (0.6 km) south of Vacation Beach, 1.1 mi (1.8 km) downstream from Hulburt Creek, and 1.5 mi (2.4 km) south-west of Guerneville.

DRAINAGE AREA.--1,371 (3,551 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1977-79 (discontinued).

CHEMICAL ANALYSES: Water years 1977-79 (discontinued).

BIOLOGICAL DATA: Water years 1977-78 (discontinued).

COOPERATION.--Chemical quality samples and biological data were collected by California Regional Water Quality Control Board, North Coast Region.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)
MAY, 1978										
16...	1410	--	293	8.2	20.0	--	10.0	110	540	49
23...	1030	523	294	--	19.5	5.0	9.5	103	--	49
29...	1045	535	260	8.1	22.0	4.0	9.6	109	--	49
JUN										
06...	1030	439	269	--	22.5	5.2	9.0	103	--	22
16...	1230	290	264	8.3	22.5	4.3	9.4	108	--	--
19...	1150	289	268	8.0	22.5	4.5	9.6	110	--	--
28...	1250	243	270	8.0	21.5	3.9	8.9	101	--	--
JUL										
06...	1050	206	286	8.2	24.0	4.4	10.6	126	--	--
12...	1030	170	281	8.2	22.5	4.8	9.0	103	--	21
18...	1055	181	275	8.1	25.0	6.0	8.6	104	--	23
26...	1045	162	260	8.1	23.0	5.6	8.4	98	--	23
AUG										
01...	1045	171	265	7.8	23.5	5.2	8.3	98	--	79
09...	1235	164	250	7.9	24.5	4.4	8.1	96	--	22
15...	1055	185	249	7.7	22.5	4.0	8.9	102	--	33
23...	1010	--	227	8.1	21.5	2.6	8.2	93	--	13
31...	1050	159	252	7.3	22.0	2.7	8.1	92	--	13
SEP										
06...	1040	177	238	7.9	21.5	2.2	8.1	92	--	33
12...	1105	274	253	8.3	20.0	3.8	9.0	99	--	920
20...	1025	--	262	7.9	18.5	6.8	8.9	95	--	46
26...	1045	331	275	7.9	21.0	4.0	8.7	98	--	23
OCT										
11...	1310	--	274	8.0	20.0	--	--	--	--	--

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	PSEUDO- MONAS AERU- GINOSA IN H2O (MPN/ 100 ML)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	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, DIS- SOLVED (MG/L AS N)
MAY, 1978									
16...	57	19	170	33	--	--	--	--	--
23...	20	K12	140	--	.42	.42	.01	.43	.43
29...	30	18	50	--	--	--	--	--	--
JUN									
06...	18	12	20	--	--	.29	.01	.01	.30
16...	15	K8	--	--	--	--	--	--	--
19...	24	K8	--	--	.14	.18	.01	.15	.19
28...	39	K65	--	--	--	--	--	--	--
JUL									
06...	29	47	--	--	.04	.02	.01	.05	.03
12...	27	26	70	3	--	--	--	--	--
18...	14	16	40	--	.00	.01	.01	.00	.01
26...	19	28	<2	--	--	--	--	--	--
AUG									
01...	26	28	17	--	.00	.00	.00	.00	.00
09...	28	28	14	--	--	--	--	--	--
15...	20	30	33	130	.01	.01	.00	.01	.01
23...	23	38	8	--	--	--	--	--	--
31...	16	17	11	--	.00	.00	.01	.01	.00
SEP									
06...	28	44	110	--	--	--	--	--	--
12...	K390	170	130	90	.01	.03	.01	.02	.05
20...	23	35	46	--	--	--	--	--	--
26...	28	28	17	--	.01	.00	.01	.02	.01
OCT									
11...	--	--	--	--	--	--	--	--	--

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

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

 RUSSIAN RIVER BASIN--Continued  
 11467006 RUSSIAN RIVER AT VACATION BEACH, CA--Continued

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)
MAY , 1978										
16...	--	--	--	--	--	--	--	--	--	--
23...	.00	.00	.36	.34	.36	.34	.79	.06	.02	.06
29...	--	--	--	--	--	--	--	--	--	--
JUN										
06...	.01	.00	.55	.34	.56	.34	--	.03	.02	.06
16...	--	--	--	--	--	--	--	--	--	--
19...	.01	.00	.23	.07	.24	.07	.39	.03	.02	.06
28...	--	--	--	--	--	--	--	--	--	--
JUL										
06...	.01	.00	.41	.41	.42	.41	.47	.02	.00	.00
12...	--	--	--	--	--	--	--	--	--	--
18...	.00	.00	.35	.11	.35	.11	.35	.03	.00	.00
26...	--	--	--	--	--	--	--	--	--	--
AUG										
01...	.00	.01	.20	.19	.20	.20	.20	.03	.01	.03
09...	--	--	--	--	--	--	--	--	--	--
15...	.00	.01	.29	.31	.29	.32	.30	.02	.01	.03
23...	--	--	--	--	--	--	--	--	--	--
31...	.01	.01	.32	.18	.33	.19	.34	.02	.01	.03
SEP										
06...	--	--	--	--	--	--	--	--	--	--
12...	.00	.00	.32	.28	.32	.28	.34	.08	.06	.18
20...	--	--	--	--	--	--	--	--	--	--
26...	.01	.01	.47	.26	.48	.27	.50	.03	.02	.06
OCT										
11...	--	--	--	--	--	--	--	--	--	--

## PHYTOPLANKTON

Date	Time	Potential algal growth bottle test (mg/L)	Biomass (mg/L)		Chlorophyll a (µg/L)	Chlorophyll b (µg/L)	Biomass pigment ratio
			Dry weight	Ash weight			
May 23	1030	17	114	112	4.94	0.000	405
June 19	1150	8.7	116	112	13.9	.000	288
July 18	1055	--	103	101	8.25	.000	242
Aug. 15	1055	--	119	116	4.35	.000	690
Sept. 12	1105	2.1	112	110	18.5	2.48	108

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll a (mg/m <sup>2</sup> )	Chlorophyll b (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
July 18	33	30.6	27.5	5.46	0.830	568	Polyethylene strip



## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
11467210 RUSSIAN RIVER AT DUNCAN MILLS, CA

LOCATION.--Lat 38°27'13", long 123°02'54", in Bodega Grant, Sonoma County, Hydrologic Unit 18010110, from left bank 100 ft (30 m) downstream from bridge at Duncan Mills, 1.1 mi (1.8 km) downstream from Austin Creek, and 4.4 mi (7.1 km) southwest of Guerneville.

DRAINAGE AREA.--1,461 mi<sup>2</sup> (3,784 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1977-79 (discontinued).

CHEMICAL ANALYSES: Water years 1977-79 (discontinued).

BIOLOGICAL DATA: Water years 1977-78 (discontinued).

COOPERATION.--Chemical-quality samples and biological data were collected by California Regional Water Quality Control Board, North Coast Region.

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
MAY , 1978										
16...	1510	293	8.4	20.0	6.2	11.2	123	240	49	17
23...	0925	304	--	19.5	3.9	9.4	102	--	33	K10
29...	0950	275	8.4	22.0	3.9	10.2	116	--	8	11
JUN										
06...	1210	279	--	23.0	3.8	9.9	115	--	17	K8
16...	1432	270	8.6	23.0	3.5	11.5	134	--	--	K6
19...	1035	275	8.1	22.0	8.0	13.0	148	--	--	13
28...	1420	281	8.3	22.0	5.7	9.9	113	--	--	12
JUL										
06...	0950	286	8.1	22.0	7.0	8.9	101	--	--	12
12...	1215	289	7.9	22.0	5.2	7.5	85	--	<3	9
18...	1000	281	7.8	23.5	5.7	7.6	89	--	13	K32
26...	1215	273	8.0	22.5	7.4	7.4	85	--	33	20
AUG										
01...	0945	270	7.7	21.5	7.6	7.5	85	--	49	50
09...	1455	249	8.0	24.0	6.0	8.2	98	--	33	39
15...	1042	246	7.8	22.0	3.4	7.8	89	--	49	39
23...	1100	270	7.8	21.5	5.0	7.3	83	--	33	37
31...	0945	281	7.6	21.0	3.2	7.8	88	--	27	K27
SEP										
06...	1210	251	7.9	21.5	2.9	8.1	92	--	33	29
12...	0950	244	8.0	20.0	2.2	8.4	92	--	79	K92
20...	1115	285	7.9	19.0	4.1	8.1	87	--	46	26
26...	0955	271	8.0	19.5	3.0	8.5	92	--	33	26
OCT										
11...	1240	289	8.0	18.5	--	--	--	--	--	--
DATE	TIME	STREP- TOCOC- CI FECAL, KF AGAR (COLS. PER 100 ML)	STREP- TOCOC- CI FECAL (MPN)	PSEUDO- MONAS AERU- GINOSA IN H2O (MPN/ 100 ML)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
MAY , 1978										
16...	22	27	20	--	--	--	--	--	--	--
23...	K10	20	--	.30	.33	.01	.01	.31	.34	.00
29...	K10	20	--	--	--	--	--	--	--	--
JUN										
06...	K4	50	--	.16	.19	.01	.01	.17	.20	.01
16...	K3	--	--	--	--	--	--	--	--	--
19...	7	--	--	.01	.01	.00	.01	.01	.02	.01
28...	10	--	--	--	--	--	--	--	--	--
JUL										
06...	8	--	--	.01	.00	.01	.01	.02	.01	.01
12...	K3	30	3	--	--	--	--	--	--	--
18...	K40	40	--	.00	.01	.01	.00	.01	.01	.00
26...	26	8	--	--	--	--	--	--	--	--
AUG										
01...	K180	170	--	.00	.00	.01	.00	.01	.00	.00
09...	47	49	--	--	--	--	--	--	--	--
15...	45	17	170	.02	.01	.00	.00	.02	.01	.00
23...	51	13	--	--	--	--	--	--	--	--
31...	23	22	--	.01	.01	.01	.00	.02	.01	.01
SEP										
06...	22	8	--	--	--	--	--	--	--	--
12...	K180	240	130	.00	.01	.01	.00	.01	.01	.00
20...	24	14	--	--	--	--	--	--	--	--
26...	40	8	--	.00	.00	.01	.01	.01	.01	.01
OCT										
11...	--	--	--	--	--	--	--	--	--	--

