

Water Resources Data for California

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U. S. Geological Survey
Water Resources Division
Sacramento, California

Water Year 1976

Volume 3. Southern Central Valley Basins
and The Great Basin from
Walker River to Truckee River



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-76-3

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

CALENDAR FOR WATER YEAR 1976

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of Water Resources and with other agencies**

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

V. E. McKelvey, Director

For information on the water program in California write to
District Chief, Water Resources Division
U.S. Geological Survey
855 Oak Grove Avenue
Menlo Park, California 94025

1977

PREFACE

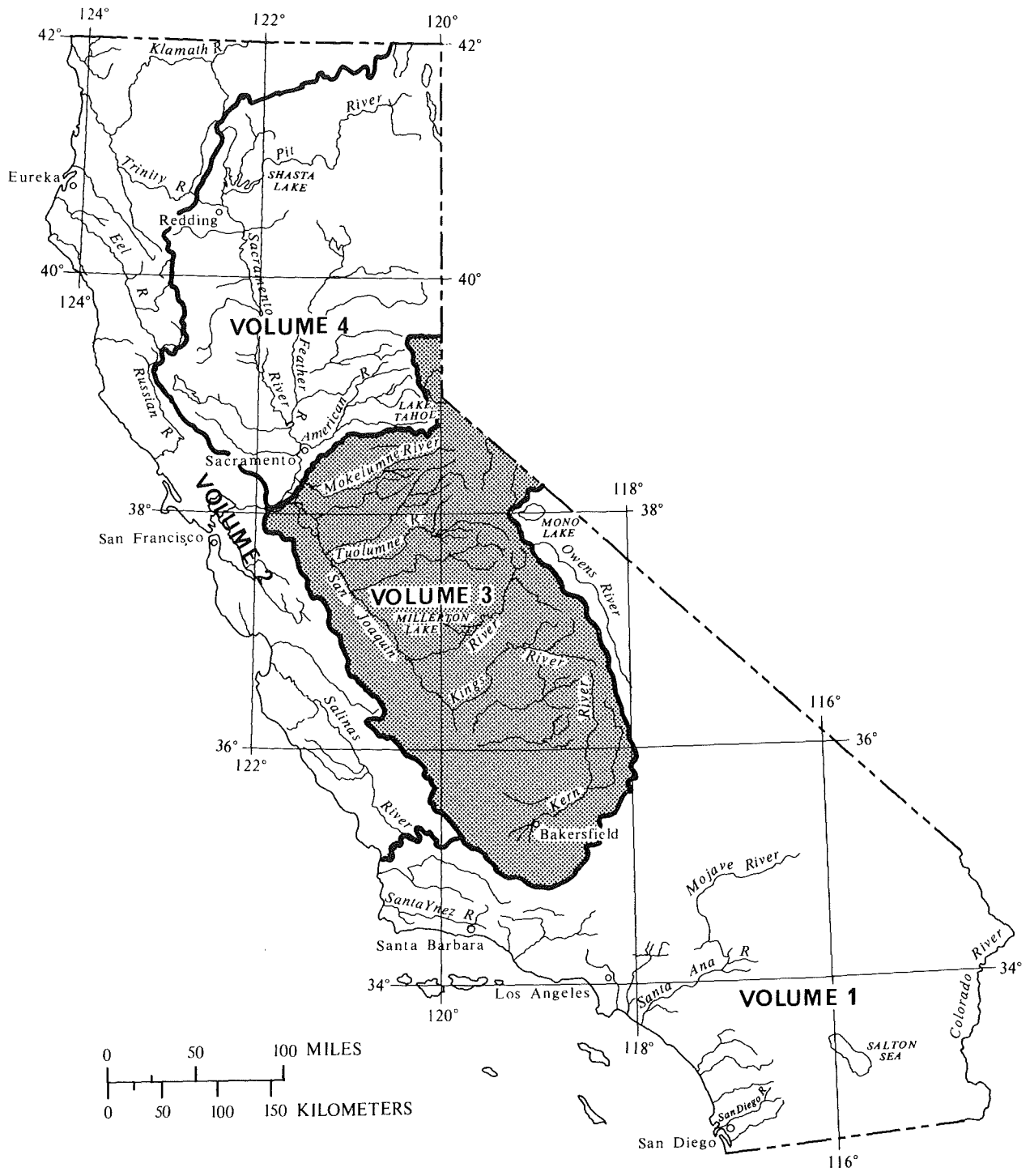
This report was prepared by the U.S. Geological Survey, in cooperation with the California Department of Water Resources and with other agencies, by personnel of the California District of the Water Resources Division under the supervision of Lee R. Peterson, District Chief, and W. H. Robinson, Regional Hydrologist, Western Region.

This report is one of a series issued by State. General direction for the series is by J. S. Cragwell, Jr., Chief Hydrologist, and G. W. Whetstone, Assistant Chief Hydrologist for Scientific Publications and Data Management.

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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Area covered by volumes in the annual series on water-resources data for California. Area covered by this volume is shaded.

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

IX

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

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WATER RESOURCES DATA FOR CALIFORNIA, 1976

Volume 3

INTRODUCTION

Water-resources data for the 1976 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. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of Lee R. Peterson, district chief; Winchell Smith, assistant district chief for hydrologic data; and Leonard N. Jorgensen, chief of the basic-data section. 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, VA 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 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-76-3." Water-Data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 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 Department of Transportation, Leo J. Trombatore, district director.
East Bay Municipal Utility District, J. S. Harnett, general manager.
Kern County Water Agency, S. T. Pyle, engineer-manager.
Madera Irrigation District, Bob Standfield, secretary-manager.
Merced Irrigation District, Reuben E. Schmidt, chief engineer and manager.
San Francisco, City and County, Hetch-Hetchy Water and Power, O. L. Moore, general manager.
Terra Bella Irrigation District, J. E. Boudreau, engineer-manager.
Tulare County Flood Control District, J. L. Carlsen, flood-control engineer.
Turlock Irrigation District, Leroy J. Louchart, secretary-general manager.
University of California (Berkeley), A. S. Leopold, professor of zoology.
University of California (Davis), Division of Environmental Studies,
Dr. Robert Leonard, department of zoology.
Woodbridge Irrigation District, Mabel Hall, secretary.

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

The following organizations aided in collecting records: Pacific Gas and Electric Co.; Southern California Edison Co.; Merced, Modesto, Nevada, and Oakdale-South San Joaquin Irrigation Districts.

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Responsibility for collection of data and preparation of data reports is delegated to the three subdistrict offices in the California District of the Water Resources Division. This volume was prepared by personnel of the Sacramento subdistrict office under the direction of E. Jerre McClelland, subdistrict chief. Special acknowledgment is made of the contributions of E. J. Jones, John Duensing, and V. F. Pearce who direct the work in the hydrologic data section. Report data were provided by the Merced and Tahoe City field offices, and the Sacramento field unit supervised by T. C. Hunter, J. R. Mullen, and J. R. Foulk, respectively. Records for many of the streamflow stations required under Federal Power Commission licenses were processed under the supervision of J. N. Robles in the Menlo Park subdistrict office. Laboratory analysis of sediment samples was under the direction of V. L. Gamble. Ground-water and chemical-quality data were assembled under the direction of G. L. Bertoldi. Manuscript typing and assembly of the report was done by A. L. Davis.

HYDROLOGIC CONDITIONS

Water year 1976 was the third driest year of this century. It was comparable to the record dry year of 1924 and the drought period of 1929-34. A persistent high-pressure ridge off the California coast displaced the usual winter storm path on a course generally north of California, leaving most of the State deficient in rainfall. The lack of rainfall resulted in deficient runoff and reservoir storage and few flood events.

In the area covered in this volume, runoff during the water year ranged from 45 percent of the 1941-70 median for the Kern River basin to 34 percent of the median for the Mokelumne River basin. Runoff, at selected sites, as shown in figure 1, was below normal from November through September. Precipitation during this period ranged from 90 percent of normal in the south to 40 percent of normal in the northern part of the drainage basin. This resulted in a very light snowpack in the mountains. In September, the first tropical storm in 30 years hit the southern part of the State. Some spill over the Tehachapi Mountains caused flooding in the Kern River basin. Five major reservoirs in the area contained 119 percent of their average annual volume at the end of the water year. This reduced to about 72 percent by the end of the 1976 water year. The quality of the surface water did not change appreciably.

Ground-water levels dropped below average at the end of the water year even through diversions continued from surface-water supplies. Many new wells were drilled during the year to supplement the reduced amount of surface water available for irrigation.

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 English units to International System of 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 the 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, by decomposing organic matter into a form available for reuse by plants.

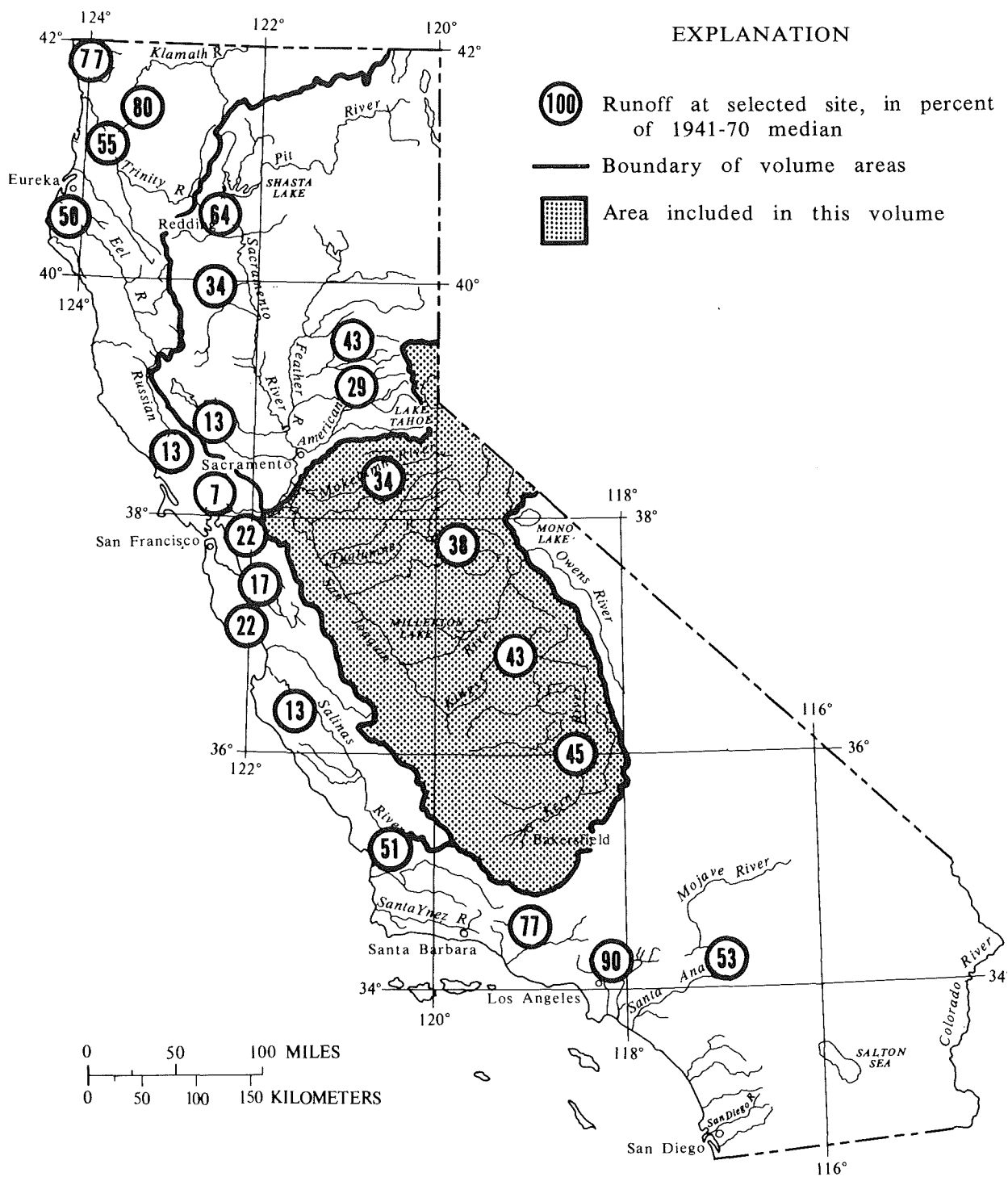


FIGURE 1.--Runoff for the current water year.

Bacteria (continued)

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. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C \pm 1.0°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. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C \pm 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also 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. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C \pm 1.0°C on M-enterococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

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

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

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

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

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

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

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

Bottom material: See Bed material.

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 milliliters (mL) or liters (L).

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

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

Color unit is produced by 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 (FT³/S, ft³/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 refers to the amount of a substance present in true chemical solution. In practice, however, the term includes all forms of the substance that will pass through a 0.45-micrometer membrane filter and thus may include some very small (colloidal) suspended particles. Analyses are performed on filtered samples.

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

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

where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa. 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.

Ft³/s-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.

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 gage height or discharge 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 and carbonate (CaCO_3).

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-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, 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 mg/L and is based on the mass of sediment per liter of water-sediment mixture.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Phytoplankton compose the plant part of the plankton. They are usually microscopic and their movement is subject to water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials 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.

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

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 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 0.9 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, that is discharged in a given time. It is computed by multiplying discharge times milligrams per liter times 0.0027.

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.

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 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) 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.

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.....	<i>Hexagenia</i>
Species.....	<i>limbata</i>

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

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

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 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 quantity 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.

Turbidity of a sample is the reduction of transparency due to the presence of particulate matter. In this report it is expressed in Jackson turbidity units (JTU).

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

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

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

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 main-stream station are listed before that station. A station on a tributary that enters between two main-stream 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 11264500 which appears just to the left of the station name, includes the 2-digit number "11" plus the 6-digit downstream order number "264500". 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.

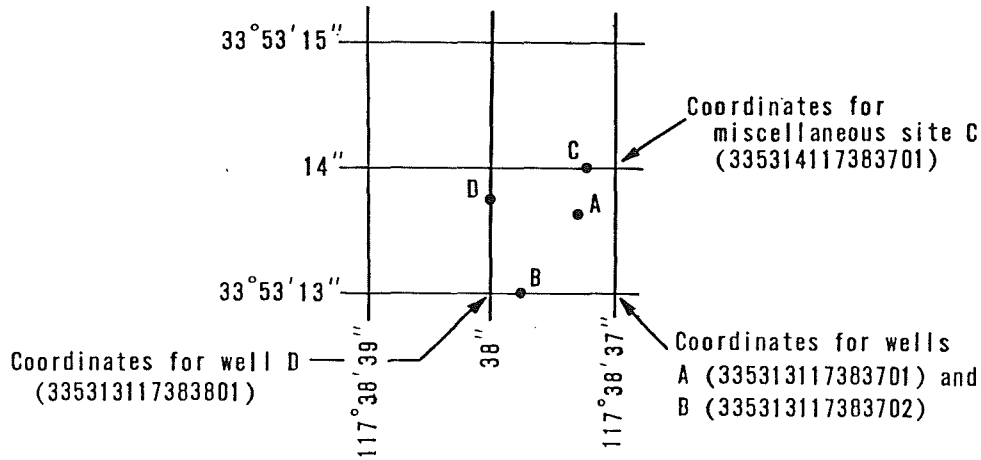


Figure 2.--System for numbering wells and miscellaneous sites (latitude and longitude).

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 5S/10E-22G1 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.

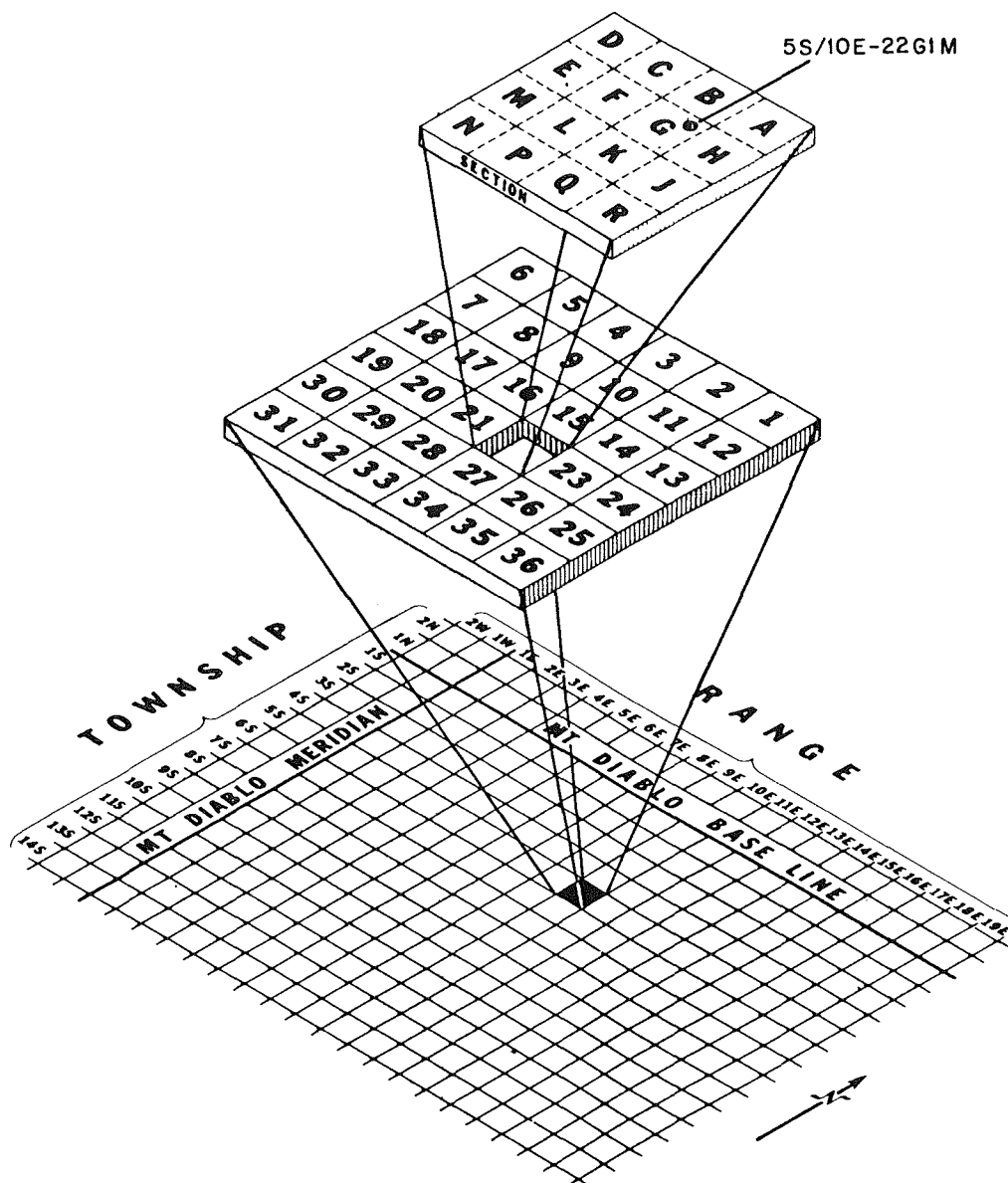


Figure 3.--Local well-numbering system.

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
11074000 Santa Ana River below Prado Dam, CA
11103010 Los Angeles River at Willow Street Bridge, at Long Beach, CA

Volume 2:

11152500 Salinas River near Spreckels, CA
11467000 Russian River near Guerneville, CA
11530500 Klamath River near Klamath, CA

Volume 3:

11250000 Friant-Kern Canal at Friant, CA
11303500 San Joaquin River near Vernalis, CA
11325500 Mokelumne River at Woodbridge, CA

Volume 4:

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 interagency 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.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the 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 records of stage, 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 determined 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 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 above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE". In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey, unless otherwise qualified.

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. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. 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").

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 ft³/s; to tenths between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures above 1,000 ft³/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 157, "Index of Stream-Gaging Stations in and Adjacent to California." 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 properties and constituents 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 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 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 Jackson turbidity units (JTU), 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 Jackson 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 Jackson turbidity units can be made by use of table 1.

Table 1.--Conversion of turbidity values, measured by Hach Turbidimeters Model 1860 or 2100, from parts per million or milligrams per liter of silica to Jackson turbidity units

<u>Turbidity, in ppm or mg/L</u>	<u>Turbidity, in JTU</u>
5	3
10	6
50	30
100	55
200	110
500	240
1000	440

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 mean sea level (msl) or land-surface datum (lsd). Mean sea level 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 above mean sea level 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 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. \$0.25.
- 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. \$0.20.
- 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. \$0.30.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6, 1968. 13 pages. \$0.20.
- 3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages. \$0.45.
- 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. \$0.40.
- 3-A12. *Fluorimetric 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 programmed text for self-instruction*, by D. S. 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. \$0.65.
- 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. \$0.70.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages. \$1.15.

- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages. \$0.30.
- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages. \$0.20.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages. \$0.65.
- 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. \$0.75.
- 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. \$0.65.
- 5-A1. *Methods for collection and analysis of water samples for dissolved minerals and gases*, by Eugene Brown, M. W. Skougstad, and M. J. Fishman: USGS--TWRI Book 5, Chapter A1. 1970. 160 pages. \$2.40.
- 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*, by K. V. Slack, R. C. Averett, P. E. Greeson, and R. G. Lipscomb: USGS--TWRI Book 5, Chapter A4. 1973. 165 pages. \$1.95.
- 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. \$16.00.
- 5-C1. *Laboratory theory and methods for sediment analyses*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages. \$0.65.
- 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. \$0.40.

*Looseleaf format. Available only by subscription. Additional supplements will be issued to subscribers at no extra cost.

WALKER LAKE BASIN

10290300 UPPER TWIN LAKE NEAR BRIDGEPORT, CA

LOCATION.--Lat 38°09'15", long 119°20'58", in NW¼NE¼ sec.5, T.3 N., R.24 E., Mono County, Toiyabe National Forest, at outlet of upper lake dam on Robinson Creek, and 10 mi (16 km) southwest of Bridgeport.
 DRAINAGE AREA.--29.5 mi² (76.4 km²).
 PERIOD OF RECORD.--December 1961 to February 1964, September 1964 to current year.
 GAGE.--Water-stage recorder. Datum of gage is at mean sea level (project datum of U.S. Indian Irrigation Service).
 REMARKS.--Contents regulated by dam at outlet. Figures given herein represent usable contents. Usable contents, 2,070 acre-ft (2.55 hm³) between elevations 7,200 ft (2,194.6 m) present rim, and 7,207 ft (2,196.7 m) spillway crest.
 EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 2,900 acre-ft (3.58 hm³) June 22, July 5, 6, 1967, elevation, 7,209.58 ft (2,197.480 m); minimum observed, 62 acre-ft (76,400 m³) Oct. 31, Nov. 1, 1964, elevation, 7,200.22 ft (2,194.627 m).
 EXTREMES OUTSIDE PERIOD OF RECORD.--No usable contents Oct. 17, 1961.
 EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,350 acre-ft (2.90 hm³) May 15, 16, elevation, 7,207.87 ft (2,196.959 m); minimum, 260 acre-ft (321,000 m³) Sept. 27, 28, elevation, 7,200.93 ft (2,194.843 m).

ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	7202.51	703	--
Oct. 31.....	7205.57	1620	+917
Nov. 30.....	7207.14	2110	+490
Dec. 31.....	7207.06	2090	-20
CAL YR 1975.....	--	--	+800
Jan. 31.....	7207.05	2090	0
Feb. 29.....	7207.10	2100	+10
Mar. 31.....	7207.06	2090	-10
Apr. 30.....	--	a2170	+80
May 31.....	7207.65	2280	+110
June 30.....	7207.42	2200	-80
July 31.....	7202.14	599	-1600
Aug. 31.....	--	a367	-232
Sept. 30.....	7200.96	269	-98
WTR YR 1976.....	--	--	-434

a Estimated.

10290400 LOWER TWIN LAKE NEAR BRIDGEPORT, CA

LOCATION.--Lat 38°10'05", long 119°19'33", in NE¼NE¼ sec.33, T.4 N., R.24 E., Mono County, Toiyabe National Forest, at outlet of lower lake dam on Robinson Creek, and 8 mi (13 km) southwest of Bridgeport.
 DRAINAGE AREA.--38.9 mi² (100.8 km²).
 PERIOD OF RECORD.--December 1961 to current year.
 GAGE.--Water-stage recorder. Datum of gage is at mean sea level (project datum of U.S. Indian Irrigation Service).
 REMARKS.--Contents regulated by dam at outlet and by Upper Twin Lake (station 10290300). Figures given herein represent usable contents. Usable contents, 4,010 acre-ft (4.94 hm³) between elevations 7,190 ft (2,192 m) natural rim, and 7,200 ft (2,195 m) spillway crest. One diversion out of Tamarack Creek into Summers Creek.
 EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 5,490 acre-ft (6.77 hm³) June 6, 1969, elevation, 7,203.51 ft (2,195.630 m); no usable contents Nov. 17, 1966.
 EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,290 acre-ft (5.29 hm³) May 18, 19, elevation, 7,200.67 ft (2,194.764 m); minimum, 904 acre-ft (1.11 hm³) Sept. 30, elevation, 7,192.26 ft (2,192.201 m).

ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	7193.36	1340	--
Oct. 31.....	--	a1000	-340
Nov. 30.....	7193.26	1300	+300
Dec. 31.....	7196.06	2420	+1120
CAL YR 1975.....	--	--	-1320
Jan. 31.....	7198.44	3380	+960
Feb. 29.....	7200.45	4200	+820
Mar. 31.....	7200.50	4220	+20
Apr. 30.....	7200.36	4160	-60
May 31.....	7200.12	4060	-100
June 30.....	7196.87	2750	-1310
July 31.....	7196.47	2520	-230
Aug. 31.....	--	a1190	-1330
Sept. 30.....	--	a904	-286
WTR YR 1976.....	--	--	-436

a Estimated.

27

LOCATION.--Lat 38°14'20", long 119°19'30", in NE¼NE¼ sec.4, T.4 N., R.24 E., Mono County, Toiyabe National Forest, on right bank at Buckeye Hot Springs, 0.6 mi (1.0 km) downstream from Eagle Creek, and 5.5 mi (8.8 km) southwest of Bridgeport.

GAGE.--Water-stage recorder. Altitude of gage is 6,900 ft (2,103 m), from topographic map. November 1910 to September 1914, nonrecording gage at site 0.5 mi (0.8 km) downstream at different datum.

EXTREMES FOR PERIOD OF RECORD (water years 1954-76): Maximum discharge, 947 ft³/s (26.8 m³/s) Feb. 1, 1963, gage height, 4.41 ft (1.344 m), from rating curve extended above 360 ft³/s (10.2 m³/s) on basis of slope-area measurement at gage height 4.00 ft (1.219 m); minimum, 3.3 ft³/s (0.094 m³/s) Dec. 12, 1959, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 21, 1911, reached an observed stage of 4.8 ft (1.46 m), discharge not determined, site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 198 ft³/s (5.61 m³/s) May 14 (2300 hrs), gage height, 2.84 ft (0.866 m), no other peak above base of 100 ft³/s (2.83 m³/s); minimum, 7.8 ft³/s (0.22 m³/s) Feb. 25.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	35	28	19	17	16	23	62	69	27	27	15
2	26	35	25	17	17	16	24	70	65	26	22	14
3	26	35	25	19	17	16	25	70	61	25	21	14
4	25	36	25	18	16	15	25	76	56	24	20	14
5	25	35	25	20	15	15	23	73	54	24	19	17
6	27	33	24	21	14	15	24	62	53	23	19	21
7	34	33	24	19	14	15	25	53	53	23	18	17
8	28	38	23	19	14	15	27	62	51	22	18	16
9	27	32	23	19	15	16	23	84	46	21	18	17
10	38	30	23	18	16	17	24	90	41	21	17	18
11	41	38	23	19	15	17	23	101	38	21	17	41
12	33	37	22	18	15	17	23	108	38	21	17	28
13	31	33	21	18	15	18	23	120	40	21	17	22
14	31	32	20	18	15	18	23	138	41	20	18	20
15	31	31	19	18	16	19	23	123	40	21	27	19
16	32	31	20	18	18	23	20	118	46	33	26	18
17	32	28	20	18	16	26	23	122	45	33	24	18
18	32	27	20	18	16	25	24	106	44	28	21	17
19	30	25	20	18	16	21	25	92	47	24	23	17
20	31	27	20	18	17	22	31	87	45	23	23	17
21	31	26	20	17	16	24	35	84	42	21	20	17
22	32	26	20	16	16	26	34	73	38	21	20	17
23	30	27	20	17	16	25	34	79	34	23	19	16
24	28	27	25	18	17	26	42	76	33	23	19	16
25	30	26	24	21	16	24	49	84	33	23	18	16
26	51	26	22	22	16	23	40	84	32	25	17	16
27	52	25	22	18	17	21	34	94	30	23	17	15
28	39	25	21	18	18	21	33	88	29	25	17	15
29	37	24	21	17	16	22	34	72	30	23	16	17
30	36	25	21	17	---	23	44	70	28	21	16	22
31	36	---	20	17	---	25	---	70	---	25	15	---
TOTAL	1009	908	686	568	462	622	860	2691	1302	734	606	547
MEAN	32.5	30.3	22.1	18.3	15.9	20.1	28.7	86.8	43.4	23.7	19.5	18.2
MAX	52	38	28	22	18	26	49	138	69	33	27	41
MIN	25	24	19	16	14	15	20	53	28	20	15	14
AC-FT	2000	1800	1360	1130	916	1230	1710	5340	2580	1460	1200	1080
CAL YR 1975	TOTAL	24323	MEAN 66.6	MAX 350	MIN 15	AC-FT 48240						
WTR YR 1976	TOTAL	10995	MEAN 30.0	MAX 138	MIN 14	AC-FT 21810						

WALKER LAKE BASIN

10292500 BRIDGEPORT RESERVOIR NEAR BRIDGEPORT, CA

LOCATION.--Lat 38°19'30", long 119°12'40", in SE¼NE¼ sec.34, T.6 N., R.25 E., Mono County, Toiyabe National Forest, at Bridgeport Dam on East Walker River, 4.5 mi (7.2 km) north of Bridgeport.

DRAINAGE AREA.--358 mi² (927 km²).

PERIOD OF RECORD.--March 1926 to current year. Monthend contents only for some periods, published in WSP 1314.

REVISED RECORDS.--WSP 1180: 1949. WSP 1927: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (project datum).

REMARKS.--Reservoir is formed by earthfill, rock-faced dam. Storage began Dec. 8, 1923. Dam completed in November 1924. Capacity, 42,460 acre-ft (52.4 hm³) between elevations 6,415 ft (1,955.3 m), approximate elevation of bottom of reservoir, and 6,461 ft (1,969.3 m), crest of spillway is at elevation 6,460.75 ft (1,969.237 m), however, there are four siphons that become operative prior to reaching the spillway. Elevation of sill of outlet gate, 6,412 ft (1,954.4 m). No dead storage. Figures given herein represent total contents. Water is used for irrigation by Walker River Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 44,880 acre-ft (55.3 hm³) June 16, 1974, elevation, 6,460.78 ft (1,969.246 m); no usable contents during fall of 1929-30, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 40,270 acre-ft (49.7 hm³) Apr. 2-5, elevation, 6,459.24 ft (1,968.776 m); minimum, 3,420 acre-ft (4.22 hm³) Sept. 20, elevation, 6,435.97 ft (1,961.684 m).

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

6435	2920	6447	13990
6437	4050	6449	17060
6439	5440	6451	20620
6441	7120	6453	24660
6443	9100	6456	31570
6445	11380	6461	45490

CONTENTS, IN ACRE-FeET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17750	20340	25430	29400	32840	36500	40120	36100	26640	20250	12770	6720
2	17750	20530	25540	29520	32970	36630	40270	35700	26310	19980	12900	6280
3	17660	20720	25760	29640	33220	36760	40270	35440	25980	19700	12900	5920
4	17660	21010	25980	29760	33090	36900	40270	35170	25650	19330	12970	5560
5	17580	21210	26090	29880	33220	36900	40270	34900	25320	19060	12970	5260
6	17490	21400	26200	29880	33350	37040	40120	34510	25100	18690	12970	4970
7	17490	21600	26420	30120	33480	37180	40120	34380	24770	18260	12970	4680
8	17490	21700	26530	30240	33730	37460	39830	34110	24560	17830	12970	4510
9	17490	21800	26640	30240	33860	37590	39830	33860	24240	17400	12970	4310
10	17490	21990	26860	30490	33860	37730	39690	33730	24140	16980	13040	4150
11	17660	22190	26980	30490	33980	37870	39540	33600	24040	16500	12970	3990
12	17660	22380	27090	30610	34110	38010	39260	33350	23930	16030	12900	3870
13	17750	22680	27090	30730	34380	38290	39260	33220	23830	15630	12900	3810
14	17750	22890	27200	30850	34510	38430	39120	32970	23830	15170	12830	3690
15	17830	23100	27320	30970	34510	38570	38840	32840	23830	14730	12700	3570
16	17830	23310	27440	31090	34640	38710	38980	32590	23830	14510	12630	3540
17	18010	23310	27550	31210	34900	38840	38980	32330	23720	14210	12440	3510
18	18090	23410	27660	31330	35040	38840	38840	32080	23720	14140	12190	3450
19	18260	23620	27780	31450	35040	38980	38840	31700	23620	13990	11940	3450
20	18260	23720	27900	31570	35170	39120	38710	31330	23520	13850	11630	3420
21	18520	23830	28010	31700	35300	39260	38570	30850	23310	13380	11320	3480
22	18520	24040	28120	31820	35440	39400	38430	30490	23200	13170	10910	3510
23	18610	24240	28360	31820	35570	39540	38290	30120	22890	12970	10550	3510
24	18690	24350	28470	31950	35700	39690	38010	29640	22680	12970	10200	3540
25	18870	24450	28580	32080	35830	39690	37590	29400	22480	12900	9870	3570
26	19060	24660	28820	32200	35960	39830	37320	28930	22190	12770	9480	3600
27	19330	24770	28820	32330	36100	39830	37040	28580	21800	12700	9100	3630
28	19520	24880	29040	32460	36230	39830	36900	28240	21500	12630	8740	3660
29	19610	24990	29160	32590	36500	39980	36630	27780	21010	12630	8280	3690
30	19880	25210	29160	32710	---	40120	36360	27440	20620	12570	7740	3750
31	20070	---	29280	32710	---	40120	---	26980	---	12700	7220	---
MAX	20070	25210	29280	32710	36500	40120	40270	36100	26640	20250	13040	6720
MIN	17490	20340	25430	29400	32840	36500	36360	26980	20620	12570	7220	3420
(+)	6450.71	6453.26	6455.05	6456.47	6457.90	6459.22	6457.84	6454.07	6451.00	6446.05	6441.12	6436.50
(+)	+2320	+5140	+4070	+3430	+3790	+3620	-3760	-9380	-6360	-7920	-5480	-3470

CAL YR 1975 MAX 43070 MIN 17490 ± -360
WTR YR 1976 MAX 40270 MIN 3420 ± -14000

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

10293000 EAST WALKER RIVER NEAR BRIDGEPORT, CA

LOCATION.--Lat 38°19'40", long 119°12'50", in SW¼NE¼ sec.34, T.6 N., R.25 E., Mono County, Toiyabe National Forest, on right bank 1,500 ft (460 m) downstream from Bridgeport Reservoir, 5 mi (8 km) north of Bridgeport, and 10 mi (16 km) upstream from Sweetwater Creek.

DRAINAGE AREA. -- 359 mi² (930 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1911 to September 1914 (gage heights only), October 1921 to current year. No winter record water years 1922, 1925.

REVISED RECORDS.--WSP 1927: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,400 ft (1,951 m) from topographic map. See WSP 2127 for history of changes prior to May 25, 1939.

REMARKS.--Records good. Diversions for irrigation of pasture lands near Bridgeport. Flow regulated by Bridgeport Reservoir (station 10292500).

AVERAGE DISCHARGE (unadjusted).--53 years (water years 1923-24, 1926-76), 138 ft³/s (3.908 m³/s), 99,980 acre-ft/yr (123 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (water years 1922-76).--Maximum discharge, 1,390 ft³/s (39.4 m³/s) June 19, 1963, gage height, 4.64 (1.414 m); maximum gage height, 4.95 ft (1.509 m) Jan. 22, 1943, top of surge; minimum daily discharge, 0.2 ft³/s (0.006 m³/s) Nov. 2-29, Dec. 1-22, 25-28, 1955, Jan. 17-25, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 279 ft³/s (7.9 m³/s) Sept. 1, gage height, 1.98 ft (0.604 m); minimum daily, 9.0 ft³/s (0.25 m³/s) Mar. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	10	11	10	10	12	26	158	191	175	14	262
2	103	10	11	10	10	12	28	178	191	162	14	226
3	115	10	11	10	10	12	34	178	185	165	14	210
4	115	10	11	10	10	12	51	186	168	172	13	210
5	115	10	11	10	10	12	50	186	168	177	13	176
6	115	10	11	11	10	12	74	175	162	189	14	176
7	115	10	11	10	10	12	75	168	146	196	14	176
8	115	10	11	10	10	12	93	168	133	212	14	131
9	115	10	11	10	10	12	93	159	126	236	14	131
10	115	10	11	10	10	12	93	150	117	239	14	131
11	112	10	11	10	10	12	93	150	107	227	30	118
12	105	12	11	10	10	12	93	146	68	226	37	118
13	105	12	11	10	10	12	91	151	39	222	37	118
14	100	12	11	10	10	12	91	152	34	211	43	85
15	86	12	11	10	10	12	76	158	23	208	58	85
16	81	12	11	10	10	12	76	189	37	181	66	46
17	64	12	11	10	10	12	68	198	45	155	107	46
18	49	12	11	10	10	12	68	199	45	143	148	46
19	50	12	11	10	10	12	68	224	52	143	174	46
20	50	12	11	10	10	12	84	256	69	142	174	46
21	50	12	11	10	10	12	84	239	80	142	185	23
22	50	11	11	10	12	12	84	233	113	139	211	23
23	50	11	11	10	12	12	111	233	129	177	211	23
24	50	11	11	10	12	12	122	232	139	62	209	23
25	45	11	11	10	12	11	158	224	141	87	201	23
26	31	11	11	10	12	9.5	158	223	151	87	200	23
27	31	11	11	10	12	9.5	158	222	182	87	212	23
28	31	11	11	10	12	10	158	215	192	86	221	23
29	31	11	11	10	12	9.0	158	218	213	70	247	23
30	25	11	11	10	---	9.0	158	231	201	55	254	23
31	10	---	11	10	---	9.5	---	213	---	29	272	---
TOTAL	2327	329	341	311	306	355.5	2774	6012	3647	4752	3435	2813
MEAN	75.1	11.0	11.0	10.0	10.6	11.5	92.5	194	122	153	111	93.8
MAX	115	12	11	11	12	12	158	256	213	239	272	262
MIN	10	10	11	10	10	9.0	26	146	23	29	13	23
AC-FT	4620	653	676	617	607	705	5500	11920	7230	9430	6810	5580
CAL YR 1975	TOTAL	62459.0	MEAN	171	MAX	545	MIN	10	AC-FT	123900		
WTR YR 1976	TOTAL	27402.5	MEAN	74.9	MAX	272	MIN	9.0	AC-FT	54350		

WALKER LAKE BASIN

10293000 EAST WALKER RIVER NEAR BRIDGEPORT, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1959 to current year.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO- MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
APR 27...	1300	148	214	7.9	10.0	9	8.8	84	0
SEP 22...	1230	23	274	8.1	14.5	32	6.7	97	0

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)
APR 27...	25	18	118	0	97	4.0	143	.19	57.1
SEP 22...	32	22	143	0	117	3.8	159	.22	9.87

10293050 EAST WALKER RIVER BELOW SWEETWATER CREEK, NEAR BRIDGEPORT, CA

LOCATION.--Lat 38°26'27", long 119°06'18", in NW¼NW¼ sec.29, T.7 N., R.26 E., Lyon County, Nevada, Toiyabe National Forest, on left bank 10 ft (3 m) downstream from bridge, 1.8 mi (2.9 km) downstream from Sweetwater Creek, and about 16 mi (26 km) north-northeast of Bridgeport.

DRAINAGE AREA.--467 mi² (1,210 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 5,760 ft (1,760 m), from topographic map.

REMARKS.--Records fair except those for winter months and periods of no gage-height record, which are poor. Diversions for irrigation above station. Flow regulated by Bridgeport Reservoir (station 10292500).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,040 ft³/s (29.5 m³/s) Aug. 5, 1974, gage height, 7.43 ft (2.265 m); minimum daily, 13 ft³/s (0.37 m³/s) Mar. 27-31, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 321 ft³/s (9.09 m³/s) Aug. 31, gage height, 5.87 ft (1.79 m); minimum daily, 13 ft³/s (0.37 m³/s) Mar. 27-31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	22	20	20	18	17	20	157	182	182	24	253
2	106	22	21	18	18	16	25	160	175	145	20	214
3	115	22	20	20	18	15	30	175	177	147	19	214
4	117	21	21	19	16	15	40	180	166	173	18	202
5	117	19	23	21	15	15	46	204	155	192	16	177
6	115	19	21	22	15	16	52	189	149	199	15	187
7	117	20	20	21	15	16	66	173	141	190	19	170
8	118	20	20	21	17	16	78	173	130	190	24	135
9	122	19	20	20	22	16	90	175	128	205	20	131
10	126	21	20	20	19	16	90	160	112	220	18	131
11	126	19	20	21	18	16	90	157	115	230	23	133
12	117	21	22	20	19	16	90	157	91	220	37	137
13	117	23	20	20	19	16	90	166	42	215	37	108
14	112	23	20	20	23	16	86	170	35	210	37	82
15	98	23	20	20	21	16	82	173	23	200	57	74
16	96	23	20	20	20	16	78	196	21	190	53	49
17	80	20	20	20	23	16	75	207	34	170	85	53
18	63	18	20	20	22	16	72	202	35	145	126	47
19	61	17	20	20	22	15	72	225	36	135	162	48
20	59	18	20	19	23	15	74	256	49	135	164	38
21	61	19	19	18	22	15	80	247	61	135	164	26
22	59	20	20	18	23	15	83	230	94	135	199	25
23	59	20	22	19	26	15	85	228	101	130	202	23
24	61	20	26	21	24	15	100	220	122	100	209	21
25	62	20	22	23	22	14	120	209	122	60	202	20
26	45	20	21	22	18	14	150	209	130	82	202	20
27	42	20	26	20	17	13	153	212	157	82	222	21
28	39	19	22	20	17	13	156	202	170	82	239	21
29	42	17	23	20	17	13	157	202	194	75	268	22
30	42	19	22	18	---	13	156	217	194	54	289	23
31	27	---	20	18	---	13	---	202	---	46	283	---
TOTAL	2624	604	651	619	569	469	2586	6033	3341	4674	3453	2805
MEAN	84.6	20.1	21.0	20.0	19.6	15.1	86.2	195	111	151	111	93.5
MAX	126	23	26	23	26	17	157	256	194	230	289	253
MIN	27	17	19	18	15	13	20	157	21	46	15	20
AC-FT	5200	1200	1290	1230	1130	930	5130	11970	6630	9270	6850	5560

CAL YR 1975 TOTAL 69000 MEAN 189 MAX 625 MIN 16 AC-FT 136900
WTR YR 1976 TOTAL 28428 MEAN 77.7 MAX 289 MIN 13 AC-FT 56390

NOTE.--No gage-height record Nov. 22 to Dec. 19, Mar. 9 to May 5, July 7-30.

10293500 EAST WALKER RIVER ABOVE STROSNIDER DITCH, NEAR MASON, NV

LOCATION.--Lat 38°48'45", long 119°02'50", in NW¼SW¼ sec.14, T.11 N., R.26 E., Lyon County, on right bank 0.9 mi (1.4 km) upstream from head of Strosnider ditch, 12 mi (19 km) southeast of Mason, and 13.5 mi (21.7 km) southeast of Yerington.

DRAINAGE AREA.--1,100 mi² (2,850 km²), approximately.

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

GAGE.--Water-stage recorder. Datum of gage is 4,574.10 ft (1,394.186 m) above mean sea level, datum of 1929. Prior to Oct. 24, 1957, near present site at datum 0.56 ft (0.171 m) higher. Oct. 24, 1957, to Apr. 3, 1974, at site about 400 ft (120 m) downstream at same datum.

REMARKS.--Records good. Diversions for irrigation above station. Flow regulated by Bridgeport Reservoir (station 10292500).

AVERAGE DISCHARGE.--29 years, 145 ft³/s (4.106 m³/s), 105,100 acre-ft/yr (130 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,380 ft³/s (67.4 m³/s) Feb. 1, 1963, gage height, 7.60 ft (2.316 m); minimum, 3.1 ft³/s (0.088 m³/s) Mar. 21, 1948; minimum daily, 3.4 ft³/s (0.096 m³/s) Mar. 21-24, 1948, Apr. 5, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 442 ft³/s (12.5 m³/s) July 24, gage height, 3.78 ft (1.152 m); minimum daily, 3.5 ft³/s (0.10 m³/s) Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	54	42	30	33	29	17	135	167	137	194	210
2	118	48	43	29	31	31	18	137	150	128	91	200
3	127	47	41	31	30	30	21	146	149	120	61	180
4	135	45	40	30	25	33	22	151	139	120	61	160
5	135	40	39	38	21	30	26	157	128	125	50	140
6	136	40	37	42	22	28	30	160	127	121	45	140
7	134	41	37	45	24	28	38	153	130	131	41	150
8	135	40	35	47	26	27	44	138	125	136	39	120
9	137	41	35	41	29	26	52	140	115	144	38	107
10	136	39	35	40	26	24	57	138	118	168	37	110
11	135	40	35	37	24	24	62	127	104	174	35	117
12	134	39	35	37	31	24	66	121	101	171	35	106
13	128	39	35	38	36	24	67	122	84	173	37	106
14	127	42	35	36	37	23	68	123	61	175	37	102
15	123	42	35	36	37	23	66	123	45	166	38	80
16	116	42	35	35	35	23	65	123	38	176	49	75
17	112	40	35	33	35	23	62	142	34	176	51	58
18	98	38	35	36	37	23	59	145	32	148	70	53
19	85	38	35	34	35	23	58	145	31	127	108	49
20	81	37	35	36	34	23	56	164	29	119	173	47
21	79	37	35	36	31	23	63	189	36	113	178	45
22	77	37	35	35	31	23	64	182	45	110	166	41
23	77	39	35	37	33	22	68	174	69	133	174	14
24	77	40	35	38	33	20	84	171	78	238	177	3.7
25	77	39	35	40	33	18	95	168	93	99	174	3.6
26	77	40	36	34	33	17	124	165	98	109	192	3.5
27	65	39	35	33	30	19	131	164	109	109	204	6.5
28	62	37	35	33	29	19	133	160	128	106	221	7.9
29	60	36	35	34	29	19	137	153	136	111	202	7.7
30	61	35	35	33	---	16	134	160	147	154	208	25
31	62	---	35	32	---	17	---	175	---	122	210	---
TOTAL	3214	1211	1120	1116	890	734	1987	4651	2846	4339	3396	2467.9
MEAN	104	40.4	36.1	36.0	30.7	23.7	66.2	150	94.9	140	110	82.3
MAX	137	54	43	47	37	33	137	189	167	238	221	210
MIN	60	35	35	29	21	17	17	121	29	99	35	3.5
AC-FT	6370	2400	2220	2210	1770	1460	3940	9230	5650	8610	6740	4900
CAL YR 1975 TOTAL	65752.0		MEAN 180		MAX 604	MIN	27	AC-FT 130400				
WTR YR 1976 TOTAL	27971.9		MEAN 76.4		MAX 238	MIN	3.5	AC-FT 55480				

10295500 LITTLE WALKER RIVER NEAR BRIDGEPORT, CA

LOCATION.--Lat 38°21'30", long 119°26'30", in NW¼NW¼ sec.22, T.6 N., R.23 E., Mono County, Toiyabe National Forest, on right bank 0.8 mi (1.3 km) north of Sonora Junction, 1.5 mi (2.4 km) upstream from mouth, and 14 mi (23 km) northwest of Bridgeport.

DRAINAGE AREA.--63.0 mi² (163.2 km²).

PERIOD OF RECORD.--April to August 1910, October 1944 to current year. Prior to October 1958, published as East Fork West Walker River near Bridgeport.

GAGE.--Water-stage recorder. Altitude of gage is 6,790 ft (2,070 m), from topographic map. April to August 1910, nonrecording gage at site 1 mi (2 km) upstream at different datum.

REMARKS.--Records good except those for winter periods, which are poor. Small diversions above station.

AVERAGE DISCHARGE.--32 years (water years 1945-76), 50.8 ft³/s (1.439 m³/s), 36,800 acre-ft/yr (45.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,510 ft³/s (42.8 m³/s) Jan. 31, 1963, gage height, 3.22 ft (0.982 m), from rating curve extended above 350 ft³/s (9.91 m³/s) on basis of slope-area measurement at gage height 2.80 ft (0.853 m); maximum gage height recorded, 3.63 ft (1.106 m) Jan. 3, 1945, backwater from ice; minimum discharge recorded, 4.9 ft³/s (0.14 m³/s) Nov. 17, 1948, but may have been less during periods of ice effect.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 109 ft³/s (3.09 m³/s) May 14, gage height, 1.47 ft (0.448 m), no peak above base of 200 ft³/s (5.66 m³/s); minimum, 5.6 ft³/s (0.16 m³/s) Aug. 12, Sept. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	32	24	14	15	16	19	35	49	21	22	7.3
2	24	32	25	13	15	15	20	36	48	19	18	6.9
3	24	31	24	15	15	15	20	36	48	19	15	6.8
4	23	30	24	14	17	14	19	35	44	18	12	7.2
5	23	29	24	20	15	14	19	34	43	18	11	15
6	25	28	22	17	14	14	19	32	42	18	10	16
7	32	29	20	16	14	15	21	33	41	18	10	10
8	26	29	21	17	14	17	21	37	41	17	9.8	9.6
9	26	27	21	18	17	19	18	46	38	16	9.5	8.4
10	35	26	21	17	17	20	18	48	37	16	8.7	11
11	38	25	22	19	13	17	18	54	36	15	8.0	23
12	32	26	21	19	14	19	17	60	37	14	7.3	17
13	30	27	20	19	15	20	18	70	37	9.4	7.6	15
14	29	28	18	20	16	20	19	85	36	7.9	9.3	14
15	29	27	20	20	16	23	18	78	35	9.1	16	15
16	29	27	21	20	15	24	17	79	36	23	13	14
17	29	25	22	21	17	26	16	80	37	24	12	14
18	28	22	22	20	17	23	18	72	36	18	12	14
19	27	20	25	18	16	19	19	66	37	15	16	13
20	26	22	25	15	14	18	23	63	36	13	14	13
21	26	27	25	15	15	21	25	58	36	11	11	15
22	28	23	31	15	16	22	23	53	35	10	11	16
23	27	24	28	15	15	22	24	55	33	14	10	15
24	29	22	24	16	16	24	29	55	32	13	9.3	15
25	28	23	20	13	16	21	29	58	31	12	8.5	15
26	48	22	18	14	16	20	24	59	31	16	8.0	15
27	37	23	19	15	18	18	21	63	28	12	7.7	14
28	32	25	18	15	18	17	21	58	27	14	8.2	13
29	30	22	17	17	16	18	24	53	27	14	8.4	17
30	30	23	17	18	---	20	29	53	23	12	7.9	20
31	33	---	15	14	---	20	---	51	---	23	7.7	---
TOTAL	907	776	674	519	452	591	626	1695	1097	479.4	338.9	405.2
MEAN	29.3	25.9	21.7	16.7	15.6	19.1	20.9	54.7	36.6	15.5	10.9	13.5
MAX	48	32	31	21	18	26	29	85	49	24	22	23
MIN	23	20	15	13	13	14	16	32	23	7.9	7.3	6.8
AC-FT	1800	1540	1340	1030	897	1170	1240	3360	2180	951	672	804
CAL YR 1975	TOTAL	23799.0	MEAN 65.2	MAX 388	MIN 14	AC-FT 47210						
WTR YR 1976	TOTAL	8560.5	MEAN 23.4	MAX 85	MIN 6.8	AC-FT 16980						

WALKER LAKE BASIN

10296000 WEST WALKER RIVER BELOW LITTLE WALKER RIVER, NEAR COLEVILLE, CA

LOCATION.--Lat 38°22'47", long 119°26'57", in NE&SE4 sec.9, T.6 N., R.23 E., Mono County, Toiyabe National Forest, on right bank 150 (50 m) downstream from Little Walker River, 60 ft (20 m) upstream from bridge on U.S. Highway 395, and 13 mi (21 km) southeast of Coleville.

DRAINAGE AREA.--180 mi² (466 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1938 to current year. Prior to October 1958, published as "below East Fork."

REVISED RECORDS.--WSP 1927: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,591.39 ft (2,009.056 m) above mean sea level, datum of 1929, supplementary adjustment of 1958. Oct. 1, 1939, to Sept. 30, 1969, at site 100 ft (30 m) upstream at same datum. Prior to Oct. 1, 1939, at site 25 ft (8 m) downstream at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those for winter periods, which are fair. Station is above diversions except for a few small ranch ditches. Flow slightly regulated by Poor Lake Reservoir (capacity unknown) 7 mi (11 km) upstream.

AVERAGE DISCHARGE.--38 years, 257 ft³/s (7.278 m³/s), 186,200 acre-ft/yr (230 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,220 ft³/s (176 m³/s) Nov. 20, 1950, gage height, 8.10 ft (2.469 m), from rating curve extended above 1,900 ft³/s (53.8 m³/s) on basis of slope-area measurement of peak flow; minimum, 4.0 ft³/s (0.11 m³/s) Nov. 18, 1948, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge observed prior to 1938, 5,800 ft³/s (164 m³/s) Dec. 11, 1937, by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 827 ft³/s (23.4 m³/s) May 13, gage height, 3.44 ft (1.049 m), no peak above base of 1,120 ft³/s (31.7 m³/s); minimum, 19 ft³/s (0.54 m³/s) Feb. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	113	87	43	44	36	79	335	320	89	74	44
2	55	118	81	43	43	36	80	377	303	82	63	43
3	53	120	78	47	43	39	89	362	282	77	54	41
4	53	123	77	51	38	38	92	380	257	73	48	41
5	51	122	77	58	35	38	84	371	238	72	45	53
6	55	114	73	51	35	40	88	328	230	70	42	60
7	88	123	68	47	35	42	95	273	225	68	41	46
8	75	160	69	49	36	45	111	307	219	65	40	41
9	70	122	70	53	40	47	90	377	201	61	39	37
10	94	113	70	51	45	50	94	424	184	59	37	39
11	122	112	65	48	44	51	91	493	167	58	37	79
12	104	117	70	47	43	49	86	545	163	58	36	94
13	92	118	53	48	44	50	88	611	174	52	36	69
14	89	115	50	48	47	57	89	707	181	49	45	58
15	92	108	45	48	45	62	88	642	182	51	77	54
16	95	105	45	48	47	68	77	588	210	80	92	52
17	101	90	47	46	47	76	82	607	216	95	88	48
18	101	72	47	47	46	77	92	525	204	83	81	45
19	95	55	46	49	44	62	91	454	208	68	86	42
20	93	65	46	47	41	64	124	412	198	59	95	41
21	92	60	50	45	40	67	156	398	179	53	82	45
22	102	65	55	43	40	73	162	346	159	49	74	44
23	97	70	68	46	42	74	174	359	140	53	72	42
24	85	68	53	49	45	79	227	359	131	56	65	41
25	89	81	50	47	46	74	263	394	127	52	57	40
26	165	75	47	47	47	69	210	416	124	56	56	40
27	197	73	62	47	47	68	175	449	116	51	54	38
28	136	68	53	48	49	65	161	426	110	58	53	37
29	122	71	53	44	46	66	177	337	109	69	51	42
30	115	74	51	43	---	72	238	325	98	55	47	49
31	119	---	43	43	---	84	---	326	---	69	45	---
TOTAL	2953	2890	1849	1471	1244	1818	3753	13253	5655	1990	1812	1445
MEAN	95.3	96.3	59.6	47.5	42.9	58.6	125	428	189	64.2	58.5	48.2
MAX	197	160	87	58	49	84	263	707	320	95	95	94
MIN	51	55	43	43	35	36	77	273	98	49	36	37
AC-FT	5860	5730	3670	2920	2470	3610	7440	26290	11220	3950	3590	2870

CAL YR 1975 TOTAL 112693 MEAN 309 MAX 2150 MIN 37 AC-FT 223500
WTR YR 1976 TOTAL 40133 MEAN 110 MAX 707 MIN 35 AC-FT 79600

10296000 WEST WALKER RIVER BELOW LITTLE WALKER RIVER, NEAR COLEVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1959-66, 1970 to current year.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	SPECIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
APR 27...	1215	155	57	7.2	5.5	0	10.3	25	0
SEP 22...	1115	44	266	8.3	11.0	1	8.8	58	0

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)
APR 27...	6.1	3.2	31	0	25	2.0	38	.05	15.9
SEP 22...	17	32	122	0	100	9.1	151	.21	17.9

WALKER LAKE BASIN

10296500 WEST WALKER RIVER NEAR COLEVILLE, CA

LOCATION.--Lat 38°30'55", long 119°27'15", in NW¼NE¼ sec.28, T.8 N., R.23 E., Mono County, Toiyabe National Forest, on left bank 0.2 mi (0.3 km) downstream from Rock Creek, and 5 mi (8 km) southeast of Coleville.

DRAINAGE AREA.--271 mi² (702 km²).

PERIOD OF RECORD.--October 1902 to July 1908 (published as West Fork of Walker River near Coleville 1903, 1905-8 and as Walker River, West Fork, near Coleville 1904), March 1909 to September 1910, June 1915 to March 1938, May 1957 to current year. Monthly discharge only for some periods, published in WSP 1514.

REVISED RECORDS.--WSP 880: 1917 (runoff in acre-feet). WSP 1514: 1918, 1923. WSP 1927: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,520 ft (1,682 m) from topographic map. See WSP 2127 for history of changes prior to Sept. 10, 1963.

REMARKS.--Records good except those for the winter periods, which are fair. Station is above diversions except for a few small ranch ditches. Flow slightly regulated by Poor Lake Reservoir (capacity unknown) 17 mi (27 km) upstream.

AVERAGE DISCHARGE.--47 years (water years 1903-7, 1910, 1916-37, 1958-76), 273 ft³/s (7.731 m³/s), 197,800 acre-ft/yr (244 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,500 ft³/s (184 m³/s) Dec. 11, 1937, from slope-area measurement of peak flow; minimum, 5 ft³/s (0.11 m³/s) Dec. 3, 1924, Aug. 27, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 865 ft³/s (24.5 m³/s) May 14, gage height, 2.47 ft (0.753 m), no peak above base of 1,120 ft³/s (31.7 m³/s); minimum, 27 ft³/s (0.76 m³/s) Jan. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	112	98	58	56	51	95	302	338	108	91	58
2	70	117	92	60	54	49	95	370	322	100	81	56
3	69	117	90	65	56	51	99	347	296	93	75	55
4	68	119	89	72	50	53	104	374	273	90	64	54
5	67	118	88	74	50	52	97	373	254	88	60	60
6	68	113	86	65	50	54	101	333	247	84	57	78
7	91	115	80	68	50	56	102	268	241	82	54	63
8	87	148	81	68	54	59	116	296	236	80	52	56
9	81	121	82	66	58	62	101	365	220	76	51	51
10	92	119	85	59	62	67	106	410	208	74	49	50
11	122	108	80	68	55	69	102	473	192	71	47	78
12	111	119	86	64	60	65	98	538	184	70	46	104
13	100	119	72	64	63	69	100	603	191	66	45	86
14	97	117	63	65	63	74	101	719	198	61	56	74
15	98	112	60	61	58	80	99	658	196	64	76	69
16	100	109	60	63	59	85	87	580	220	81	103	68
17	101	99	62	63	64	91	91	613	227	106	97	63
18	101	83	62	60	61	95	105	535	217	96	94	60
19	97	68	61	61	59	77	98	469	220	83	96	58
20	95	75	62	60	57	82	118	431	212	74	106	57
21	94	70	68	60	55	85	147	419	195	67	95	61
22	99	76	79	60	54	91	155	367	178	64	88	60
23	99	81	73	66	55	91	163	379	159	67	85	58
24	90	78	80	60	60	96	200	379	147	73	79	56
25	95	91	74	56	63	92	243	412	143	66	75	54
26	122	89	74	55	65	87	203	425	140	70	71	54
27	190	86	78	58	64	88	174	455	132	65	68	52
28	133	90	76	54	67	85	159	451	126	67	66	50
29	123	76	74	57	68	84	170	360	125	82	64	55
30	115	80	73	57	---	87	214	343	116	71	62	66
31	115	---	59	54	---	98	---	343	---	80	60	---
TOTAL	3062	3025	2347	1921	1690	2325	3843	13390	6153	2419	2213	1864
MEAN	98.8	101	75.7	62.0	58.3	75.0	128	432	205	78.0	71.4	62.1
MAX	190	148	98	74	68	98	243	719	338	108	106	104
MIN	67	68	59	54	50	49	87	268	116	61	45	50
AC-FT	6070	6000	4660	3810	3350	4610	7620	26560	12200	4800	4390	3700
CAL YR 1975	TOTAL	117779	MEAN 323	MAX 2040	MIN 48	AC-FT 233600						
WTR YR 1976	TOTAL	44252	MEAN 121	MAX 719	MIN 45	AC-FT 87770						

10297000 TOPAZ LAKE NEAR TOPAZ, CA

LOCATION.--Lat 38°41'35", long 119°31'10", in NW¼NE¼ sec.33, T.10 N., R.22 E., Douglas County, Nevada, at outlet of Topaz Lake on West Walker River, 5.5 mi (8.8 km) north of Topaz.

PERIOD OF RECORD.--December 1921 to September 1931 (monthly contents only published in WSP 1734), October 1931 to current year.

GAGE.--Float and nonrecording gages read once daily. Datum of gage is at mean sea level (levels by Walker River Irrigation District).

REMARKS.--Topaz Lake, formerly known as Alkali Lake and Topaz Reservoir, was formed by the diversion of water from West Walker River through a feeder canal and the construction of an outlet tunnel through a low saddle in rim of lake. Storage began about December 1921. Usable capacity, 59,440 acre-ft (73.3 hm³) between elevations 4,972.3 ft (1,515.56 m), lowest practical elevation for diversion through tunnel, bottom of outlet tunnel at elevation, 4,970 ft (1,515 m) and 5,005 ft (1,526 m), 3 ft (0.9 m) below top of levee. Usable capacity of reservoir was increased from about 45,000 to 59,440 acre-ft (55.5 to 73.3 hm³) in October 1937 by an earthfill, rock-faced levee at south end. Figures given herein represent usable contents. There is 65,000 acre-ft (80.1 hm³) of lake volume below the point of controllable storage. Water is used for irrigation in Walker River Irrigation District.

COOPERATION.--Elevations furnished by Walker River Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 60,310 acre-ft (74.4 hm³) June 23, 1974, elevation, 5,005.38 ft (1,525.640 m); no usable contents Oct. 31, 1924, Sept. 22, 24-30, Oct. 1-15, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 50,000 acre-ft (61.6 hm³) Apr. 6, 7, 9-11, elevation, 5,000.77 ft (1,524.235 m); minimum, 5,790 acre-ft (71.4 hm³) Sept. 16, elevation, 4,976.03 ft (1,516.694 m).

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

4975	4180	4995	38100
4980	12130	5000	48350
4985	20390	5005	59440
4990	28970		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22420	24210	31210	36600	41490	46520	49790	47490	39970	27610	13450	8020
2	22320	24520	31470	36690	41630	46650	49810	47370	39470	26970	13380	7730
3	22220	24800	31710	36840	41800	46770	49870	47320	38860	26350	13380	7450
4	22120	25110	31940	36900	41980	46940	49940	47180	38250	25690	13370	7210
5	22050	25360	32120	37090	42140	47070	49980	47030	37590	25040	13330	7210
6	21940	25590	32300	37260	42310	47220	50000	46880	36940	24300	13350	6780
7	21790	25840	32500	37460	42470	47390	50000	46650	36370	23550	13330	6580
8	21660	26090	32680	37610	42650	47560	49980	46270	35750	22810	13320	6370
9	21370	26360	32870	37780	42860	47710	50000	45850	35150	22050	13270	6250
10	21580	26640	33050	37960	43060	47860	50000	45590	34600	21290	13220	6060
11	21640	26880	33250	38130	43270	48000	50000	45450	34010	20590	13120	6040
12	21780	27120	33430	38270	43390	48090	49960	45380	33810	19910	13020	5930
13	21860	27380	33620	38410	43560	48220	49920	45360	33380	19200	12910	5840
14	21980	27700	33760	38560	43700	48370	49920	45550	33290	18480	12800	5820
15	22050	27890	33910	38720	43870	48470	49850	45930	33240	17880	12550	5820
16	22130	28180	34030	38880	44050	48560	49810	46100	33200	17270	12280	5790
17	22220	28390	34180	39010	44300	48670	49760	46120	33180	16790	12000	5810
18	22220	28620	34340	39210	44530	48880	49740	46100	33160	16360	11730	5820
19	22180	28780	34470	39390	44740	48970	49720	45870	33140	15960	11500	5820
20	22200	28800	34640	39550	45030	49080	49720	45490	33110	15580	11270	5820
21	22200	29180	34800	39710	45030	49160	49680	45070	32980	15180	11060	5820
22	22240	29390	34970	39850	45180	49270	49610	44630	32710	14820	10850	5840
23	22290	29600	35110	40010	45320	49270	49440	44090	32390	14500	10630	5840
24	22390	29830	35280	40200	45490	49350	49230	43600	31980	14450	10360	5840
25	22510	30040	35470	40380	45590	49550	49080	43100	31550	14330	10100	5850
26	22680	30270	35630	40530	45740	49550	48860	42690	31050	14250	9790	5870
27	22850	30450	35820	40690	45890	49590	48620	42370	30460	14130	9500	5880
28	23190	30640	35970	40830	46060	49590	48430	42060	29870	13970	9230	5880
29	23480	30870	36140	41010	46180	49640	48030	41740	29180	13770	8940	5900
30	23700	31050	36330	41170	---	49700	47710	41230	28340	13630	8670	5900
31	23960	---	36480	41330	---	49740	---	40730	---	13560	8340	---
MAX	23960	31050	36480	41330	46180	49740	50000	47490	39970	27610	13450	8020
MIN	21370	24210	31210	36600	41490	46520	47710	40730	28340	13560	8340	5790
†	4987.10	4991.18	4994.16	4996.63	4998.98	5000.65	4999.70	4996.33	4989.64	4980.88	4977.64	4976.10
‡	+1450	+7090	+5430	+4850	+4850	+3560	-2030	-6980	-12390	-14780	-5220	-2440

CAL YR 1975 MAX 59970 MIN 21370 † +5980

WTR YR 1976 MAX 50000 MIN 5790 † -16610

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

WALKER LAKE BASIN

10297500 WEST WALKER RIVER AT HOYE BRIDGE, NEAR WELLINGTON, NV

LOCATION.--Lat 38°43'40", long 119°25'40", in NE¼SE¼ sec.17, T.10 N., R.23 E., Douglas County, on left bank 20 ft (6 m) upstream from Hoyer bridge, 2 mi (3 km) upstream from head of Saroni Canal, and 4 mi (6 km) southwest of Wellington.

DRAINAGE AREA.--533 mi² (1,380 km²).

PERIOD OF RECORD.--May to August 1910 (published as West Walker River near Wellington), July 1920 to September 1923, March 1924 to August 1925, October 1925 to September 1932, October 1957 to current year. Monthly discharge only for some periods published in WSP 1314.

REVISED RECORDS.--WSP 2127: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,980 ft (1,518 m), from topographic map. May to August 1910, nonrecording gage at same site at different datum. July 1, 1920, to Sept. 30, 1923, water-stage recorder at site 3 mi (5 km) downstream, 1 mi (2 km) downstream from Saroni Canal, at different datum, and supplemental nonrecording gage on Saroni Canal 1 mi (2 km) downstream from head. Mar. 1, 1924, to Sept. 30, 1932, water-stage recorder at same site at different datum.

REMARKS.--Records good. Flow regulated by off-channel storage in Topaz Lake (station 10297000) since Jan. 30, 1922. Diversions for irrigation of about 10,500 acres (42.5 km²) above station. Records include releases from Topaz Lake and all return flow from Antelope Valley.

AVERAGE DISCHARGE (unadjusted), --29 years (water years 1921-23, 1926-32, 1958-76), 234 ft³/s (6.627 m³/s), 169,500 acre-ft/yr (209 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,180 ft³/s (61.7 m³/s) June 6, 1922; minimum observed, 4.8 ft³/s (0.14 m³/s) Jan. 5, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 521 ft³/s (14.8 m³/s) May 18, gage height, 4.58 ft (1.396 m); minimum, 22 ft³/s (0.62 m³/s) Jan. 22, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	44	29	30	27	29	26	243	499	345	67	163
2	110	32	30	28	27	29	26	280	492	321	65	152
3	109	31	30	30	26	29	26	315	489	323	51	133
4	106	32	29	30	27	28	29	335	466	335	50	127
5	90	43	30	30	26	28	39	340	451	340	34	122
6	93	44	30	29	26	27	50	377	442	381	25	116
7	143	44	30	28	27	27	52	405	438	376	23	112
8	131	45	31	27	29	27	54	404	415	374	43	106
9	121	45	31	27	28	27	53	393	418	384	45	96
10	102	45	31	27	28	27	54	399	370	373	59	93
11	96	46	31	27	28	27	54	414	303	338	64	80
12	80	46	31	27	28	27	56	448	258	339	63	64
13	79	34	31	27	28	27	90	447	150	367	64	60
14	80	33	30	27	28	27	92	448	113	344	80	33
15	96	32	30	27	28	27	91	455	114	321	134	30
16	93	27	31	28	29	27	92	487	105	294	138	29
17	88	27	31	28	29	26	76	515	89	259	144	29
18	117	27	31	28	30	25	75	519	90	232	142	29
19	120	27	32	28	28	26	73	517	137	217	140	28
20	119	27	32	28	29	27	77	510	148	198	137	28
21	108	27	32	26	29	26	91	509	154	192	134	28
22	89	27	31	26	28	26	133	500	220	176	131	28
23	85	27	31	26	28	26	178	494	226	163	133	29
24	84	27	31	26	27	25	183	491	252	102	160	29
25	73	27	32	26	27	25	211	487	266	83	149	29
26	70	27	32	26	27	26	213	482	291	80	148	29
27	70	29	33	26	26	26	218	458	315	82	158	29
28	69	29	33	26	27	26	221	457	335	105	146	28
29	51	29	33	27	27	27	237	465	389	120	155	29
30	50	29	34	27	---	26	238	473	381	100	153	38
31	50	---	33	27	---	25	---	506	---	82	170	---
TOTAL	2881	1009	966	850	802	828	3108	13573	8816	7746	3205	1926
MEAN	92.9	33.6	31.2	27.4	27.7	26.7	104	438	294	250	103	64.2
MAX	143	46	34	30	30	29	238	519	499	384	170	163
MIN	50	27	29	26	26	25	26	243	89	80	23	28
AC-FT	5710	2000	1920	1690	1590	1640	6160	26920	17490	15360	6360	3820
CAL YR 1975	TOTAL	109978	MEAN 301	MAX 1710	MIN 23	AC-FT 218100						
WTR YR 1976	TOTAL	45710	MEAN 125	MAX 519	MIN 23	AC-FT 90670						

10308200 EAST FORK CARSON RIVER BELOW MARKLEEVILLE CREEK, NEAR MARKLEEVILLE, CA

LOCATION.--Lat 38°42'50", long 119°45'50", in SW¼NE¼ sec.15, T.10 N., R.20 E., Alpine County, on right bank 0.5 mi (0.8 km) downstream from Markleeville Creek, and 1.5 mi (2.4 km) north-northeast of Markleeville.