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

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN--Continued  
11467210 RUSSIAN RIVER AT DUNCAN MILLS, CA--Continued

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)
MAY , 1978									
16...	--	--	--	--	--	--	--	--	--
23...	.01	.56	.55	.56	.56	.87	.06	.02	.06
29...	--	--	--	--	--	--	--	--	--
JUN									
06...	.00	.73	.74	.74	.74	.91	.03	.01	.03
16...	--	--	--	--	--	--	--	--	--
19...	.00	.90	.41	.91	.41	.92	.05	.01	.03
28...	--	--	--	--	--	--	--	--	--
JUL									
06...	.00	.22	--	.23	--	.25	.04	.01	.03
12...	--	--	--	--	--	--	--	--	--
18...	.00	.52	.15	.52	.15	.53	.03	.00	.00
26...	--	--	--	--	--	--	--	--	--
AUG									
01...	.01	.26	.27	.26	.28	.27	.05	.01	.03
09...	--	--	--	--	--	--	--	--	--
15...	.01	.21	.21	.21	.22	.23	.02	.01	.03
23...	--	--	--	--	--	--	--	--	--
31...	.01	.25	.22	.26	.23	.28	.03	.02	.06
SEP									
06...	--	--	--	--	--	--	--	--	--
12...	.00	.31	.33	.31	.33	.32	.02	.00	.00
20...	--	--	--	--	--	--	--	--	--
26...	.01	.28	.22	.29	.23	.30	.02	.01	.03
OCT									
11...	--	--	--	--	--	--	--	--	--

## PHYTOPLANKTON

Date	Time	Potential algal growth bottle test (mg/L)	Biomass (mg/L)		Chlorophyll a (µg/L)	Chlorophyll b (µg/L)	Biomass pigment ratio
			Dry weight	Ash weight			
May 23	0925	15	120	118	9.98	1.60	200
June 19	1035	2.5	134	126	33.3	.000	240
July 18	1000	.8	86.0	84.0	5.69	.000	351
Aug. 15	1042	3.4	106	104	3.36	.000	595
Sept. 12	0950	.7	110	109	3.05	.000	328

## PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m <sup>2</sup> )		Chlorophyll a (mg/m <sup>2</sup> )	Chlorophyll b (mg/m <sup>2</sup> )	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
July 6	21	2.44	1.81	1.96	0.350	321	Polyethylene strip

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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 50 ft (15 m) upstream from private road bridge, 0.3 mi (0.5 km) upstream from mouth, and 19 mi (31 km) southeast of Orick.

DRAINAGE AREA.--17.0 mi<sup>2</sup> (44.0 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1975-76, 1978.

CHEMICAL ANALYSES: Water years 1975-76, 1978.

SEDIMENT RECORDS: Water years 1975, 1978.

REMARKS.--Prior to October 1975, published in Geological Survey open-file report, "Redwood National Park Studies", Data Release Number 2.

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
11...	1100	13.0	2.8	--	--	--
25...	1415	13.0	215	207	120	53
DEC						
05...	1230	9.0	80	286	62	85
14...	1425	11.5	2500	2830	19100	75
FEB						
02...	1320	9.0	299	--	--	--
02...	1400	9.0	408	627	691	79
02...	1500	9.5	350	750	709	--
02...	1520	9.5	267	--	--	--
02...	1550	9.5	380	770	790	66
03...	1050	9.5	408	212	234	81
03...	1200	9.5	375	--	--	--
03...	1220	9.5	372	196	197	68
03...	1240	9.5	370	--	--	--
14...	1000	8.0	90	31	7.5	51
27...	1100	8.0	39	9	.95	--
MAR						
07...	1040	9.0	57	72	11	56
09...	1105	9.0	298	176	142	51
09...	1120	9.0	298	--	--	--
20...	1025	11.0	32	8	.69	--

DATE	TIME	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 .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM
DEC									
14...	1425	26	33	43	55	66	--	75	--
FEB									
02...	1400	--	--	--	--	--	--	79	--
02...	1500	--	--	--	--	--	64	--	70
02...	1550	--	--	--	--	--	--	66	--

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
DEC									
14...		85	--	94	--	99	--	100	--
FEB									
02...		87	--	95	--	99	--	100	--
02...		--	80	--	91	--	100	--	--
02...		74	--	82	--	91	--	96	100

DATE	TIME	TEMPER- ATURE (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	STREAM WIDTH (FT)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)
FEB						
03...	1240	9.5	13	370	32	65
MAR						
09...	1120	9.0	15	298	36	90
20...	1025	11.0	--	32	20	.00

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

REDWOOD CREEK BASIN--Continued  
11482110 LACKS CREEK NEAR ORICK, CA--Continued

DATE	TIME	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	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	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
FEB 03...	1240	0	2	8	17	28	45	69	90	100
MAR 09...	1120	0	1	4	11	24	46	70	94	100

## 11482140 HIGH-SLOPE SCHIST CREEK NEAR ORICK, CA

LOCATION.--Lat 41°07'25", long 123°56'51", unsurveyed, Humboldt County, Hydrologic Unit 18010102, on right bank 100 ft (30 m) upstream from mouth, 13 mi (21 km) southeast of Orick.

DRAINAGE AREA.--0.53 mi<sup>2</sup> (1.37 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1974 to current year.

CHEMICAL ANALYSES: Water years 1974 to current year.

SEDIMENT RECORDS: Water years 1974 to current year.

REMARKS.--Prior to October 1975, published in Geological Survey open-file report, "Redwood National Park Studies", Data Release Numbers 1 and 2.

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 13...	1305	11.0	.06	--	--
NOV 14...	1225	9.5	.88	--	--
DEC 02...	1225	10.5	2.8	--	--
JAN 13...	1300	10.0	4.6	3	.04
13...	1415	10.0	4.9	--	--
13...	1600	10.0	4.6	3	.04
13...	1610	10.0	4.4	--	--
FEB 06...	1100	9.5	6.2	--	--

## 11482210 BRIDGE CREEK NEAR ORICK, CA

LOCATION.--Lat 41°11'32", long 123°58'52", unsurveyed, Humboldt County, Hydrologic Unit 18010102, Redwood National Park, on left bank 400 ft (122 m) upstream from mouth, 7.7 mi (12.4 km) southeast of Orick.

DRAINAGE AREA.--11.6 mi<sup>2</sup> (30.0 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1973 to current year.

CHEMICAL ANALYSES: Water years 1973 to current year.

SEDIMENT RECORDS: Water years 1974-76, 1978.

REMARKS.--Prior to October 1975, published in Geological Survey open-file report, "Redwood National Park Studies", Data Release Numbers 1 and 2.

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)
OCT 21...	1300	4.5	178	8.3	11.5	10.3	83	25	29	2.6
DATE	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT 21...	5.1	12	.2	.6	71	0	58	24	5.4	.0
DATE	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED NITRATE PLUS NITRITE (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	
OCT 21...	5.4	108	.15	1.31	.04	.00	.04	20	250	

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

REDWOOD CREEK BASIN--Continued  
11482210 BRIDGE CREEK NEAR ORICK, CA--Continued

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
21...	1300	11.5	4.5	--	--	--
DEC						
07...	1135	10.5	78	43	9.1	59
13...	0900	11.0	151	494	201	68
13...	1020	11.0	160	--	--	--
13...	1200	11.0	197	1000	532	59
13...	1310	11.0	197	--	--	--
13...	1430	11.0	237	1250	800	50
13...	1540	11.0	200	--	--	--
14...	1000	--	1020	6540	18000	--
14...	1445	--	990	4810	12900	62
14...	1600	--	923	--	--	--
15...	1415	10.0	980	1810	4790	68
JAN						
13...	1400	10.5	111	350	105	70
FEB						
07...	1300	9.5	143	--	--	--
07...	1340	9.5	143	419	162	70
15...	1155	8.0	97	34	8.9	51
27...	1415	10.5	42	10	1.1	69
MAR						
07...	1150	10.0	43	25	2.9	--
14...	1250	9.0	59	3	.48	--
21...	1315	11.0	36	14	1.4	--
28...	1450	13.0	30	11	.89	--

DATE	TIME	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 .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM
DEC									
13...	0900	19	26	36	49	60	--	68	--
13...	1200	12	19	29	40	50	--	59	--
14...	1000	14	21	33	46	59	67	--	79
FEB									
07...	1340	--	--	--	--	--	--	70	--

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
DEC									
13...	75	--	84	--	94	--	100	--	--
13...	68	--	80	--	93	--	98	100	--
14...	--	90	--	97	--	100	--	--	--
FEB									
07...	75	--	82	--	90	--	98	100	--

DATE	TIME	TEMPER- ATURE (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	STREAM WIDTH (FT)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)
DEC						
13...	1020	11.0	19	160	38	61
13...	1310	11.0	19	197	39	213
13...	1540	11.0	20	200	40	259
FEB						
07...	1300	9.5	7	143	17	27
15...	1155	8.0	--	97	21	.00
27...	1415	10.5	--	42	18	.00
MAR						
07...	1150	10.0	--	43	19	.00
14...	1250	9.0	--	59	20	.00

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

REDWOOD CREEK BASIN--Continued  
11482210 BRIDGE CREEK NEAR ORICK, CA--Continued

DATE	TIME	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	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
FEB 07...	1300	1	1	7	30	54	74	88	97	100

## 11482220 REDWOOD CREEK ABOVE HARRY WIER CREEK, NEAR ORICK, CA

LOCATION.--Lat 41°11'50", long 123°59'30", unsurveyed, Humboldt County, Hydrologic Unit 18010102, Redwood National Park, on left bank 150 ft (46 m) upstream from Harry Wier Creek, 7.2 mi (11.6 km) southeast of Orick, and 14 mi (23 km) upstream from mouth.

DRAINAGE AREA.--202 mi<sup>2</sup> (523 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1973-76, 1978.

CHEMICAL ANALYSES: Water years 1973-76, 1978.

SEDIMENT RECORDS: Water years 1974-76, 1978.

REMARKS.--Prior to October 1975, published in Geological Survey open-file report, "Redwood National Park Studies," Data Release Numbers 1 and 2.

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)
OCT 21...	1130	23	216	8.8	13.0	10.0	100	16	36	2.8

DATE	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT 21...	5.1	10	.2	.8	100	1	83	27	4.5	.0

DATE	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED NITRATE PLUS NITRITE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)
OCT 21...	5.4	132	.18	8.20	.03	.00	.03	40	50

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 21...	1130	13.0	23	--	--	--
DEC 13...	0855	--	2450	968	6400	68
13...	1000	--	2500	--	--	--
13...	1230	--	3350	1960	17700	65
13...	1355	--	4020	--	--	--
13...	1500	--	5200	--	--	--
13...	1600	--	5200	2600	36500	63
14...	0925	--	18500	6650	332000	--
14...	1200	--	16500	6050	270000	--
14...	1345	--	16100	--	--	--
14...	1550	--	12800	3870	134000	--
15...	0900	--	9200	3270	81200	58
15...	1005	--	9150	--	--	--
15...	1115	9.5	9150	--	--	--
15...	1210	9.5	8900	2640	63400	67
JAN 18...	1055	--	4100	1310	14500	46
18...	1205	9.0	4270	--	--	--
18...	1350	--	4100	976	10800	58
19...	0900	--	4600	1110	13800	58
19...	1000	9.5	4800	--	--	--
19...	1205	--	4700	1300	16500	60

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

REDWOOD CREEK BASIN--Continued  
 11482220 REDWOOD CREEK ABOVE HARRY WIER CREEK, NEAR ORICK, CA--Continued

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	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												
13...	1230	17	24	34	45	55	65	75	87	95	100	--
13...	1600	--	23	32	43	55	63	72	84	92	97	99
15...	1210	--	26	35	47	58	67	76	85	94	98	99
JAN												
18...	1350	18	24	33	42	50	58	66	77	89	96	100
19...	1205	17	23	33	43	52	60	69	81	93	99	100

DATE	TIME	TEMPER- ATURE (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 .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
DEC									
13...	1500	--	8	5200	187	7420	--	0	3
15...	1115	9.5	7	9150	203	10700	0	1	4

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
DEC								
13...	6	11	23	40	61	81	90	100
15...	9	15	26	48	70	89	99	100

11482225 HARRY WIER CREEK NEAR ORICK, CA

LOCATION.--Lat 41°11'53", long 123°59'32", unsurveyed, Humboldt County, Hydrologic Unit 18010102, Redwood National Park, on right bank 150 ft (46 m) upstream from mouth, 7.1 mi (11.4 km) southeast of Orick.

DRAINAGE AREA.--2.96 mi<sup>2</sup> (7.67 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1973 to current year.

CHEMICAL ANALYSES: Water years 1973 to current year.

SEDIMENT RECORDS: Water years 1973-76, 1978.

REMARKS.--Prior to October 1975, published in Geological Survey open-file report, "Redwood National Park Studies," Data Release Numbers 1 and 2.

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)
OCT										
18...	1100	.30	118	8.2	10.0	10.7	47	0	15	2.3

DATE	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT										
18...	6.0	21	.4	.8	59	0	48	5.9	6.2	.0

DATE	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED NITRATE PLUS NITRITE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)
OCT									
18...	4.0	69	.09	.06	.01	.00	.01	60	40

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

REDWOOD CREEK BASIN--Continued  
 11482225 HARRY WIER CREEK NEAR ORICK, CA--Continued

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
18...	1100	10.0	.30	--	--	--
NOV						
16...	1330	11.0	4.2	12	.14	--
21...	1110	10.0	.30	--	--	--
DEC						
07...	1315	12.0	16	19	.82	71
13...	1200	--	38	248	25	87
JAN						
13...	1545	10.5	21	31	1.8	87
FEB						
07...	1535	10.0	68	111	20	89
15...	1405	8.5	20	25	1.3	82
23...	1030	10.0	9.1	15	.37	83
27...	1540	9.0	6.3	7	.12	100
MAR						
07...	1235	10.0	11	56	1.7	--
07...	1300	10.0	11	66	2.0	--
09...	1450	8.5	24	95	6.2	77
14...	1355	9.0	12	28	.91	81
21...	1430	10.0	5.4	11	.16	--
28...	1345	11.0	4.6	19	.24	94

DATE	TIME	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
DEC						
13...	1200	87	90	95	98	100
FEB						
07...	1535	89	93	95	98	100

11482230 TOM MCDONALD CREEK NEAR ORICK, CA

LOCATION.--Lat 41°12'16", long 124°00'53", in SE¼NW¼ sec.1, T.9 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, Redwood National Park, on right bank 0.4 mi (0.6 km) upstream from mouth, 6.1 mi (9.8 km) southeast of Orick.

DRAINAGE AREA.--6.86 mi<sup>2</sup> (17.77 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1973 to current year.

CHEMICAL ANALYSES: Water years 1973 to current year.

SEDIMENT RECORDS: Water years 1974-76, 1978.

REMARKS.--Prior to October 1975, published in Geological Survey open-file report, "Redwood National Park Studies," Data Release Numbers 1 and 2.

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
28...	1230	11.0	8.4	12	.27	87
DEC						
08...	1600	8.0	37	11	1.1	53
13...	1430	--	79	198	42	42
15...	1100	9.5	216	292	170	63
15...	1215	9.5	216	292	170	67
JAN						
13...	1035	--	72	28	5.4	53
13...	1125	10.5	72	21	4.1	57
17...	1305	10.0	175	77	36	78
FEB						
07...	1025	10.0	103	68	19	75
07...	1055	10.0	103	--	--	--
15...	1040	8.0	60	--	--	--
21...	1425	9.5	43	9	1.0	54
27...	1145	9.0	33	15	1.3	--
MAR						
07...	1425	10.0	37	26	2.6	75
08...	1045	10.0	72	55	11	50
14...	1140	8.0	43	23	2.7	--
21...	1150	10.0	23	--	--	--
28...	1115	10.0	21	4	.23	--



## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

REDWOOD CREEK BASIN--Continued  
11482230 TOM MCDONALD CREEK NEAR ORICK, CA--Continued

DATE	TIME	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
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FEB 07...	1025	75	83	92	98	100
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DATE	TIME	TEMPER- ATURE (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	STREAM WIDTH (FT)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)
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FEB 07...	1055	10.0	26	103	26	14
21...	1425	9.5	--	43	22	.00
27...	1145	9.0	--	33	22	.00
MAR 08...	1045	10.0	--	72	22	.00
14...	1140	8.0	--	43	21	.00
21...	1150	10.0	--	23	21	.00

DATE	TIME	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	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
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FEB 07...	1055	0	2	14	48	74	87	97	100
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## 11482260 MILLER CREEK AT MOUTH, NEAR ORICK, CA

LOCATION.--Lat 41°13'46", long 124°00'36", in NE¼ sec.25, T.10 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, Redwood National Park, on left bank 100 ft (30 m) upstream from mouth, 4.7 mi (7.6 km) southeast of Orick.

DRAINAGE AREA.--1.36 mi<sup>2</sup> (3.52 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1973 to current year.

CHEMICAL ANALYSES: Water years 1973 to current year.

SEDIMENT RECORDS: Water years 1974 to current year.

REMARKS.--Prior to October 1975, published in Geological Survey open-file report, "Redwood National Park Studies," Data Release Numbers 1 and 2.

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)
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OCT 19...	1300	.40	74	7.3	11.0	10.8	30	0	8.4	2.1
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DATE	TIME	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
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OCT 19...	6.0	30	.5	.8	36	0	30	5.0	5.5	.1	
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DATE	TIME	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED PLUS BORON (B) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)
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OCT 19...	6.6	53	.07	.06	.08	.00	.08	580	30	
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## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

 REDWOOD CREEK BASIN--Continued  
 11482260 MILLER CREEK AT MOUTH, NEAR ORICK, CA--Continued

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
19...	1300	11.0	.40	--	--	--
19...	1305	11.0	.36	--	--	--
NOV						
22...	1245	10.0	38	--	--	--
DEC						
06...	1200	10.5	7.7	--	--	--
JAN						
06...	1115	10.0	20	50	2.7	73
16...	1305	11.0	60	288	47	78
FEB						
07...	1150	10.5	28	136	10	73
07...	1210	10.5	28	--	--	--
15...	1145	9.0	9.8	--	--	--
27...	1315	--	3.1	16	.13	--
27...	1320	--	2.9	--	--	--
MAR						
08...	1200	10.0	21	102	5.8	--
14...	1300	8.5	5.8	31	.49	--
21...	1240	11.0	2.3	17	.11	--
21...	1245	11.0	2.6	--	--	--
28...	1310	10.5	2.3	26	.16	--
28...	1315	10.5	1.8	--	--	--

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
JAN						
16...	1305	78	84	95	98	100
FEB						
07...	1150	73	83	91	96	100

DATE	TIME	TEMPER- ATURE (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	STREAM WIDTH (FT)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)
FEB						
07...	1210	10.5	9	28	9.6	1.6
27...	1320	--	--	2.9	6.5	.00
MAR						
08...	1200	10.0	--	21	--	.00
14...	1300	8.5	--	5.8	7.6	.00
21...	1245	11.0	--	2.6	7.0	.00
28...	1315	10.5	--	1.8	5.9	.00

DATE	TIME	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	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
FEB										
07...	1210	0	1	7	30	58	79	90	98	100

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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REDWOOD CREEK BASIN--Continued  
11482261 REDWOOD CREEK NEAR ORICK, CA

LOCATION.--Lat 41°13'46", long 124°00'38", in NE¼ sec.25, T.10 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, Redwood National Park, on right bank 80 ft (24 m) downstream from Miller Creek, 4.7 mi (7.6 km) southeast of Orick, and 10.1 mi (16.3 km) upstream from mouth.  
DRAINAGE AREA.--218 mi<sup>2</sup> (565 km<sup>2</sup>).  
PERIOD OF RECORD.--Water year 1978.  
SEDIMENT RECORDS: Water year 1978.