DRAINAGE AREA.--276 mi² (715 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 5,400 ft (1,646 m), from topographic map. Prior to Oct. 1, 1967, at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good. A few small diversions for irrigation above station. Flow slightly regulated by several small reservoirs, total capacity, about 5,000 acre-ft (6.16 hm³).

AVERAGE DISCHARGE.--16 years, 357 ft³/s (10.11 m³/s), 258,600 acre-ft/yr (319 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft³/s (428 m³/s) Jan. 31, 1963, gage height, 10.21 ft (3.112 m), present datum; minimum, 16 ft³/s (0.45 m³/s) Nov. 17, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 830 ft³/s (23.5 m³/s) May 14, gage height, 4.04 ft (1.231 m), no peak above base of 1,300 ft³/s (36.8 m³/s); minimum, 31 ft³/s (0.87 m³/s) Sept. 2-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	159	117	74	81	73	161	565	286	105	91	35
2	86	166	113	65	79	76	165	498	272	111	101	32
3	90	164	110	70	74	82	181	554	257	130	58	30
4	90	162	109	68	70	81	181	557	246	125	50	31
5	88	159	107	86	62	80	168	503	232	120	45	37
6	95	149	104	84	62	80	176	467	221	124	41	79
7	154	162	95	98	62	85	193	434	215	130	42	52
8	112	217	96	87	63	92	207	497	209	138	42	53
9	105	154	97	75	63	101	176	564	197	130	39	51
10	154	144	96	75	66	105	179	587	191	111	37	54
11	206	131	88	96	70	112	177	625	181	105	36	95
12	146	145	94	84	75	104	169	629	176	102	34	76
13	127	154	79	83	84	109	172	648	176	103	43	63
14	123	152	76	76	94	115	169	736	165	101	50	56
15	124	142	72	74	86	130	165	671	166	117	159	53
16	121	157	75	75	84	150	138	601	173	129	114	47
17	121	139	75	73	89	169	171	614	167	131	81	45
18	116	97	74	71	86	179	173	560	161	128	74	45
19	109	100	74	68	84	134	218	499	156	107	72	44
20	106	105	75	66	78	139	266	455	153	98	71	43
21	104	102	80	65	86	147	278	410	152	91	61	54
22	113	100	84	64	87	159	302	377	141	88	60	46
23	108	113	83	70	81	161	341	370	130	90	67	42
24	93	109	89	72	82	168	423	360	124	93	57	40
25	105	109	84	71	82	161	367	365	117	87	51	40
26	345	108	81	72	92	149	310	352	112	80	46	39
27	348	106	84	80	97	147	287	363	107	72	46	38
28	195	103	80	84	102	141	301	351	100	68	46	36
29	173	96	80	82	106	142	357	314	99	73	45	37
30	168	123	79	82	---	148	464	303	94	64	40	49
31	168	---	71	79	---	177	---	294	---	65	41	---
TOTAL	4267	4027	2721	2369	2327	3896	7035	15123	5176	3216	1840	1442
MEAN	134	134	87.8	76.4	80.2	126	235	488	173	104	59.4	48.1
MAX	348	217	117	98	106	179	464	736	286	138	159	95
MIN	74	96	71	64	62	73	138	294	94	64	34	30
AC-FT	8460	7990	5400	4700	4620	7730	13950	30000	10270	6380	3650	2860
CAL YR 1975	TOTAL	146235	MEAN 401	MAX 2660	MIN 65	AC-FT 290100						
ATY FR 1976	TOTAL	53439	MEAN 146	MAX 736	MIN 30	AC-FT 106000						

10309000 EAST FORK CARSON RIVER NEAR GARDNERVILLE, NV

LOCATION.--Lat 38°50'50", long 119°42'10", in SW¼NE¼ sec.2, T.11 N., R.20 E., Douglas County, on left bank 0.1 mi (0.2 km) downstream from Horseshoe Bend, 2 mi (3 km) east of Mud Lake Reservoir, 4.5 mi (7.2 km) downstream from Bryant Creek, and 7 mi (11 km) southeast of Gardnerville.

DRAINAGE AREA.--341 mi² (883 km²).

PERIOD OF RECORD.--January 1890 to December 1893, October 1900 to December 1906 (gage heights only August to December 1904, and July 1905 to December 1906), January 1908 to December 1910, June to October 1917, December 1924 to September 1928, June to September 1929, October 1935 to December 1937, May 1939 to current year. Monthly discharge only for some periods published in WSP 1314.

REVISED RECORDS.--WSP 1214: 1938(M), 1942-43(M), 1945(M). WSP 1514: 1909-10. WSP 1927: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,985.11 ft (1,519.462 m) above mean sea level (levels by Bureau of Reclamation). Prior to May 19, 1939, nonrecording gages at several sites within 2 mi (3 km) of present site at various datums.

REMARKS.--Records good. Station is above all diversions in Carson Valley. Diversions for irrigation above station. Flow slightly regulated by several small reservoirs, total capacity, about 5,000 acre-ft (6.16 hm³).

AVERAGE DISCHARGE.--50 years (water years 1891-93, 1901-1903, 1909-10, 1926-28, 1936-37, 1940-76), 387 ft³/s (11.0 m³/s), 280,400 acre-ft/yr (346 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,600 ft³/s (498 m³/s) Dec. 23, 1955, gage height, 11.88 ft (3.621 m), from rating curve extended above 6,000 ft³/s (170 m³/s), on basis of slope-area measurements at gage heights 9.66 ft (2.944 m) and 11.88 ft (3.621 m); minimum observed, 8 ft³/s (0.23 m³/s) Dec. 4-10, 19-23, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 906 ft³/s (25.6 m³/s) May 14, gage height, 2.68 ft (0.817 m), no peak above base of 1,300 ft³/s (36.8 m³/s); minimum, 36 ft³/s (1.02 m³/s) Sept. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	163	138	94	92	96	168	504	305	104	109	44
2	85	169	132	75	91	82	168	586	291	109	143	39
3	92	168	128	85	91	100	186	528	277	135	91	38
4	93	168	126	80	93	95	194	579	261	131	70	37
5	92	165	125	105	82	98	173	563	247	125	63	39
6	92	156	122	102	79	103	184	499	235	129	59	79
7	155	150	113	122	78	105	183	440	227	134	57	64
8	122	226	113	100	78	115	223	516	223	149	58	60
9	109	154	115	103	78	114	183	598	215	144	55	59
10	138	160	119	88	80	117	185	610	202	127	52	64
11	218	123	107	97	83	127	185	670	193	119	51	101
12	158	156	116	99	100	116	177	682	185	117	48	94
13	132	167	102	96	103	121	176	684	182	117	57	77
14	125	167	93	98	111	124	179	791	179	114	58	72
15	125	154	90	95	98	132	179	731	166	129	145	69
16	123	165	95	90	93	149	158	636	170	145	151	62
17	123	157	95	88	106	169	146	655	176	152	102	59
18	120	117	95	88	99	188	187	594	168	150	86	58
19	114	110	95	86	102	145	180	525	162	134	83	57
20	109	120	95	80	81	144	238	477	157	122	83	59
21	107	115	100	78	91	153	279	437	154	113	74	69
22	111	124	105	76	92	162	286	401	151	110	67	66
23	115	128	100	80	95	165	314	393	141	122	76	60
24	102	124	105	84	96	168	364	381	131	125	67	58
25	103	125	105	83	94	167	442	386	124	114	59	57
26	320	125	102	83	101	155	368	377	118	107	52	58
27	400	126	108	98	109	155	316	382	113	97	51	57
28	208	125	103	99	111	147	295	383	106	91	51	55
29	179	102	105	93	129	148	316	333	100	102	50	57
30	171	150	103	95	---	149	386	322	96	91	47	75
31	172	---	91	91	---	178	---	312	---	89	45	---
TOTAL	4391	4369	3341	2831	2736	4187	7018	15975	5455	3747	2260	1843
MEAN	142	146	108	91.3	94.3	135	234	515	182	121	72.9	61.4
MAX	400	226	138	122	129	188	442	791	305	152	151	101
MIN	79	102	90	75	78	82	146	312	96	89	45	37
AC-FT	4710	4670	6630	5620	5430	8300	13920	31690	10820	7430	4480	3660
CAL YR 1975 TOTAL	155496		MEAN 426	MAX 2660	MIN 65	AC-FT 308400						
WTR YR 1976 TOTAL	58153		MEAN 159	MAX 791	MIN 37	AC-FT 115300						

10310000 WEST FORK CARSON RIVER AT WOODFORDS, CA

LOCATION.--Lat 38°46'10", long 119°49'55", in NW¼SE¼ sec.34, T.11 N., R.19 E., Alpine County, Toiyabe National Forest, on left bank 0.3 mi (0.5 km) downstream from bridge on State Highway 88-89, 0.6 mi (1.0 km) southwest of Woodfords, and 3.8 mi (6.1 km) downstream from Willow Creek.

DRAINAGE AREA.--65.6 mi² (169.9 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1900 to May 1907, 1910-11 (fragmentary), October 1938 to current year. Monthly discharge only for some periods, published in WSP 1314. January 1890 to March 1892, June 1907 to September 1920 (except portions of 1910-11), at site 0.7 mi (1.1 km) downstream; records not equivalent owing to diversions for irrigation.

REVISED RECORDS.--WSP 1927: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,760 ft (1,756 m), from river-profile map. Prior to Oct. 1, 1938, nonrecording gage at same site at different datum. Oct. 1, 1938, to Nov. 11, 1958, water-stage recorder at same site at datum 1.02 ft (0.311 m) lower. Nov. 13, 1958, to Jan. 30, 1963, water-stage recorder at site 150 ft (46 m) downstream at datum 3.06 ft (0.933 m) lower.

REMARKS.--Records good. One small diversion station for irrigation. Flow slightly regulated by several small reservoirs, total capacity, about 1,500 acre-ft (1.85 hm³).

AVERAGE DISCHARGE.--45 years (water years 1901-1907, 1939-76), 113 ft³/s (3.200 m³/s), 81,870 acre-ft/yr (101 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,890 ft³/s (138 m³/s) Feb. 1, 1963, gage height, 9.0 ft (2.74 m), on basis of slope-area measurement of peak flow; minimum, about 5 ft³/s (0.14 m³/s) Dec. 23, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 11, 1937, reached a stage of 8.0 ft (2.44 m) present datum, from floodmarks, discharge, 3,500 ft³/s (99.1 m³/s) by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 259 ft³/s (7.33 m³/s) Oct. 26, gage height, 2.37 ft (0.722 m), no peak above base of 500 ft³/s (14.2 m³/s); minimum daily, 9.3 ft³/s (0.26 m³/s) July 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	53	36	25	27	20	65	147	62	20	18	29
2	22	54	36	23	27	29	73	153	58	19	14	26
3	22	53	37	25	27	30	79	145	54	19	15	23
4	22	50	37	25	24	30	73	150	51	18	22	17
5	22	48	38	26	22	30	71	148	49	24	32	15
6	25	45	35	26	23	31	80	139	45	43	31	16
7	42	49	34	26	23	31	85	138	47	44	21	15
8	30	67	34	28	23	31	93	141	85	49	16	14
9	27	48	34	28	24	31	71	151	88	51	15	14
10	44	42	34	27	25	32	72	146	90	35	14	14
11	57	44	31	28	26	34	72	156	87	17	15	19
12	42	48	33	28	27	32	64	153	60	15	14	18
13	39	49	28	27	28	33	65	153	37	14	13	16
14	37	50	26	27	28	34	65	168	36	16	15	19
15	37	47	25	27	26	36	67	156	34	21	30	19
16	37	60	25	28	27	42	56	137	33	24	35	18
17	36	46	24	28	28	54	60	140	32	26	32	17
18	35	32	24	27	27	54	66	129	31	25	30	16
19	34	31	24	27	23	41	72	116	30	24	29	16
20	33	31	24	26	24	43	101	105	30	28	26	16
21	33	33	25	22	25	46	112	99	35	28	21	16
22	37	36	28	23	27	55	118	95	67	27	19	15
23	37	36	27	24	27	64	127	93	66	25	17	14
24	34	36	27	27	27	76	142	89	63	14	16	14
25	35	36	29	25	27	67	142	89	59	9.9	15	14
26	144	35	29	26	28	54	117	85	40	9.6	17	14
27	106	36	31	26	29	51	100	84	25	9.3	16	14
28	62	34	32	27	32	52	93	85	23	9.6	14	14
29	53	32	32	27	31	55	103	71	22	11	14	14
30	50	37	31	28	---	65	123	66	21	12	16	15
31	51	---	26	27	---	77	---	63	---	16	29	---
TOTAL	1307	1298	936	814	762	1360	2627	3790	1460	703.4	631	501
MEAN	42.2	43.3	30.2	26.3	26.3	43.9	87.6	122	48.7	22.7	20.4	16.7
MAX	144	67	38	28	32	77	142	168	90	51	35	29
MIN	22	31	24	22	22	20	56	63	21	9.3	13	14
AC-FT	2590	2570	1860	1610	1510	2700	5210	7520	2900	1400	1250	994
CAL YR 1975 TOTAL	42400.0		MEAN 116	MAX 894	MIN 20	AC-FT 84100						
WTR YR 1976 TOTAL	16189.4		MEAN 44.2	MAX 168	MIN 9.3	AC-FT 32110						

CARSON RIVER BASIN

10310000 WEST FORK CARSON RIVER AT WOODFORDS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1959 to current year.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
APR 27...	1000	91	60	7.2	4.0	1	10.6	26	0
SEP 22...	0745	15	85	7.7	7.0	0	9.6	31	0

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)
APR 27...	6.6	3.0	33	0	27	2.5	45	.06	11.1
SEP 22...	10	5.2	45	0	37	1.5	61	.08	2.47

10336500 PYRAMID LAKE NEAR NIXON, NV

LOCATION.--Lat 39°59'05", long 119°30'00", in NE¼NW¼ sec.3, T.24 N., R.22 E., Washoe County, Pyramid Lake Indian Reservation, 0.25 mi (0.40 km) north of the Pyramid, 1.6 mi (2.6 km) northeast of Anaho Island, and 13 mi (21 km) northwest of Nixon.

DRAINAGE AREA.--2,720 mi² (7,040 km²).

PERIOD OF RECORD.--1867-1924 (occasional elevations in some years), June 1926 to current year (occasional elevations in each year).

REVISED RECORDS.--WSP 880: 1934-38 (bench mark). WSP 1090: 1926(M). WDR NV-67-1: 1966.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level, U.S. Coast and Geodetic Survey Bench Mark N-21, elevation, 3,940.29 ft (1,201.000 m), datum of 1929, supplementary adjustment of 1956. See WSP 1927 for history of changes prior to Aug. 6, 1968.

REMARKS.--Truckee Canal (station 10351400) diverts water out of the basin to Lahontan Reservoir (station 10312100). Elevations are given to the nearest 0.1 ft (0.03 m) and contents to four significant figures in order to reflect trends of change. Any single observation, however, may be affected by wind and seiche movements on the lake surface. Elevations published for 1867 and 1871 may have been 9 ft (2.7 m) lower because of uncertainty of date of photograph on which they were based.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 3,884.9 ft (1,184.12 m) in 1871 (see REMARKS); minimum observed, 3,783.9 ft (1,153.33 m) Feb. 6 to Mar. 6, 1967.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	3797.3	21420000	--
Oct. 31.....	3797.2	21410000	-10000
Nov. 30.....	3797.0	21390000	-20000
Dec. 31.....	3797.1	21400000	+10000
CAL YR 1975.....	--	--	+200000
Jan. 31.....	3797.1	21400000	0
Feb. 29.....	3797.3	21420000	+20000
Mar. 31.....	3797.5	21440000	+20000
Apr. 30.....	3797.5	21440000	0
May 31.....	3797.4	21430000	-10000
June 30.....	3797.4	21430000	0
July 31.....	3797.5	21440000	+10000
Aug. 31.....	3796.9	21380000	-60000
Sept. 30.....	3796.5	21340000	-40000
WTR YR 1976.....	--	--	-80000

NOTE.--Monthend elevations are interpolated from readings made during the month.

PYRAMID AND WINNEMUCCA LAKES BASIN

10336600 UPPER TRUCKEE RIVER NEAR MEYERS, CA

LOCATION.--Lat 38°50'35", long 120°01'25", in NE¼SE¼ sec.31, T.12 N., R.18 E., El Dorado County, on left bank 0.4 mi (0.6 km) upstream from mouth of Echo Lake outlet, 1.1 mi (1.8 km) southwest of Meyers, and 2.5 mi (4.0 km) upstream from Angora Creek.

DRAINAGE AREA.--33.1 mi² (85.7 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 6,325 ft (1,928 m), from topographic map.

REMARKS.--Records good except those for the winter period and period of no gage-height record, which are fair. No regulation. Some small diversions above station for domestic use.

AVERAGE DISCHARGE.--16 years, 65.2 ft³/s (1.846 m³/s), 47,240 acre-ft/yr (58.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,550 ft³/s (72.2 m³/s) Feb. 1, 1963, gage height, 12.41 ft (3.783 m); minimum, 2.0 ft³/s (0.057 m³/s) Jan. 13, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.66 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Oct. 26	1615	*425	12.0	7.37	2.246
May 4	2230	204	5.78	5.95	1.814
May 13	2145	301	8.52	6.63	2.021

Minimum daily discharge, 2.8 ft³/s (0.079 m³/s) Sept. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	36	18	15	12	16	28	132	50	8.8	5.0	2.9
2	5.8	37	20	15	12	16	30	134	47	8.7	4.5	2.8
3	5.8	38	20	15	12	16	36	137	43	9.3	3.8	2.8
4	5.6	37	20	15	12	16	37	156	40	7.4	3.8	2.9
5	5.4	36	20	15	12	16	35	146	37	6.9	3.8	3.0
6	8.3	33	19	15	12	16	39	119	35	6.8	3.6	3.2
7	18	75	19	13	12	15	43	105	34	7.4	3.6	3.1
8	9.7	74	18	13	12	15	50	131	32	6.3	3.6	3.0
9	8.8	41	18	13	12	15	40	137	32	5.8	3.6	3.1
10	16	33	18	13	12	14	39	137	32	5.4	3.6	3.3
11	25	30	17	13	12	15	39	158	32	5.2	3.5	5.4
12	20	31	17	13	12	14	35	170	29	5.0	3.5	5.0
13	17	30	17	13	12	15	33	193	28	4.8	3.3	4.0
14	17	30	15	13	12	15	32	207	26	4.8	4.9	3.8
15	19	29	14	13	12	16	33	167	24	4.7	28	3.5
16	20	57	14	13	12	19	29	157	24	4.8	15	3.9
17	21	45	14	13	12	25	28	147	22	4.8	9.8	4.0
18	19	33	14	14	12	28	30	124	21	4.6	7.8	3.9
19	16	30	14	14	12	23	35	107	20	4.4	7.3	4.0
20	15	27	14	14	12	22	54	94	18	4.2	6.5	3.9
21	14	26	14	13	12	22	67	92	17	4.1	5.2	4.6
22	22	24	14	13	12	26	76	91	16	4.0	5.2	4.3
23	18	22	14	13	12	28	84	83	15	4.4	6.1	3.8
24	15	22	14	13	12	29	96	78	14	4.6	5.0	3.7
25	15	21	15	12	12	27	97	78	12	4.0	4.9	3.8
26	202	21	15	12	12	24	75	74	12	3.8	4.0	3.4
27	92	21	15	12	13	23	63	75	11	3.7	3.8	3.7
28	54	21	15	12	14	23	61	68	9.9	3.7	3.5	3.9
29	43	21	15	12	16	24	72	58	9.3	3.6	3.4	4.1
30	40	20	15	12	---	26	100	55	9.1	3.6	3.3	4.7
31	35	---	15	12	---	31	---	54	---	3.8	3.3	---
TOTAL	828.4	1001	501	411	355	630	1516	3664	751.3	163.4	176.2	111.5
MEAN	26.7	33.4	16.2	13.3	12.2	20.3	50.5	118	25.0	5.27	5.68	3.72
MAX	202	75	20	15	16	31	100	207	50	9.3	28	5.4
MIN	5.4	20	14	12	12	14	28	54	9.1	3.6	3.3	2.8
AC-FT	1640	1990	994	815	704	1250	3010	7270	1490	324	349	221

CAL YR 1975 TOTAL 26723.4 MEAN 73.2 MAX 558 MIN 5.4 AC-FT 53010
WTR YR 1976 TOTAL 10108.8 MEAN 27.6 MAX 207 MIN 2.8 AC-FT 20050

NOTE.--No gage-height record July 8 to Aug. 9.

10336625 FALLEN LEAF LAKE NEAR CAMP RICHARDSON, CA

LOCATION.--Lat 38°54'00", long 120°04'14", in NE¼SW¼ sec.11, T.12 N., R.17 E., El Dorado County, Eldorado National Forest, on left bank near center of lake, 200 ft (61 m) north of Cathedral Creek, 1.5 mi (2.4 km) south of Fallen Leaf Dam, 2.9 mi (4.7 km) southwest of Camp Richardson, and 3.7 mi (6.0 km) west of South Lake Tahoe Post Office.

DRAINAGE AREA.--16.7 mi² (43.3 km²).

PERIOD OF RECORD.--October 1968 to current year. Prior to October 1973, published as "near Tahoe Valley."

GAGE.--Water-stage recorder. Datum of gage is 6,372.30 ft (1,942.277 m) above mean sea level.

REMARKS.--Lake levels regulated by a concrete dam at the outlet constructed in 1934. Regulation is for maintenance of lake level and enhancement of fishery.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 5.51 ft (1.679 m) Jan. 22, 1970; minimum, 1.84 ft (0.561 m) Nov. 10, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 4.07 ft (1.241 m) May 13, 14; minimum, 2.18 ft (0.664 m) Feb. 3.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.11	2.86	2.42	2.23	2.20	2.49	2.97	3.80	3.76	3.75	3.48	3.59
2	3.08	2.81	2.41	2.23	2.21	2.50	2.98	3.88	3.76	3.74	3.46	3.58
3	3.05	2.77	2.41	2.22	2.18	2.51	3.00	3.93	3.75	3.73	3.45	3.58
4	3.02	2.72	2.39	2.22	2.21	2.51	3.02	3.98	3.75	3.72	3.43	3.57
5	2.98	2.68	2.38	2.25	2.20	2.51	3.05	4.01	3.75	3.71	3.41	3.58
6	3.05	2.66	2.38	2.23	2.20	2.51	3.06	3.99	3.75	3.70	3.36	3.57
7	3.01	2.71	2.37	2.23	2.20	2.51	3.08	3.95	3.73	3.69	3.34	3.56
8	2.97	2.74	2.37	2.21	2.22	2.51	3.11	3.95	3.75	3.68	3.33	3.55
9	2.93	2.74	2.35	2.25	2.25	2.52	3.13	3.98	3.76	3.66	3.30	3.54
10	3.05	2.77	2.35	2.25	2.25	2.52	3.15	4.01	3.77	3.65	3.29	3.57
11	3.03	2.75	2.35	2.24	2.25	2.52	3.17	4.04	3.78	3.63	3.28	3.58
12	2.98	2.73	2.36	2.23	2.25	2.53	3.19	4.06	3.78	3.62	3.26	3.57
13	2.92	2.68	2.35	2.23	2.26	2.54	3.23	4.07	3.79	3.61	3.22	3.56
14	2.88	2.64	2.34	2.23	2.28	2.56	3.25	4.07	3.80	3.60	3.32	3.55
15	2.83	2.62	2.33	2.23	2.28	2.57	3.30	4.03	3.80	3.59	3.54	3.52
16	2.81	2.73	2.32	2.23	2.29	2.59	3.30	3.97	3.80	3.62	3.59	3.48
17	2.77	2.72	2.32	2.22	2.28	2.62	3.31	3.92	3.82	3.61	3.60	3.46
18	2.76	2.68	2.31	2.22	2.28	2.69	3.32	3.87	3.83	3.60	3.62	3.44
19	2.74	2.65	2.31	2.21	2.32	2.72	3.34	3.82	3.84	3.58	3.63	3.42
20	2.72	2.62	2.30	2.21	2.32	2.73	3.37	3.76	3.84	3.57	3.64	3.38
21	2.69	2.60	2.28	2.21	2.30	2.76	3.42	3.77	3.84	3.55	3.64	3.37
22	2.70	2.57	2.31	2.21	2.29	2.77	3.46	3.75	3.84	3.53	3.65	3.35
23	2.67	2.55	2.31	2.21	2.27	2.78	3.51	3.74	3.84	3.56	3.66	3.33
24	2.63	2.53	2.30	2.21	2.27	2.83	3.58	3.75	3.84	3.53	3.65	3.32
25	2.60	2.50	2.30	2.21	2.25	2.85	3.63	3.78	3.85	3.53	3.64	3.30
26	3.33	2.48	2.29	2.21	2.24	2.87	3.65	3.82	3.84	3.52	3.63	3.27
27	3.28	2.47	2.28	2.21	2.24	2.88	3.66	3.83	3.84	3.51	3.63	3.24
28	3.16	2.47	2.28	2.22	2.25	2.90	3.66	3.82	3.83	3.50	3.62	3.22
29	3.02	2.45	2.26	2.23	2.44	2.91	3.66	3.80	3.80	3.48	3.61	3.20
30	3.01	2.43	2.26	2.21	---	2.93	3.71	3.79	3.77	3.47	3.60	3.17
31	2.93	---	2.24	2.21	---	2.95	---	3.77	---	3.47	3.60	---
MEAN	2.93	2.64	2.33	2.22	2.26	2.66	3.31	3.89	3.80	3.60	3.50	3.45
MAX	3.33	2.86	2.42	2.25	2.44	2.95	3.71	4.07	3.85	3.75	3.66	3.59
MIN	2.60	2.43	2.24	2.21	2.18	2.49	2.97	3.74	3.73	3.47	3.22	3.17

CAL YR 1975 MAX 4.39 MIN 2.08
WTR YR 1976 MAX 4.07 MIN 2.18

LOCATION.--Lat 38°55'18", long 120°03'37", in NE¼NW¼ sec.2, T.12 N., R.17 E., El Dorado County, Eldorado National Forest, on left bank 0.1 mi (0.2 km) downstream from Fallen Leaf Lake outlet, and 1.4 mi (2.3 km) southwest of Camp Richardson.

EXTREMES FOR CURRENT YEAR:--Maximum discharge, 151 ft³/s (4.28 m³/s) Oct. 27, gage height, 4.22 ft (1.286 m); minimum daily, 1.5 ft³/s (0.042 m³/s) June 29, 30.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	63	20	9.0	8.0	8.9	1.8	41	25	2.1	3.0	3.8
2	12	56	19	8.9	7.9	8.9	3.0	44	17	3.2	4.2	4.1
3	12	50	19	8.8	8.6	8.9	3.8	53	20	3.0	3.8	3.6
4	11	46	19	8.2	8.9	8.6	3.8	61	15	3.1	3.8	3.1
5	10	42	18	9.3	8.2	8.6	3.9	74	11	3.0	3.6	3.3
6	13	38	17	9.1	8.1	8.6	4.0	99	11	3.0	3.9	3.6
7	16	39	17	8.9	8.0	8.6	4.0	94	9.5	3.1	3.8	3.4
8	15	44	16	10	8.2	8.6	4.2	89	5.7	2.9	3.8	3.6
9	15	47	16	10	9.0	8.4	4.3	83	5.5	2.9	3.8	3.5
10	30	51	15	10	9.8	8.1	4.6	86	5.6	2.9	3.9	3.8
11	49	43	15	10	9.6	5.4	5.0	91	5.6	3.0	4.0	4.1
12	44	37	16	10	9.4	3.6	5.3	96	5.5	3.0	3.8	4.1
13	39	45	16	9.4	9.5	3.5	5.9	117	5.3	3.0	3.8	3.9
14	34	42	14	9.6	11	3.1	6.9	137	5.4	3.1	3.8	4.0
15	31	39	14	9.5	11	3.0	9.0	141	6.1	3.0	4.0	7.2
16	28	42	14	9.2	11	3.0	9.4	129	6.0	2.7	3.9	14
17	27	45	13	9.0	11	3.0	10	124	5.9	2.7	4.1	11
18	25	42	13	8.5	11	3.2	11	108	4.3	3.0	4.3	11
19	24	39	13	8.4	12	3.2	12	93	2.2	3.2	4.3	10
20	23	37	12	8.2	12	3.3	13	87	3.1	3.4	4.4	10
21	23	33	12	8.2	11	2.9	16	64	3.2	3.4	4.5	10
22	35	31	12	8.2	11	2.3	19	52	3.2	3.2	4.6	10
23	39	29	12	8.2	11	2.2	22	51	2.4	2.8	4.7	10
24	35	27	12	8.4	10	2.2	25	33	2.3	2.6	4.3	10
25	34	26	12	8.3	7.9	2.1	29	23	1.8	2.9	3.9	10
26	83	25	11	8.0	7.8	2.1	32	25	1.7	2.9	3.9	11
27	146	23	11	8.0	8.1	2.1	33	32	1.9	2.9	3.8	11
28	122	23	11	8.0	8.0	2.1	34	43	1.7	2.2	4.1	11
29	102	22	11	7.7	8.5	2.1	34	36	1.5	2.0	5.1	11
30	86	21	12	7.7	---	2.0	37	33	1.5	2.1	4.2	11
31	74	---	9.6	8.0	---	1.7	---	32	---	2.1	3.9	---
TOTAL	1250	1147	441.6	272.7	275.5	144.3	405.9	2271	195.9	88.4	125.0	220.1
MEAN	40.3	38.2	14.2	8.80	9.50	4.65	13.5	73.3	6.53	2.85	4.03	7.34
MAX	146	63	20	10	12	8.9	37	141	25	3.4	5.1	14
MIN	10	21	9.6	7.7	7.8	1.7	1.8	23	1.5	2.0	3.0	3.1
AC-FT	2480	2280	876	541	546	286	805	4500	389	175	248	437
CAL YR 1975	TOTAL	16601.5	MEAN	45.5	MAX	292	MIN	4.0	AC-FT	32930		
WTR YR 1976	TOTAL	6837.4	MEAN	18.7	MAX	146	MIN	1.5	AC-FT	13560		

LOCATION (REVISED).--Lat 39°06'27", long 120°09'40", in NW¼NE¼ sec.36, T.15 N., R.16 E., Placer County, on right bank 300 ft (91 m) upstream from bridge on State Highway 89, 1,000 ft (305 m) upstream from Lake Tahoe, and 4.6 mi (7.4 km) south of Tahoe City.

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder. Altitude of gage is 6,240 ft (1,902 m), from topographic map. Oct. 1, 1964, to Aug. 27, 1970, at site 400 ft (122 m) downstream at datum 12 ft (3.658 m) lower. Prior to Oct. 1, 1964, at site 400 ft (122 m) downstream at datum 10.25 ft (3.124 m) lower.

AVERAGE DISCHARGE.--16 years, 37.4 ft³/s (1.059 m³/s), 27,100 acre-ft/yr (33.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft³/s (59.5 m³/s) Dec. 22 or 24, 1964, from indirect measurement of peak flow; maximum gage height, 9.90 ft (3.018 m) Dec. 22, 1964; minimum discharge, 0.30 ft³/s (0.008 m³/s) Sept. 19, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 274 ft³/s (7.76 m³/s) Oct. 26 (1300 hrs) ¹/₂ gage height, 2.28 ft (0.695 m), no other peak above base of 200 ft³/s (5.66 m³/s); minimum, daily, 2.2 ft³/s (0.062 m³/s) Aug. 13, Sept. 4, 5, 7-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

NAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	19	13	7.6	6.5	10	19	73	27	5.3	3.3	2.4
2	2.7	18	12	7.6	6.4	9.5	20	72	25	5.2	2.8	2.3
3	2.7	17	12	7.6	6.2	9.4	22	76	23	5.1	2.5	2.3
4	2.7	17	12	7.6	6.0	9.5	24	79	21	4.9	2.5	2.2
5	2.7	16	12	7.6	6.0	9.5	24	73	20	4.4	2.5	2.2
6	5.4	15	12	7.3	6.1	9.6	22	64	19	4.3	2.4	2.3
7	7.2	34	11	7.0	6.4	9.7	23	75	18	4.2	2.4	2.2
8	4.1	31	11	6.9	6.4	10	26	85	17	4.0	2.4	2.2
9	3.7	22	11	6.9	6.4	10	23	81	18	3.7	2.4	2.2
10	9.7	19	11	6.9	6.2	11	23	81	17	3.6	2.4	2.3
11	12	19	10	6.9	6.1	11	22	85	17	3.4	2.3	3.0
12	8.2	18	10	6.9	6.2	11	21	84	16	3.3	2.3	2.5
13	7.2	18	9.3	6.9	6.3	11	20	92	15	3.2	2.2	2.4
14	7.2	18	9.0	6.9	6.4	12	20	96	14	3.1	3.2	2.4
15	8.5	18	9.0	6.9	6.4	12	20	79	13	3.1	17	2.4
16	8.8	45	9.0	6.9	6.7	14	19	76	12	3.2	7.1	2.4
17	9.1	28	9.0	7.0	6.7	18	19	72	11	3.2	4.7	2.4
18	8.7	20	9.0	7.0	6.7	19	20	64	11	3.0	4.7	2.4
19	8.1	19	9.0	7.1	6.7	18	25	56	10	2.9	4.6	2.4
20	7.9	18	9.0	7.0	6.7	17	34	51	9.8	2.7	4.1	2.4
21	7.4	17	8.9	6.8	6.7	17	40	48	9.5	2.7	3.6	2.4
22	13	16	8.9	6.8	6.7	19	46	46	9.0	2.6	3.6	2.4
23	9.3	15	8.6	6.8	6.7	20	50	45	8.3	2.9	3.6	2.3
24	7.7	15	8.6	6.8	7.0	21	57	42	7.8	3.0	3.2	2.3
25	7.5	15	8.6	6.7	7.0	18	58	40	7.2	2.7	3.0	2.3
26	137	14	8.3	6.6	7.0	17	49	38	6.6	2.5	2.9	2.3
27	46	14	8.2	6.6	7.2	17	43	38	6.3	2.5	2.8	2.3
28	27	13	8.4	6.5	9.1	16	43	35	5.9	2.5	2.8	2.3
29	21	12	8.7	6.4	12	17	49	31	5.7	2.4	2.5	2.3
30	21	13	8.4	6.5	---	19	60	29	5.4	2.4	2.5	2.3
31	19	---	7.6	6.4	---	20	---	28	---	2.4	2.4	---
TOTAL	445.3	573	302.5	215.4	196.9	442.2	941	1934	405.5	104.4	110.7	70.5
MEAN	14.4	19.1	9.76	6.95	6.79	14.3	31.4	62.4	13.5	3.37	3.57	2.35
MAX	137	45	13	7.6	12	21	60	96	27	5.3	17	3.0
MIN	2.7	12	7.6	6.4	6.0	9.4	19	28	5.4	2.4	2.2	2.2
AC-FT	883	1140	600	427	391	877	1870	3840	804	207	220	140
CAL YR 1975	TOTAL	14462.9	MEAN	39.6	MAX	336	MIN	2.7	AC-FT	28690		
WTR YR 1976	TOTAL	5741.4	MEAN	15.7	MAX	137	MIN	2.2	AC-FT	11390		

10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1974 to current year.

SEDIMENT RECORDS: October 1974 to current year.

COOPERATION.--Selected sediment samples and water temperature readings furnished by University of California at Davis.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 247 mg/L Oct. 26, 1975; minimum daily mean, 0 mg/L on many days each year.