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC						
13...	1030	11.0	2750	1180	8760	64
13...	1100	--	2810	--	--	--
13...	1340	11.0	3650	--	--	--
13...	1430	11.0	4000	2270	24500	65
13...	1515	11.0	4610	--	--	--
13...	1625	11.5	4850	--	--	--
13...	1710	11.5	5100	2900	39900	60
JAN						
18...	1220	9.5	4720	1020	13000	56
18...	1315	9.5	4590	--	--	--
18...	1435	9.5	4780	--	--	--
18...	1530	9.5	4700	932	11800	62
18...	1655	9.5	4580	--	--	--
19...	1000	9.5	5460	--	--	--
19...	1130	9.5	5450	--	--	--
19...	1235	9.5	5600	1240	18700	61
19...	1350	9.5	5560	--	--	--
19...	1605	9.5	5620	1230	18700	61

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	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											
18...	1530	24	33	43	54	62	72	83	94	99	100
19...	1605	22	32	43	54	61	70	82	94	98	100

DATE	TIME	TEMPER- ATURE (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 .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
DEC									
13...	1340	11.0	5	3650	197	1400		1	7
13...	1625	11.5	6	4850	185	4480		0	3
JAN									
18...	1435	9.5	5	4780	203	8690	--	0	2
19...	1130	9.5	6	5450	203	7940	--	0	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	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
DEC								
13...		19	31	39	51	68	83	--
13...		11	20	33	50	66	81	100
JAN								
18...		9	13	30	52	73	84	100
19...		4	22	36	53	67	77	100

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

REDWOOD CREEK BASIN--Continued  
11482290 OSCAR LARSON CREEK NEAR ORICK, CA

LOCATION.--Lat 41°15'23", long 124°00'30", in NW¼NE¼ sec. 13, T.10 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, Redwood National Park, on left bank 200 ft (61 m) upstream from mouth and 3.4 mi (5.4 km) southeast of Orick.

DRAINAGE AREA.--0.69 mi<sup>2</sup> (1.79 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1974-75, 1978.

CHEMICAL ANALYSES: Water years 1974-75, 1978.

SEDIMENT RECORDS: Water years 1974-75, 1978.

REMARKS.--Prior to October 1975, published in Geological Survey open-file report, "Redwood National Park Studies," Data Release Numbers 1 and 2.

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC						
06...	1400	--	2.8	--	--	--
JAN						
06...	1230	10.0	8.4	51	1.2	91
16...	1445	--	24	110	7.1	80
FEB						
07...	1315	10.0	9.0	23	.56	--
07...	1325	10.0	10	--	--	--
07...	1340	10.0	15	436	18	60
15...	1300	--	4.5	13	.16	--
27...	1420	--	1.1	11	.03	--
MAR						
08...	1315	10.0	9.3	--	--	--
14...	1410	8.5	2.0	11	.06	--
21...	1410	10.5	1.2	9	.03	--
28...	1430	10.5	.74	6	.01	--

DATE	TIME	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							
16...	1445	80	85	90	98	100	--
FEB							
07...	1340	60	69	80	90	97	100

DATE	TIME	TEMPER- ATURE (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	STREAM WIDTH (FT)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)
DEC						
06...	1400	--	--	2.8	8.8	.00
JAN						
06...	1230	10.0	--	8.4	8.7	.00
FEB						
07...	1340	10.0	9	15	9.7	1.7
27...	1420	--	--	1.1	6.5	.00
MAR						
08...	1315	10.0	--	9.3	9.7	.00
14...	1410	8.5	--	2.0	6.9	.00
21...	1410	10.5	--	1.2	6.1	.00
28...	1430	10.5	--	.74	6.4	.00

DATE	TIME	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	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
FEB										
07...	1340	1	2	15	47	71	82	87	94	100

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

REDWOOD CREEK BASIN--Continued  
11482295 GANS SOUTH CREEK NEAR ORICK, CA

LOCATION.--Lat 41°15'46", long 124°00'49", in SE¼SW¼ sec.12, T.10 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, Redwood National Park, on right bank 250 ft (76 m) upstream from mouth, 2.9 mi (4.7 km) southeast of Orick.

DRAINAGE AREA.--0.52 mi<sup>2</sup> (1.35 km<sup>2</sup>).

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

CHEMICAL ANALYSES: Water years 1975, 1978.

SEDIMENT RECORDS: Water years 1975, 1977 to current year.

REMARKS.--Prior to October 1975, published in Geological Survey open-file report, "Redwood National Park Studies," Data Release Number 2.

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JAN						
06...	1315	--	3.8	--	--	--
16...	1530	10.5	9.2	--	--	--
FEB						
07...	1425	10.0	8.9	--	--	--
15...	1350	9.0	3.5	6	.06	--
15...	1410	9.0	3.0	--	--	--
27...	1500	--	1.2	9	.03	--
27...	1515	--	1.0	--	--	--
MAR						
08...	1415	10.0	5.6	19	.29	65
14...	1450	9.0	1.7	7	.03	--
21...	1500	11.0	.75	15	.03	--
21...	1510	11.0	.91	--	--	--
28...	1520	10.5	.64	6	.01	--

## 11482305 GANS WEST CREEK NEAR ORICK, CA.

LOCATION.--Lat 41°16'30", long 124°01'32", in SW¼SE¼ sec.2, T.10 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, Redwood National Park, on left bank 200 ft (61 m) upstream from mouth, 1.9 mi (3.1 km) southeast of Orick.

DRAINAGE AREA.--0.27 mi<sup>2</sup> (0.70 km<sup>2</sup>).

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

CHEMICAL ANALYSES: Water years 1975 to current year.

SEDIMENT RECORDS: Water years 1975, 1978.

REMARKS.--Prior to October 1975, published in Geological Survey open-file report, "Redwood National Park Studies," Data Release Number 2.

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
27...	1325	11.0	.39	--	--	--
NOV						
25...	2315	--	6.9	289	5.4	63
DEC						
06...	1500	10.5	.57	--	--	--
14...	1000	--	6.9	213	4.0	52
JAN						
06...	1420	10.0	2.7	4	.03	--
16...	1625	10.0	5.4	10	.15	74
FEB						
07...	1515	10.0	4.9	32	.42	61
15...	1440	8.5	1.6	10	.04	--
21...	1315	9.0	.19	8	.00	--
27...	1550	--	.48	6	.01	--
MAR						
08...	1500	10.0	2.8	36	.27	--
08...	1520	10.0	3.0	--	--	--
14...	1550	9.0	.68	7	.01	--
21...	1540	10.5	.28	--	--	--
21...	1545	10.5	.35	19	.02	--
28...	1615	10.5	.30	--	--	--
28...	1620	10.5	.23	15	.01	--

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

REDWOOD CREEK BASIN--Continued  
11482320 LOW-SLOPE SCHIST CREEK NEAR ORICK, CA

LOCATION.--Lat 41°16'53", long 124°01'49", in NE¼SW¼ sec.2, T.10 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, Redwood National Park, on right bank 200 ft (61 m) upstream from mouth, 1.6 mi (2.6 km) southeast of Orick.

DRAINAGE AREA.--0.19 mi<sup>2</sup> (0.49 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1974 to current year.

CHEMICAL ANALYSES: Water years 1974 to current year.

SEDIMENT RECORDS: Water years 1974-75, 1978.

REMARKS.--Prior to October 1975, published in Geological Survey open-file report, "Redwood National Park Studies," Data Release Numbers 1 and 2.

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	HARDNESS (CA, MG)	NON-CARBONATE HARDNESS (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)
OCT 18...	1605	.10	62	8.1	11.0	10.7	18	3	3.9	2.0

DATE	TIME	DIS-SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT 18...	6.4	43	.7	.6	18	0	15	2.8	9.8	.0	

DATE	TIME	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRITE (N) (MG/L)	DIS-SOLVED NITRATE PLUS NITRITE (N) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)
OCT 18...	6.9	42	.06	.01	.11	.00	.11	40	110	

DATE	TIME	TEMPERATURE (DEG C)	STREAM-FLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DIS-CHARGE, SUSPENDED (T/DAY)
OCT 18...	1605	11.0	.10	--	--
OCT 27...	1140	10.5	.24	--	--
DEC 06...	1600	10.5	.66	--	--
JAN 06...	1515	10.0	1.2	5	.02
FEB 07...	1605	10.0	.95	9	.02
FEB 15...	1505	8.0	.69	17	.03
FEB 27...	1630	9.0	.33	4	.00
MAR 08...	1600	10.0	1.2	16	.05
MAR 14...	1630	8.5	.39	11	.01
MAR 21...	1600	10.5	.26	8	.01
MAR 28...	1650	10.0	.25	12	.01

## 11482330 HAYES CREEK NEAR ORICK, CA

LOCATION.--Lat 41°17'24", long 124°01'36", in SE¼SW¼ sec.35, T.11 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, Redwood National Park, on right bank 500 ft (152 m) upstream from mouth, 1.7 (2.7 km) east of Orick.

DRAINAGE AREA.--0.58 mi<sup>2</sup> (1.50 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1973 to current year.

CHEMICAL ANALYSES: Water years 1973 to current year.

SEDIMENT RECORDS: Water years 1974-76, 1978.

REMARKS.--Prior to October 1975, published in Geological Survey open-file report, "Redwood National Park Studies," Data Release Numbers 1 and 2.

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	HARDNESS (CA, MG)	NON-CARBONATE HARDNESS (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)
OCT 18...	1435	.20	78	7.0	11.0	10.7	33	1	9.5	2.2

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

REDWOOD CREEK BASIN--Continued  
11482330 HAYES CREEK NEAR ORICK, CA--Continued

DATE	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT 18...	8.1	34	.6	.6	39	0	32	3.4	9.8	.0

DATE	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED NITRATE PLUS NITRITE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)
OCT 18...	7.1	61	.08	.03	.25	.00	.24	20	50

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
14...	1600	10.5	.19	--	--	--
18...	1435	11.0	.20	--	--	--
18...	1440	11.0	.17	--	--	--
DEC						
07...	1105	10.0	2.9	--	--	--
14...	1125	11.5	30	356	29	59
14...	1410	--	26	--	--	--
14...	1515	11.0	25	190	13	71
14...	1520	11.0	25	--	--	--
JAN						
13...	1035	10.5	3.0	--	--	--
16...	1445	10.5	10	61	1.6	73
23...	1100	8.0	4.4	51	.61	93
FEB						
06...	1115	10.0	4.1	23	.25	64
08...	1250	9.5	5.5	24	.36	--
08...	1305	9.5	6.2	--	--	--
08...	1500	10.5	7.1	52	1.0	60
17...	1040	9.0	2.5	14	.09	--
17...	1105	9.0	2.9	--	--	--
21...	1030	9.0	.29	16	.01	--
MAR						
01...	1300	8.5	.80	12	.03	--
07...	1530	10.0	1.4	43	.16	64
08...	1500	10.5	7.5	56	1.1	70
23...	1615	10.5	1.0	9	.02	--
APR						
04...	1525	9.5	1.1	14	.04	--

DATE	TIME	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
------	------	---	---	---	---	---

DEC						
14...	1515	71	78	87	96	100

DATE	TIME	TEMPER- ATURE (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 .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
DEC								
14...	1125	11.5	12	30	20	11	1	1
14...	1520	11.0	12	25	19	7.4	1	1
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	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	

DEC								
14...	6	18	37	60	73	82	88	100
14...	5	16	29	42	59	76	100	--

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

REDWOOD CREEK BASIN--Continued  
 11482450 LOST MAN CREEK NEAR ORICK, CA

LOCATION.--Lat 41°19'06", long 123°59'15", in SE¼ sec.19, T.11 N., R.2 E., Humboldt County, Hydrologic Unit 18010102, Redwood National Park, on right bank 100 ft (30 m) upstream from small right-bank tributary and 4.4 mi (7.1 km) northeast of Orick.  
 DRAINAGE AREA.--3.97 mi<sup>2</sup> (10.28 km<sup>2</sup>).  
 PERIOD OF RECORD.--Water years 1973-76, 1978.  
 CHEMICAL ANALYSES: Water years 1973-76, 1978.  
 SEDIMENT RECORDS: Water years 1974-76, 1978.  
 REMARKS.--Prior to October 1975, published in Geological Survey open-file report, "Redwood National Park Studies," Data Release Numbers 1 and 2.

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	HARDNESS (CA, MG)	NON-CARBONATE HARDNESS (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG/L)
OCT 18...	1030	.80	88	7.0	11.5	9.9	37	4	11	2.2

DATE	DIS-SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT 18...	5.6	25	.4	.6	40	0	33	4.0	5.3	.0

DATE	DIS-SOLVED SILICA (SiO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRITE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)
OCT 18...	7.0	56	.08	.12	.02	.00	.02	20	40

DATE	TIME	TEMPERATURE (DEG C)	STREAM-FLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DIS-CHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 14...	1100	11.5	.90	--	--	--
OCT 18...	1030	11.5	.80	--	--	--
NOV 17...	1200	9.5	6.9	--	--	--
NOV 21...	1130	9.5	106	236	68	60
JAN 13...	1450	10.0	28	10	.76	65
JAN 23...	1410	8.0	38	21	2.2	81
FEB 06...	1525	9.5	40	16	1.7	76
FEB 09...	1100	8.5	73	--	--	--
FEB 09...	1125	8.5	73	24	4.7	74
FEB 14...	1230	9.0	30	13	1.1	73
FEB 28...	1405	9.0	8.4	4	.09	--
MAR 06...	1315	10.0	14	6	.23	--
MAR 08...	1045	--	67	56	10	53
MAR 13...	1215	9.0	16	7	.30	--
MAR 20...	1300	11.0	7.8	5	.11	--
MAR 27...	1430	11.0	6.2	6	.10	--

DATE	TIME	TEMPERATURE (DEG C)	NUMBER OF SAMPLING POINTS	STREAM-FLOW, INSTANTANEOUS (CFS)	STREAM WIDTH (FT)	SEDIMENT, DIS-CHARGE, BEDLOAD (TONS/DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
FEB 09...	1100	8.5	38	73	39	1.2	0	1

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
FEB 09...	4	17	34	47	57	66	100



## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

REDWOOD CREEK BASIN--Continued  
11482455 LOST MAN CREEK TRIBUTARY NEAR ORICK, CA

LOCATION.--Lat 41°19'20", long 123°59'52", in SE¼SE¼ sec.24, T.11 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, Redwood National Park, on left bank 100 ft (30 m) upstream from mouth, 4.1 mi (6.6 km) northeast of Orick.

DRAINAGE AREA.--0.44 mi<sup>2</sup> (1.14 km<sup>2</sup>).

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

CHEMICAL ANALYSES: Water years 1975 to current year.

SEDIMENT RECORDS: Water years 1975-76, 1978.

REMARKS.--Prior to October 1975, published in Geological Survey open-file report, "Redwood National Park Studies," Data Release Number 2.

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
14...	1245	10.5	.17	--	--	--
NOV						
21...	1330	9.5	5.5	46	.68	--
21...	1400	9.5	5.8	--	--	--
JAN						
13...	1315	10.5	1.7	--	--	--
13...	1325	10.5	1.8	3	.01	--
23...	1440	8.5	2.4	4	.03	--
23...	1500	8.5	2.9	--	--	--
FEB						
05...	1345	9.5	4.6	21	.26	79
05...	1410	9.5	4.6	--	--	--
09...	1310	9.0	5.2	--	--	--
14...	1325	9.0	2.0	5	.03	--
28...	1450	8.5	.61	--	--	--
28...	1500	8.5	.63	8	.01	--
MAR						
06...	1430	9.5	.70	4	.01	--
06...	1440	9.5	.83	--	--	--
07...	1645	9.5	1.1	--	--	--
07...	1650	9.5	1.2	9	.03	--
08...	1215	10.0	9.4	24	.61	--
13...	1345	9.0	1.2	4	.01	--
20...	1325	10.0	.69	4	.01	--
27...	1550	10.0	.40	4	.00	--
APR						
06...	1315	8.5	2.9	--	--	--
06...	1500	8.5	3.2	5	.04	--

## 11482480 BERRY GLENN CREEK NEAR ORICK, CA

LOCATION.--Lat 41°18'59", long 124°02'17", in NE¼NE¼ sec.27, T.11 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, Redwood National Park, at culvert on private logging road at Berry Glenn and 2.3 mi (3.7 km) northeast of Orick.

DRAINAGE AREA.--0.40 mi<sup>2</sup> (1.04 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1974-76, 1978.

CHEMICAL ANALYSES: Water years 1974-76, 1978.

SEDIMENT RECORDS: Water years 1974-76, 1978.

REMARKS.--Prior to October 1975, published in Geological Survey open-file report, "Redwood National Park Studies," Data Release Numbers 1 and 2.

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
DEC								
14...	0915	11.0	20	--	--	--	--	--
14...	0925	11.0	20	1570	85	20	25	32
14...	0935	--	21	--	--	--	--	--
14...	1640	11.5	15	793	32	20	25	31
FEB								
02...	1135	10.0	2.0	48	.26	--	--	--
		SED.	SED.	SED.	SED.	SED.	SED.	SED.
		SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.	SUSP.
		FALL	FALL	FALL	FALL	FALL	FALL	FALL
		DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.
		% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER
		THAN	THAN	THAN	THAN	THAN	THAN	THAN
DATE		.016 MM	.031 MM	.062 MM	.125 MM	.250 MM	.500 MM	1.00 MM
DEC								
14...	--	--	--	--	--	--	--	--
14...	39	47	55	64	76	87	97	100
14...	--	--	--	--	--	--	--	--
14...	38	45	51	59	74	88	97	100
FEB								
02...	--	--	81	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

REDWOOD CREEK BASIN--Continued  
11482480 BERRY GLENN CREEK NEAR ORICK, CA--Continued

DATE	TIME	TEMPER- ATURE (DEG C)	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	STREAM WIDTH (FT)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED.	SED.	SED.	SED.
							BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	BEDLOAD SIEVE DIAM. % FINER THAN --
DEC 14...	0915	11.0	9	20	10	61		1	2	7
14...	1640	11.5	9	15	11	52		0	1	5
							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
DEC 14...	18	32	46	59	71	85	100	--		
14...	15	21	26	31	40	63	85	100		

SMITH RIVER BASIN  
11530870 SISKIYOU FORK NEAR GASQUET, CA

LOCATION.--Lat 41°52'37", long 123°48'09", in SE¼SW¼ sec.11, T.17 N., R.3 E., Del Norte County, Hydrologic Unit 18010101, Six Rivers National Forest, 400 ft (122m) downstream from bridge, 0.7 mi (1.1 km) upstream from mouth, and 8.7 mi (14.0 km) northeast of Gasquet.  
DRAINAGE AREA.--26.9 mi<sup>2</sup> (69.7 km<sup>2</sup>).  
PERIOD OF RECORD.--  
SEDIMENT RECORDS: Water year 1978.

				TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DATE	TIME							
DEC								
14...	1235	10.0	2120	1570	8990	32		
14...	1515	10.0	2430	1040	6820	45		
JAN								
10...	1745	--	449	7	8.5	57		
24...	1720	6.0	253	3	2.0	61		
FEB								
06...	1545	8.0	578	14	22	43		
14...	1450	7.5	209	2	1.1	58		
28...	1800	7.0	108	2	.58	56		
MAR								
07...	1555	9.5	151	3	1.2	57		
16...	1700	10.0	107	4	1.2	50		
23...	1740	8.5	230	9	5.6	56		
DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
DEC								
14...	1235	10.0	2120	1570	8990	7	10	16
14...	1515	10.0	2430	1040	6820	10	14	22
		SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
DATE								
DEC								
14...	22	28	32	39	49	64	82	99
14...	31	39	45	54	68	84	96	100

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

SMITH RIVER BASIN--Continued  
11531000 MIDDLE FORK SMITH RIVER AT GASQUET, CA

LOCATION.--Lat 41°50'51", long 123°57'59", in NE¼SE¼ sec.20; T.17 N., R.2 E., Del Norte County, Hydrologic Unit 18010101, Six Rivers National Forest, at downstream side of bridge, at Gasquet, 0.1 mi (0.2 km) upstream from confluence with North Fork Smith River.

DRAINAGE AREA.--131 mi<sup>2</sup> (339 km<sup>2</sup>).

PERIOD OF RECORD.--

SEDIMENT RECORDS: Water year 1978.

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC 13...	1645	10.0	11900	750	24100	49
JAN 23...	1555	8.0	1770	7	33	69
FEB 08...	1100	9.0	3500	35	331	58
14...	1315	9.0	1200	4	13	65
23...	1730	10.0	900	5	12	43
28...	1645	10.0	619	4	6.7	50
MAR 07...	1720	11.0	743	3	6.0	64
16...	1820	12.0	560	3	4.5	70
23...	1540	10.0	966	10	26	71
30...	0945	11.5	535	3	4.3	69

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
DEC 13...	1645	10.0	11900	750	24100	21	24	31

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .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	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM
DEC 13...	38	44	49	59	72	86	95	100					

## 11531750 HURDYGURDY CREEK NEAR BIG FLAT, CA

LOCATION.--Lat 41°43'04", long 123°53'48", in SW¼SE¼ sec.1, T.15 N., R.2 E., Del Norte County, Hydrologic Unit 18010101, Six Rivers National Forest, at bridge, 4.0 mi (6.4 km) upstream from mouth, 2.3 mi (3.7 km) northeast of Big Flat, and 16 mi (26 km) southeast of Crescent City.

DRAINAGE AREA.--26.9 mi<sup>2</sup> (69.7 km<sup>2</sup>).

PERIOD OF RECORD.--

SEDIMENT RECORDS: Water year 1978.

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC 13...	0940	9.0	1330	136	488	65
JAN 24...	1140	6.0	313	3	2.5	63
FEB 09...	1345	8.0	610	5	8.2	75
15...	1440	8.0	280	2	1.5	73
24...	1545	9.0	167	3	1.4	62
MAR 01...	1535	9.0	127	2	.69	50
08...	1155	9.5	408	6	6.6	59
17...	1215	9.0	123	1	.33	100
24...	1200	9.0	330	3	2.7	84
30...	1400	11.5	115	1	.31	90

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. 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 13...	0940	9.0	1330	136	488	65	73	83	92	97	100

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

SMITH RIVER BASIN--Continued  
11531800 SOUTH FORK SMITH RIVER AT BIG FLAT, CA

LOCATION.--Lat 41°41'03", long 123°54'52", in SW¼NE¼ sec.23, T.15 N., R.2 E., Del Norte County, Hydrologic Unit 18010101, Six Rivers National Forest, 200 ft (61 m) downstream from Hurdgurdy Creek, 0.3 mi (0.5 km) southwest of Big Flat guard station, and 15.9 mi (25.6 km) southeast of Crescent City.

DRAINAGE AREA.--174 mi<sup>2</sup> (451 km<sup>2</sup>).

PERIOD OF RECORD.--

SEDIMENT RECORDS: Water year 1978.

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC						
15...	1240	8.0	15200	786	32300	42
JAN						
24...	1350	7.0	2120	4	23	67
FEB						
07...	1625	8.5	6370	169	2910	47
15...	1300	8.5	1570	4	17	76
24...	1345	9.5	1200	3	9.7	63
MAR						
01...	1645	8.5	1080	3	8.7	48
08...	1425	10.5	2850	19	146	75
17...	1530	11.5	1010	4	11	80
24...	1510	9.5	1620	3	13	85
30...	1500	12.5	984	3	8.0	71

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
DEC								
15...	1240	8.0	15200	786	32300	12	16	23

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								
15...	31	37	42	50	63	76	90	100

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

SMITH RIVER BASIN--Continued  
11531900 SOUTH FORK SMITH RIVER NEAR BIG FLAT, CA

LOCATION.--Lat 41°41'38", long 123°55'45", in NE¼SE¼ sec.15, T.15 N., R.2 E., Del Norte County, Hydrologic Unit 18010101, Six Rivers National Forest, at bridge, 0.6 mi (1.0 km) downstream from Goose Creek, 1.1 mi (1.8 km) northwest of Big Flat guard station, and 14.9 mi (24.0 km) southeast of Crescent City.

DRAINAGE AREA.--216 mi<sup>2</sup> (559 km<sup>2</sup>).

PERIOD OF RECORD.--

SEDIMENT RECORDS: Water year 1978.

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC 15...	1605	8.0	16800	694	31500	40
JAN 25...	1530	9.0	2310	4	25	71
FEB 07...	1300	8.5	7850	296	6270	35
15...	1105	8.5	2200	4	24	69
24...	1215	9.0	1640	3	13	73
MAR 01...	1200	8.0	1260	2	6.8	63
08...	1650	10.0	3550	13	125	63
17...	1330	11.5	1180	7	22	81
24...	1320	9.5	2040	8	44	39
30...	1230	11.0	982	4	11	63

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
DEC 15...	1605	8.0	16800	694	31500	13	18	24

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 15...	31	36	40	47	57	69	79	86

Del Norte County

## Smith River basin

SITE NUMBER 414643124115601 LOCAL NUMBER 016N001W17K01H

ABOUT 1.5 MILES NORTH OF CRESCENT CITY. DRILLED DOMESTIC WATER-TABLE WELL IN THE BATTERY FORMATION OF PLEISTOCENE AGE. DIAM 6 IN, DEPTH 39 FT, PERFORATED 34-39 FT. ALTITUDE OF LSD 48 FT. BEGINNING 1953, MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1953-1954, 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.30 FEET BELOW LAND SURFACE DATUM MAR 28, 1961.

LOWEST WATER LEVEL 24.5 FEET BELOW LAND SURFACE DATUM NOV 01, 1977.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 01, 1977	24.5	APR 04, 1978	12.5				

415322124084701. Local number 17N/1W-2P1 H.

LOCATION.--Lat 41°53'22", long 124°08'47", Hydrologic Unit 18010101, about 1.6 mi (2.6 km) north of Fort Dick.

Owner: Homer Martin.

AQUIFER.--Flood-plain deposits of Quaternary age.

WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter 8 in (0.20 m), depth 26 ft (7.9 m), casing information not available.

DATUM.--Altitude of land-surface datum is 31 ft (9.4 m).

COOPERATION.--Measurements were furnished by California Department of Water Resources.

PERIOD OF RECORD.--Water years 1952, 1958-78 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.9 ft (3.32 m) below land surface datum, Mar. 30, 1960; lowest measured, 23.43 ft (7.141 m) below land-surface datum, Oct. 14, 1964.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV. 1, 1977	17.6	APR. 4, 1978	17.3				

Humboldt County

## Eureka-Fortuna area

SITE NUMBER 403550124093101 LOCAL NUMBER 003N001W34J01H

IN SOUTHWEST CORNER OF CITY OF FORTUNA. DRILLED UNUSED ARTESIAN WELL IN THE CARLOTTA FORMATION OF PLIOCENE AGE. DIAM 12 IN, DEPTH 496 FT, PERFORATED 182-226 AND 285-365 FT. BEGINNING 1951, MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1951-1953, 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 28.00 FEET BELOW LAND SURFACE DATUM APR 11, 1967.

LOWEST WATER LEVEL 37.4 FEET BELOW LAND SURFACE DATUM NOV 08, 1952.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 02, 1977	36.8	APR 05, 1978	31.7				

Mendocino County

## Laytonville area

SITE NUMBER 393837123281801 LOCAL NUMBER 021N014W30M01M

ABOUT 2 MILES SOUTH OF LAYTONVILLE. DUG DOMESTIC AND IRRIGATION WATER-TABLE WELL IN ALLUVIUM OF HOLOCENE AGE. SIZE 5X5 FT, DEPTH 23 FT, PERFORATED 19-23 FT. BEGINNING 1952 MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1952-1955, 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.68 FEET BELOW LAND SURFACE DATUM APR 23, 1963.

LOWEST WATER LEVEL 20. FEET BELOW LAND SURFACE DATUM AUG 25, 1959.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 02, 1977	17.5	APR 05, 1978	4.				

Mendocino County--Continued

## Little Lake Valley

SITE NUMBER 392459123210301 LOCAL NUMBER 018N013W18E01M

AT WILLITS, DRILLED UNUSED ARTESIAN WELL IN ALLUVIUM OF HOLOCENE AGE AND CONTINENTAL DEPOSITS OF PLIOCENE AND PLEISTOCENE AGE. DIAM 12 IN, DEPTH 493 FT. ALTITUDE OF LSD 1,350 FT. BEGINNING 1958 MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 17.80 FEET BELOW LAND SURFACE DATUM APR 18, 1974.