SEDIMENT DISCHARGE: Maximum daily, 172 tons (156 tonnes) May 31, 1975; minimum daily, 0 tons (0 tonnes) on many days each year.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 247 mg/L Oct. 26; minimum daily mean, 0 mg/L on many days during October and January.

SEDIMENT DISCHARGE: Maximum daily, 133 tons (121 tonnes) Oct. 26; minimum daily, 0 tons (0 tonnes) on many days during October and January.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0	---	2.5	---	3.0	---	---	6.5	13.5	---	---	---
2	---	---	---	---	---	---	7.5	6.0	---	---	---	---
3	---	---	---	---	---	---	---	9.5	11.0	---	---	---
4	---	---	---	---	---	---	---	10.0	---	---	---	---
5	---	---	5.0	---	---	---	---	7.0	---	---	---	---
6	8.0	---	---	---	---	---	---	6.5	---	---	---	---
7	---	---	---	---	---	---	7.0	10.0	---	---	---	---
8	---	---	---	2.0	---	---	---	8.5	---	12.5	---	---
9	---	1.0	---	---	---	2.0	---	5.5	8.5	---	16.0	---
10	---	---	---	---	2.5	---	7.5	9.5	---	---	---	14.0
11	---	---	---	---	---	---	---	10.0	---	---	---	---
12	---	---	---	---	---	---	7.0	11.5	---	---	---	---
13	---	---	---	---	---	---	---	12.0	---	---	---	---
14	7.0	4.0	---	2.5	---	---	7.0	9.0	---	---	11.0	13.0
15	8.5	---	---	---	---	---	---	11.5	---	---	10.0	---
16	---	3.0	---	---	---	3.0	---	12.5	---	16.0	---	---
17	---	---	1.5	---	---	---	6.5	11.5	17.5	---	---	---
18	---	---	---	---	3.0	---	---	10.0	---	---	---	---
19	---	---	---	---	---	---	10.0	5.5	---	---	---	---
20	---	---	0.0	---	---	---	10.0	12.0	---	---	---	---
21	---	---	---	---	---	---	9.5	9.5	---	---	---	---
22	---	---	---	---	---	---	3.0	---	---	---	---	---
23	---	---	---	---	---	2.5	7.0	6.5	18.0	13.0	---	---
24	5.5	2.0	---	---	---	---	5.0	12.0	---	---	---	13.5
25	---	---	---	---	---	---	6.5	5.5	---	---	---	---
26	3.0	---	---	2.0	2.0	---	4.0	9.0	---	---	---	---
27	4.0	---	---	---	---	---	5.0	14.0	---	---	---	---
28	---	---	---	---	---	---	8.0	---	---	---	---	---
29	---	---	3.0	---	---	---	10.0	---	---	---	---	---
30	---	---	---	3.5	---	7.5	10.0	---	---	---	9.5	---
31	5.0	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	9.5	---	---	---	---

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM
OCT										
26...	0945	3.0	206	897	499	33	--	--	--	--
APR										
30...	1820	8.5	81	95	21	56	74	92	99	100
MAY										
03...	1730	9.5	92	64	16	47	67	86	96	100
07...	1700	10.0	102	88	24	42	61	82	96	100
13...	1610	12.0	105	54	15	34	--	--	--	--

10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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	2.8	1	.01	19	2	.10	13	1	.04
2	2.7	1	.01	18	2	.10	12	1	.03
3	2.7	1	.01	17	2	.09	12	1	.03
4	2.7	1	.01	17	2	.09	12	1	.03
5	2.7	1	.01	16	2	.09	12	1	.03
6	5.4	5	.15	15	2	.08	12	1	.03
7	7.2	2	.05	34	20	2.6	11	1	.03
8	4.1	1	.01	31	3	.25	11	2	.06
9	3.7	1	.01	22	1	.06	11	2	.06
10	9.7	8	.31	19	1	.05	11	2	.06
11	12	1	.06	19	1	.05	10	2	.05
12	8.2	1	.02	18	1	.05	10	2	.05
13	7.2	1	.02	18	1	.05	9.3	2	.05
14	7.2	1	.02	18	1	.05	9.0	1	.02
15	8.5	1	.02	18	2	.10	9.0	1	.02
16	8.8	1	.02	45	16	2.1	9.0	1	.02
17	9.1	1	.02	28	3	.23	9.0	1	.02
18	8.7	1	.02	20	3	.16	9.0	2	.05
19	8.1	0	0	19	2	.10	9.0	3	.07
20	7.9	0	0	18	2	.10	9.0	4	.10
21	7.4	0	0	17	1	.05	8.9	2	.05
22	13	3	.11	16	1	.04	8.9	1	.02
23	9.3	0	0	15	1	.04	8.6	1	.02
24	7.7	0	0	15	1	.04	8.6	1	.02
25	7.5	1	.02	15	1	.04	8.6	1	.02
26	137	247	133	14	1	.04	8.3	1	.02
27	46	10	1.5	14	1	.04	8.2	1	.02
28	27	2	.15	13	1	.04	8.4	1	.02
29	21	2	.11	12	1	.03	8.7	1	.02
30	21	2	.11	13	1	.04	8.4	1	.02
31	19	2	.10	---	---	---	7.6	1	.02
TOTAL	445.3	---	135.88	573	---	6.90	302.5	---	1.10

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	7.6	1	.02	6.5	2	.04	10	2	.05
2	7.6	1	.02	6.4	2	.03	9.5	2	.05
3	7.6	1	.02	6.2	2	.03	9.4	2	.05
4	7.6	1	.02	6.0	2	.03	9.5	2	.05
5	7.6	1	.02	6.0	2	.03	9.5	2	.05
6	7.3	1	.02	6.1	2	.03	9.6	2	.05
7	7.0	1	.02	6.4	2	.03	9.7	2	.05
8	6.9	1	.02	6.4	2	.03	10	2	.05
9	6.9	1	.02	6.4	2	.03	10	2	.05
10	6.9	1	.02	6.2	2	.03	11	2	.06
11	6.9	1	.02	6.1	2	.03	11	2	.06
12	6.9	1	.02	6.2	2	.03	11	2	.06
13	6.9	0	0	6.3	2	.03	11	2	.06
14	6.9	0	0	6.4	2	.03	12	2	.06
15	6.9	0	0	6.4	1	.02	12	2	.06
16	6.9	0	0	6.7	1	.02	14	2	.08
17	7.0	0	0	6.7	1	.02	18	2	.10
18	7.0	1	.02	6.7	1	.02	19	2	.10
19	7.1	1	.02	6.7	1	.02	18	3	.15
20	7.0	2	.04	6.7	2	.04	17	3	.14
21	6.8	2	.04	6.7	2	.04	17	3	.14
22	6.8	2	.04	6.7	2	.04	19	3	.15
23	6.8	2	.04	6.7	2	.04	20	3	.16
24	6.8	2	.04	7.0	2	.04	21	3	.17
25	6.7	2	.04	7.0	2	.04	18	3	.15
26	6.6	2	.04	7.0	2	.04	17	3	.14
27	6.6	2	.04	7.2	2	.04	17	3	.14
28	6.5	2	.04	9.1	2	.05	16	3	.13
29	6.4	1	.02	12	2	.06	17	3	.14
30	6.5	1	.02	---	---	---	19	3	.15
31	6.4	1	.02	---	---	---	20	3	.16
TOTAL	215.4	---	.70	196.9	---	.96	442.2	---	3.01

10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	19	2	.10	73	86	20	27	5	.36
2	20	2	.11	72	41	8.4	25	3	.20
3	22	2	.12	76	39	9.5	23	2	.12
4	24	2	.13	79	38	9.2	21	2	.11
5	24	2	.13	73	20	3.9	20	2	.11
6	22	2	.12	64	9	1.6	19	2	.10
7	23	2	.12	75	43	11	18	2	.10
8	26	2	.14	85	49	13	17	2	.09
9	23	2	.12	81	22	4.8	18	3	.15
10	23	2	.12	81	25	6.0	17	2	.09
11	22	2	.12	85	29	7.4	17	3	.14
12	21	1	.06	84	26	6.4	16	2	.09
13	20	1	.05	92	50	15	15	2	.08
14	20	1	.05	96	39	11	14	2	.08
15	20	1	.05	79	22	4.7	13	2	.07
16	19	1	.05	76	16	3.3	12	2	.06
17	19	2	.10	72	12	2.3	11	2	.06
18	20	2	.11	64	11	1.9	11	2	.06
19	25	6	.43	56	9	1.4	10	2	.05
20	34	11	1.2	51	9	1.2	9.8	2	.05
21	40	15	1.8	48	7	.91	9.5	1	.03
22	46	27	3.7	46	5	.62	9.0	1	.02
23	50	29	4.3	45	6	.73	8.3	1	.02
24	57	35	6.1	42	6	.68	7.8	1	.02
25	58	13	2.0	40	9	.97	7.2	1	.02
26	49	9	1.2	38	5	.51	6.6	1	.02
27	43	7	.81	38	5	.51	6.3	1	.02
28	43	7	.81	35	4	.38	5.9	1	.02
29	49	14	2.1	31	4	.33	5.7	1	.02
30	60	34	6.6	29	4	.31	5.4	1	.01
31	---	---	---	28	4	.30	---	---	---
TOTAL	941	---	32.85	1934	---	148.25	405.5	---	2.37
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	5.3	1	.01	3.3	2	.02	2.4	1	.01
2	5.2	1	.01	2.8	1	.01	2.3	1	.01
3	5.1	1	.01	2.5	1	.01	2.3	1	.01
4	4.9	1	.01	2.5	1	.01	2.2	1	.01
5	4.4	1	.01	2.5	1	.01	2.2	1	.01
6	4.3	1	.01	2.4	1	.01	2.3	2	.01
7	4.2	1	.01	2.4	1	.01	2.2	2	.01
8	4.0	1	.01	2.4	1	.01	2.2	2	.01
9	3.7	1	.01	2.4	1	.01	2.2	2	.01
10	3.6	1	.01	2.4	1	.01	2.3	2	.01
11	3.4	1	.01	2.3	1	.01	3.0	2	.02
12	3.3	1	.01	2.3	1	.01	2.5	2	.01
13	3.2	1	.01	2.2	1	.01	2.4	3	.02
14	3.1	1	.01	3.2	3	.03	2.4	3	.02
15	3.1	1	.01	17	51	2.8	2.4	3	.02
16	3.2	2	.02	7.1	2	.04	2.4	2	.01
17	3.2	1	.01	4.7	1	.01	2.4	2	.01
18	3.0	1	.01	4.7	1	.01	2.4	2	.01
19	2.9	1	.01	4.6	1	.01	2.4	1	.01
20	2.7	1	.01	4.1	1	.01	2.4	1	.01
21	2.7	1	.01	3.6	1	.01	2.4	1	.01
22	2.6	1	.01	3.6	1	.01	2.4	1	.01
23	2.9	1	.01	3.6	1	.01	2.3	1	.01
24	3.0	1	.01	3.2	1	.01	2.3	1	.01
25	2.7	1	.01	3.0	1	.01	2.3	1	.01
26	2.5	1	.01	2.9	1	.01	2.3	1	.01
27	2.5	1	.01	2.8	1	.01	2.3	1	.01
28	2.5	1	.01	2.8	1	.01	2.3	1	.01
29	2.4	1	.01	2.5	1	.01	2.3	1	.01
30	2.4	1	.01	2.5	1	.01	2.3	1	.01
31	2.4	1	.01	2.4	1	.01	---	---	---
TOTAL	104.4	---	.32	110.7	---	3.16	70.5	---	.34
YEAR	5741.4		335.84						

10336670 WARD CREEK NEAR TAHOE PINES, CA

LOCATION.--Lat 39°08'09", long 120°13'11", in SE¼NW¼ sec.21, T.15 N., R.16 E., Placer County, Tahoe National Forest, on right bank 0.5 mi (0.8 km) upstream from confluence with tributary, 3.9 mi (6.3 km) northwest of Tahoe Pines, and 4.8 mi (7.7 km) southwest of Tahoe City.

DRAINAGE AREA.--2.03 mi² (5.26 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,740 ft (2,054 m), from topographic map.

REMARKS.--Records good except those for the winter period, which are fair. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 199 ft³/s (5.63 m³/s) Nov. 12, 1973, gage height, 3.12 ft (0.951 m); maximum gage height, 6.01 ft (1.832 m) Mar. 25, 1975 (backwater from ice); minimum daily discharge, 0.34 ft³/s (0.010 m³/s) Sept. 7-19, 27-30, Oct. 1-4, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft³/s (0.566 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 26	0800	*54 1.53	2.58 0.786	May 3	1600	27 0.76	2.34 0.713
Nov. 7	1430	20 .57	2.25 .686	May 13	1700	40 1.13	2.47 .753
Mar. 2	Unknown	Unknown Unknown	a*2.90 .884				

Minimum daily discharge, 0.36 ft³/s (0.010 m³/s) Sept. 26-29.

a Backwater from ice.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.71	4.0	2.2	1.1	.78	1.2	2.6	17	9.9	1.9	.76	.56
2	.71	3.8	2.3	1.1	.85	1.2	3.1	15	9.1	1.9	.69	.50
3	.71	3.5	2.3	1.1	.85	1.2	3.8	18	8.7	1.8	.62	.50
4	.71	3.5	2.2	1.1	.78	1.2	4.0	18	7.9	1.6	.62	.50
5	.71	3.3	2.2	1.1	.78	1.2	3.8	16	7.5	1.4	.56	.50
6	3.8	3.3	2.2	1.1	.78	1.3	3.3	13	6.9	1.3	.56	.50
7	1.6	9.9	2.0	1.1	.78	1.4	4.0	19	6.6	1.3	.50	.50
8	1.1	6.0	2.0	1.1	.78	1.5	3.5	20	6.3	1.2	.45	.45
9	1.1	4.5	1.9	1.1	.78	1.5	3.1	20	6.6	1.2	.45	.45
10	2.7	4.1	1.9	1.0	.78	1.7	3.1	21	6.6	1.1	.45	.56
11	2.2	3.9	1.9	1.0	.80	1.7	2.9	22	6.6	1.0	.45	3.2
12	1.7	3.7	1.9	1.0	.82	1.7	2.6	22	6.0	.92	.45	.92
13	2.0	3.7	1.8	1.0	.85	1.9	2.4	26	5.7	.84	.45	.84
14	2.2	3.5	1.7	1.0	.85	2.2	2.4	28	5.2	.84	4.0	.45
15	2.2	3.5	1.6	1.0	.85	2.3	2.3	22	5.2	.76	7.9	.40
16	2.2	9.4	1.6	1.0	.85	2.8	2.3	23	4.9	.84	1.9	.40
17	1.9	4.5	1.6	1.1	.85	3.2	2.5	22	4.9	.84	1.3	.40
18	1.7	3.5	1.6	1.1	.85	2.7	2.7	19	4.9	.76	1.4	.45
19	1.5	3.1	1.6	1.0	.86	2.4	4.7	17	4.6	.76	1.2	.45
20	1.5	2.8	1.6	1.0	.90	2.4	7.4	16	4.4	.69	1.0	.45
21	1.5	2.8	1.6	1.0	.92	2.8	8.0	14	4.2	.62	.84	.40
22	2.3	2.8	1.6	1.0	.92	3.1	9.2	14	3.9	.62	1.2	.40
23	1.7	2.8	1.6	1.0	.92	3.3	11	14	3.7	.84	.92	.40
24	1.5	2.8	1.6	.92	.92	2.9	13	13	3.5	.76	.84	.40
25	1.5	2.6	1.5	.92	.92	2.4	11	13	3.1	.69	.76	.40
26	25	2.4	1.4	.92	.85	2.3	8.3	13	2.9	.62	.76	.36
27	6.6	2.2	1.4	.92	.85	2.2	6.9	13	2.7	.62	.69	.36
28	4.8	2.1	1.4	.92	1.4	2.0	6.6	12	2.5	.56	.69	.36
29	4.0	2.1	1.4	.92	1.3	2.3	9.6	11	2.3	.56	.62	.36
30	3.9	2.1	1.3	.85	---	2.7	13	10	2.1	.50	.62	.40
31	3.8	---	1.2	.85	---	2.8	---	10	---	.56	.56	---
TOTAL	89.55	112.2	54.1	31.32	25.42	65.5	163.1	531	159.4	29.90	34.21	16.82
MEAN	2.89	3.74	1.75	1.01	.88	2.11	5.44	17.1	5.31	.96	1.10	.56
MAX	25	9.9	2.3	1.1	1.4	3.3	13	28	9.9	1.9	7.9	3.2
MIN	.71	2.1	1.2	.85	.78	1.2	2.3	10	2.1	.50	.45	.36
AC-FT	178	223	107	62	50	130	324	050	316	59	68	33

CAL YR 1975 TOTAL 3127.76 MEAN 8.57 MAX 75 MIN .54 AC-FT 6200
WTR YR 1976 TOTAL 1312.52 MEAN 3.59 MAX 28 MIN .36 AC-FT 2600

10336670 WARD CREEK NEAR TAHOE PINES, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1972 to September 1976 (discontinued).

SEDIMENT RECORDS: October 1972 to September 1976 (discontinued).

COOPERATION.--Selected sediment samples and temperature observations furnished by University of California at Davis.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 815 mg/L July 9, 1974; minimum daily mean, 0 mg/L on many days each year.

SEDIMENT DISCHARGE: Maximum daily, 219 tons (199 tonnes) July 9, 1974; minimum daily, 0 tons (0 tonnes) on many days each year.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 269 mg/L Aug. 14; minimum daily mean, 0 mg/L Apr. 13.

SEDIMENT DISCHARGE: Maximum daily, 15 tons (14 tonnes) Oct. 26; minimum daily, 0 tons (0 tonnes) on many days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	0.5	---	---	---	---	2.0	11.0	---	---	---
2	11.0	---	---	0.5	0.0	---	3.0	2.5	---	---	---	---
3	---	1.5	---	---	---	---	---	3.0	5.5	16.0	---	---
4	---	---	2.5	---	---	---	---	4.5	---	---	---	---
5	---	---	---	---	---	---	---	4.0	---	---	---	---
6	5.5	4.0	---	---	---	0.0	---	3.0	---	---	---	---
7	---	---	---	---	---	---	---	4.0	---	---	---	---
8	---	---	---	1.0	---	---	---	9.0	---	---	---	---
9	---	---	---	---	---	---	3.5	2.5	4.5	10.0	---	---
10	---	---	1.0	---	---	---	---	4.5	---	---	16.5	9.5
11	---	---	---	---	---	---	---	4.0	---	---	---	---
12	---	---	---	---	---	---	---	5.0	---	---	---	---
13	---	---	---	---	---	---	3.0	5.5	---	---	---	---
14	0.5	1.5	---	---	---	---	---	4.0	---	20.0	7.5	10.0
15	---	---	---	0.5	---	2.5	---	7.0	---	---	5.5	---
16	---	---	---	---	---	---	---	7.0	8.5	---	---	---
17	6.5	---	0.0	---	---	---	---	6.0	---	---	---	---
18	---	---	---	---	0.5	---	---	9.0	---	---	---	---
19	---	---	---	---	---	---	---	4.0	---	---	---	---
20	---	---	---	---	---	---	0.5	8.0	---	---	---	---
21	---	---	---	---	---	---	4.0	5.5	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	4.5
23	---	---	---	1.0	---	---	2.5	---	---	---	---	---
24	1.0	0.0	---	---	1.5	---	1.5	8.0	---	---	---	---
25	---	---	---	---	---	2.5	1.5	10.0	---	---	---	---
26	2.0	---	---	---	---	---	2.0	6.5	14.0	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	3.0	8.0	---	---	---	---
29	---	---	---	---	---	---	6.0	---	---	---	---	---
30	---	---	---	---	---	---	3.0	---	---	---	7.5	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	5.5	---	---	---	---

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM
OCT									
26...	0820	1.5	49	516	68	69	--	--	--
APR									
20...	1620	1.0	13	85	3.0	76	--	--	--
23...	1415	2.5	14	76	2.9	90	96	98	100
30...	1430	3.5	19	159	8.2	88	--	--	--
MAY									
04...	1535	4.5	26	32	2.2	70	85	96	100
08...	1630	9.0	24	29	1.9	60	80	95	100
13...	1310	7.0	28	45	3.4	53	--	--	--

10336670 WARD CREEK NEAR TAHOE PINES, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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	.71	1	0	4.0	2	.02	2.2	3	.02
2	.71	1	0	3.8	1	.01	2.3	2	.01
3	.71	1	0	3.5	1	.01	2.3	2	.01
4	.71	1	0	3.5	1	.01	2.2	1	.01
5	.71	1	0	3.3	2	.02	2.2	1	.01
6	3.8	158	3.6	3.3	2	.02	2.2	1	.01
7	1.6	10	.04	9.9	15	.55	2.0	1	.01
8	1.1	1	0	6.0	3	.05	2.0	1	.01
9	1.1	1	0	4.5	2	.02	1.9	1	.01
10	2.7	2	.02	4.1	2	.02	1.9	1	.01
11	2.2	1	.01	3.9	2	.02	1.9	1	.01
12	1.7	1	0	3.7	2	.02	1.9	1	.01
13	2.0	2	.01	3.7	2	.02	1.8	1	0
14	2.2	3	.02	3.5	2	.02	1.7	1	0
15	2.2	3	.02	3.5	2	.02	1.6	1	0
16	2.2	3	.02	9.4	10	.25	1.6	1	0
17	1.9	2	.01	4.5	2	.02	1.6	1	0
18	1.7	1	0	3.5	2	.02	1.6	1	0
19	1.5	1	0	3.1	2	.02	1.6	1	0
20	1.5	1	0	2.8	2	.02	1.6	1	0
21	1.5	2	.01	2.8	2	.02	1.6	1	0
22	2.3	3	.02	2.8	2	.02	1.6	1	0
23	1.7	2	.01	2.8	2	.02	1.6	2	.01
24	1.5	3	.01	2.8	2	.02	1.6	2	.01
25	1.5	2	.01	2.6	2	.01	1.5	2	.01
26	25	139	15	2.4	2	.01	1.4	2	.01
27	6.6	4	.07	2.2	2	.01	1.4	2	.01
28	4.8	1	.01	2.1	3	.02	1.4	2	.01
29	4.0	2	.02	2.1	3	.02	1.4	2	.01
30	3.9	1	.01	2.1	3	.02	1.3	2	.01
31	3.8	2	.02	---	---	---	1.2	1	0
TOTAL	89.55	---	18.94	112.2	---	1.33	54.1	---	.21

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1.1	1	0	.78	1	0	1.2	1	0
2	1.1	1	0	.85	1	0	1.2	1	0
3	1.1	1	0	.85	1	0	1.2	1	0
4	1.1	1	0	.78	1	0	1.2	1	0
5	1.1	1	0	.78	1	0	1.2	1	0
6	1.1	1	0	.78	1	0	1.3	1	0
7	1.1	1	0	.78	2	0	1.4	1	0
8	1.1	2	.01	.78	2	0	1.5	1	0
9	1.1	1	0	.78	2	0	1.5	2	.01
10	1.0	1	0	.78	2	0	1.7	2	.01
11	1.0	2	.01	.80	2	0	1.7	2	.01
12	1.0	3	.01	.82	2	0	1.7	2	.01
13	1.0	4	.01	.85	2	0	1.9	3	.02
14	1.0	5	.01	.85	3	.01	2.2	3	.02
15	1.0	6	.02	.85	3	.01	2.3	3	.02
16	1.0	6	.02	.85	3	.01	2.8	3	.02
17	1.1	5	.01	.85	3	.01	3.2	3	.03
18	1.1	5	.01	.85	3	.01	2.7	2	.01
19	1.0	4	.01	.86	3	.01	2.4	2	.01
20	1.0	4	.01	.90	2	0	2.4	2	.01
21	1.0	4	.01	.92	2	.01	2.8	2	.02
22	1.0	3	.01	.92	2	.01	3.1	1	.01
23	1.0	3	.01	.92	1	0	3.3	1	.01
24	.92	3	.01	.92	1	0	2.9	1	.01
25	.92	3	.01	.92	1	0	2.4	1	.01
26	.92	2	.01	.85	1	0	2.3	1	.01
27	.92	2	.01	.85	1	0	2.2	1	.01
28	.92	2	.01	1.4	1	0	2.0	1	.01
29	.92	2	.01	1.3	1	0	2.3	1	.01
30	.85	2	0	---	---	---	2.7	2	.01
31	.85	1	0	---	---	---	2.8	1	.01
TOTAL	31.32	---	.22	25.42	---	.08	65.5	---	.30

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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	2.6	2	.01	17	37	2.3	9.9	5	.13
2	3.1	3	.03	15	13	.60	9.1	4	.10
3	3.8	3	.03	18	19	1.2	8.7	4	.09
4	4.0	3	.03	18	13	.76	7.9	4	.09
5	3.8	2	.02	16	10	.45	7.5	3	.06
6	3.3	2	.02	13	4	.14	6.9	3	.06
7	4.0	4	.04	19	35	2.4	6.6	3	.05
8	3.5	2	.02	20	16	1.1	6.3	3	.05
9	3.1	1	.01	20	11	.67	6.6	3	.05
10	3.1	1	.01	21	14	.95	6.6	3	.05
11	2.9	1	.01	22	16	1.1	6.6	3	.05
12	2.6	1	.01	22	14	.93	6.0	3	.05
13	2.4	0	0	26	35	3.2	5.7	2	.03
14	2.4	1	.01	28	19	1.6	5.2	2	.03
15	2.3	2	.01	22	14	.83	5.2	2	.03
16	2.3	4	.02	23	12	.84	4.9	2	.03
17	2.5	2	.01	22	11	.65	4.9	2	.03
18	2.7	2	.01	19	9	.46	4.9	2	.03
19	4.7	15	.29	17	6	.28	4.6	2	.02
20	7.4	28	.81	16	6	.26	4.4	2	.02
21	8.0	11	.30	14	5	.19	4.2	2	.02
22	9.2	13	.42	14	5	.19	3.9	1	.01
23	11	16	.65	14	6	.23	3.7	1	.01
24	13	15	.61	13	6	.21	3.5	1	.01
25	11	6	.18	13	5	.18	3.1	1	.01
26	8.3	4	.09	13	6	.21	2.9	1	.01
27	6.9	3	.06	13	5	.18	2.7	1	.01
28	6.6	4	.07	12	3	.10	2.5	1	.01
29	9.6	17	.59	11	3	.09	2.3	1	.01
30	13	35	1.7	10	4	.11	2.1	1	.01
31	---	---	---	10	4	.11	---	---	---
TOTAL	163.1	---	6.07	531	---	22.52	159.4	---	1.16
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	1.9	1	.01	.76	2	0	.56	2	0
2	1.9	1	.01	.69	1	0	.50	2	0
3	1.8	1	0	.62	1	0	.50	2	0
4	1.6	2	.01	.62	1	0	.50	2	0
5	1.4	3	.01	.56	1	0	.50	1	0
6	1.3	4	.01	.56	1	0	.50	1	0
7	1.3	5	.02	.50	1	0	.50	1	0
8	1.2	6	.02	.45	1	0	.45	1	0
9	1.2	7	.02	.45	1	0	.45	1	0
10	1.1	5	.01	.45	1	0	.56	3	0
11	1.0	4	.01	.45	1	0	3.2	113	1.6
12	.92	3	.01	.45	1	0	.92	9	.02
13	.84	2	0	.45	1	0	.84	8	.02
14	.84	1	0	4.0	269	4.9	.45	6	.01
15	.76	1	0	7.9	110	3.1	.40	4	0
16	.84	1	0	1.9	4	.02	.40	2	0
17	.84	1	0	1.3	2	.01	.40	2	0
18	.76	1	0	1.4	2	.01	.45	2	0
19	.76	1	0	1.2	2	.01	.45	2	0
20	.69	1	0	1.0	2	.01	.45	2	0
21	.62	1	0	.84	2	0	.40	2	0
22	.62	1	0	1.2	3	.01	.40	2	0
23	.84	1	0	.92	2	.01	.40	2	0
24	.76	1	0	.84	2	0	.40	2	0
25	.69	1	0	.76	2	0	.40	2	0
26	.62	1	0	.76	2	0	.36	2	0
27	.62	1	0	.69	2	0	.36	2	0
28	.56	1	0	.69	2	0	.36	2	0
29	.56	1	0	.62	2	0	.36	2	0
30	.50	1	0	.62	2	0	.40	2	0
31	.56	1	0	.56	2	0	---	---	---
TOTAL	29.90	---	.14	34.21	---	8.08	16.82	---	1.65
YEAR	1312.52		60.70						

10336672 WARD CREEK TRIBUTARY NEAR TAHOE PINES, CA

LOCATION.--Lat 39°08'29", long 120°13'06", in SE¼SW¼ sec.16, T.15 N., R.16 E., Placer County, on left bank
0.3 mi (0.5 km) upstream from confluence with Ward Creek, 4.0 mi (6.4 km) northwest of Tahoe Pines, and
4.5 mi (7.2 km) southwest of Tahoe City.

DRAINAGE AREA.--0.91 mi² (2.4 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,710 ft (2,045 m), from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 116 ft³/s (3.29 m³/s) Nov. 12, 1973, gage height, 3.30 ft (1.006 m), from rating curve extended above 50 ft³/s (1.416 m³/s); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10 ft³/s (0.283 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 26	0830	*36 1.02	2.60 0.792	Apr. 24	1800	14 0.396	2.16 0.658
Nov. 7	1500	11 .312	2.08 .634	May 1	2000	17 .481	2.23 .680
Nov. 16	0400	11 .312	2.09 .637	May 13	1600	18 .510	2.25 .686

Minimum, no flow many days in October, and July to September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	2.6	1.2	.76	.54	.88	2.3	11	3.4	.14	.01	0
2	0	2.8	1.2	.75	.54	.86	2.6	11	3.1	.14	0	0
3	0	2.8	1.2	.73	.54	.86	3.1	11	2.8	.10	0	0
4	0	2.8	1.2	.72	.54	.86	3.6	12	2.6	.09	0	0
5	0	2.6	1.2	.65	.54	.86	3.6	10	2.2	.08	0	0
6	.14	2.3	1.1	.59	.65	.79	3.3	8.5	2.0	.06	0	0
7	.07	6.5	1.1	.59	.65	.79	3.3	10	1.9	.05	0	0
8	.03	4.7	1.1	.59	.65	.79	3.3	11	1.8	.04	0	0
9	.02	3.3	1.1	.54	.65	.79	3.0	11	1.9	.03	0	0
10	.24	2.6	1.1	.54	.65	.79	2.8	12	1.8	.03	0	0
11	.22	2.5	1.1	.54	.65	.86	2.5	11	1.7	.02	0	.07
12	.16	2.5	1.0	.54	.72	.86	2.3	11	1.5	.02	0	.01
13	.18	2.6	1.0	.54	.72	.86	2.0	12	1.4	.02	0	.01
14	.24	2.5	1.0	.54	.72	.93	2.0	13	1.2	.01	.04	.01
15	.33	2.5	1.0	.54	.72	1.1	1.9	10	1.2	.01	.80	0
16	.36	6.6	1.0	.54	.72	1.4	1.8	10	1.2	.01	.12	0
17	.44	3.6	1.0	.54	.72	2.0	1.8	9.4	1.1	.01	.07	0
18	.36	2.5	1.0	.54	.72	2.0	1.8	7.9	1.0	0	.07	0
19	.36	2.3	.93	.54	.72	1.6	2.7	7.0	1.0	0	.06	.01
20	.33	2.2	.93	.54	.72	1.8	4.7	6.4	.86	0	.03	.01
21	.36	1.9	.86	.54	.72	1.9	6.2	5.6	.72	0	.02	0
22	.72	1.7	.86	.54	.72	2.2	7.5	5.6	.59	0	.02	0
23	.44	1.6	.86	.54	.72	2.5	8.1	5.4	.44	.01	.03	0
24	.36	1.6	.79	.54	.72	2.5	10	5.1	.40	0	.02	0
25	.36	1.5	.79	.54	.72	2.2	9.8	5.1	.33	0	.01	0
26	18	1.4	.79	.44	.72	2.0	7.0	4.9	.27	0	.01	0
27	5.4	1.3	.79	.44	.72	1.9	7.0	5.4	.24	0	.01	0
28	3.6	1.3	.79	.49	1.0	1.9	6.0	4.7	.20	0	0	0
29	3.0	1.2	.86	.54	1.0	1.9	7.4	3.8	.18	0	0	0
30	2.6	1.2	.79	.54	---	2.5	9.4	3.4	.16	0	0	0
31	2.5	---	.76	.54	---	2.6	---	3.8	---	0	0	---
TOTAL	40.82	77.5	30.40	17.55	20.12	45.78	132.8	258.0	39.19	.87	1.32	.12
MEAN	1.32	2.58	.98	.57	.69	1.48	4.43	8.32	1.31	.028	.043	.004
MAX	18	6.6	1.2	.76	1.0	2.6	10	13	3.4	.14	.80	.07
MIN	0	1.2	.76	.44	.54	.79	1.8	3.4	.16	0	0	0
AC-FT	81	154	60	35	40	91	263	512	78	1.7	2.6	.2

CAL YR 1975 TOTAL 1537.75 MEAN 4.21 MAX 37 MIN 0 AC-FT 3050
WTR YR 1976 TOTAL 664.47 MEAN 1.82 MAX 18 MIN 0 AC-FT 1320

PYRAMID AND WINNEMUCCA LAKES BASIN

10336672 WARD CREEK TRIBUTARY NEAR TAHOE PINES, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1972 to September 1976 (discontinued).

SEDIMENT RECORDS: October 1972 to September 1976 (discontinued).

COOPERATION.--Selected sediment samples and water temperature observations furnished by University of California at Davis.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 411 mg/L Nov. 11, 1973; minimum daily mean, 0 mg/L on many days each year.

SEDIMENT DISCHARGE: Maximum daily, 74 tons (64 tonnes) Nov. 11, 1973; minimum daily, 0 tons (0 tonnes) on many days each year.

EXTREMES FOR CURRENT YEAR:

SEDIMENT CONCENTRATIONS: Maximum daily mean, 78 mg/L Oct. 26; minimum daily mean, 0 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily, 5.2 tons (4.7 tonnes) Oct. 26; minimum daily, 0 tons (0 tonnes) on many days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	1.5	---	---	---	---	3.0	11.5	---	---	---
2	---	---	---	0.5	0.5	---	4.0	4.0	---	---	---	---
3	---	4.5	---	---	---	0.0	---	4.0	8.0	16.5	---	---
4	---	---	2.5	---	---	---	---	4.0	---	---	---	---
5	---	---	---	---	---	---	---	4.0	---	---	---	---
6	8.0	4.0	---	---	---	0.0	---	4.5	---	---	---	---
7	---	---	---	---	---	---	---	5.5	---	---	---	---
8	---	---	---	0.5	---	---	---	5.0	---	---	---	---
9	---	---	---	---	---	---	3.5	3.5	5.5	13.5	---	---
10	---	---	1.5	---	---	---	---	5.5	---	---	---	---
11	---	---	---	---	---	---	---	5.5	---	---	---	---
12	---	---	---	---	---	---	---	7.0	---	---	---	---
13	---	---	---	---	---	---	3.0	5.0	---	---	---	---
14	3.0	2.5	---	---	---	---	---	5.0	---	---	10.0	---
15	---	---	---	0.5	---	3.0	---	8.0	---	---	8.0	---
16	---	---	---	---	---	---	---	9.0	10.5	---	---	---
17	5.0	---	0.5	---	---	---	---	8.0	---	---	---	---
18	---	---	---	---	0.5	---	---	7.0	---	---	---	---
19	---	---	---	---	---	---	---	5.5	---	---	---	---
20	---	---	---	---	---	---	3.0	8.0	---	---	---	---
21	---	---	---	---	---	---	3.5	7.5	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	1.5	---	---	4.5	---	---	---	---	---
24	1.0	1.0	---	---	1.0	---	2.0	10.5	---	---	---	---
25	---	---	---	---	---	2.0	3.0	11.5	---	---	---	---
26	2.0	---	---	---	---	---	2.0	8.0	15.0	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	4.5	9.5	---	---	---	---
29	---	---	---	---	---	---	7.0	---	---	---	---	---
30	---	---	---	---	---	---	4.5	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	6.5	---	---	---	---

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM
OCT									
26...	0835	1.5	36	292	28	46	--	--	--
APR									
20...	1555	3.0	6.4	47	.81	66	--	--	--
MAY									
04...	1645	4.0	16	10	.43	84	91	97	100
15...	1510	8.0	12	6	.19	45	--	--	--

PYRAMID AND WINNEMUCCA LAKES BASIN

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10336672 WARD CREEK TRIBUTARY NEAR TAHOE PINES, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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	2.6	0	0	1.2	1	
2	0	0	0	2.8	0	0	1.2	1	
3	0	0	0	2.8	0	0	1.2	1	
4	0	0	0	2.8	0	0	1.2	1	
5	0	0	0	2.6	0	0	1.2	1	
6	.14	1	0	2.3	0	0	1.1	1	
7	.07	0	0	6.5	6	.14	1.1	1	
8	.03	0	0	4.7	2	.03	1.1	1	
9	.02	0	0	3.3	2	.02	1.1	1	
10	.24	2	0	2.6	2	.01	1.1	1	
11	.22	0	0	2.5	2	.01	1.1	1	
12	.16	0	0	2.5	2	.01	1.0	1	
13	.18	0	0	2.6	2	.01	1.0	1	
14	.24	0	0	2.5	2	.01	1.0	0	
15	.33	0	0	2.5	2	.01	1.0	0	
16	.36	0	0	6.6	4	.10	1.0	0	
17	.44	0	0	3.6	1	.01	1.0	0	
18	.36	0	0	2.5	2	.01	1.0	0	
19	.36	0	0	2.3	2	.01	.93	0	
20	.33	0	0	2.2	1	.01	.93	0	
21	.36	0	0	1.9	1	.01	.86	0	
22	.72	0	0	1.7	1	0	.86	0	
23	.44	0	0	1.6	1	0	.86	0	
24	.36	0	0	1.6	1	0	.79	0	
25	.36	1	0	1.5	1	0	.79	0	
26	18	78	5.2	1.4	1	0	.79	0	
27	5.4	6	.09	1.3	1	0	.79	0	
28	3.6	1	.01	1.3	1	0	.79	0	
29	3.0	0	0	1.2	1	0	.86	0	
30	2.6	0	0	1.2	1	0	.79	0	
31	2.5	0	0	---	---	---	.76	0	
TOTAL	40.82	---	5.30	77.5	---	.40	30.40	---	0
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	.76	0		.54	0		.88	1	0
2	.75	0		.54	0		.86	1	0
3	.73	0		.54	0		.86	1	0
4	.72	0		.54	0		.86	1	0
5	.65	0		.54	0		.86	1	0
6	.59	1		.65	0		.79	1	0
7	.59	1		.65	0		.79	1	0
8	.59	1		.65	0		.79	1	0
9	.54	1		.65	0		.79	1	0
10	.54	1		.65	0		.79	1	0
11	.54	1		.65	0		.86	0	0
12	.54	2		.72	0		.86	0	0
13	.54	2		.72	0		.86	0	0
14	.54	2		.72	0		.93	0	0
15	.54	2		.72	0		1.1	0	0
16	.54	2		.72	0		1.4	0	0
17	.54	2		.72	0		2.0	0	0
18	.54	2		.72	0		2.0	1	.01
19	.54	2		.72	0		1.6	1	0
20	.54	2		.72	0		1.8	1	0
21	.54	2		.72	0		1.9	1	.01
22	.54	2		.72	0		2.2	2	.01
23	.54	2		.72	0		2.5	2	.01
24	.54	2		.72	0		2.5	2	.01
25	.54	2		.72	0		2.2	2	.01
26	.44	2		.72	0		2.0	2	.01
27	.44	1		.72	0		1.9	2	.01
28	.49	1		1.0	1		1.9	2	.01
29	.54	1		1.0	1		1.9	2	.01
30	.54	0		---	---		2.5	1	.01
31	.54	0		---	---		2.6	1	.01
TOTAL	17.55	---	0	20.12	---	0	45.78	---	.12

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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	2.3	1	.01	11	15	.57	3.4	2	.02
2	2.6	1	.01	11	8	.22	3.1	2	.02
3	3.1	1	.01	11	9	.32	2.8	1	.01
4	3.6	1	.01	12	8	.27	2.6	1	.01
5	3.6	1	.01	10	3	.08	2.2	1	.01
6	3.3	1	.01	8.5	2	.05	2.0	1	.01
7	3.3	1	.01	10	6	.20	1.9	1	.01
8	3.3	1	.01	11	4	.13	1.8	1	0
9	3.0	1	.01	11	7	.24	1.9	1	.01
10	2.8	1	.01	12	7	.26	1.8	1	0
11	2.5	1	.01	11	7	.24	1.7	1	0
12	2.3	1	.01	11	6	.20	1.5	1	0
13	2.0	1	.01	12	14	.61	1.4	1	0
14	2.0	1	.01	13	7	.29	1.2	1	0
15	1.9	1	.01	10	4	.11	1.2	1	0
16	1.8	1	0	10	5	.15	1.2	1	0
17	1.8	1	0	9.4	4	.10	1.1	1	0
18	1.8	1	0	7.9	5	.11	1.0	1	0
19	2.7	3	.03	7.0	5	.09	1.0	1	0
20	4.7	9	.14	6.4	4	.07	.86	1	0
21	6.2	6	.11	5.6	3	.05	.72	1	0
22	7.5	7	.16	5.6	3	.05	.59	0	0
23	8.1	7	.18	5.4	3	.04	.44	0	0
24	10	9	.29	5.1	3	.04	.40	0	0
25	9.8	3	.08	5.1	3	.04	.33	0	0
26	7.0	3	.06	4.9	3	.04	.27	0	0
27	7.0	1	.02	5.4	3	.04	.24	0	0
28	6.0	4	.07	4.7	2	.03	.20	0	0
29	7.4	5	.13	3.8	2	.02	.18	0	0
30	9.4	7	.24	3.4	2	.02	.16	0	0
31	---	---	---	3.8	2	.02	---	---	---
TOTAL	132.8	---	1.66	258.0	---	4.70	39.19	---	.10
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	.14	1		.01	1	0	0	0	
2	.14	1		0	0	0	0	0	
3	.10	1		0	0	0	0	0	
4	.09	1		0	0	0	0	0	
5	.08	1		0	0	0	0	0	
6	.06	1		0	0	0	0	0	
7	.05	1		0	0	0	0	0	
8	.04	1		0	0	0	0	0	
9	.03	1		0	0	0	0	0	
10	.03	1		0	0	0	0	0	
11	.02	1		0	0	0	.07	1	
12	.02	1		0	0	0	.01	0	
13	.02	1		0	0	0	.01	0	
14	.01	1		.04	1	0	.01	0	
15	.01	1		.80	3	.01	0	0	
16	.01	1		.12	1	0	0	0	
17	.01	1		.07	0	0	0	0	
18	0	0		.07	0	0	0	0	
19	0	0		.06	0	0	.01	0	
20	0	0		.03	0	0	.01	0	
21	0	0		.02	0	0	0	0	
22	0	0		.02	0	0	0	0	
23	.01	1		.03	0	0	0	0	
24	0	0		.02	0	0	0	0	
25	0	0		.01	0	0	0	0	
26	0	0		.01	0	0	0	0	
27	0	0		.01	0	0	0	0	
28	0	0		0	0	0	0	0	
29	0	0		0	0	0	0	0	
30	0	0		0	0	0	0	0	
31	0	0		0	0	0	---	---	
TOTAL	.87	---	0	1.32	---	.01	.12	---	0
YEAR	664.47		12						

10336676 WARD CREEK AT STATE HIGHWAY 89, NEAR TAHOE PINES, CA

LOCATION.--Lat 39°07'56", long 120°09'24", in NW¼SE¼ sec.24, T.15 N., R.16 E., Placer County, Tahoe National Forest, on right bank 165 ft (50 m) downstream from State Highway 89 bridge, 2.1 mi (3.4 km) north of Tahoe Pines, and 2.6 mi (4.2 km) southwest of Tahoe City.

DRAINAGE AREA.--9.70 mi² (25.1 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,230 ft (1,899 m), from topographic map.

REMARKS.--Records good except those for the winter periods, which are fair. Minor diversion for local water supply.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 800 ft³/s (22.7 m³/s) Nov. 12, 1973, gage height, 6.65 ft (2.027 m), from rating extended above 310 ft³/s (8.78 m³/s); maximum gage height, 7.18 ft (2.188 m) Dec. 17, 1972 (backwater from ice); minimum daily discharge, 0.47 ft³/s (0.013 m³/s) Aug. 13, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 178 ft³/s (5.04 m³/s) Oct. 26 (1200 hrs), gage height, 5.51 ft (1.679 m), no other peak above base of 100 ft³/s (2.83 m³/s); maximum gage height, 5.81 ft (1.771 m) Mar. 1 (backwater from ice); minimum daily discharge, 0.47 ft³/s (0.013 m³/s) Aug. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	14	8.8	5.8	4.6	7.0	14	61	22	4.2	2.5	.64
2	1.4	13	8.8	5.8	4.6	6.5	15	56	20	3.9	1.7	.64
3	1.4	13	8.8	5.8	4.6	6.3	18	58	18	3.4	1.1	.58
4	1.2	12	8.8	5.8	4.4	6.2	19	61	17	3.2	1.0	.58
5	1.2	12	8.8	5.8	4.4	6.2	20	53	16	2.9	1.0	.58
6	5.6	12	8.5	5.8	4.4	6.2	19	48	15	2.6	.92	.58
7	6.7	25	8.5	5.5	4.4	6.2	20	55	14	2.4	.92	.58
8	3.6	20	8.2	5.2	4.4	6.2	21	58	14	1.9	.77	.58
9	3.2	15	8.5	4.9	4.4	6.1	19	61	14	1.9	.70	.58
10	7.8	14	8.2	5.2	4.4	6.2	19	59	14	1.7	.64	.70
11	8.2	14	7.7	4.6	4.2	6.4	18	62	13	1.4	.58	4.8
12	5.8	13	7.2	4.6	4.3	6.5	17	59	12	1.4	.52	2.2
13	5.2	13	7.0	4.6	4.3	6.7	16	65	12	1.2	.47	1.4
14	6.1	13	7.0	4.6	4.4	7.3	16	68	11	1.1	4.2	1.2
15	6.4	14	6.8	4.6	4.6	8.5	16	57	10	1.1	16	1.1
16	6.4	37	6.8	4.9	4.6	9.6	15	54	10	1.6	5.8	1.1
17	6.1	20	6.8	4.9	4.6	12	15	50	9.6	1.6	3.9	1.1
18	5.5	16	6.8	4.9	4.6	12	16	45	9.2	1.2	3.4	1.1
19	5.2	13	6.8	4.9	4.4	10	22	40	8.8	1.1	3.4	1.1
20	4.9	12	6.8	4.7	4.3	9.0	32	36	8.5	.92	2.4	1.0
21	4.9	11	6.6	4.6	4.4	9.5	37	34	7.9	.78	1.9	.92
22	6.7	11	6.6	4.5	4.4	13	43	34	7.6	.70	2.4	.92
23	5.5	10	6.4	4.4	4.4	13	46	32	7.0	1.4	2.2	.92
24	4.9	10	6.4	4.4	4.4	13	54	30	6.4	1.2	1.6	.92
25	5.2	10	6.4	4.4	4.4	12	51	30	6.1	.92	1.4	.92
26	97	10	6.4	4.4	4.4	12	39	29	5.5	.77	1.2	.84
27	28	10	6.4	4.6	4.6	12	34	29	5.2	.77	1.0	.84
28	17	9.2	6.4	4.6	6.0	12	32	27	4.9	.77	.92	.84
29	15	8.8	6.4	4.6	7.8	12	39	25	4.6	.70	.84	.84
30	14	8.8	6.1	4.6	---	14	49	23	4.4	.58	.77	.84
31	14	---	5.8	4.6	---	15	---	23	---	.64	.70	---
TOTAL	305.5	413.8	225.5	152.6	133.7	288.6	791	1422	327.7	49.95	66.85	30.94
MEAN	9.85	13.8	7.27	4.92	4.61	9.31	26.4	45.9	10.9	1.61	2.16	1.03
MAX	97	37	8.8	5.8	7.8	15	54	68	22	4.2	16	4.8
MIN	1.2	8.8	5.8	4.4	4.2	6.1	14	23	4.4	.58	.47	.58
AC-FT	606	821	447	303	265	572	1570	2820	650	99	133	61
CAL YR 1975 TOTAL	10892.00			MEAN 29.8	MAX 303	MIN 1.2	AC-FT 21600					
WTR YR 1976 TOTAL	4208.14			MEAN 11.5	MAX 97	MIN .47	AC-FT 8350					

10336676 WARD CREEK AT STATE HIGHWAY 89, NEAR TAHOE PINES, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1972 to current year.

SEDIMENT RECORDS: October 1972 to current year.

COOPERATION.--Selected sediment samples and temperature observations furnished by University of California at Davis.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 481 mg/L Nov. 12, 1973; minimum daily mean, 0 mg/L on many days each year.

SEDIMENT DISCHARGE: Maximum daily, 646 tons (586 tonnes) Nov. 12, 1973; minimum daily, 0 tons (0 tonnes) on many days each year.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 96 mg/L Oct. 26; minimum daily mean, 0 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily, 34 tons (31 tonnes) Oct. 26; minimum daily, 0 tons (0 tonnes) on many days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	0.5	---	0.5	---	---	1.5	---	---	---	---
2	---	---	---	---	---	---	7.0	6.0	12.0	---	19.0	---
3	---	---	---	---	---	---	---	9.0	13.0	---	---	---
4	---	---	---	---	---	---	---	8.5	9.0	---	---	---
5	---	---	3.0	---	---	0.0	---	7.0	---	---	---	---
6	7.5	---	---	---	---	---	---	7.5	---	---	---	---
7	7.0	---	---	---	---	---	6.5	9.0	---	---	---	---
8	---	---	---	0.0	---	1.0	---	8.0	---	16.0	---	---
9	---	---	0.5	---	---	---	7.0	6.0	7.5	16.0	18.5	---
10	---	---	---	---	0.0	---	---	9.5	---	---	---	14.5
11	---	0.0	---	---	---	---	---	10.0	---	---	---	---
12	---	---	---	---	---	---	6.0	11.0	---	---	---	---
13	---	---	---	---	---	---	---	9.5	---	---	14.5	---
14	6.0	3.0	---	1.0	---	---	8.0	8.0	---	21.5	12.0	15.0
15	6.5	---	---	---	---	---	---	12.0	---	---	10.0	---
16	---	2.5	---	---	---	1.5	---	12.5	13.0	---	---	---
17	---	---	0.0	---	---	---	4.0	11.5	---	---	---	---
18	---	---	---	---	1.0	---	---	9.0	---	---	---	---
19	---	---	---	---	---	---	10.0	5.0	---	---	---	---
20	---	---	0.0	---	---	---	8.5	12.0	---	---	---	---
21	---	---	---	---	---	---	8.0	10.5	---	---	---	---
22	---	---	---	---	---	---	2.0	---	---	---	---	---
23	---	---	---	---	---	2.0	7.0	6.0	17.0	14.5	---	---
24	3.0	0.0	---	---	---	---	3.0	12.5	---	---	---	14.5
25	---	---	---	---	---	---	5.0	5.5	---	---	---	---
26	3.0	---	---	0.0	1.0	---	4.0	8.5	---	---	---	---
27	3.0	---	---	---	---	---	5.5	14.5	---	---	---	---
28	---	---	---	---	---	---	6.5	---	---	---	---	---
29	---	---	0.5	---	---	---	9.0	---	---	---	---	---
30	---	---	---	1.0	---	6.0	10.5	---	---	---	10.5	---
31	4.0	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	9.0	---	---	---	---

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SED- IMENT DIS- CHARGE (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM
OCT									
26...	0925	3.0	175	334	158	51	--	--	--
26...	1650	3.0	129	49	17	48	--	--	--
APR									
29...	1600	10.0	51	11	1.5	88	94	97	100
30...	1845	6.5	74	30	6.0	82	89	96	100
MAY									
07...	1715	9.5	81	28	6.1	82	88	93	98
15...	1605	12.0	56	5	.76	52	--	--	--

10336676 WARD CREEK AT STATE HIGHWAY 89, NEAR TAHOE PINES, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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	1.4	5	.02	14	2	.08	8.8	1	.02
2	1.4	5	.02	13	2	.07	8.8	1	.02
3	1.4	5	.02	13	2	.07	8.8	1	.02
4	1.2	5	.02	12	2	.06	8.8	1	.02
5	1.2	5	.02	12	1	.03	8.8	1	.02
6	5.6	11	.37	12	1	.03	8.5	1	.02
7	6.7	4	.12	25	9	.83	8.5	1	.02
8	3.6	1	.01	20	3	.16	8.2	1	.02
9	3.2	1	.01	15	2	.08	8.5	1	.02
10	7.8	4	.09	14	3	.11	8.2	1	.02
11	8.2	1	.02	14	4	.15	7.7	1	.02
12	5.8	1	.02	13	3	.11	7.2	1	.02
13	5.2	1	.01	13	2	.07	7.0	1	.02
14	6.1	1	.02	13	1	.04	7.0	0	0
15	6.4	0	0	14	1	.04	6.8	0	0
16	6.4	0	0	37	8	1.1	6.8	0	0
17	6.1	0	0	20	3	.16	6.8	0	0
18	5.5	0	0	16	3	.13	6.8	0	0
19	5.2	1	.01	13	2	.07	6.8	0	0
20	4.9	1	.01	12	2	.06	6.8	0	0
21	4.9	1	.01	11	2	.06	6.6	0	0
22	6.7	3	.05	11	1	.03	6.6	0	0
23	5.5	1	.01	10	1	.03	6.4	0	0
24	4.9	1	.01	10	1	.03	6.4	0	0
25	5.2	2	.03	10	1	.03	6.4	1	.02
26	97	96	34	10	1	.03	6.4	1	.02
27	28	4	.38	10	1	.03	6.4	1	.02
28	17	2	.09	9.2	1	.02	6.4	1	.02
29	15	2	.08	8.8	1	.02	6.4	1	.02
30	14	2	.08	8.8	1	.02	6.1	1	.02
31	14	2	.08	---	---	---	5.8	1	.02
TOTAL	305.5	---	35.61	413.8	---	3.75	225.5	---	.40

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	5.8	1	.02	4.6	1	.01	7.0	2	.04
2	5.8	1	.02	4.6	1	.01	6.5	2	.04
3	5.8	1	.02	4.6	1	.01	6.3	2	.03
4	5.8	1	.02	4.4	1	.01	6.2	2	.03
5	5.8	1	.02	4.4	1	.01	6.2	2	.03
6	5.8	1	.02	4.4	1	.01	6.2	2	.03
7	5.5	1	.01	4.4	1	.01	6.2	2	.03
8	5.2	1	.01	4.4	1	.01	6.2	2	.03
9	4.9	1	.01	4.4	1	.01	6.1	2	.03
10	5.2	1	.01	4.4	1	.01	6.2	2	.03
11	4.6	1	.01	4.2	1	.01	6.4	2	.03
12	4.6	1	.01	4.3	1	.01	6.5	2	.04
13	4.6	1	.01	4.3	1	.01	6.7	2	.04
14	4.6	1	.01	4.4	1	.01	7.3	2	.04
15	4.6	1	.01	4.6	1	.01	8.5	2	.05
16	4.9	1	.01	4.6	1	.01	9.6	2	.05
17	4.9	1	.01	4.6	1	.01	12	2	.06
18	4.9	1	.01	4.6	1	.01	12	2	.06
19	4.9	1	.01	4.4	1	.01	10	2	.05
20	4.7	1	.01	4.3	1	.01	9.0	2	.05
21	4.6	1	.01	4.4	1	.01	9.5	2	.05
22	4.5	1	.01	4.4	1	.01	13	2	.07
23	4.4	1	.01	4.4	1	.01	13	2	.07
24	4.4	1	.01	4.4	1	.01	13	2	.07
25	4.4	1	.01	4.4	1	.01	12	2	.06
26	4.4	1	.01	4.4	1	.01	12	2	.06
27	4.6	1	.01	4.6	1	.01	12	2	.06
28	4.6	1	.01	6.0	1	.02	12	2	.06
29	4.6	1	.01	7.8	1	.02	12	2	.06
30	4.6	1	.01	---	---	---	14	4	.15
31	4.6	1	.01	---	---	---	15	3	.12
TOTAL	152.6	---	.37	133.7	---	.31	288.6	---	1.62

PYRAMID AND WINNEMUCCA LAKES BASIN

10336676 WARD CREEK AT STATE HIGHWAY 89, NEAR TAHOE PINES, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	APRIL				MAY				JUNE			
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)			
1	14	2	.08	61	12	2.3	22	3	.18			
2	15	3	.12	56	7	1.1	20	3	.16			
3	18	4	.19	58	10	1.9	18	2	.10			
4	19	4	.21	61	9	1.6	17	1	.05			
5	20	2	.11	53	5	.72	16	1	.04			
6	19	2	.10	48	3	.39	15	1	.04			
7	20	4	.22	55	9	1.7	14	2	.08			
8	21	3	.17	58	8	1.3	14	2	.08			
9	19	3	.15	61	6	.99	14	4	.15			
10	19	2	.10	59	7	1.1	14	3	.11			
11	18	2	.10	62	8	1.3	13	3	.11			
12	17	1	.05	59	6	.96	12	3	.10			
13	16	1	.04	65	12	2.5	12	3	.10			
14	16	1	.04	68	10	2.0	11	3	.09			
15	16	1	.04	57	6	.92	10	3	.08			
16	15	1	.04	54	4	.58	10	3	.08			
17	15	1	.04	50	3	.41	9.6	3	.08			
18	16	2	.09	45	2	.24	9.2	3	.07			
19	22	5	.37	40	3	.32	8.8	3	.07			
20	32	16	1.8	36	3	.29	8.5	3	.07			
21	37	9	1.1	34	2	.18	7.9	3	.06			
22	43	12	1.7	34	2	.18	7.6	3	.06			
23	46	13	2.0	32	2	.17	7.0	3	.06			
24	54	15	2.7	30	2	.16	6.4	3	.05			
25	51	5	.69	30	2	.16	6.1	3	.05			
26	39	3	.32	29	3	.23	5.5	3	.04			
27	34	2	.18	29	3	.23	5.2	3	.04			
28	32	3	.26	27	3	.22	4.9	3	.04			
29	39	8	1.0	25	3	.20	4.6	3	.04			
30	49	11	1.8	23	3	.19	4.4	3	.04			
31	---	---	---	23	3	.19	---	---	---			
TOTAL	791	---	15.81	1422	---	24.73	327.7	---	2.32			
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	4.2	2	.02	2.5	7	.08	.64	2	0			
2	3.9	2	.02	1.7	2	.01	.64	2	0			
3	3.4	2	.02	1.1	1	0	.58	2	0			
4	3.2	2	.02	1.0	1	0	.58	2	0			
5	2.9	2	.02	1.0	1	0	.58	2	0			
6	2.6	2	.01	.92	1	0	.58	2	0			
7	2.4	2	.01	.92	1	0	.58	2	0			
8	1.9	2	.01	.77	1	0	.58	2	0			
9	1.9	2	.01	.70	1	0	.58	2	0			
10	1.7	2	.01	.64	1	0	.70	4	.01			
11	1.4	2	.01	.58	1	0	4.8	13	.18			
12	1.4	2	.01	.52	1	0	2.2	3	.02			
13	1.2	2	.01	.47	1	0	1.4	3	.01			
14	1.1	2	.01	4.2	6	.12	1.2	3	.01			
15	1.1	2	.01	16	42	2.3	1.1	3	.01			
16	1.6	2	.01	5.8	3	.05	1.1	3	.01			
17	1.6	2	.01	3.9	2	.02	1.1	3	.01			
18	1.2	2	.01	3.4	2	.02	1.1	3	.01			
19	1.1	1	0	3.4	2	.02	1.1	2	.01			
20	.92	1	0	2.4	2	.01	1.0	2	.01			
21	.78	1	0	1.9	2	.01	.92	2	.01			
22	.70	1	0	2.4	2	.01	.92	2	.01			
23	1.4	1	0	2.2	2	.01	.92	2	.01			
24	1.2	1	0	1.6	2	.01	.92	2	.01			
25	.92	1	0	1.4	2	.01	.92	2	.01			
26	.77	1	0	1.2	2	.01	.84	2	0			
27	.77	1	0	1.0	2	.01	.84	2	0			
28	.77	1	0	.92	2	.01	.84	2	0			
29	.70	1	0	.84	2	0	.84	2	0			
30	.58	1	0	.77	2	0	.84	2	0			
31	.64	1	0	.70	2	0	---	---	---			
TOTAL	49.95	---	.23	66.85	---	2.71	30.94	---	.34			
YEAR	4208.14		88.20									

10336710 MARLETTE LAKE NEAR CARSON CITY, NV

LOCATION.--Lat 39°10'22", long 119°54'15", in SW¼SE¼ sec.12, T.15 N., R.18 E., Washoe County, Toiyabe National Forest, on west shore about 1,000 ft (305 m) upstream from left side of dam, and 7.5 mi (12.1 km) west of Carson City.

DRAINAGE AREA.--2.76 mi² (7.15 km²), revised.

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Lake is formed by earthfill dam across the outlet of a small natural lake (at one time called Goodwin Lake) on Marlette Creek, built in 1873 to provide water for fluming lumber from Spooner Summit to Carson City. The dam was built higher in 1876 and used to divert water by flume and siphon to Virginia City, until the flume was abandoned prior to 1963. The dam was raised to its present elevation in 1959. Present capacity, 11,780 acre-ft (14.5 hm³) at spillway elevation 7,838.0 ft (2,389.02 m). Figures given herein represent total contents. Stored water is used for spawning fish for Pyramid and Walker Lakes (stations 10336500, 10288500) and in dry years is pumped over the mountain to the Hobart system for municipal and domestic use outside the basin in Virginia City and Carson City.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 11,800 acre-ft (14.5 hm³) Dec. 10-14, 1975, elevation, 7,838.0 ft (2,389.02 m); minimum, 10,980 acre-ft (13.5 hm³) for many days in 1976, elevation, 7,835.9 ft (2,388.38 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 11,800 acre-ft (14.5 hm³) Dec. 10-14, elevation, 7,838.0 ft (2,389.02 m); minimum, 10,980 acre-ft (13.5 hm³) for many days, elevation, 7,835.9 ft (2,388.38 m).

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

7835	10650	7837	11410
7836	11030	7838	11790

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11680	11630	11740	11620	11400	11330	11080	11080	11140	11080	10990	10980
2	11680	11630	11750	11610	11390	11340	11060	11090	11140	11080	10990	10980
3	11680	11630	11760	11600	11380	11340	11060	11100	11140	11070	10990	10980
4	11670	11630	11760	11600	11410	11330	11050	11110	11140	11070	10990	10980
5	11670	11630	11770	11600	11410	11320	11040	11120	11140	11060	10990	10980
6	11690	11630	11770	11580	11420	11320	11020	11120	11130	11060	10990	10980
7	11690	11630	11780	11570	11410	11310	11010	11130	11130	11060	10990	10980
8	11690	11640	11790	11570	11400	11300	11000	11140	11130	11050	10990	10980
9	11690	11640	11790	11570	11420	11290	11000	11140	11140	11050	10990	10980
10	11700	11680	11800	11570	11410	11280	10990	11140	11140	11050	10980	10980
11	11710	11680	11800	11570	11390	11260	10980	11150	11140	11030	10980	10980
12	11710	11680	11800	11570	11390	11260	10980	11160	11140	11030	10980	10980
13	11710	11680	11800	11550	11380	11250	10980	11150	11130	11030	10980	10980
14	11710	11680	11800	11540	11380	11240	10980	11150	11130	11030	10980	10980
15	11710	11700	11790	11530	11380	11230	10980	11160	11130	11030	10980	10980
16	11710	11700	11790	11520	11370	11220	10990	11160	11130	11020	10980	11000
17	11710	11700	11790	11520	11360	11200	11000	11160	11130	11020	10980	11000
18	11660	11700	11760	11510	11340	11210	11000	11160	11130	11020	10980	11000
19	11660	11710	11750	11510	11370	11210	11010	11160	11130	11020	10980	11000
20	11660	11710	11730	11500	11360	11200	11020	11160	11110	11010	10980	11000
21	11630	11710	11710	11490	11350	11190	11020	11160	11120	11010	10980	11000
22	11630	11720	11710	11490	11340	11180	11030	11160	11120	11010	10980	10990
23	11630	11720	11700	11480	11330	11170	11040	11160	11120	11010	10980	10990
24	11630	11720	11700	11480	11320	11170	11050	11160	11120	11010	10980	10990
25	11630	11720	11700	11480	11310	11160	11050	11170	11110	11010	10980	10990
26	11630	11730	11680	11460	11300	11140	11060	11170	11110	11010	10980	10990
27	11630	11730	11680	11450	11290	11130	11060	11160	11110	11010	10980	10980
28	11630	11730	11650	11440	11280	11120	11070	11160	11100	11000	10980	10980
29	11630	11740	11650	11430	11330	11110	11080	11160	11090	11000	10980	10980
30	11630	11740	11650	11420	---	11100	11080	11150	11080	10990	10980	10980
31	11630	---	11620	11420	---	11080	---	11140	---	10990	10980	---
MAX	11710	11740	11800	11620	11420	11340	11080	11170	11140	11080	10990	11000
MIN	11630	11630	11620	11420	11280	11080	10980	11080	11080	10990	10980	10980
(†)	7837.57	7837.88	7837.55	7837.02	7836.79	7836.13	7836.14	7836.30	7836.13	7835.90	7835.88	7835.87
(‡)	-40	+110	-120	-200	-90	-250	0	+60	-60	-90	-10	0

CAL YR 1975 MAX 11800 MIN 11300 † +250
WTR YR 1976 MAX 11800 MIN 10980 ‡ -690

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

PYRAMID AND WINNEMUCCA LAKES BASIN

10336715 MARLETTE CREEK NEAR CARSON CITY, NV

LOCATION.--Lat 39°10'20", long 119°54'25", in SE¼SW¼ sec.12, T.15 N., R.18 E., Washoe County, Toiyabe National Forest, on left bank about 300 ft (90 m) below dam on Marlette Lake, 0.7 mi (1.1 km) upstream from Marlette Reservoir, and 7 mi (11 km) west of Carson City.

DRAINAGE AREA.--2.76 mi² (7.15 km²), revised.

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

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

REMARKS.--Records good. Flow regulated by Marlette Lake (station 10336710).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8.5 ft³/s (0.24 m³/s) June 8-10, 1975, gage height, 2.23 ft (0.679 m); no flow July 12-15, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6.8 ft³/s (0.19 m³/s) Apr. 12, 13, gage height, 1.94 ft (0.601 m); minimum daily, 0.02 ft³/s (<0.001 m³/s) Oct. 1-20, June 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.04	.07	5.0	5.0	5.2	6.7	.25	.07	.05	.04	.04
2	.02	.04	.07	5.0	4.9	4.7	6.6	.22	.06	.04	.05	.04
3	.02	.04	.07	5.0	4.9	4.6	6.6	.23	.05	.03	.05	.03
4	.02	.04	.07	5.0	4.9	4.5	6.7	.25	.05	.04	.05	.03
5	.02	.04	.07	5.2	4.9	4.4	6.7	.23	.06	.04	.05	.04
6	.02	.04	.07	5.2	4.9	4.3	6.7	.22	.05	.03	.05	.04
7	.02	.04	.07	5.4	5.0	4.3	6.6	.22	.04	.04	.05	.04
8	.02	.04	.07	5.5	5.0	4.3	6.7	.23	.03	.05	.05	.04
9	.02	.05	.15	5.5	5.3	4.3	6.7	.25	.03	.04	.04	.04
10	.02	.05	3.5	5.5	5.4	4.3	6.7	.22	.03	.04	.04	.04
11	.02	.05	5.2	5.5	5.4	4.6	6.7	.35	.03	.04	.04	.05
12	.02	.05	5.2	5.5	5.4	4.7	6.8	.46	.03	.04	.04	.04
13	.02	.05	5.2	5.4	5.3	4.9	2.8	.30	.03	.04	.04	.04
14	.02	.05	5.2	5.4	5.3	5.1	.28	.22	.03	.04	.04	.04
15	.02	.05	5.2	5.4	5.3	5.3	.28	.19	.03	.04	.04	.04
16	.02	.05	5.2	5.4	5.3	5.6	.28	.17	.03	.05	.05	.04
17	.02	.06	5.3	5.4	5.3	5.6	.25	.16	.03	.05	.05	.04
18	.02	.06	5.3	5.5	5.3	5.6	.25	.15	.03	.06	.05	.04
19	.02	.06	5.3	5.5	5.4	5.5	.26	.14	.03	.05	.05	.04
20	.02	.06	5.3	5.5	5.2	5.5	.28	.14	.04	.06	.05	.04
21	.04	.06	5.3	5.5	5.0	5.9	.28	.14	.05	.05	.05	.04
22	.04	.06	5.3	5.4	5.0	6.5	.28	.14	.04	.05	.05	.04
23	.04	.06	5.4	5.4	5.2	6.5	.29	.14	.05	.05	.05	.04
24	.04	.07	5.3	5.4	5.4	6.5	.29	.13	.04	.05	.05	.04
25	.04	.07	5.3	5.4	5.4	6.5	.22	.12	.02	.05	.04	.04
26	.04	.07	5.2	5.4	5.4	6.5	.22	.11	.03	.05	.04	.04
27	.04	.07	5.3	5.3	5.4	6.6	.24	.10	.04	.04	.04	.04
28	.04	.07	5.2	5.3	5.4	6.6	.25	.10	.04	.04	.04	.04
29	.04	.07	5.3	5.3	5.4	6.6	.25	.10	.05	.04	.04	.05
30	.04	.07	5.3	5.2	---	6.6	.25	.09	.05	.04	.04	.05
31	.04	---	5.2	5.0	---	6.7	---	.08	---	.04	.04	---
TOTAL	.84	1.63	114.71	165.4	151.0	168.8	87.45	5.85	1.19	1.37	1.40	1.21
MEAN	.027	.054	3.70	5.34	5.21	5.45	2.92	.19	.040	.044	.045	.040
MAX	.04	.07	5.4	5.5	5.4	6.7	6.8	.46	.07	.06	.05	.05
MIN	.02	.04	.07	5.0	4.9	4.3	.22	.08	.02	.03	.04	.03
AC-FT	1.7	3.2	228	328	300	335	173	12	2.4	2.7	2.8	2.4
DAL YR 1975	TOTAL	1087.87	MEAN 2.98	MAX 8.5	MIN 0	AC-FT 2160						
WTR YR 1976	TOTAL	700.85	MEAN 1.91	MAX 6.8	MIN .02	AC-FT 1390						

NOTE.--No gage-height record Oct. 1 to Dec. 9, Apr. 14 to May 11, May 14 to June 16.

10336780 TROUT CREEK NEAR TAHOE VALLEY, CA

LOCATION.--Lat 38°55'12", long 119°58'17", in NW¼SE¼ sec.3, T.12 N., R.18 E., El Dorado County, on left bank 5 ft (1.52 m) upstream from Martin Avenue Bridge, 500 ft (152 m) upstream from Heavenly Valley Creek, and 1.8 mi (2.9 km) east of Tahoe Valley.

DRAINAGE AREA.--36.7 mi² (95.05 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 6,250 ft (1,905 m), from topographic map.

REMARKS.--Records good except those for the winter period, which are fair. Minor diversions for local water supply.