LOWEST WATER LEVEL 37.6 FEET BELOW LAND SURFACE DATUM OCT 24, 1960.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 02, 1977	24.9	APR 06, 1978	23.2				

## Potter Valley

SITE NUMBER 391944123065701 LOCAL NUMBER 017N011W18J01M

ABOUT 2.5 MILES SOUTHEAST OF POTTER VALLEY, DRILLED DOMESTIC ARTESIAN WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 8 IN, DEPTH 36 FT. ALTITUDE OF LSD 955 FT. BEGINNING 1951 MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1951-1955, 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 0.90 FEET ABOVE LAND SURFACE DATUM FEB 20, 1961.

LOWEST WATER LEVEL -5.2 FEET BELOW LAND SURFACE DATUM OCT 13, 1964.

WATER LEVELS IN FEET ABOVE OR BELOW(-) LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11, 1977	-1.0	MAR 14, 1978	0.1				

## Sanel Valley

SITE NUMBER 385800123064801 LOCAL NUMBER 013N011W19P01M

ABOUT 0.4 MILES SOUTH OF HOPLAND, DUG AND DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIUM OF HOLOCENE AGE. DIAM 12 IN, DEPTH 44 FT, PERFORATED 24-44 FT. ALTITUDE OF LSD 488 FT. BEGINNING 1953 MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORD

HIGHEST WATER LEVEL 1.30 FEET BELOW LAND SURFACE DATUM FEB 09, 1960.

LOWEST WATER LEVEL 21.04 FEET BELOW LAND SURFACE DATUM OCT 02, 1958.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1977	20.2	MAR 15, 1978	7.7				

## Ukiah area

SITE NUMBER 391026123123201 LOCAL NUMBER 015N012W08L01M

ABOUT 1 MILE NORTH OF UKIAH, DRILLED DOMESTIC WATER-TABLE WELL IN TERRACE DEPOSITS OF HOLOCENE AGE. DIAM 12 IN, DEPTH 62 FT. ALTITUDE OF LSD 655 FT. BEGINNING 1951, MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1951-1955, 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.10 FEET BELOW LAND SURFACE DATUM MAR 09, 1962.

LOWEST WATER LEVEL 30.6 FEET BELOW LAND SURFACE DATUM DEC 05, 1959.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11, 1977	28.5	MAR 14, 1978	15.1				

Napa County

## Napa Valley

381730122163201. Local number SN/4W-11M1 M.

LOCATION.--Lat 38°17'30", long 122°16'32", Hydrologic Unit 18050002, Napa.

Owner: DeWitt Machine Shop.

AQUIFER.--Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in (0.20 m), depth 77 ft (23.5 m), casing information not available.

DATUM.--Altitude of land-surface datum is 13 ft (4.0 m).

COOPERATION.--Measurements were furnished by California Department of Water Resources.

PERIOD OF RECORD.--Water years 1950-78 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.56 ft (0.780 m) below land-surface datum, Jan. 22, 1951; lowest measured, 10.5 ft (3.20 m) below land-surface datum, Sept. 8, 1950.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 7, 1977	9.5	MAR. 14, 1978	4.6				

SITE NUMBER 382218122190101 LOCAL NUMBER 006N004W17A01M

ABOUT 4 MILES NORTH OF NAPA. DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 12 IN, DEPTH 250 FT. ALTITUDE OF LSD 67 FT. BEGINNING 1949 MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1949 TO CURRENT YEAR.

HIGHEST WATER LEVEL 0.60 FEET BELOW LAND SURFACE DATUM FEB 21, 1969.

LOWEST WATER LEVEL 49.9 FEET BELOW LAND SURFACE DATUM MAR 11, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1977	33.	MAR 14, 1978	P				

382750122250401. Local number 7N/5W-16B2 M.

LOCATION.--Lat 38°27'50", long 122°25'04", Hydrologic Unit 18050002, about 0.25 mi (0.40 km) northeast of Rutherford.

Owner: Lamont Morton.

AQUIFER.--Alluvium of Quaternary age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in (0.25 m), depth 232 ft (70.7 m), casing information not available.

DATUM.--Altitude of land-surface datum is 155 ft (47.2 m).

COOPERATION.--Measurements were furnished by California Department of Water Resources.

PERIOD OF RECORD.--Water years 1949-53, 1955-78 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.0 ft (1.22 m) below land-surface datum, Mar. 27, 1952; lowest measured, 29.0 ft (8.84 m) below land-surface datum, Oct. 7, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 7, 1977	29.0	MAR. 14, 1978	7.1				

SITE NUMBER 383326122311801 LOCAL NUMBER 008N006W10Q01M

ABOUT 3.5 MILES SOUTHEAST OF CALISTOGA. DRILLED STOCK AND IRRIGATION WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 10 IN, DEPTH 184 FT. ALTITUDE OF LSD 290 FT. BEGINNING 1949 MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1949 TO CURRENT YEAR.

HIGHEST WATER LEVEL 0.10 FEET BELOW LAND SURFACE DATUM MAR 20, 1967.

LOWEST WATER LEVEL 40.75 FEET BELOW LAND SURFACE DATUM SEP 14, 1950.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1977	13.3	MAR 14, 1978	Z				

P Pumping  
Z Other



Sonoma County

## Cloverdale area

SITE NUMBER 384717123004801 LOCAL NUMBER 011N010W19F02M

ABOUT 1 MILE SOUTH OF CLOVERDALE. DRILLED UNUSED ARTESIAN WELL IN FRANCISCAN FORMATION OF LATE JURASSIC TO LATE CRETACEOUS AGE, AND KNOXVILLE FORMATION OF LATE JURASSIC AGE. DIAM 8 IN, DEPTH 160 FT, PERFORATED 116-135 FT. ALTITUDE OF LSD 346 FT. BEGINNING 1952 MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1952-1955, 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 0.55 FEET BELOW LAND SURFACE DATUM APR 17, 1963.

LOWEST WATER LEVEL 17.32 FEET BELOW LAND SURFACE DATUM SEP 15, 1964.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1977	9.3	MAR 15, 1978	4.6				

## Healdsburg area

SITE NUMBER 383535122521301 LOCAL NUMBER 009N009W28N01M

ABOUT 1 MILE SOUTH OF HEALDSBURG. DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 10 IN, DEPTH 53 FT. ALTITUDE OF LSD 90 FT. BEGINNING 1953, MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1953-1954, 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.60 FEET BELOW LAND SURFACE DATUM FEB 09, 1960.

LOWEST WATER LEVEL 29.94 FEET BELOW LAND SURFACE DATUM SEP 29, 1977.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 17, 1978	20.3						

## Santa Rosa-Petaluma area

SITE NUMBER 382229122473101 LOCAL NUMBER 006N008W07P02M

ABOUT 5 MILES SOUTHWEST OF SANTA ROSA. DRILLED DOMESTIC AND IRRIGATION WATER-TABLE WELL IN MERCED FORMATION OF PLIOCENE AGE. DIAM 8 IN, DEPTH 120 FT. ALTITUDE OF LSD 95 FT. BEGINNING 1945, MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1945, 1949 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.55 FEET BELOW LAND SURFACE DATUM APR 04, 1952.

LOWEST WATER LEVEL 49. FEET BELOW LAND SURFACE DATUM OCT 08, 1970.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1977	37.	JAN 26, 1978	25.7	APR 26, 1978	18.4	JUL 26, 1978	27.
NOV 29	36.9	FEB 23	23.2	MAY 31	26.5 R	AUG 31	27.5
DEC 20	37.4 R	MAR 31	18.7	JUN 27	28.8	SEP 27	31.9

R Recently pumped

## GROUND-WATER LEVELS

Sonoma County--Continued

## Sonoma Valley

SITE NUMBER 381700122261401 LOCAL NUMBER 005N005W17C01M

ABOUT 0.5 MILES NORTH OF VINEBURG. DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 6 IN. DEPTH 64 FT. ALTITUDE OF LSD 85 FT. BEGINNING 1950, MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1950 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.20 FEET BELOW LAND SURFACE DATUM MAR 14, 1958.

LOWEST WATER LEVEL 28.78 FEET BELOW LAND SURFACE DATUM JUN 06, 1950.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1977	22.8	MAR 20, 1978	13.1				

SITE NUMBER 381452122264801 LOCAL NUMBER 005N005W29N01M

ABOUT 2.8 MILES SOUTH OF SONOMA. DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 10 IN. DEPTH 100 FT. ALTITUDE OF LSD 16 FT. BEGINNING 1951, MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1951 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.00 FEET BELOW LAND SURFACE DATUM APR 24, 1967.

LOWEST WATER LEVEL 19.6 FEET BELOW LAND SURFACE DATUM JAN 02, 1963.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1977	P	MAR 20, 1978	3.9				

P Pumping

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

## ALAMEDA CREEK BASIN

Livermore-Amador Valley  
Alameda County

STATION NUMBER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	LOCAL IDENTIFIER	GEO-LOGIC UNIT	DATE OF SAMPLE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
373840121532901	37 38 40	121 53 29	01	003S001E29E03M	110ALVM	77-12-15 78-03-01 78-05-17 78-07-25	1300 1500 1400 1400	1890 1880 1860 1950	6.7 -- 6.9 7.4
374102121493201	37 41 02	121 49 32	01	003S001E11J01M	110ALVM	77-11-23 78-03-06 78-05-24 78-07-28	1100 1300 1100 1400	1230 1020 1210 1220	-- -- 7.2 6.8
374112121485001	37 41 12	121 48 50	01	003S001E12F01M	110ALVM	77-11-23 78-03-06 78-05-24 78-07-31	1200 1230 1200 1000	991 971 889 873	-- -- 7.3 7.5

DATE OF SAMPLE	TIME	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CAC03)	HARD-NESS, NONCAR-BONATE (MG/L CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
77-12-15	1300	17.0	620	87	140	68	180	38	3.1	2.5
78-03-01	1500	16.5	--	--	--	--	--	--	--	--
78-05-17	1400	16.5	650	100	140	73	140	32	2.4	2.9
78-07-25	1400	16.5	--	--	--	--	--	--	--	--
77-11-23	1100	16.5	590	190	77	96	45	14	.8	2.1
78-03-06	1300	17.0	--	--	--	--	--	--	--	--
78-05-24	1100	16.5	550	180	74	89	53	17	1.0	2.3
78-07-28	1400	17.0	--	--	--	--	--	--	--	--
77-11-23	1200	17.0	450	110	57	75	42	17	.9	1.8
78-03-06	1230	17.0	--	--	--	--	--	--	--	--
78-05-24	1200	17.0	370	60	50	60	44	20	1.0	1.9
78-07-31	1000	17.0	--	--	--	--	--	--	--	--