AVERAGE DISCHARGE.--16 years, 36.9 ft³/s (1.045 m³/s), 26,730 acre-ft/yr (33.0 hm³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 535 ft³/s (15.2 m³/s) Feb. 1, 1963, gage height, 11.14 ft (3.395 m), from rating curve extended above 250 ft³/s (7.08 m³/s) on basis of computation of peak flow (weir formula); no flow for part of Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 97 ft³/s (2.75 m³/s) Oct. 26, gage height, 7.42 ft (2.262 m), no peak above base of 100 ft³/s (2.83 m³/s); maximum gage height, 7.69 ft (2.344 m) Mar. 8 (backwater from ice); minimum daily discharge, 6.1 ft³/s (0.17 m³/s) July 19-23, 26-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	26	24	20	18	18	22	33	23	9.4	14	7.4
2	19	25	24	20	18	21	22	34	22	9.8	10	6.3
3	18	25	23	20	17	20	23	32	22	9.8	8.6	6.8
4	18	25	22	20	16	19	22	36	22	9.4	7.4	7.1
5	18	25	23	20	16	18	23	40	22	9.4	7.0	7.6
6	22	24	22	20	16	18	23	40	22	8.7	6.8	9.0
7	30	25	22	20	16	18	25	39	21	8.7	6.8	7.4
8	23	24	21	19	16	18	26	33	21	8.7	6.8	7.1
9	22	20	22	19	17	18	23	36	21	9.0	6.8	6.8
10	29	21	22	19	16	18	23	35	22	8.6	6.8	7.4
11	32	22	21	19	16	18	23	33	21	8.1	6.8	14
12	27	25	20	19	16	18	23	34	19	7.8	6.3	9.0
13	26	25	19	19	16	18	23	36	17	7.5	6.3	8.5
14	26	24	18	19	16	18	24	38	15	7.2	8.5	8.2
15	26	23	18	19	15	20	24	37	16	6.9	30	7.9
16	25	31	18	19	16	22	22	33	15	6.8	15	8.7
17	25	24	18	19	16	24	24	34	14	6.4	11	8.5
18	24	23	19	20	16	23	25	33	14	6.2	9.4	8.5
19	23	23	19	22	16	21	25	32	14	6.1	9.8	8.5
20	23	22	19	22	15	20	30	32	14	6.1	8.5	9.4
21	23	22	19	21	15	20	31	31	14	6.1	7.6	14
22	25	22	19	21	15	21	32	30	13	6.1	9.4	9.8
23	24	22	19	20	15	22	31	29	12	6.1	8.7	8.2
24	23	22	20	20	16	23	33	28	11	6.6	7.9	8.7
25	24	22	20	20	16	22	32	28	11	6.2	7.4	7.9
26	62	22	20	19	16	20	29	27	11	6.1	7.1	7.9
27	40	22	20	19	16	20	26	26	10	6.1	6.8	7.9
28	28	22	20	19	17	19	26	25	10	6.1	6.8	7.9
29	26	22	20	18	15	20	28	25	9.8	6.1	6.6	8.2
30	28	22	20	18	---	22	30	24	9.8	6.1	6.3	10
31	27	---	20	18	---	23	---	23	---	8.5	6.3	---
TOTAL	805	702	631	607	465	620	773	996	488.6	230.7	273.5	254.6
MEAN	26.0	23.4	20.4	19.6	16.0	20.0	25.8	32.1	16.3	7.44	8.82	8.49
MAX	62	31	24	22	18	24	33	40	23	9.8	30	14
MIN	18	20	18	18	15	18	22	23	9.8	6.1	6.3	6.3
AC-FT	1600	1390	1250	1200	922	1230	1530	1980	969	458	542	505
CAL YR 1975 TOTAL	15230.0			MEAN 41.7	MAX 182	MIN 14	AC-FT 30210					
WTR YR 1976 TOTAL	6846.4			MEAN 18.7	MAX 62	MIN 6.1	AC-FT 13580					

PYRAMID AND WINNEMUCCA LAKES BASIN

10337000 LAKE TAHOE AT TAHOE CITY, CA

LOCATION.---Lat 39°10'51", long 120°07'06", in NE¼NE¼ (revised) sec.5, T.15 N., R.17 E., Placer County, on U.S. Coast Guard pier at Lake Forest, 1.1 mi (1.8 km) northeast of Tahoe City, and 1.8 mi (2.9 km) northeast of Lake Tahoe outlet dam on Truckee River at Tahoe City.

DRAINAGE AREA.--503 mi² (1,303 km²), at lake outlet, revised.

PERIOD OF RECORD.--April 1900 to current year. Monthend elevations only for October 1943 to September 1957, published in WSP 1734. Prior to October 1961, published as "at Tahoe."

GAGE.--Water-stage recorder. Datum of gage is 6,220.00 ft (1,895.856 m) above mean sea level, datum of Bureau of Reclamation; 6,218.86 ft (1,895.508 m), supplementary adjustment of 1959. Prior to Oct. 1, 1957, non-recording gages at several sites near outlet of lake at same datum. Oct. 1, 1957, to May 8, 1958, water-stage recorder on left wingwall of dam at outlet of lake at same datum. May 9, 1958, to Sept. 30, 1968, water-stage recorder on pier, 1,000 ft (300 m) east of dam at lake outlet.

REMARKS.--Lake levels regulated by a 17-gate concrete dam at outlet of lake; storage began about 1874. Monthly figures given herein represent usable contents. Usable capacity, 744,600 acre-ft (918 hm³) between elevations 6,223 ft (1,896.8 m), natural rim of lake and 6,229.1 ft (1,898.63 m), maximum permissible elevation by Federal Court decree. Lake elevations are referred to Bureau of Reclamation datum because that datum is used as the official reference point by all local, State, and Federal agencies. There are minor diversions for domestic purposes, irrigation, and power.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 6,231.26 ft (1,899.288 m) July 14, 15, 17, 18, 1907; minimum, 6,221.74 ft (1,896.386 m) Dec. 26, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 6,227.81 ft (1,898.236 m) Oct. 1; minimum, 6,225.53 ft (1,897.542 m) Sept. 30.

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

6225	243000	6228	609300
6226	364800	6229	732300
6227	486800		

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.81	7.73	7.48	7.24	7.09	7.11	6.95	6.86	6.94	6.59	6.27	5.85
2	7.79	7.71	7.47	7.25	7.08	7.11	6.95	6.88	6.93	6.58	6.26	5.85
3	7.77	7.70	7.47	7.23	7.06	7.10	6.96	6.89	6.92	6.58	6.20	5.83
4	7.77	7.70	7.42	7.22	7.07	7.08	6.95	6.88	6.93	6.57	6.20	5.82
5	7.74	7.67	7.45	7.23	7.06	7.07	6.93	6.90	6.91	6.56	6.17	5.81
6	7.78	7.67	7.44	7.21	7.05	7.06	6.93	6.91	6.89	6.54	6.15	5.78
7	7.72	7.65	7.43	7.20	7.05	7.06	6.92	6.93	6.87	6.51	6.10	5.76
8	7.74	7.62	7.43	7.17	7.06	7.04	6.92	6.94	6.88	6.50	6.10	5.75
9	7.71	7.63	7.42	7.21	7.07	7.03	6.92	6.95	6.87	6.49	6.07	5.73
10	7.80	7.67	7.41	7.20	7.07	7.02	6.90	6.95	6.85	6.47	6.07	5.76
11	7.78	7.65	7.40	7.19	7.06	7.01	6.89	6.96	6.84	6.45	6.03	5.77
12	7.80	7.64	7.41	7.18	7.05	7.00	6.91	6.98	6.83	6.45	6.01	5.73
13	7.78	7.65	7.41	7.18	7.05	6.99	6.91	6.98	6.82	6.43	5.98	5.75
14	7.77	7.62	7.40	7.17	7.04	6.98	6.90	6.98	6.81	6.44	6.03	5.72
15	7.77	7.62	7.38	7.17	7.03	6.98	6.90	7.00	6.78	6.43	6.05	5.71
16	7.77	7.64	7.38	7.16	7.03	7.00	6.89	7.01	6.80	6.44	6.00	5.66
17	7.74	7.63	7.37	7.15	7.02	6.96	6.88	7.00	6.78	6.40	5.98	5.67
18	7.74	7.61	7.37	7.15	7.01	7.03	6.88	7.01	6.78	6.40	5.97	5.64
19	7.73	7.58	7.37	7.15	7.05	7.02	6.88	7.01	6.76	6.38	5.96	5.65
20	7.72	7.58	7.36	7.15	7.05	7.02	6.88	7.03	6.73	6.37	5.95	5.64
21	7.68	7.57	7.36	7.14	7.05	7.03	6.88	7.02	6.75	6.35	5.95	5.60
22	7.70	7.55	7.34	7.13	7.03	7.02	6.88	7.02	6.73	6.35	5.97	5.61
23	7.66	7.54	7.34	7.15	7.03	7.00	6.88	7.02	6.72	6.36	5.96	5.58
24	7.65	7.55	7.33	7.14	7.00	7.00	6.87	7.02	6.72	6.35	5.94	5.58
25	7.61	7.53	7.33	7.13	6.99	7.00	6.87	7.03	6.68	6.34	5.92	5.56
26	7.74	7.48	7.30	7.13	6.98	6.99	6.86	7.02	6.68	6.32	5.91	5.56
27	7.72	7.52	7.29	7.12	6.97	6.98	6.85	6.99	6.67	6.31	5.90	5.55
28	7.71	7.51	7.31	7.11	6.98	6.98	6.85	7.00	6.65	6.30	5.89	5.55
29	7.75	7.47	7.28	7.10	7.09	6.98	6.86	6.98	6.62	6.27	5.88	5.54
30	7.76	7.46	7.27	7.09	---	6.96	6.86	6.95	6.58	6.25	5.88	5.53
31	7.71	---	7.25	7.09	---	6.94	---	6.95	---	6.27	5.87	---
MEAN	7.74	7.61	7.38	7.17	7.04	7.02	6.90	6.97	6.79	6.42	6.02	5.69
MAX	7.81	7.73	7.48	7.25	7.09	7.11	6.96	7.03	6.94	6.59	6.27	5.85
MIN	7.61	7.46	7.25	7.09	6.97	6.94	6.85	6.86	6.58	6.25	5.87	5.53
†	573800	543100	517400	497800	497800	479500	469700	480700	435600	397700	348900	307600
‡	-15900	-30700	-25700	-19600	0	-18300	-9800	+11000	-45100	-37900	-48800	-41300

CAL YR 1975 † +53800

WTR YR 1976 ‡ -282100

† Usable contents, in acre-feet, at end of month.

‡ Change in contents, in acre-feet.

NOTE.--Add 6,220 ft to obtain elevation above mean sea level. Bureau of Reclamation datum, at 2400 hours.

10337500 TRUCKEE RIVER AT TAHOE CITY, CA

LOCATION.--Lat 39°09'59", long 120°08'36", in NE¼NW¼ sec.7, T.15 N., R.17 E., Placer County, on left bank 510 ft (155 m) downstream from dam at outlet of Lake Tahoe at Tahoe City.

DRAINAGE AREA.--504 mi² (1,305 km²), revised.

PERIOD OF RECORD.--July 1895 to February 1896, March 1900 to current year. Monthly discharge only for some periods, published in WSP 1314 and 1734. Prior to October 1961, published as "at Tahoe."

REVISED RECORDS.--WSP 2127: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,216.75 ft (1,894.865 m) above mean sea level. Prior to Nov. 12, 1912, nonrecording gage at site 370 ft (113 m) upstream at different datum. Nov. 12, 1912, to Sept. 30, 1937, nonrecording gage, Oct. 1, 1937, to Aug. 21, 1957, water-stage recorder at datum 2.26 ft (0.689 m) higher and Aug. 22, 1957, to July 10, 1960, at datum 2.42 ft (0.738 m) higher; all at site 270 ft (82 m) upstream.

REMARKS.--Records excellent. Flow regulated by Lake Tahoe, operating capacity, 744,600 acre-ft (918 hm³). There are several diversions for irrigation, power, and domestic water supply. In addition, sewer effluent is pumped from the Lake Tahoe basin.

AVERAGE DISCHARGE (unadjusted).--76 years (water years 1901-76), 249 ft³/s (7.052 m³/s), 180,400 acre-ft/yr (222 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,630 ft³/s (74.5 m³/s) June 19, 1969, gage height, 9.32 ft (2.841 m); no flow for parts of many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 616 ft³/s (17.4 m³/s) Aug. 1, gage height, 5.02 ft (1.530 m); minimum daily, 10 ft³/s (0.28 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	213	278	325	312	357	226	128	272	412	610	412
2	106	213	278	323	309	374	268	128	312	409	613	412
3	105	213	278	323	309	389	274	100	343	409	613	422
4	105	213	278	323	309	391	274	81	355	409	610	433
5	106	213	278	325	309	391	256	81	355	409	607	433
6	137	213	278	323	312	396	187	81	355	417	601	433
7	158	204	278	323	309	402	167	81	357	417	601	430
8	156	199	278	323	309	402	167	81	379	417	601	430
9	156	199	278	323	309	399	166	81	386	415	601	428
10	158	199	278	323	309	399	162	81	386	415	601	430
11	158	199	278	320	309	402	160	84	386	415	577	430
12	156	199	278	320	312	391	195	87	386	415	520	430
13	156	199	278	320	314	381	226	85	386	415	489	430
14	156	199	278	320	314	381	228	84	386	420	484	428
15	134	199	303	320	316	360	228	84	389	443	486	428
16	123	201	325	318	314	298	228	84	389	438	470	430
17	123	197	325	318	314	208	228	84	389	438	441	430
18	123	197	325	318	316	166	228	84	389	438	435	430
19	123	197	325	323	316	170	246	83	389	438	433	430
20	123	195	325	325	314	170	274	83	386	441	430	428
21	123	195	325	323	314	170	242	83	386	443	430	360
22	123	195	325	323	314	172	202	83	386	443	433	238
23	123	195	325	323	314	170	210	83	404	443	430	182
24	121	195	325	323	316	169	211	88	415	443	430	143
25	121	195	325	323	331	167	210	130	415	443	428	124
26	130	240	325	320	343	167	178	199	412	467	428	87
27	123	280	325	320	343	167	161	264	412	514	425	14
28	121	280	325	323	345	169	138	264	412	559	412	12
29	130	278	325	320	352	169	128	264	412	604	412	12
30	170	278	325	314	---	164	128	264	412	607	412	10
31	208	---	325	312	---	180	---	264	---	607	412	---
TOTAL	4162	6392	9395	9960	9207	8691	6196	3751	11441	14003	15475	9739
MEAN	134	213	303	321	317	280	207	121	381	452	499	325
MAX	208	280	325	325	352	402	274	264	415	607	613	433
MIN	105	195	278	312	309	164	128	81	272	409	412	10
AC-FT	8260	12680	18630	19760	18260	17240	12290	7440	22690	27770	30690	19320
CAL YR 1975 TOTAL	113315			MEAN 310	MAX 946	MIN 62	AC-FT 224800					
WTR YR 1976 TOTAL	108412			MEAN 296	MAX 613	MIN 10	AC-FT 215000					

10338500 DONNER CREEK AT DONNER LAKE, NEAR TRUCKEE, CA

LOCATION.--Lat 39°19'25", long 120°14'00", in SW¼NW¼ sec.17, T.17 N., R.16 E., Nevada County, in Donner Memorial State Park, on left bank 10 ft (3 m) downstream from bridge on Donner Memorial State Park road, 0.2 mi (0.3 km) downstream from outlet of Donner Lake, 0.7 mi (1.1 km) upstream from Cold Creek, and 2.5 mi (4.0 km) west of Truckee.

DRAINAGE AREA.--14.6 mi² (37.8 km²).

PERIOD OF RECORD.--November 1909 to August 1910, January 1929 to October 1935, January 1936 to March 1938, July to October 1938, January 1939 to February 1943, June 1943 to December 1953, May 1955 to December 1957, October 1958 to current year. Monthly discharge only prior to October 1958, published in WSP 1314 and 1734.

REVISED RECORDS.--WSP 2127: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,930 ft (1,807 m), from topographic map. Nov. 1, 1909, to Aug. 31, 1910, nonrecording gage at different datum. January 1929 to December 1957, water-stage recorder at same site at unknown datum.

REMARKS.--Records good. Flow regulated by dam at outlet of Donner Lake, usable capacity, 9,500 acre-ft (11.7 hm³).

AVERAGE DISCHARGE (unadjusted).--39 years (water years 1930-35, 1937, 1940-42, 1944-52, 1956-57, 1959-76), 33.8 ft³/s (0.957 m³/s), 24,490 acre-ft/yr (30.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 700 ft³/s (19.8 m³/s), estimated, Nov. 21, 1950; maximum gage height observed, 4.55 ft (1.387 m) Dec. 25, 1964; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 131 ft³/s (3.71 m³/s) Oct. 6, 7, gage height, 3.12 ft (0.951 m); no flow July 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	39	17	10	8.8	25	30	1.3	.78	.73	.78	2.4
2	121	36	17	9.7	8.8	27	30	1.2	.56	.90	1.5	2.2
3	119	33	17	9.5	9.0	28	30	1.0	.56	.34	1.9	2.4
4	115	33	16	9.2	8.2	26	31	1.2	.61	.58	1.1	2.9
5	108	32	17	9.8	11	25	32	1.1	.57	1.2	1.1	2.8
6	118	30	17	10	11	23	32	.91	.44	1.0	1.3	2.6
7	126	30	17	9.2	11	22	31	.90	.45	.25	1.3	2.5
8	124	31	16	9.4	11	21	34	.65	.72	0	1.3	2.7
9	123	30	16	10	11	20	34	.45	.94	.53	1.1	2.5
10	126	31	16	10	12	20	34	1.1	.85	1.2	1.1	2.4
11	122	29	15	10	12	20	34	1.1	.78	.27	.96	2.4
12	106	27	17	9.5	12	19	35	.93	.28	.88	.77	2.4
13	113	26	16	9.2	12	20	34	1.0	.08	2.7	1.2	3.2
14	115	25	15	9.2	13	20	33	.91	.68	2.1	.49	4.0
15	101	24	14	9.2	14	21	25	.69	.98	1.4	.27	4.0
16	87	32	14	9.1	13	22	8.1	.61	.90	1.1	.92	4.0
17	76	34	13	9.0	13	24	5.8	.70	.82	.87	1.6	3.7
18	65	32	13	8.8	13	28	5.8	.66	.63	.69	1.7	3.5
19	57	32	13	8.8	15	30	4.8	.83	.46	.73	1.6	3.4
20	50	30	12	8.8	15	30	3.8	.95	.35	1.2	1.5	3.3
21	45	28	12	8.7	14	29	3.1	.85	.16	1.5	1.4	3.3
22	40	26	13	8.3	14	31	2.8	.79	.55	1.3	1.3	3.3
23	35	24	13	8.5	13	32	2.2	.69	1.2	1.0	.52	3.3
24	32	23	13	8.8	13	33	1.9	.71	.97	.77	1.3	3.3
25	28	22	13	8.8	13	33	1.0	.76	.90	.53	.87	3.1
26	43	21	12	8.8	12	32	1.0	.72	.88	1.1	.92	2.9
27	53	20	12	9.2	12	31	1.5	.65	.59	1.8	1.3	2.7
28	50	20	12	8.8	12	30	1.9	.64	.84	1.3	1.3	2.8
29	47	19	12	8.8	19	29	2.2	.56	.95	.96	.30	2.9
30	44	17	12	8.8	---	28	1.9	.46	.47	.79	1.3	3.0
31	42	---	11	8.8	---	31	---	.47	---	.97	2.7	---
TOTAL	2554	836	443	284.7	355.8	810	526.8	25.49	19.95	30.69	36.70	89.9
MEAN	82.4	27.9	14.3	9.18	12.3	26.1	17.6	.82	.67	.99	1.18	3.00
MAX	126	39	17	10	19	33	35	1.3	1.2	2.7	2.7	4.0
MIN	28	17	11	8.3	8.2	19	1.0	.45	.08	0	.27	2.2
AC-FT	5070	1660	879	565	706	1610	1040	51	40	61	73	178
CAL YR 1975 TOTAL	15319.70			MEAN 42.0	MAX 274	MIN 1.1	AC-FT 30390					
WTR YR 1976 TOTAL	6013.03			MEAN 16.4	MAX 126	MIN 0	AC-FT 11930					

10339250 MARTIS CREEK AT STATE HIGHWAY 297, NEAR TRUCKEE, CA

LOCATION.--Lat 39°18'08", long 120°07'13", in SW¼SW¼ sec.20, T.17 N., R.17 E., Placer County, 4.0 mi (6.4 km) southwest of Truckee. Water-quality samples are collected 150 ft (50 m) downstream from State Highway 267. Thermograph records are obtained about 300 ft (90 m) upstream from highway, off north bank immediately downstream from confluence of main stem and Middle Martis Creek.

DRAINAGE AREA.--25.9 mi² (67.1 km²), revised.

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1975 to current year.

WATER TEMPERATURES: Water years 1975 to current year.

SEDIMENT RECORDS: Water year 1975.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October to November 1974, August 1975 to current year.

INSTRUMENTATION.--Temperature recorder October to November 1974, and since August 1975.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURES: Maximum, 26.0°C July 10, 13, 1976; minimum, 0.0°C for many days each year.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 26.0°C July 10, 13; minimum, 0.0°C on many days during November to January.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED PHOSPHORUS (P) (MG/L)
MAY 28...	1340	84	61	12.0	11	.01	.00	.00	.32	.33	.07	.04
JUN 10...	1600	--	80	17.5	13	--	--	--	--	--	--	--

DATE	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	SUSPENDED SEDIMENT (MG/L)
MAY 28...	10	0	910	120	<100	4	10	10	20	10	23
JUN 10...	--	--	--	--	--	--	--	--	--	--	22

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED PHOSPHORUS (P) (MG/L)
OCT 01...	1410	6.5	14.5	1	.01	.00	.01	.11	.13	.03	.02
MAY 05...	0940	7.5	7.0	3	.03	.00	.09	.31	.43	.02	--
SEP 02...	0940	2.7	9.5	2	.01	.00	.02	.21	.24	.02	.01

DATE	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	SUSPENDED SEDIMENT (MG/L)
OCT 01...	0	0	250	90	<100	0	30	10	10	10	5
MAY 05...	<10	0	330	110	0	0	30	20	20	0	12
SEP 02...	<10	0	290	170	<100	3	30	10	10	0	4

PYRAMID AND WINNEMUCCA LAKES BASIN

10339250 MARTIS CREEK AT STATE HIGHWAY 297, NEAR TRUCKEE, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER		NOVEMBER		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.0	3.0	4.0	3.0	---	---	20.0	7.0
2	8.0	3.5	5.5	2.5	---	---	20.0	5.5
3	9.5	3.5	6.0	2.0	---	---	20.5	6.5
4	9.0	3.5	6.5	2.0	---	---	20.5	7.0
5	8.0	0.5	6.0	2.0	---	---	21.0	7.0
6	7.5	0.0	6.5	1.5	---	---	21.5	7.5
7	8.5	1.0	5.0	2.5	21.5	5.5	20.0	7.5
8	7.0	4.5	6.0	3.0	22.5	6.5	19.5	8.5
9	6.5	3.0	5.5	2.5	21.5	6.5	21.0	11.5
10	9.0	2.0	6.5	2.5	20.0	6.5	16.5	12.0
11	8.5	2.0	6.5	2.0	22.5	8.0	20.0	10.0
12	8.5	1.5	6.0	2.5	21.5	8.0	21.0	8.5
13	8.5	1.0	7.0	3.0	20.5	9.0	16.5	8.5
14	8.5	1.0	6.5	3.5	18.5	9.0	18.5	8.0
15	9.0	1.5	7.0	3.5	20.0	8.0	19.0	9.0
16	9.5	2.0	5.5	3.0	21.5	7.5	19.5	8.0
17	9.0	1.5	6.5	2.5	18.5	7.5	20.0	10.0
18	9.0	2.0	7.0	3.5	12.5	9.5	20.5	11.0
19	8.5	2.5	5.5	2.5	14.5	9.5	20.5	9.5
20	8.5	2.5	6.0	2.5	19.0	7.0	21.0	9.0
21	8.0	1.5	4.5	3.0	14.5	10.0	18.5	6.5
22	7.5	0.5	4.5	3.0	21.0	8.5	18.5	6.5
23	7.0	0.5	4.0	3.0	21.0	8.0	19.5	6.5
24	7.0	1.0	5.5	3.0	21.5	7.5	17.5	6.5
25	7.5	2.0	5.5	3.0	22.0	8.0	18.0	6.5
26	7.5	2.0	5.0	3.0	21.5	9.0	17.5	5.5
27	6.5	2.5	5.5	3.0	20.5	7.5	17.5	5.0
28	6.5	3.5	4.0	3.0	20.5	8.0	17.0	5.0
29	4.0	2.5	---	---	20.0	6.0	17.5	5.0
30	7.5	3.5	---	---	19.5	5.5	17.0	5.0
31	5.5	3.5	---	---	19.5	6.0	---	---
MONTH	10.0	0.0	7.0	1.5	22.5	5.5	21.5	5.0

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.5	5.0	9.0	0.5	---	---	0.5	0.0	6.0	1.0	1.0	1.0
2	16.5	6.0	9.5	1.0	---	---	0.5	0.0	6.5	1.0	1.5	1.0
3	16.5	7.0	9.5	1.0	5.5	0.5	0.5	0.0	6.5	1.0	1.5	1.0
4	17.5	8.0	9.5	1.0	5.5	0.0	1.0	0.0	1.0	1.0	1.5	1.0
5	16.5	6.0	9.0	1.0	5.5	1.0	2.5	1.0	1.0	1.0	1.5	1.0
6	11.0	7.0	9.0	2.0	4.5	0.0	2.5	0.0	1.0	1.0	1.5	1.0
7	11.5	4.5	9.5	4.0	5.0	0.0	3.0	0.0	2.0	1.0	2.5	1.5
8	11.5	2.5	7.5	1.0	5.0	0.0	3.5	0.5	4.0	1.5	3.0	1.5
9	12.5	4.0	3.5	0.0	4.5	0.0	2.5	0.5	4.0	1.0	4.5	1.5
10	13.0	5.0	4.5	0.0	4.5	0.0	2.5	0.5	2.5	1.0	5.0	2.0
11	10.0	3.5	4.5	0.0	3.5	0.0	3.5	0.5	4.5	1.0	5.5	1.5
12	8.0	4.5	5.5	0.0	3.0	0.0	2.5	0.5	7.0	1.0	5.0	2.0
13	10.0	3.5	7.0	0.0	1.5	0.0	4.0	0.5	7.0	1.5	4.5	2.0
14	12.0	2.0	7.0	0.5	0.5	0.0	4.5	0.5	4.5	1.0	6.0	2.0
15	12.0	2.5	8.0	2.5	---	---	4.5	0.5	4.0	1.0	6.5	2.0
16	12.5	2.5	6.5	1.0	---	---	5.0	0.5	6.5	2.0	7.5	2.5
17	11.5	2.5	4.5	0.0	---	---	5.0	0.5	7.5	2.0	7.0	1.5
18	12.5	3.0	0.5	0.0	---	---	4.0	0.5	7.0	1.0	5.5	1.0
19	12.0	2.0	0.0	0.0	---	---	3.5	0.5	1.0	1.0	6.0	1.5
20	12.0	2.0	---	---	---	---	2.0	0.5	1.0	1.0	8.0	1.0
21	12.0	2.5	---	---	---	---	2.0	0.5	1.0	1.0	8.5	1.5
22	8.5	2.0	---	---	---	---	2.5	0.5	3.5	1.0	10.0	1.5
23	7.0	0.0	---	---	---	---	3.5	0.5	3.0	1.0	11.0	2.0
24	7.5	0.0	---	---	---	---	4.5	0.5	5.0	1.0	9.0	1.5
25	9.5	1.0	---	---	---	---	1.5	0.5	4.0	1.0	9.5	1.5
26	7.5	3.5	---	---	---	---	3.0	0.5	7.5	1.0	9.5	1.5
27	8.0	2.0	---	---	---	---	4.5	0.5	4.5	1.0	11.0	2.0
28	8.0	0.5	---	---	---	---	6.0	0.5	4.0	2.5	12.0	2.5
29	9.0	0.5	---	---	---	---	5.5	1.0	2.5	1.0	12.5	1.5
30	6.0	1.5	---	---	---	---	6.5	1.0	---	---	14.0	1.5
31	9.0	1.0	---	---	0.5	0.0	6.0	1.0	---	---	11.0	3.0
MONTH	17.5	0.0	---	---	---	---	6.5	0.0	7.5	1.0	14.0	1.0

PYRAMID AND WINNEMUCCA LAKES BASIN

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10339250 MARTIS CREEK AT STATE HIGHWAY 297, NEAR TRUCKEE, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.0	2.5	18.0	5.5	21.0	7.0	22.0	6.0	17.5	11.0	23.0	8.0
2	13.5	1.5	18.0	4.0	21.0	6.0	22.5	6.5	20.0	9.5	22.5	8.5
3	14.0	1.5	18.0	5.0	20.0	7.0	23.5	8.0	18.5	8.5	23.0	9.5
4	10.0	1.5	18.5	5.0	20.5	5.0	24.0	10.0	20.5	7.0	23.0	9.5
5	14.0	3.0	15.5	8.0	19.5	5.5	24.5	8.5	22.0	7.5	18.5	11.0
6	13.5	3.5	13.5	6.5	20.0	5.5	24.5	9.0	22.0	9.0	22.0	10.0
7	15.0	2.5	20.5	6.5	19.5	7.5	21.0	9.0	22.0	6.5	21.0	7.5
8	6.5	3.0	17.5	6.5	14.5	6.5	24.5	8.0	21.0	7.5	21.0	7.0
9	13.5	1.5	14.5	6.5	16.0	9.0	25.5	10.0	22.5	7.5	19.0	7.0
10	13.5	1.5	19.0	6.5	14.0	7.0	26.0	10.0	22.5	9.5	15.0	9.5
11	12.5	3.0	21.0	6.5	17.5	7.5	24.5	10.0	20.5	9.5	15.0	11.5
12	12.5	2.5	21.5	6.0	20.5	6.5	25.5	9.0	23.0	9.5	18.0	8.0
13	11.0	3.0	22.0	6.5	22.0	7.5	26.0	10.0	16.5	8.0	19.5	7.5
14	15.0	1.5	21.0	8.5	20.5	6.0	25.5	9.5	18.5	9.5	16.5	7.5
15	6.5	2.0	22.0	5.5	22.0	7.0	23.5	10.0	14.0	9.0	14.0	7.5
16	7.5	1.5	21.5	7.0	23.5	9.5	19.5	13.5	17.5	6.5	14.0	7.0
17	12.0	1.5	21.0	7.0	24.5	8.5	20.5	11.0	16.5	6.0	16.0	8.0
18	16.0	3.5	19.5	5.5	25.0	9.5	20.0	9.0	13.0	9.0	18.5	6.5
19	16.5	2.5	19.0	6.0	24.5	10.5	25.0	9.0	16.5	9.5	17.5	6.5
20	16.5	3.5	20.5	5.0	23.0	9.0	24.0	9.0	22.5	7.5	17.5	7.5
21	15.0	3.0	17.5	8.5	22.5	10.5	24.0	8.0	22.5	8.5	18.5	6.5
22	14.5	4.5	18.5	6.0	24.0	8.5	25.5	9.5	18.0	11.0	16.5	5.0
23	16.0	3.0	20.5	5.0	23.0	8.0	16.0	12.5	22.0	7.5	16.5	5.0
24	16.0	5.0	20.5	5.5	24.5	8.0	25.0	11.0	22.5	9.0	16.5	5.0
25	14.0	4.0	22.5	6.5	24.0	9.5	23.5	10.0	21.5	8.5	16.5	5.0
26	13.0	2.5	23.0	6.5	24.0	8.0	22.5	11.5	22.0	8.0	16.0	4.5
27	9.5	2.0	21.5	8.0	24.5	8.5	25.5	10.5	22.0	7.5	16.5	5.5
28	13.5	2.0	20.0	6.5	24.0	9.5	23.0	11.5	23.0	8.5	14.5	5.5
29	17.5	3.0	20.5	5.5	23.0	10.5	25.0	13.0	22.0	9.0	13.0	6.5
30	18.5	4.5	19.0	7.5	21.0	8.5	21.5	11.0	23.0	7.5	17.5	6.5
31	---	---	20.5	8.5	---	---	16.5	12.0	23.0	8.5	---	---
MONTH	18.5	1.5	23.0	4.0	25.0	5.0	26.0	6.0	23.0	6.0	23.0	4.5

PYRAMID AND WINNEMUCCA LAKES BASIN

10339380 MARTIS CREEK LAKE NEAR TRUCKEE, CA

LOCATION.--Lat 39°19'38", long 120°06'48", in NE¼NW¼ sec.17, T.17 N., R.17 E., Nevada County, Tahoe National Forest, in control house at Martis Creek Dam, 2.0 mi (3.2 km) upstream from mouth, and 3.5 mi (5.6 km) east of Truckee.

DRAINAGE AREA.--40.0 mi² (103.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March to May 1972 (occasional readings only), June 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (Corps of Engineers project datum).

REMARKS.--Lake is formed by rolled-earthfill dam. Storage began Oct. 7, 1971. Total capacity, 20,400 acre-ft (25.2 hm³) between elevations 5,745 ft (1,751.1 m), streambed elevation at dam, and 5,838 ft (1,779.4 m), elevation of spillway crest. Figures given herein represent total contents, which include 817 acre-ft (1.01 hm³) of inactive storage below elevation, 5,780 ft (1,761.7 m), intake crest. Reservoir is used for flood control, enhancement of fishery, and recreation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 4,450 acre-ft (5.49 hm³) Apr. 2, 1974, elevation, 5,805.14 ft (1,769.407 m); minimum (since storage began), 810 acre-ft (999,000 m³) June 24, 1976, elevation, 5,779.91 ft (1,761.717 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 881 acre-ft (1.09 hm³) Mar. 17, elevation, 5,780.88 ft (1,762.012 m); minimum, 810 acre-ft (999,000 m³) June 24, elevation, 5,779.91 ft (1,761.717 m).

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

5779	747	5781	890
5780	817		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	831	838	835	830	832	837	844	840	819	817	824	820
2	829	837	835	829	832	836	845	837	819	817	824	819
3	829	837	835	832	832	835	846	836	819	817	822	819
4	828	837	834	832	832	835	845	835	819	817	822	819
5	828	835	835	832	832	834	846	835	819	817	822	819
6	844	835	835	832	832	834	845	821	820	817	820	818
7	837	836	834	832	832	835	846	821	821	817	820	819
8	834	835	834	832	833	837	845	822	822	817	821	819
9	834	836	835	832	833	837	843	817	824	817	821	819
10	846	837	834	832	832	839	843	816	822	817	821	822
11	848	836	835	832	833	837	843	814	822	816	820	828
12	840	836	833	832	832	837	843	814	821	817	820	825
13	837	837	832	832	834	838	843	813	820	817	819	824
14	836	836	830	832	832	846	842	813	820	817	822	823
15	835	836	832	832	832	852	843	814	822	818	829	823
16	835	842	833	832	833	862	841	813	822	819	827	824
17	835	837	832	832	835	876	840	814	822	819	824	824
18	835	835	832	832	839	855	841	814	822	819	825	824
19	834	835	832	831	832	848	842	816	820	819	825	823
20	834	835	832	832	833	852	844	816	812	818	824	823
21	834	835	832	832	834	855	845	816	812	819	823	822
22	835	835	833	832	833	858	845	816	812	819	825	822
23	835	835	833	833	834	853	845	816	812	820	824	822
24	835	835	833	832	832	853	845	816	813	821	824	822
25	835	834	832	832	832	848	845	815	813	821	822	821
26	860	835	833	832	836	845	843	816	812	821	822	822
27	846	835	833	832	837	843	842	817	812	820	822	822
28	840	832	833	832	847	843	840	817	813	820	821	822
29	835	832	833	832	844	843	840	817	814	820	820	822
30	844	835	831	832	---	846	840	818	815	819	820	822
31	840	---	830	832	---	845	---	818	---	823	820	---
MAX	860	842	835	833	847	876	846	840	824	823	829	828
MIN	828	832	830	829	832	834	840	813	812	816	819	818
†	5780.33	5780.26	5780.19	5780.22	5780.38	5780.41	5780.33	5780.02	5779.98	5780.09	5780.05	5780.07
‡	+5	-5	-5	+2	+12	+1	-5	-22	-3	+8	-3	+2

CAL YR 1975 MAX 881 MIN 810 † -4

WTR YR 1976 MAX 876 MIN 812 † -13

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

10339380 MARTIS CREEK LAKE NEAR TRUCKEE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL ANALYSES: Water years 1975 to current year.

SEDIMENT RECORDS: Water years 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	SAMP- LING DEPTH (FT)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)
OCT 01...	1235	14	15.0	10	.01	.00	.12	.24	.37	.06	.00
MAY 05...	1125	14	11.5	3	.00	.00	.02	.15	.17	.02	--
SEP 02...	1300	15	17.5	3	.00	.00	.04	.26	.30	.04	.02

DATE	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	SUS- PENDE- D SEDI- MENT (MG/L)
OCT 01...	0	0	1100	100	<100	0	240	30	--	10	30
MAY 05...	<10	--	260	60	0	0	10	0	30	0	5
SEP 02...	<10	0	390	240	<100	3	40	20	20	0	2

10339400 MARTIS CREEK NEAR TRUCKEE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

CHEMICAL ANALYSES: Water years 1975 to current year.

WATER TEMPERATURES: Water years 1975 to current year.

SEDIMENT RECORDS: Water year 1975.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1974 to current year.

INSTRUMENTATION.--Temperature recorder since October 1974.

REMARKS.--Unpublished chemical-quality and sediment data prior to October 1974, and water temperatures prior to June 1973, available at district office in Carson City, NV.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURES: Maximum, 22.0°C on several days in 1976; minimum, 1.0°C on several days in 1975, Mar. 6, 8, 9, 14, 1976.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 22.0°C on several days during July; minimum, 1.0°C Mar. 6, 8, 9, 14.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)
OCT 01...	1135	8.9	14.0	4	.04	.00	.12	.38	.54	.05	.00
MAY 05...	1230	13	13.0	3	.02	.00	.15	.26	.43	.05	--
SEP 02...	1105	4.8	17.0	5	.04	.00	.10	.32	.46	.06	.02

DATE	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	SUS- PENDE SEDI- MENT (MG/L)
OCT 01...	0	0	570	90	<100	0	120	10	10	10	8
MAY 05...	<10	0	340	50	0	0	20	0	20	0	6
SEP 02...	<10	0	510	270	<100	2	100	70	0	0	5

PYRAMID AND WINNEMUCCA LAKES BASIN

10339400 MARTIS CREEK NEAR TRUCKEE, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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

10340300 PROSSER CREEK RESERVOIR NEAR BOCA, CA

LOCATION.--Lat 39°22'45", long 120°08'25", in NW¼SW¼ sec.30, T.18 N., R.17 E., Nevada County, in control house at Prosser Creek Dam on Prosser Creek, 1.5 mi (2.4 km) upstream from mouth, and 3 mi (5 km) west of Boca.

DRAINAGE AREA.--50.5 mi² (130.8 km²).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by rolled-earth and rockfill dam. Storage began Jan. 30, 1963. Usable capacity, 28,640 acre-ft (35.3 hm³) between elevations, 5,660.6 ft (1,725.35 m) top of inactive storage, and 5,741.2 ft (1,749.92 m) spillway crest. Inactive storage, 1,200 acre-ft (1.48 hm³), includes 83 acre-ft (102,000 m³) dead storage below elevation 5,660.6 ft (1,725.35 m). Elevation of streambed at dam axis, 5,622 ft (1,713.6 m). Figures given herein represent usable contents. Reservoir is used for flood control, enhancement of fishery, and recreation.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 31,070 acre-ft (38.3 hm³) June 1, 1973, elevation, 5,744.33 ft (1,750.872 m); no usable contents Aug. 18 to Sept. 30, 1976; minimum elevation observed, 5,637.1 ft (1,718.19 m) Sept. 6-20, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 11,530 acre-ft (14.2 hm³) May 21, elevation, 5,711.4 ft (1,740.83 m); no usable contents Aug. 18 to Sept. 30; minimum elevation observed, 5,637.1 ft (1,718.19 m) Sept. 6-20.

REVISIONS.--Revised figures of contents and change in contents, in acre-feet, superseding figures published in WDR 1975 are given below:

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	5718.2	14560	--
Oct. 31.....	5704.0	8720	-5840
Nov. 30.....	5702.1	8110	-610
Dec. 31.....	5703.0	8400	+290
CAL YR 1974.....	--	--	+200
Jan. 31.....	5700.8	7690	-210
Feb. 28.....	5701.4	7860	+170
Mar. 31.....	5703.0	8400	+540
Apr. 30.....	5697.1	6580	-1820
May 31.....	5711.1	11400	+4820
June 30.....	5733.6	23340	+11940
July 31.....	5730.6	21370	-1970
Aug. 31.....	5727.0	19210	-2160
Sept. 30.....	5707.9	10140	-9070
CAL YR 1975.....	--	--	-4420

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	5707.9	10140	--
Oct. 31.....	5703.2	8460	-1680
Nov. 30.....	5701.3	7850	-610
Dec. 31.....	5701.8	8010	+160
CAL YR 1975.....	--	--	-390
Jan. 31.....	5701.7	7980	-30
Feb. 29.....	5702.9	8360	+380
Mar. 31.....	5703.6	8610	+250
Apr. 30.....	5704.4	8880	+270
May 31.....	5711.2	11450	+2570
June 30.....	5710.6	11200	-250
July 31.....	5679.8	2560	-8640
Aug. 31.....	5639.1	0	-2560
Sept. 30.....	5641.3	0	0
WTR YR 1976.....	--	--	-10140

PYRAMID AND WINNEMUCCA LAKES BASIN
10340500 PROSSER CREEK NEAR BOCA, CA

LOCATION.--Lat 39°22'24", long 120°07'50", in NW¼NW¼NE¼ sec.31, T.18 N., R.17 E., Nevada County, on left bank 1.0 mi (1.6 km) upstream from mouth, 0.2 mi (0.3 km) downstream from Prosser Creek Dam, and 2.6 mi (4.2 km) southwest of Boca. Prior to May 1976, at site 0.8 mi (1.3 km) downstream.

DRAINAGE AREA.--53.2 mi² (137.8 km²).

PERIOD OF RECORD.--October 1902 to June 1903 (gage heights only), October 1942 to December 1950, June 1951 to current year. Monthly discharge only for October 1942 to December 1950, published in WSP 1734. Records for April 1889 to November 1890, published in the 11th and 12th annual reports, Part 2, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 2127: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,572.62 ft (1,698.535 m) above mean sea level (levels by Bureau of Reclamation). See WSP 2127 for history of changes prior to September 1956. October 1956 to May 1976, water-stage recorder at site 0.8 mi (1.3 km) downstream at datum 29.69 ft (9.050 m) lower.

REMARKS.--Records excellent. Flow regulated by Prosser Creek Dam since Jan. 31, 1963.

AVERAGE DISCHARGE (adjusted for storage in Prosser Creek Reservoir).--33 years (water years 1943-50, 1952-76), 87.0 ft³/s (2.464 m³/s), 63,030 acre-ft/yr (77.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (water years 1943-76): Maximum discharge, 4,560 ft³/s (129 m³/s) Dec. 23, 1955, gage height, 10.13 ft (3.088 m) present datum, from rating curve extended above 910 ft³/s (25.8 m³/s) on basis of slope-area measurement of peak flow; maximum gage height, 11.0 ft (3.35 m) from floodmarks, present datum, Nov. 20, 1950, discharge, 4,320 ft³/s (122 m³/s) by slope-area measurement; minimum daily discharge, 0.02 ft³/s (<0.001 m³/s) Jan. 2, 1975, result of temporary closing of Prosser Creek Dam for spillway maintenance.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 206 ft³/s (5.83 m³/s) July 19, gage height, 4.00 ft (1.219 m); minimum daily, 0.40 ft³/s (0.011 m³/s) Sept. 22-30, result of draining of reservoir for fish regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	113	21	31	10	12	60	100	78	9.6	115	6.8
2	119	113	31	31	10	17	60	101	54	9.2	90	2.4
3	116	101	31	31	10	26	60	67	38	9.2	75	12
4	116	90	31	31	11	39	60	37	38	9.2	75	9.2
5	115	56	31	31	10	38	84	51	38	28	75	8.8
6	67	30	31	31	10	38	101	63	38	59	73	8.8
7	32	19	31	19	10	38	101	70	38	104	72	8.4
8	32	10	31	10	10	38	101	76	37	152	71	8.0
9	32	10	31	10	25	39	87	77	37	175	71	8.0
10	32	33	31	10	35	39	76	58	36	196	70	8.4
11	32	56	31	10	35	39	76	39	36	193	69	19
12	32	56	31	10	35	39	76	59	36	193	68	17
13	31	56	31	10	36	38	76	80	36	193	66	12
14	31	56	31	24	36	39	76	80	37	177	64	11
15	53	56	31	35	36	39	76	81	37	167	64	11
16	68	57	31	35	36	40	76	81	37	177	63	11
17	67	56	31	35	36	56	76	55	36	185	62	10
18	67	56	31	35	37	65	76	39	36	183	61	10
19	67	56	31	35	37	98	76	40	36	193	60	9.6
20	67	56	31	35	36	123	76	40	36	200	31	8.8
21	67	56	31	35	36	123	55	79	36	171	17	3.0
22	46	56	31	35	37	86	37	107	36	152	18	.40
23	31	56	31	35	36	60	58	107	36	150	17	.40
24	31	56	19	35	36	60	76	92	36	148	17	.40
25	31	56	10	35	23	60	76	83	36	146	39	.40
26	32	41	10	21	11	60	91	83	36	144	54	.40
27	52	30	10	10	11	60	101	83	36	142	52	.40
28	68	19	10	10	13	60	81	58	36	141	49	.40
29	68	12	22	10	13	60	62	40	15	139	46	.40
30	69	10	31	10	---	60	84	40	9.6	125	41	.40
31	94	---	31	10	---	60	---	65	---	117	18	---
TOTAL	1895	1528	846	745	717	1649	2271	2131	1107.6	4187.2	1763	206.80
MEAN	61.1	50.9	27.3	24.0	24.7	53.2	75.7	68.7	36.9	135	56.9	6.89
MAX	130	113	31	35	37	123	101	107	78	200	115	19
MIN	31	10	10	10	10	12	37	37	9.6	9.2	17	.40
AC-FT	3760	3030	1680	1480	1420	3270	4500	4230	2200	8310	3500	410

CAL YR 1975 TOTAL 37017.02 MEAN 101 MAX 720 MIN .02 AC-FT 73420 MEAN ‡ 101 AC-FT ‡ 73030
WTR YR 1976 TOTAL 19046.60 MEAN 52.0 MAX 200 MIN .40 AC-FT 37780 MEAN ‡ 38.1 AC-FT ‡ 27640

‡ Adjusted for change in contents in Prosser Creek Reservoir.

10343000 INDEPENDENCE CREEK NEAR TRUCKEE, CA

LOCATION.--Lat 39°27'20", long 120°17'15", in NW¼SW¼ sec.35, T.19 N., R.15 E., Sierra County, Tahoe National Forest, on left bank 0.3 mi (0.5 km) downstream from Independence Lake outlet, 6.5 mi (10.5 km) northwest of Hobart Mills, and 10 mi (16 km) north-northwest of Truckee.

DRAINAGE AREA.--8.20 mi² (21.24 km²), revised.

PERIOD OF RECORD.--November 1902 to September 1907, November 1909 to June 1910, August 1968 to current year.

REVISED RECORDS.--WSP 2127: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,940 ft (2,115 m), from topographic map. July 1, 1904, to June 30, 1910, water-stage recorder 75 ft (23 m) downstream from Independence Lake outlet; prior to July 1, 1904, water-stage recorder 600 ft (180 m) downstream at approximately same datum.

REMARKS.--Records good. Flow regulated by Independence Lake, usable capacity, 17,500 acre-ft (21.6 hm³).

AVERAGE DISCHARGE (unadjusted).--13 years (water years 1903-7, 1969-76), 30.4 ft³/s (0.861 m³/s), 22,020 acre-ft/yr (27.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 286 ft³/s (8.10 m³/s) June 23, 1907, gage height, 3.9 ft (1.19 m) site and datum then in use; no flow Sept. 28 to Nov. 10, 1905, June 1, 1906.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 64 ft³/s (1.81 m³/s) Oct. 3, gage height, 3.65 ft (1.112 m); minimum daily, 0.32 ft³/s (0.009 m³/s) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	11	10	9.8	9.8	10	10	9.7	7.1	8.5	3.0	1.6
2	43	11	10	9.9	9.8	10	11	9.6	7.0	8.1	3.6	1.6
3	54	11	10	10	9.8	10	11	9.5	7.4	8.1	2.2	1.6
4	63	11	10	10	9.8	10	11	9.5	8.0	8.1	2.4	1.6
5	63	11	10	10	9.8	10	11	9.4	8.1	8.0	2.3	1.5
6	63	11	10	10	9.8	10	11	9.3	8.1	7.9	2.2	1.5
7	63	11	10	10	9.8	11	11	9.2	8.1	8.1	2.2	1.5
8	63	11	10	10	9.8	11	10	9.0	8.1	7.8	2.2	1.4
9	62	11	10	10	9.8	11	10	8.2	8.1	7.6	2.2	1.4
10	62	10	10	10	9.8	11	11	8.1	8.0	7.4	2.2	1.6
11	62	11	10	10	9.8	11	11	8.2	7.9	5.6	2.2	1.7
12	61	11	10	10	9.8	11	11	8.3	7.7	3.6	2.2	1.5
13	60	10	10	10	9.8	11	11	8.1	7.8	4.0	2.2	1.5
14	60	10	10	9.8	9.8	11	11	8.1	7.8	3.8	2.1	1.5
15	60	10	10	9.8	9.8	11	11	8.1	7.8	3.8	2.0	1.5
16	59	11	10	9.8	10	11	10	8.1	7.7	3.7	1.9	1.5
17	59	10	10	9.8	10	11	10	7.9	7.6	3.8	1.9	1.5
18	58	10	10	9.8	10	11	10	7.9	7.6	3.8	1.9	1.5
19	58	10	10	9.8	10	11	10	7.7	7.8	3.7	1.9	1.5
20	57	10	10	9.8	10	11	11	7.6	7.8	3.6	1.9	1.5
21	57	10	10	9.8	10	11	11	7.6	7.9	3.7	1.9	1.7
22	57	10	10	9.8	10	11	11	7.6	8.0	3.5	1.9	1.6
23	34	10	10	9.8	10	11	11	7.6	8.1	3.5	1.8	1.5
24	14	10	10	9.8	10	11	12	7.8	8.0	3.5	1.8	1.5
25	13	10	10	9.8	10	11	11	7.7	8.3	3.4	1.7	1.5
26	14	10	10	9.8	10	11	11	7.3	8.4	3.4	1.7	1.5
27	13	10	10	9.8	10	11	10	7.9	8.4	3.3	1.6	1.7
28	12	10	10	9.8	10	10	9.8	7.5	8.6	3.2	1.6	1.6
29	12	10	10	9.8	10	10	9.4	7.4	8.6	3.1	1.6	1.6
30	11	9.9	10	9.8	---	11	9.6	7.3	8.3	3.0	1.7	1.6
31	11	---	9.8	9.8	---	11	---	7.1	---	3.0	1.7	---
TOTAL	1421	311.9	309.8	306.1	287.0	333	318.8	254.3	238.1	155.6	63.7	46.3
MEAN	45.8	10.4	9.99	9.87	9.90	10.7	10.6	8.20	7.94	5.02	2.05	1.54
MAX	63	11	10	10	10	11	12	9.7	8.6	8.5	3.6	1.7
MIN	11	9.9	9.8	9.8	9.8	10	9.4	7.1	7.0	3.0	1.6	1.4
AC-FT	2820	619	614	607	569	661	632	504	472	309	126	92
CAL YR 1975	TOTAL	9102.0	MEAN	24.9	MAX	167	MIN	5.2	AC-FT	18050		
WTR YR 1976	TOTAL	4045.6	MEAN	11.1	MAX	63	MIN	1.4	AC-FT	8020		

PYRAMID AND WINNEMUCCA LAKES BASIN

10343500 SAGEHEN CREEK NEAR TRUCKEE, CA

LOCATION.--Lat 39°25'54", long 120°14'07", in NE¼NE¼ sec.7, T.18 N., R.16 E., Nevada County, on left bank 2.2 mi (3.5 km) upstream from bridge on State Highway 89, and 7.5 mi (12.1 km) north of Truckee.

DRAINAGE AREA, --10.8 mi² (28.0 km²).

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,320 ft (1,926 m), from topographic map. Prior to Dec. 2, 1953, nonrecording gage at site 100 ft (30 m) upstream at different datum.

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

AVERAGE DISCHARGE.--23 years, 12.5 ft³/s (0.354 m³/s), 9,060 acre-ft/yr (11.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 765 ft³/s (21.7 m³/s) Feb. 1, 1963, gage height, 4.64 ft (1.414 m) from floodmarks, from rating curve extended above 130 ft³/s (3.68 m³/s) on basis of slope-area measurement at gage height 4.28 ft (1.305 m); minimum, 0.6 ft³/s (0.017 m³/s) Aug. 8, 1960, Aug. 7, 1961, result of temporary regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42 ft³/s (1.19 m³/s) Oct. 26, gage height, 2.51 ft (0.765 m), no peak above base of 50 ft³/s (1.42 m³/s); minimum daily, 1.7 ft³/s (0.048 m³/s) Sept. 1-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	5.4	4.1	3.1	3.6	4.4	6.9	18	4.5	2.4	2.5	1.7
2	2.8	5.3	4.1	3.2	3.6	4.3	7.8	17	4.3	2.3	2.3	1.7
3	2.8	5.2	4.1	3.3	3.6	4.2	8.9	17	4.1	2.3	2.1	1.7
4	2.8	5.0	4.0	3.3	3.6	4.1	9.8	16	4.0	2.3	2.0	1.7
5	2.8	4.8	4.4	3.4	3.6	4.2	11	16	3.9	2.2	2.0	1.7
6	7.2	4.6	4.2	3.4	3.6	4.0	10	14	3.8	2.1	1.9	1.7
7	5.3	5.1	4.0	3.3	3.6	4.1	11	14	3.8	2.1	1.9	1.7
8	3.6	4.6	3.9	3.4	3.6	4.2	10	14	3.7	2.0	1.9	1.7
9	3.4	4.1	3.8	3.5	3.7	4.3	9.6	14	5.2	2.0	1.9	1.7
10	8.4	4.4	3.8	3.5	3.5	4.6	11	13	4.5	2.0	1.9	1.8
11	7.0	4.3	3.8	3.5	3.5	4.5	10	12	4.1	2.0	1.9	3.6
12	5.1	4.3	3.8	3.4	3.7	4.3	9.2	11	3.9	1.9	1.8	2.2
13	4.5	4.6	3.9	3.4	3.7	4.3	8.5	11	3.7	1.9	1.8	2.1
14	4.2	4.7	3.7	3.5	3.8	4.7	9.1	11	3.4	1.9	3.2	2.0
15	4.1	5.8	3.7	3.5	3.8	5.1	8.6	9.6	3.3	1.9	6.1	1.9
16	3.9	12	3.7	3.5	3.8	6.2	7.5	9.1	3.1	2.1	2.7	2.0
17	3.7	5.9	3.6	3.5	3.8	7.6	7.7	8.5	3.0	2.1	2.5	2.0
18	3.6	4.7	3.5	3.3	3.8	6.6	9.0	7.9	3.0	2.0	3.2	1.9
19	3.5	4.3	3.5	3.2	3.7	5.7	12	7.4	2.9	1.9	3.0	1.9
20	3.4	4.3	3.5	3.2	3.6	5.5	15	7.0	2.8	1.9	2.4	1.8
21	3.4	4.0	3.5	3.2	3.7	5.9	15	6.7	2.8	1.8	2.2	1.8
22	3.9	4.0	3.7	3.2	3.8	7.1	16	6.5	2.8	1.8	2.8	1.8
23	3.7	4.0	3.7	3.4	3.8	7.1	17	6.1	2.7	2.3	2.3	1.8
24	3.6	4.0	3.8	3.4	3.8	7.3	19	5.9	2.6	2.2	2.2	1.8
25	3.8	4.0	3.7	3.4	3.8	6.6	17	5.6	2.6	2.0	2.0	1.8
26	24	4.0	3.7	3.3	3.8	5.9	14	5.3	2.5	1.9	2.0	1.8
27	8.7	4.1	3.8	3.4	4.0	5.8	12	5.1	2.5	1.8	1.9	1.8
28	6.1	3.9	3.8	3.5	4.8	5.9	12	4.9	2.4	1.8	1.9	1.8
29	5.2	3.9	3.8	3.6	5.4	6.3	14	4.8	2.3	1.8	1.9	1.8
30	5.8	4.0	3.7	3.6	---	7.7	16	4.7	2.3	1.8	1.8	1.9
31	5.6	---	3.3	3.5	---	7.5	---	5.0	---	2.1	1.8	---
TOTAL	158.7	143.3	117.6	104.9	110.1	170.0	344.6	308.1	100.5	62.6	71.8	56.6
MEAN	5.12	4.78	3.79	3.38	3.80	5.48	11.5	9.94	3.35	2.02	2.32	1.89
MAX	24	12	4.4	3.6	5.4	7.7	19	18	5.2	2.4	6.1	3.6
MIN	2.8	3.9	3.3	3.1	3.5	4.0	6.9	4.7	2.3	1.8	1.8	1.7
AC-FT	315	284	233	208	218	337	684	611	199	124	142	111

CAL YR 1975	TOTAL	5040.5	MEAN	13.8	MAX	105	MIN	2.8	AC-FT	10000
WTR YR 1976	TOTAL	1748.8	MEAN	4.78	MAX	24	MIN	1.7	AC-FT	3470

10344300 STAMPEDE RESERVOIR NEAR BOCA, CA

LOCATION.--Lat 39°28'24", long 120°06'06", in SW¼NW¼NW¼ sec.28, T.19 N., R.17 E., Sierra County, Tahoe National Forest, in control house on Stampede Dam on Little Truckee River, just downstream from mouth of Davies Creek, and 6.2 mi (10.0 km) north of Boca.

DRAINAGE AREA.--136 mi² (352 km²).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by rolled-earth and rockfill dam. Storage began Aug. 1, 1969. Total capacity, 226,500 acre-ft (279 hm³) at elevation, 5,948.7 ft (1,813.16 m), spillway crest. Inactive storage, 5,010 acre-ft (6.18 hm³), includes 660 acre-ft (814,000 m³) dead storage below elevation 5,798.3 ft (1,767.32 m). Elevation of streambed at dam axis, 5,737.0 ft (1,748.64 m). Figures given herein represent total usable contents. Reservoir is used for flood control, municipal water supply, enhancement of fishery, and recreation.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 226,500 acre-ft (279 hm³) June 19, 21, 1974, elevation, 5,948.7 ft (1,813.16 m); minimum (since July 1971), 58,440 acre-ft (72.1 hm³) Sept. 30, 1976, elevation, 5,878.8 ft (1,791.86 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 148,300 acre-ft (183 hm³) Oct. 1, 2, elevation, 5,923.1 ft (1,805.36 m); minimum, 58,440 acre-ft (72.1 hm³) Sept. 30, elevation, 5,878.8 ft (1,791.86 m).

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	5923.2	148000	--
Oct. 31.....	5921.8	144800	-4000
Nov. 30.....	5922.4	146400	+1600
Dec. 31.....	5922.6	147000	+600
CAL YR 1975.....	--	--	-32600
Jan. 31.....	5922.8	147500	+500
Feb. 29.....	5923.0	147900	+400
Mar. 31.....	5922.0	145300	-2600
Apr. 30.....	5913.6	124200	-21100
May 31.....	5904.5	103700	-20500
June 30.....	5898.8	92250	-11450
July 31.....	5892.7	80780	-11470
Aug. 31.....	5884.2	66550	-14230
Sept. 30.....	5878.8	58440	-8110
WTR YR 1976.....	--	--	-90360

10344400 LITTLE TRUCKEE RIVER ABOVE BOCA RESERVOIR, NEAR BOCA, CA

LOCATION.--Lat 39°26'10", long 120°05'00", in SW¼SW¼ sec.3, T.18 N., R.17 E., Nevada County, on left bank 1 mi (2 km) upstream from Boca Reservoir, 1.5 mi (2.4 km) upstream from Dry Creek, 3.0 mi (4.8 km) downstream from Stampede Dam on Little Truckee River, and 3.5 mi (5.6 km) north of Boca.

DRAINAGE AREA.--146 mi² (378 km²).

PERIOD OF RECORD.--June 1903 to October 1910, September 1939 to current year. Monthly discharge only for some periods, published in WSP 1314 and 1734. Published as "at Pine Station" June 1903 to December 1907 and as "at Starr" January 1908 to October 1910.

REVISED RECORDS.--WSP 1564: 1903-4, 1906-7, 1910, drainage area at site used in 1903-7.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,618.67 ft (1,712.571 m) above mean sea level (Bureau of Reclamation bench mark). June 1903 to October 1910, nonrecording gages at different sites and datums.

REMARKS.--Records excellent. Flow regulated by Independence Lake, capacity, 17,500 acre-ft (21.6 hm³) and one transbasin diversion to Sierra Valley and Stampede Reservoir (station 11344300), capacity, 226,500 acre-ft (279 hm³).

AVERAGE DISCHARGE (adjusted for storage in Stampede Reservoir).--44 years (water years 1904-10, 1940-76), 192 ft³/s (5.437 m³/s), 139,100 acre-ft/yr (172 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,300 ft³/s (377 m³/s) Feb. 1, 1963, gage height, 9.00 ft (2.743 m), from rating curve extended above 1,600 ft³/s (45.3 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.30 ft³/s (0.008 m³/s) Sept. 16-21, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 664 ft³/s (18.8 m³/s) May 5-7, gage height, 2.28 ft (0.695 m); minimum, 15.0 ft³/s (0.42 m³/s) Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160	35	34	33	41	74	261	544	313	200	298	159
2	159	35	34	32	41	73	294	544	244	190	298	151
3	158	35	34	32	41	74	348	587	230	175	298	151
4	157	34	34	33	41	73	348	640	217	175	297	151
5	157	34	34	33	41	73	323	643	201	185	297	151
6	159	34	34	33	41	73	293	664	200	199	296	143
7	159	34	34	33	41	73	293	621	190	199	293	130
8	158	34	34	33	41	73	293	573	179	166	293	142
9	158	34	34	34	44	74	446	573	188	111	293	154
10	160	35	34	34	41	74	537	573	200	82	293	154
11	160	34	34	33	41	91	537	573	200	81	293	144
12	158	34	34	33	46	110	526	573	200	81	293	131
13	157	34	34	33	51	110	509	573	200	81	293	131
14	157	34	34	33	51	111	507	529	200	103	293	131
15	157	34	34	34	51	111	508	464	200	151	243	92
16	157	35	34	34	51	112	504	464	117	159	195	134
17	157	35	34	34	51	112	503	450	199	172	196	138
18	157	34	34	34	51	112	503	437	210	172	184	151
19	157	34	34	34	52	110	503	447	229	172	176	151
20	157	34	34	34	51	110	503	452	229	171	176	151
21	157	34	34	34	51	110	503	403	216	199	176	151
22	157	34	34	34	51	110	503	343	200	242	176	151
23	157	34	34	34	51	110	526	343	188	242	176	151
24	157	34	34	34	51	111	551	343	172	242	174	151
25	99	34	34	34	51	154	551	343	172	242	174	151
26	159	34	34	34	51	203	572	343	172	253	174	150
27	157	34	34	33	52	249	595	312	172	271	172	150
28	157	34	34	33	53	293	600	293	184	283	172	150
29	157	34	34	33	67	293	602	293	200	298	172	150
30	102	34	34	34	---	293	575	293	200	298	172	149
31	36	---	33	38	---	293	---	308	---	298	172	---
TOTAL	4654	1026	1053	1041	1387	4042	14117	14541	6022	5893	7208	4344
MEAN	150	34.2	34.0	33.6	47.8	130	471	469	201	190	233	145
MAX	160	35	34	38	67	293	602	664	313	298	298	159
MIN	36	34	33	32	41	73	261	293	117	81	172	92
AC-FT	9230	2040	2090	2060	2750	8020	28000	28840	11940	11690	14300	8620

CAL YR 1975	TOTAL	89021	MEAN	244	MAX	996	MIN	33	AC-FT	176600	MEAN ‡	199	AC-FT ‡	144000
WTR YR 1976	TOTAL	65328	MEAN	178	MAX	664	MIN	32	AC-FT	129600	MEAN ‡	54.1	AC-FT ‡	39240

‡ Adjusted for change in contents in Stampede Reservoir.

10344490 BOCA RESERVOIR AT BOCA, CA

LOCATION.--Lat 39°23'20", long 120°05'45", in NE¼NW¼ sec.28, T.18 N., R.17 E., Nevada County, in control house at Boca Dam on Little Truckee River 1,800 ft (550 m) upstream from mouth, and 0.5 mi (0.8 km) northwest of Boca.

DRAINAGE AREA.--172 mi² (445 km²).

PERIOD OF RECORD.--December 1938 to current year. Monthend contents only for December 1938 to September 1957, published in WSP 1734.

REVISED RECORDS.--WSP 1634: Drainage area.

GAGE.--Pressure gage with mercury column read once daily. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by earthfill, rock-faced dam. Storage began Dec. 8, 1938. Usable capacity, 40,870 acre-ft (50.4 hm³) between elevations 5,521 ft (1,682.8 m) outlet sill, and 5,605 ft (1,708.4 m) top of spillway gates. Elevation of spillway (gate open) is 5,589.01 ft (1,703.530 m). Dead storage, 241 acre-ft (297,000 m³). Figures given herein represent usable contents at 0800 hours. Water is used for irrigation in the State of Nevada and for power development.

COOPERATION.--Daily elevations furnished by Washoe County Water Conservation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 41,440 acre-ft (51.1 hm³) Dec. 23, 1955, elevation, 5,605.55 ft (1,708.572 m); minimum, 37 acre-ft (45,600 m³) Mar. 4-9, 1955, elevation, 5,521.65 ft (1,682.999 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 37,900 acre-ft (46.7 hm³) Aug. 22-24, elevation, 5,601.8 ft (1,707.43 m); minimum, 25,270 acre-ft (31.2 hm³) Nov. 7-11, elevation, 5,587.2 ft (1,702.98 m).

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

5580	20000	5605	40870
5590	27510	5605.3	41160
5600	36150		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37240	26130	26280	27000	28140	30400	32370	31850	30320	29900	32720	37330
2	36870	25970	26280	27160	28140	30660	32280	32020	30150	29810	33420	37330
3	36680	25730	26280	27160	28140	30830	32280	32020	30150	29720	33690	37240
4	36310	25580	26280	27160	28220	31000	32280	32110	30150	29640	34130	37050
5	36040	25420	26280	27160	28300	31090	32280	32280	30060	29470	34490	36960
6	35760	25420	26280	27160	28300	31180	32280	32370	29980	29470	37760	36770
7	35400	25270	26280	27080	28300	31350	32280	32370	29980	29640	35120	36680
8	35940	25270	26360	27160	28300	31520	32280	32460	29810	29640	35490	36590
9	34670	25270	26360	27160	28300	31700	32200	32460	29980	29720	35670	36500
10	34400	25270	26360	27160	28300	31850	31940	32460	29980	29810	36220	36500
11	34040	25270	26360	27160	28300	32020	31850	32460	30060	29720	36500	36500
12	33690	25340	26360	27160	28470	32200	31850	32460	30150	29810	36870	36400
13	33420	25420	26360	27160	28550	32370	31850	32460	30150	29810	36870	36310
14	32980	25500	26360	27160	28640	32540	31760	32460	30230	29890	37050	36310
15	32720	25580	26360	27160	28800	32630	31700	32370	30230	29890	37240	36220
16	32370	25660	26360	27330	28880	32720	31610	32370	30320	29890	37330	36130
17	32020	25730	26360	27330	28970	32720	31610	32280	30230	29890	37430	36040
18	31700	25730	26360	27330	29140	32810	31520	32110	30150	29810	37610	36040
19	31350	25730	26520	27410	29140	32810	31520	32020	30150	29810	37710	36040
20	31000	25890	26520	27490	29300	32810	31440	32020	30230	29810	37800	36130
21	30660	25970	26680	27490	29390	32720	31350	32020	30320	29890	37800	35940
22	30320	26050	26680	27570	29470	32720	31350	31850	30320	29980	37900	35580
23	29890	26050	26840	27650	29640	32720	31350	31700	30320	30150	37900	35120
24	29470	26050	26840	27810	29640	32720	31520	31520	30230	30230	37900	34670
25	28970	26130	26840	27810	29810	32720	31520	31440	30150	---	37800	34050
26	28800	26210	26840	27810	29890	32720	31520	31180	30150	30570	37800	33340
27	28300	26210	26840	27980	29980	32630	31520	31000	30150	30750	37710	32630
28	27810	26210	26840	28060	30150	32540	31700	30830	29980	31000	37610	31850
29	27410	26210	26840	28060	30320	32460	31700	30750	29980	31350	37610	31180
30	27000	26210	26840	28140	---	32370	31760	30660	29980	31000	37520	30320
31	26440	---	26840	28140	---	32370	---	30490	---	32200	37430	---
MAX	37240	26210	26840	28140	30320	32810	32370	32460	30320	---	37900	37330
MIN	26440	25270	26280	27000	28140	30400	31350	30490	29810	---	32720	30320
†	5588.70	5588.45	5589.20	5590.75	5593.35	5595.80	5595.10	5593.55	5593.00	5595.65	5601.45	5593.40
‡	-10990	-230	+630	+1300	+2180	+2050	-610	-1270	-510	-745	-523	-711

CAL YR 1975 MAX 41160 MIN 24340 ‡ -3820
WTR YR 1976 MAX 37900 MIN 25270 ‡ -7110

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

PYRAMID AND WINNEMUCCA LAKES BASIN

10344500 LITTLE TRUCKEE RIVER AT BOCA, CA

LOCATION.--Lat 39°23'10", long 120°05'40", in NE¼NW¼ sec.28, T.18 N., R.17 E., Nevada County, on right bank 800 ft (250 m) upstream from mouth, 1,000 ft (300 m) downstream from Boca Dam, and 0.3 mi (0.5 km) northwest of Boca.

DRAINAGE AREA.--172 mi² (445 km²).

PERIOD OF RECORD.--April to October 1890 (monthly discharge only), January 1911 to September 1915, January 1939 to current year. Monthly discharge only for January 1939 to September 1957, published in WSP 1734.

REVISED RECORDS.--WSP 1564: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,500 ft (1,676 m), from topographic map. Jan. 1, 1911, to Sept. 30, 1915, nonrecording gage at site 650 ft (200 m) downstream at different datum. January 1939 to September 1957, records computed from daily log of rated settings of needle valve in dam, and from computed flow over spillway.

REMARKS.--Records excellent. Flow regulated by Boca Reservoir (station 10344490), capacity, 40,870 acre-ft (50.4 hm³), Independence Lake, capacity, 17,500 acre-ft (21.6 hm³), one transmountain diversion to Sierra Valley, and Stampede Reservoir (station 10344300), capacity, 226,500 acre-ft (279 hm³) since Aug. 1, 1969.