DATE OF SAMPLE	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
77-12-15	650	--	530	20	320	.1	26	--	1080	--	.00	--
78-03-01	--	--	--	--	--	--	--	1160	--	--	.00	--
78-05-17	670	0	550	14	310	.1	26	--	1040	1.41	--	--
78-07-25	--	--	--	--	--	--	--	1150	--	--	.04	.00
77-11-23	490	--	400	64	120	.1	24	--	730	--	14	--
78-03-06	--	--	--	--	--	--	--	540	--	--	8.4	--
78-05-24	450	0	370	57	130	.1	24	--	700	.95	--	--
78-07-28	--	--	--	--	--	--	--	762	--	--	11	.01
77-11-23	420	--	340	46	77	.2	26	--	590	--	13	--
78-03-06	--	--	--	--	--	--	--	587	--	--	9.0	--
78-05-24	380	0	310	43	64	.1	24	--	510	.69	--	--
78-07-31	--	--	--	--	--	--	--	488	--	--	7.6	.01

Geological unit (aquifer):

110ALVM - Alluvium, Quaternary age.

Chemical-quality samples collected by Alameda County Flood Control and Water Conservation District.

## QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

 ALAMEDA CREEK BASIN  
 Livermore-Amador Valley--Continued  
 Alameda County--Continued

DATE OF SAMPLE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
77-12-15	--	.03	4700	--
78-03-01	--	--	--	--
78-05-17	.01	.03	3100	290
78-07-25	.04	--	--	--
77-11-23	--	.06	400	--
78-03-06	--	--	--	--
78-05-24	11	.07	420	20
78-07-28	11	--	--	--
77-11-23	--	.05	500	--
78-03-06	--	--	--	--
78-05-24	8.0	.05	430	20
78-07-31	7.6	--	--	--

 Niles Cone  
 Alameda County--Continued

STATION NUMBER	LAT- I- TUDE	LONG- I- TUDE	SEQ. NO.	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	DATE OF SAMPLE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
373349121585701	37 33 49	121 58 57	01	004S001W28009M	111ALVF	77-11-30 78-01-25 78-04-26 78-08-02	1410 1505 1415 1400	720 731 812 840	7.9 7.7 7.8 7.0
373355121583801	37 33 55	121 58 38	01	004S001W21P06M	111ALVF	77-11-30 78-01-25	1355 1455	700 700	7.9 7.6
373357121591401	37 33 57	121 59 14	01	004S001W20R02M	111ALVF	77-11-09 78-02-01 78-04-26 78-08-02	1445 1445 1350 1430	944 978 969 912	7.6 7.4 8.0 7.5
373424121584501	37 34 24	121 58 45	01	004S001W21F01M	111ALVF	77-11-09 78-08-02	1400 1330	1050 904	7.7 7.1

DATE OF SAMPLE	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
77-11-30	17.0	240	55	25	--	--	--	--	--	--	110	--
78-01-25	17.0	250	56	26	--	--	--	--	--	--	130	--
78-04-26	17.5	270	60	30	--	--	--	--	--	--	140	--
78-08-02	18.0	280	63	29	68	35	1.8	2.1	140	70	160	.1
77-11-30	18.5	300	69	31	--	--	--	--	--	--	110	--
78-01-25	17.0	290	68	30	--	--	--	--	--	--	140	--
77-11-09	17.0	270	62	29	--	--	--	--	--	--	190	--
78-02-01	17.0	290	64	31	--	--	--	--	--	--	210	--
78-04-26	18.5	300	64	33	--	--	--	--	--	--	200	--
78-08-02	18.5	300	67	31	84	38	2.1	2.5	140	81	190	.1
77-11-09	18.0	340	79	35	--	--	--	--	--	--	200	--
78-08-02	19.0	300	71	30	89	39	2.2	3.1	220	92	130	.2

Geological unit (aquifer):

111ALVF - Alluvial fan deposits, Holocene age.

Chemical-quality samples collected by Alameda County Water District.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

ALAMEDA CREEK BASIN  
Niles Cone--Continued  
Alameda County--Continued

DATE OF SAMPLE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	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)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)
77-11-30	--	457	--	2.2	.02	2.2	--	--	--	1.1
78-01-25	--	447	--	2.2	.00	2.2	--	--	--	2.3
78-04-26	--	496	--	2.3	.02	2.3	--	--	--	.6
78-08-02	15	542	.74	2.1	.00	2.1	2.1	480	10	.9
77-11-30	--	490	--	1.8	.02	1.8	--	--	--	1.0
78-01-25	--	487	--	1.6	.00	1.6	--	--	--	.9
77-11-09	--	519	--	1.4	.01	1.4	--	--	--	1.0
78-02-01	--	576	--	1.8	.00	1.8	--	--	--	1.6
78-04-26	--	594	--	2.4	.05	2.4	--	--	--	1.2
78-08-02	14	604	.82	1.7	.01	1.7	1.8	500	10	1.0
77-11-09	--	634	--	3.5	.01	3.5	--	--	--	.7
78-08-02	15	563	.77	1.5	.01	1.5	1.6	510	20	1.5

## RUSSIAN RIVER BASIN

Dry Creek  
Sonoma County

STATION	NUMBER	LAT- I- TUDE	LONG- I- TUDE	SEQ. NO.	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	DATE OF SAMPLE	TIME	SPE- CIFIC CON- DUCT- ANCE	PH
									(MICRO- MHOS)	
383104122523001	38 31 04	122 52 30	01	008N009W20R01M	111ALVM	77-11-28 78-01-26 78-05-23 78-08-24	0905 1030 1310 1000	297 266 283 275	6.8 6.9 8.1 7.4	
383310122511801	38 33 10	122 51 18	01	008N009W09J01M	111ALVM	78-05-17	0955	416	7.3	
383536122520401	38 35 36	122 52 04	01	009N009W28N02M	111ALVM	78-05-17	1045	359	7.3	
383655122530702	38 36 55	122 53 07	02	009N009W20E03M	111ALVM	77-11-28 78-01-26 78-05-23 78-08-24	1217 1145 1105 1115	244 249 251 250	6.4 7.2 7.6 7.5	
383958122554801	38 39 58	122 55 48	01	010N010W35R01M	111ALVM	78-05-17	1250	116	6.6	
384221122574401	38 42 21	122 57 44	01	010N010W22D02M	111ALVM	78-05-17	1340	234	6.9	

DATE OF SAMPLE	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)
77-11-28	19.0	1.0	150	4	30	17	11	14	.4	1.3	170	0
78-01-26	14.0	1.0	140	12	26	17	8.1	11	.3	1.0	150	0
78-05-23	18.0	.00	130	10	27	16	9.4	13	.4	1.0	150	0
78-08-24	24.0	.40	140	0	27	18	10	13	.4	1.2	170	0
78-05-17	18.0	.50	200	28	39	25	9.2	9	.3	1.3	210	0
78-05-17	19.0	20	180	0	24	29	13	14	.4	.7	220	0
77-11-28	14.5	4.0	120	0	20	16	13	20	.5	.7	150	0
78-01-26	13.0	2.0	110	0	19	16	13	20	.5	.7	160	0
78-05-23	16.0	3.0	120	0	20	17	14	20	.6	.6	160	0
78-08-24	18.0	3.2	120	0	20	17	14	20	.6	.7	160	0
78-05-17	19.0	1.3	40	8	7.6	5.0	7.0	28	.5	.4	38	0
78-05-17	19.5	.30	100	5	19	13	10	18	.4	.6	120	0

Geological unit (aquifer):

111ALVM - Alluvium, Holocene age.

## QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

RUSSIAN RIVER BASIN  
Dry Creek--Continued  
Sonoma County--Continued

DATE OF SAMPLE	ALKA- LINITY (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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
77-11-28	140	15	8.7	.2	15	184	.24	.21	0	600	0	0
78-01-26	120	16	5.3	.1	16	170	.23	1.5	0	310	1	0
78-05-23	120	14	5.8	.1	15	164	.22	.43	1	320	1	5
78-08-24	140	14	5.3	.1	20	181	.24	.38	0	360	<1	0
78-05-17	170	23	8.6	.1	22	245	.33	2.9	--	270	--	--
78-05-17	180	15	7.6	.1	25	225	.31	.34	--	150	--	--
77-11-28	120	4.7	6.3	.2	24	159	.22	.01	0	300	0	0
78-01-26	130	2.8	6.0	.1	25	162	.22	.02	1	280	1	0
78-05-23	130	2.3	6.4	.1	24	164	.22	.01	1	270	1	5
78-08-24	130	8.0	6.5	.1	26	172	.23	.02	0	290	<1	0
78-05-17	31	12	6.2	.1	22	84	.11	1.2	--	10	--	--
78-05-17	96	18	5.4	.1	27	156	.21	.73	--	50	--	--

DATE OF SAMPLE	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY DIS- SOLVED (UG/L AS HG)	ZINC, DIS- SOLVED (UG/L AS ZN)
77-11-28	2	30	0	.0	20
78-01-26	0	40	1	.0	10
78-05-23	1	0	3	.1	5
78-08-24	4	<10	0	.0	<3
78-05-17	--	180	--	--	--
78-05-17	--	80	--	--	--
77-11-28	1	70	1	.0	110
78-01-26	0	40	3	.0	280
78-05-23	1	0	4	.0	120
78-08-24	0	40	3	.0	70
78-05-17	--	60	--	--	--
78-05-17	--	30	--	--	--

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# FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

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

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