AVERAGE DISCHARGE (unadjusted).--41 years (water years 1912-15, 1940-76), 188 ft³/s (5.324 m³/s), 136,200 acre-ft/yr (168 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,800 ft³/s (249 m³/s) Dec. 24, 1955, from records of Washoe County Water Conservation District; no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 632 ft³/s (17.9 m³/s) May 6, 7, gage height, 3.77 ft (1.149 m); minimum daily, 0.52 ft³/s (0.015 m³/s) Dec. 17-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	300	153	29	.58	27	1.6	268	499	354	215	70	180
2	300	147	29	18	31	1.6	302	499	277	215	39	182
3	299	139	25	34	35	1.6	347	535	254	218	31	205
4	299	107	26	34	35	1.7	347	562	241	233	88	215
5	298	101	33	35	35	1.7	324	594	229	218	133	215
6	308	57	33	35	35	1.7	305	629	229	191	138	188
7	325	30	33	35	35	1.7	305	612	212	155	127	162
8	329	29	33	35	35	1.7	324	582	169	114	119	162
9	329	29	33	35	27	1.7	528	576	165	75	119	161
10	328	29	33	35	21	1.7	576	575	172	41	119	164
11	327	29	32	35	12	1.8	556	573	172	46	144	163
12	326	17	30	35	1.3	29	530	566	170	46	211	165
13	326	.90	30	35	1.3	57	506	566	176	47	228	165
14	325	.90	30	21	1.4	52	515	526	176	87	222	165
15	324	.90	30	.70	1.4	86	525	473	191	150	167	155
16	323	.92	30	.70	1.4	107	525	470	197	161	125	142
17	323	.81	15	.72	1.4	112	524	458	197	166	124	141
18	325	.68	.53	.73	1.4	122	524	447	195	167	136	143
19	328	.58	.53	.76	1.4	122	524	447	195	149	150	143
20	328	.58	.53	.76	1.4	122	524	440	194	139	158	208
21	328	.58	.53	.76	1.4	122	516	423	195	170	166	286
22	339	.58	.53	.76	1.4	122	500	405	195	195	166	348
23	350	.58	.53	.78	1.4	122	496	403	195	175	183	381
24	349	.58	17	.83	1.4	122	496	403	195	158	197	421
25	348	.58	33	.83	12	173	496	408	195	152	195	448
26	347	18	33	9.8	25	251	533	424	195	163	195	470
27	347	28	33	17	1.5	305	558	392	195	137	195	520
28	345	27	33	17	1.5	324	559	345	195	127	195	504
29	344	29	16	17	1.6	324	559	323	195	93	195	536
30	343	29	.57	22	---	324	525	359	211	70	210	567
31	258	---	.58	27	---	324	---	386	---	70	217	---
TOTAL	10068	1007.17	673.33	540.71	387.6	3340.5	14117	14900	6131	4343	4762	7905
MEAN	325	33.6	21.7	17.4	13.4	108	471	481	204	140	154	264
MAX	350	153	33	35	35	324	576	629	354	233	228	567
MIN	258	.58	.53	.58	1.3	1.6	268	323	165	41	31	141
AC-FT	19970	2000	1340	1070	769	6630	28000	29550	12160	8610	9450	15680
CAL YR 1975 TOTAL	97225.52			MEAN 266	MAX 901	MIN .53	AC-FT 192800					
WTR YR 1976 TOTAL	68175.31			MEAN 186	MAX 629	MIN .53	AC-FT 135200					

PYRAMID AND WINNEMUCCA LAKES BASIN

85

10346000 TRUCKEE RIVER AT FARAD, CA
(National stream-quality accounting network station)

LOCATION.--Lat 39°25'41", long 120°01'59", in NE¼ sec.12, T.18 N., R.17 E., Nevada County, on left bank 0.5 mi (0.8 km) upstream from Mystic Canyon, 0.7 mi (1.1 km) downstream from Farad powerplant, 2.5 mi (4.0 km) north of Floriston, 3.4 mi (5.5 km) downstream from Bronco Creek, and 3.5 mi (5.6 km) upstream from California-Nevada State line.

DRAINAGE AREA.--932 mi² (2,414 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March to October 1890 (monthly discharge only), September 1899 to current year. Monthly discharge only for January 1944 to July 1957, published in WSP 1734. Published as "near Boca" March to October 1890, "at or near Nevada-California State line" September 1899 to August 1912, and as "at Iceland" August 1912 to December 1937.

REVISED RECORDS.--WSP 1714: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,153.21 ft (1,570.698 m) above mean sea level (Bureau of Reclamation bench mark). See WSP 2127 for history of changes prior to Aug. 26, 1957.

REMARKS.--Records excellent. Flow regulated by Lake Tahoe (station 19337000), Martis Creek Lake (station 10339380), Prosser Creek (station 10340300), Stampede and Boca Reservoirs (stations 19343300 and 10344490), Donner and Independence Lakes, and by several powerplants.

AVERAGE DISCHARGE.--77 years (water years 1900-76), 800 ft³/s (22.66 m³/s), 579,000 acre-ft/yr (715 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,500 ft³/s (496 m³/s) Nov. 21, 1950, gage height, 14.5 ft (4.420 m) present datum, from floodmarks, from slope-area measurement of peak flow; minimum, 28 ft³/s (0.793 m³/s) Dec. 18, 1930.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,500 ft³/s (42.5 m³/s) Oct. 26, gage height, 4.42 ft (1.347 m); minimum, 236 ft³/s (6.68 m³/s) Nov. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	711	658	407	405	399	459	665	1060	837	692	803	647
2	698	643	417	414	401	456	728	1090	756	691	759	623
3	690	620	415	434	405	487	811	1050	731	685	714	646
4	689	575	414	433	411	494	817	1040	738	693	754	690
5	680	544	423	438	407	491	824	1060	720	708	797	680
6	686	470	421	434	408	489	770	1090	715	710	786	667
7	747	443	419	424	406	500	717	1050	702	723	786	639
8	711	470	416	414	405	512	742	1090	681	721	773	632
9	710	409	415	420	422	511	903	1090	704	712	778	630
10	745	425	415	414	423	515	952	1070	705	689	781	633
11	794	438	411	415	412	523	930	1080	701	692	769	695
12	733	428	416	413	406	539	915	1090	700	690	807	670
13	715	410	413	413	407	557	945	1120	702	690	790	654
14	722	405	400	414	419	560	947	1130	697	700	779	647
15	722	401	408	406	410	593	971	1020	702	771	816	642
16	696	493	441	406	412	588	943	973	711	785	727	634
17	684	453	432	403	411	593	938	942	709	802	683	626
18	677	408	414	404	411	552	944	881	706	797	675	617
19	667	402	412	402	423	542	953	845	703	798	690	619
20	658	405	412	407	410	550	1020	818	698	786	677	655
21	649	391	412	405	409	555	1040	821	696	793	663	711
22	652	386	419	405	410	542	959	824	695	798	665	680
23	641	379	417	408	409	524	986	819	694	781	669	643
24	630	373	418	409	408	525	1040	795	709	765	679	639
25	626	372	422	404	407	548	1080	807	706	753	686	637
26	982	373	422	401	432	601	1060	860	704	761	707	644
27	896	425	424	395	430	649	1040	909	701	786	705	649
28	752	417	424	397	430	667	1000	847	687	798	697	579
29	720	395	421	400	488	672	965	773	671	820	672	607
30	745	401	414	395	---	670	1000	795	676	795	682	629
31	739	---	406	399	---	686	---	854	---	798	687	---
TOTAL	22167	13412	12920	12731	12031	17150	27605	29693	21257	23183	22656	19364
MEAN	715	447	417	411	415	553	920	958	709	748	731	645
MAX	982	658	441	438	488	686	1080	1130	837	820	816	711
MIN	626	372	400	395	399	456	665	773	671	685	663	579
AC-FT	43970	26600	25630	25250	23860	34020	54750	58900	42160	45980	44940	38410
CAL YR 1975	TOTAL	360663	MEAN 988	MAX 3730	MIN 372	AC-FT 715400						
WTR YR 1976	TOTAL	234169	MEAN 640	MAX 1130	MIN 372	AC-FT 464500						

10346000 TRUCKEE RIVER AT FARAD, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951-61, 1964 to current year. Published as Truckee River at Floriston (station 10345900), for period January 1964 to September 1971.

CHEMICAL ANALYSES: Water years 1951-61, 1964 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1964 to current year.

WATER TEMPERATURES: January 1964 to current year.

REMARKS.--Water-quality at this site is considered comparable with that of Truckee River at Floriston (station 10345900), which was operated 2.5 mi (4.0 km) upstream. Daily specific conductance and temperature data are collected at Farad powerplant, 0.7 mi (1.1 km) upstream from gage. Unpublished specific conductance records are included in extemes and are available in files of district office.

COOPERATION.--Samples through September 1961, collected by California Department of Water Resources. Bacteria determinations listed below made by Nevada Bureau of Laboratories and Research.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (1964-66, 1967-76): Maximum daily, 141 micromhos Feb. 3, 1964; minimum daily, 39 micromhos Dec. 23, 1964.

WATER TEMPERATURES: Maximum, 21.0°C Aug. 2, 6, 1971; minimum, freezing point on several days during winter period of most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 110 micromhos Feb. 13, 14; minimum daily, 70 micromhos May 12.

WATER TEMPERATURES: Maximum, 18.0°C July 25, 26, 29; minimum, freezing point on several days during December to March.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	HARDNESS (CA, MG)
OCT												
06...	1030	675	82	8.3	12.5	6	--	6	166	5	--	--
20...	1145	638	84	--	10.0	--	--	6	B15	0	1	--
NOV												
24...	1230	373	103	--	4.0	1	10.9	5	B30	1	2	36
DEC												
08...	1015	416	105	--	3.0	1	--	2	84	0	0	--
JAN												
07...	1250	428	105	8.3	2.5	2	--	7	44	0	0	--
26...	1200	401	107	--	2.0	--	--	3	B38	0	0	--
FEB												
10...	1120	420	112	8.3	1.5	4	11.6	6	B36	0	--	39
23...	1125	410	109	--	3.0	--	--	4	40	0	0	--
MAR												
09...	1130	500	109	--	4.5	2	--	3	62	0	2	--
30...	1040	663	92	8.2	5.5	--	--	8	22	0	1	--
APR												
12...	1050	928	84	8.0	6.5	3	--	23	B14	0	0	--
27...	1200	1060	81	8.4	6.5	--	--	5	B10	0	0	--
MAY												
10...	1100	1070	73	8.6	8.5	1	10.0	--	B10	0	1	27
24...	1200	807	77	--	11.0	--	--	12	B6	0	2	--
JUN												
07...	1040	716	91	8.0	12.0	2	--	24	42	1	11	--
29...	1210	676	97	8.3	15.0	--	--	19	B8	1	6	--
JUL												
12...	1120	695	92	8.2	15.5	--	--	36	48	4	12	--
26...	1220	751	93	8.2	18.5	--	--	6	82	18	12	--
AUG												
09...	1455	780	96	8.2	15.0	2	8.5	9	42	5	9	36
24...	1340	682	97	8.4	17.0	--	--	6	B24	0	4	--
SEP												
14...	1220	650	98	8.4	15.5	2	--	0	40	1	5	--
27...	1210	648	87	8.2	16.0	--	--	3	B16	2	11	--

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

PYRAMID AND WINNEMUCCA LAKES BASIN

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10346000 TRUCKEE RIVER AT FARAD, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)
NOV 24...	1230	2	1	100	30	<10	0	10	0	<50	1	<10
FEB 10...	1120	3	2	0	30	<10	0	0	0	<50	0	10
MAY 10...	1100	1	0	0	<10	0	0	<10	0	0	0	10
AUG 09...	1455	1	1	0	30	<10	0	0	0	<50	2	10

DATE	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
NOV 24...	2	30	<100	1	20	5	.1	.0	0	<10	100	0
FEB 10...	0	20	<100	2	20	0	.0	.0	0	<10	10	0
MAY 10...	0	20	<100	0	30	7	.2	.1	0	0	20	0
AUG 09...	0	--	<100	0	20	10	.0	.0	0	<10	10	0

DATE	TIME	TOTAL ALDRIN (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DI- AZINON (UG/L)	TOTAL DI- ELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL ETHION (UG/L)	TOTAL HEPTA- CHLOR (UG/L)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)
NOV 24...	1230	.00	.0	.00	.00	.00	.00	.00	.00	.00	.00	.00
FEB 10...	1120	.00	.0	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAY 10...	1100	.00	.0	.00	.00	.00	.00	.00	.00	.00	.00	.00
AUG 09...	1055	.00	.0	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	TOTAL LINDANE (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METHYL PARA- THION (UG/L)	TOTAL METHYL TRI- THION (UG/L)	TOTAL PARA- THION (UG/L)	TOTAL PCB (UG/L)	TOTAL TOX- APHENE (UG/L)	TOTAL TRI- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)	POLY- CHLO- RINATED NAPH- THA- LENES (UG/L)
NOV 24...	.00	.00	.00	.00	.00	.0	0	.00	.00	.00	.00	--
FEB 10...	.00	.00	.00	.00	.00	.0	0	.00	.00	.00	.00	.00
MAY 10...	.00	.00	.00	.00	.00	.0	0	.00	.00	.00	.00	.00
AUG 09...	.00	.00	.00	.00	.00	.0	0	.00	.00	.00	.00	.00

PYRAMID AND WINNEMUCCA LAKES BASIN

10346000 TRUCKEE RIVER AT FARAD, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)
OCT 06...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
NOV 24...	9.5	3.1	5.9	.4	1.6	50	--	3.8	3.5	.2	17	68
DEC 08...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 07...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 10...	10	3.4	7.4	.5	1.9	57	0	3.6	4.7	.1	14	81
23...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 09...	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--
APR 12...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 10...	7.4	2.0	3.3	.3	1.1	32	0	1.4	1.2	.0	13	50
24...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 07...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 12...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 09...	9.6	2.8	5.6	.4	1.7	55	0	5.4	2.4	.1	13	67
24...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 14...	--	3.1	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)
OCT 06...	--	--	--	4	.02	.00	.02	--	.20	--	.03	--
20...	--	--	--	12	.04	.00	.03	--	.13	--	.03	--
NOV 24...	69	.09	68.5	2	.07	.00	.05	.00	.00	.09	.00	.00
DEC 08...	--	--	--	4	.07	.00	.02	--	.27	--	.01	--
JAN 07...	--	--	--	4	.03	.00	.03	--	.28	--	.02	--
26...	--	--	--	0	.09	.00	.01	--	.39	--	.01	--
FEB 10...	73	.11	91.9	2	.02	.00	.03	.03	.23	.05	.01	.00
23...	--	--	--	3	.11	.00	.02	--	.10	--	.00	--
MAR 09...	--	--	--	4	.10	.00	.01	--	.12	--	.00	--
30...	--	--	--	6	.04	.00	.04	--	.18	--	.02	--
APR 12...	--	--	--	6	.02	.00	--	--	--	--	.02	--
27...	--	--	--	9	.01	.00	.01	--	.39	--	.00	--
MAY 10...	45	.07	144	6	.01	.00	.03	.00	.10	.07	.01	.01
24...	--	--	--	6	.00	.00	.01	--	.26	--	.02	--
JUN 07...	--	--	--	0	.02	.00	.01	--	.15	--	.02	--
29...	--	--	--	5	.01	.00	.02	--	.13	--	.07	--
JUL 12...	--	--	--	7	.05	.00	.06	--	.20	--	.01	--
26...	--	--	--	3	.06	.00	.03	--	.00	--	.03	--
AUG 09...	68	.09	141	3	.00	.00	.00	.00	.33	.08	.00	.00
24...	--	--	--	5	.08	.01	.00	--	.02	--	.01	--
SEP 14...	--	--	--	0	.06	.01	.00	--	.20	--	.00	--
27...	--	--	--	8	.04	.00	.04	--	.05	--	.02	--

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM .CLASS ..ORDER ...FAMILY....GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
JAN 07	1250	CHRYSOPHYTA			
		..BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
		....CYCLOTELLA		50	7
		#MELOSIRA		190	26
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		....ACHNANTHES		25	3
		...RHOICOSPHEA		12	2
		...CYMBELLACEAE			
		#CYMBELLA		120	17
		...DIATOMACEAE			
		....DIATOMA		12	2
		...FRAGILARIACEAE			
		....ASTERIONELLA		75	10
		*HANNAEA			0
		....SYNEDRA		87	12
		...GOMPHONEMACEAE			
		*GOMPHONEMA			0
		...NAVICULACEAE	NAVICULOID		
		....NAVICULA		87	12
		...NITZSCHACEAE			
		....NITZSCHIA		12	2
		...TABELLARIACEAE			
		....TABELLARIA		50	7
			TOTALS	720	100
		TOTAL PHYTOPLANKTON		720	
FEB 10	1120	CHLOROPHYTA	GREEN ALGAE		
		..CHLOROPHYCEAE			
		...CHLOROCOCCALES			
		...OOCYSTACEAE			
		....OOCYSTIS		41	7
			TOTALS	41	7
		CHRYSOPHYTA			
		..BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
		....CYCLOTELLA		51	9
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		....ACHNANTHES		41	7
		...COCCONEIS		20	3
		...CYMBELLACEAE			
		#CYMBELLA		130	22
		*EPITHEMIA			0
		...DIATOMACEAE			
		....DIATOMA		10	2
		...FRAGILARIACEAE			
		....ASTERIONELLA		41	7
		...FRAGILARIA		51	9
		....HANNAEA		31	5
		....SYNEDRA		31	5
		...GOMPHONEMACEAE			
		*GOMPHONEIS			0
		....GOMPHONEMA		31	5
		...NAVICULACEAE	NAVICULOID		
		....NAVICULA		20	3
		...NITZSCHACEAE			
		#NITZSCHIA		92	16
		...TABELLARIACEAE			
		*TABELLARIA			0
			TOTALS	550	93
		TOTAL PHYTOPLANKTON		590	

See footnote at end of table.

10346000 TRUCKEE RIVER AT FARAD, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM .CLASS ..ORDER ...FAMILY....GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
MAR 09	1130	CHLOROPHYTA	GREEN ALGAE		
		..CHLOROPHYCEAE			
		...CHLOROCOCCALES			
		....OOCYSTACEAE			
		*ANKISTRODESMUS			0
		*DICTYOSPHAERIUM			0
		...ZYGNEMATALES			
		....ZYGNEMATACEAE			
		*MOUGEOTIA			0
		CHRYSOPHYTA			
		..BACILLARIOPHYCEAE	DIATOMS		
		...CENTRALES	CENTRIC		
		...COSCINODISCAEAE			
		....CYCLOTELLA		31	3
		*MELOSIRA			0
		...PENNALES	PENNATE		
		...ACHNANTHACEAE			
		...ACHNANTHES		120	11
		*COCONEIS			0
		*RHOICOSPHENIA			0
		...CYMBELLACEAE			
		....CYMBELLA		93	8
		*EPITHEMIA			0
		*RHOPALODIA			0
		...DIATOMACEAE			
		....DIATOMA		47	4
		...FRAGILARIACEAE			
		....ASTERIONELLA		16	1
		#FRAGILARIA		340	30
		...HANNAEA		31	3
		...SYNEDRA		47	4
		...GOMPHONEMATACEAE			
		....GOMPHONEMA		120	11
		...NAVICULACEAE	NAVICULOID		
		....NAVICULA		120	11
		*PINNULARIA			0
		...NITZSCHIAEAE			
		....NITZSCHIA		160	14
		TOTALS		980	100
		..CHRYSOPHYCEAE	YELLOW-BROWN ALGAE		
		...CHRYSOMONADALES			
		....OCHROMONADACEAE			
		*OCHROMONAS			0
		TOTALS		160	0
		CYANOPHYTA	BLUE-GREEN ALGAE		
		..MYXOPHYCEAE			
		...OSCILLATORIALES	FILAMENTOUS		
		....OSCILLATORIACEAE			
		*OSCILLATORIA			0
		TOTAL PHYTOPLANKTON		1,100	

See footnote at end of table.

PYRAMID AND WINNEMUCCA LAKES BASIN

10346000 TRUCKEE RIVER AT FARAD, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

		PHYLUM .CLASS ..ORDER ...FAMILY....GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
DATE	TIME				
APR 12	1050	CHRYSOPHYTA			
		.BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
		....CYCLOTELLA		58	9
	*	....MELOSIRA			0
		..PENNALES	PENNATE		
		...CYMBELLACEAE			
		....CYMBELLA		43	6
		...DIATOMACEAE			
		....DIATOMA		14	2
		...FRAGILARIACEAE			
	#	....ASTERIONELLA		230	34
		....HANNAEA		72	11
		...GOMPHONEMATACEAE			
		....GOMPHONEMA		86	13
		...NAVICULACEAE	NAVICULOID		
		....NAVICULA		29	4
		...NITZSCHIAEAE			
		....NITZSCHIA		72	11
		...TABELLARIAEAE			
		....TABELLARIA		58	9
		TOTALS		600	99
		.CHRYSOPHYCEAE	YELLOW-BROWN ALGAE		
		..CHRYSOMONADALES			
		...OCHROMONADACEAE			
		....DINOBYRON		14	2
		TOTALS		72	2
		TOTAL PHYTOPLANKTON		680	
		_ORGANISM__NAME_____	_COMMON_NAME_____	CELLS/ML	PER_CENT
MAY 10	1100	CHLOROPHYTA	GREEN ALGAE		
		.CHLOROPHYCEAE			
		..CHLOROCCOCALLES			
		...OOCYSTACEAE			
		....ANKISTRODESMUS		7	1
		...VOLVOCALES			
		...PHACOTACEAE			
		....PTEROMONAS		7	1
		TOTALS		13	2
		CHRYSOPHYTA			
		.BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
		....CYCLOTELLA		20	2
		....MELOSIRA		130	14
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		....ACHNANTHES		39	4
		...COCCONEIS		20	2
		...RHOICOSPHENIA		7	1
		...CYMBELLACEAE			
		....CYMBELLA		110	11
		...DIATOMACEAE			
	#	....DIATOMA		200	20
		...FRAGILARIACEAE			
		....ASTERIONELLA		13	1
		....HANNAEA		52	5
		....SYNEDRA		59	6
		...GOMPHONEMATACEAE			
		....GOMPHONEMA		120	13
		...NAVICULACEAE	NAVICULOID		
		....NAVICULA		85	9
		...NITZSCHIAEAE			
		....NITZSCHIA		39	4
		...TABELLARIAEAE			
		....TABELLARIA		13	1
		TOTALS		920	93
		.CHRYSOPHYCEAE	YELLOW-BROWN ALGAE		
		..CHRYSOMONADALES			
		...OCHROMONADACEAE			
		....DINOBYRON		46	5
		TOTALS		39	5
		TOTAL PHYTOPLANKTON		970	

See footnote at end of table.

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	PHYLIUM .CLASS ..ORDER ...FAMILYGENUSSPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
JUNE 07	1040	CHRYSTOPHYTA			
		.BACILLARIOPHYCEAE	Diatoms		
		..PENNALIS	Pennate		
		...ACHNANTHACEAE			
	COCCONEIS		67	7
	RHOICOSPHEMIA		34	4
		...CYMBELLACEAE			
	CYMBELLA		67	7
		...DIATOMACEAE			
	DIATOMA		100	11
		...FRAGILARIAEAE			
	HANNAEA		34	4
		...GOMPHONEMATACEAE			
	GOMPHONEMA		34	4
		...NAVICULACEAE	Naviculoid		
	CALONEIS		34	4
	#NAVICULA		370	41
		...NITZSCHIAEAE			
	#NITZSCHIA		170	19
		TOTAL PHYTOPLANKTON		910	101
			TOTALS	910	
JULY 12	1120	CHRYSTOPHYTA			
		.BACILLARIOPHYCEAE	Diatoms		
		..PENNALIS	Pennate		
		...ACHNANTHACEAE			
	#ACHNANTHES		330	31
	COCCONEIS		45	4
	RHOICOSPHEMIA		45	4
		...CYMBELLACEAE			
	#CYMBELLA		200	18
		...DIATOMACEAE			
	DIATOMA		67	6
		...FRAGILARIAEAE			
	ASTERIONELLA		45	4
		...FRAGILARIA		110	10
	SYNDRA		22	2
		...GOMPHONEMATACEAE			
	GOMPHONEMA		22	2
		...NAVICULACEAE	Naviculoid		
	NAVICULA		130	12
		...NITZSCHIAEAE			
	NITZSCHIA		67	6
		TOTAL PHYTOPLANKTON		1,100	99
			TOTALS	1,100	

See footnote at end of table.

PYRAMID AND WINNEMUCCA LAKES BASIN

10346000 TRUCKEE RIVER AT FARAD, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM .CLASS ..ORDER ...FAMILY....GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
AUG 09	1055	CHRYSPHYTA			
		.BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE		10	1
		....CYCLOTELLA		84	10
		.....MELOSIRA			
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		....ACHNANTHES		84	10
		...COCCONEIS		52	6
		....RHODOSPHENIA		10	1
		...CYMBELLACEAE			
		....CYMBELLA		100	13
		....EPITHEMIA		21	3
		...DIATOMACEAE			
		*DIATOMA			0
		...FRAGILARIACEAE			
		....ASTERIONELLA		10	1
		...FRAGILARIA		21	3
		....HANNAEA		31	4
		....SYNEDRA		31	4
		...GOMPHONEMACEAE			
		....GOMPHONEMA		73	9
		...NAVICULACEAE	NAVICULOID		
		....NAVICULA		31	4
		...NITZSCHACEAE			
		....NITZSCHIA		84	10
		TOTALS		650	79
		CYANOPHYTA	BLUE-GREEN ALGAE		
		.MYXOPHYCEAE			
		..OSCILLATORIALES	FILAMENTOUS		
		...NOSTOCACEAE			
		#ANABAENA		190	23
		TOTALS		190	23
		TOTAL PHYTOPLANKTON		840	
SEPT 14	1220	CHRYSPHYTA			
		.BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE		23	3
		....CYCLOTELLA			
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		....ACHNANTHES		46	5
		...COCCONEIS		23	3
		*RHODOSPHENIA			0
		...CYMBELLACEAE			
		....AMPHORA		69	8
		....CYMBELLA		23	3
		...DIATOMACEAE			
		....DIATOMA		23	3
		...FRAGILARIACEAE			
		....ASTERIONELLA		23	3
		...FRAGILARIA		23	3
		*HANNAEA			0
		*SYNEDRA			0
		...GOMPHONEMACEAE			
		....GOMPHONEMA		46	5
		...NAVICULACEAE	NAVICULOID		
		#NAVICULA		230	27
		...NITZSCHACEAE			
		....NITZSCHIA		23	3
		TOTALS		550	66
		CYANOPHYTA	BLUE-GREEN ALGAE		
		.MYXOPHYCEAE			
		..CHROOCOCCALES	COCCOID		
		...CHROOCOCCACEAE			
		....ANACYSTIS			
		#A.INCERTA		300	35
		TOTALS		300	35
		TOTAL PHYTOPLANKTON		840	

NOTE: # - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%
 * - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED

10346000 TRUCKEE RIVER AT FARAD, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m ²)		Chlorophyll a	Chlorophyll b	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight	(mg/m ²)	(mg/m ²)		
Jan. 7	44	2.0	1.3	2.7	0.3	260	Polyethylene strip
Mar. 9	28	2.7	.9	7.4	1.8	240	Polyethylene strip
June 29	36	4.54	2.15	5.78	.000	410	Polyethylene strip
Sept. 14	37	16.6	13.6	22.4	.512	130	Polyethylene strip

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	89	105	106	102	104	94	77	83	95	96	97
2	80	89	102	106	103	104	---	75	87	94	99	99
3	80	89	100	104	104	101	93	75	88	97	99	97
4	80	90	100	103	103	105	96	75	88	95	97	97
5	80	91	100	103	105	104	---	75	90	94	95	97
6	81	97	100	103	104	104	---	75	90	93	95	97
7	85	99	100	104	104	104	93	78	89	92	95	99
8	84	90	101	104	105	106	86	74	90	92	95	97
9	84	97	102	105	104	107	---	74	92	92	96	99
10	84	97	100	104	106	107	85	71	92	92	96	99
11	82	97	102	104	107	106	85	71	92	92	101	99
12	85	98	100	104	108	---	86	70	---	91	96	99
13	85	99	100	104	110	102	85	77	93	91	94	98
14	85	98	100	105	110	102	87	77	93	91	95	98
15	85	99	102	105	105	103	86	76	93	93	96	98
16	83	99	101	105	106	100	85	76	92	92	96	99
17	84	95	100	105	106	102	90	70	92	89	97	100
18	83	99	102	105	108	99	87	76	92	90	98	100
19	83	99	104	105	106	100	88	76	92	89	97	99
20	82	99	104	105	106	100	87	76	93	89	97	93
21	83	101	103	105	108	98	84	76	93	90	97	95
22	83	101	103	105	108	98	83	77	93	90	---	92
23	83	101	104	105	107	97	83	77	94	91	98	90
24	85	101	104	105	108	95	81	77	98	91	96	86
25	84	101	103	106	107	94	84	78	93	91	96	86
26	75	102	103	105	105	94	82	77	93	91	97	88
27	74	100	102	105	106	91	82	80	---	91	99	87
28	81	101	103	105	108	89	83	82	---	92	99	84
29	82	103	102	105	106	89	84	85	97	92	98	84
30	83	101	104	105	---	89	79	85	94	94	---	84
31	84	---	106	104	---	88	---	84	---	94	97	---
MONTH	82	97	102	105	106	99	86	77	92	92	97	95

PYRAMID AND WINNEMUCCA LAKES BASIN
10346000 TRUCKEE RIVER AT FARAD, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0	8.5	4.5	0.0	4.5	0.0	7.0	8.0	10.0	15.0	17.0	15.0
2	12.5	8.0	5.5	0.0	3.0	0.0	---	8.0	10.0	15.0	15.5	14.5
3	13.0	8.0	4.0	1.5	3.0	0.0	7.5	8.0	10.0	13.0	17.0	14.5
4	13.5	7.0	4.0	2.0	3.5	0.0	7.5	9.0	10.0	14.0	15.0	14.0
5	13.5	7.5	5.0	4.0	0.0	1.0	---	8.0	10.5	14.0	15.0	15.5
6	13.0	7.0	4.5	4.5	0.5	4.0	---	7.0	11.0	14.0	17.0	15.5
7	10.0	8.5	4.0	3.0	0.5	4.0	7.0	8.0	13.0	17.5	12.0	14.5
8	10.0	6.0	3.0	3.5	3.5	3.5	7.0	10.0	11.5	16.0	13.5	15.0
9	10.5	4.0	3.0	3.0	4.0	3.0	7.0	9.5	10.0	16.0	15.0	15.5
10	10.5	4.5	5.0	1.5	1.0	3.0	7.0	9.0	10.0	17.5	16.0	15.0
11	10.0	3.0	2.5	3.0	1.5	4.0	6.5	9.0	12.0	17.5	15.5	15.5
12	10.5	3.0	4.0	3.0	3.5	---	6.5	9.0	11.5	17.5	15.0	14.5
13	10.0	4.5	3.0	2.5	3.5	6.5	6.5	9.0	12.0	16.5	15.0	14.0
14	9.5	5.0	0.5	3.0	5.0	5.0	6.5	9.0	12.0	17.0	14.5	14.5
15	10.0	6.5	0.0	3.0	4.0	4.0	6.0	9.5	11.5	17.0	13.5	13.5
16	10.0	6.0	1.0	4.0	4.5	5.5	4.5	9.5	12.5	15.5	12.5	13.5
17	10.5	4.0	3.0	4.0	5.0	5.0	7.0	9.0	12.5	16.0	12.0	16.0
18	10.5	2.0	2.0	2.0	4.0	4.0	7.5	10.0	14.0	16.5	13.5	15.0
19	10.0	1.5	2.0	1.5	2.0	3.0	8.0	10.0	14.0	17.5	12.5	13.5
20	11.5	2.0	3.0	1.5	0.0	3.5	9.0	11.0	12.0	17.5	13.5	14.0
21	10.5	2.5	3.0	1.0	2.5	4.0	9.0	11.0	13.0	16.0	14.5	16.0
22	10.0	2.5	3.0	3.0	2.5	5.0	7.0	9.5	12.0	16.0	---	15.0
23	9.5	3.0	3.5	2.5	2.0	7.0	7.0	9.5	15.0	15.0	13.0	13.0
24	9.5	4.5	4.5	3.0	3.0	5.0	6.5	10.0	16.0	15.0	17.5	13.0
25	10.0	3.5	4.0	1.0	4.0	3.5	6.5	10.5	14.0	18.0	15.5	13.0
26	7.5	4.5	4.0	1.5	4.0	4.0	6.5	13.0	14.0	18.0	13.5	13.5
27	8.0	5.0	6.0	1.5	5.0	5.0	6.5	12.0	---	16.0	13.5	13.0
28	8.5	3.5	6.0	4.0	6.5	5.0	7.0	10.0	---	17.0	15.0	13.0
29	8.0	0.5	5.0	4.5	6.0	4.5	8.0	9.0	13.5	18.0	14.5	15.5
30	8.5	2.0	3.5	3.5	---	4.5	10.0	10.0	14.0	17.0	---	14.5
31	7.5	---	3.5	3.5	---	6.0	---	11.0	---	17.0	15.5	---
MONTH	10.5	4.5	3.5	2.5	3.0	4.0	7.0	9.5	12.0	16.0	14.5	14.5

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LOCATION.--Lat 39°31'55", long 119°47'05", in NW¼ sec.7, T.19 N., R.20 E., Washoe County, on left bank 400 ft (120 m) downstream from Kietzke Lane bridge, 0.5 mi (0.8 km) downstream from Scott Island, 1.5 mi (2.4 km) east of Reno Post Office, and 5 mi (8 km) upstream from Steamboat Creek.

PERIOD OF RECORD.--July 1906 to September 1921, June 1925 to September 1926, January 1930 to December 1935, January to December 1943, January 1946 to current year. Monthly discharge only for some periods, published in WSP 1314 and 1734.

GAGE.--Water-stage recorder. Datum of gage is 4,431.97 ft (1,350.864 m) above mean sea level (levels by Corps of Engineers). July 1906 to September 1946, nonrecording gage at site 1 mi (2 km) upstream at different datum.

AVERAGE DISCHARGE.--50 years (water years 1907-21, 1926, 1931-34, 1947-76), 679 ft³/s (19.23 m³/s), 491,900 acre-ft/yr (606 hm³/yr).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,410 ft³/s (39.9 m³/s) Oct. 26, gage height, 4.43 ft (1.350 m); minimum, 282 ft³/s (7.99 m³/s) Sept. 2.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	489	638	338	422	416	519	685	731	526	366	566	349
2	464	616	397	415	420	486	683	787	470	358	554	315
3	449	604	433	458	425	513	819	724	407	351	464	318
4	440	553	428	455	436	522	825	752	416	358	505	369
5	425	528	421	460	435	522	813	767	408	379	597	398
6	436	464	431	457	432	518	757	784	411	370	511	404
7	528	410	431	456	435	525	672	729	408	378	511	355
8	494	460	430	438	433	556	691	781	380	381	535	335
9	488	403	427	439	452	550	804	783	407	380	556	338
10	528	409	430	438	452	549	898	775	421	353	473	351
11	610	423	425	436	439	557	887	781	387	370	480	476
12	559	422	427	436	422	551	846	758	366	353	506	466
13	549	406	429	430	419	588	861	770	366	363	489	423
14	573	395	419	433	436	587	855	826	357	355	485	424
15	564	394	410	431	423	615	923	721	353	432	572	459
16	546	463	442	424	424	640	903	653	366	460	481	458
17	543	487	458	424	428	618	874	643	364	517	415	434
18	527	411	423	426	424	621	878	583	370	519	406	433
19	508	413	426	425	446	554	844	543	350	500	405	427
20	497	410	422	425	429	561	900	516	362	466	375	416
21	499	399	421	426	424	566	909	502	401	480	350	519
22	511	383	424	426	435	565	810	524	405	479	393	484
23	517	357	422	432	438	532	787	511	341	504	385	440
24	500	305	427	436	437	533	825	482	360	521	396	397
25	497	301	434	429	431	538	877	465	346	487	368	387
26	738	296	452	426	447	589	852	511	355	479	399	359
27	934	331	450	421	464	653	820	567	403	489	389	393
28	687	355	447	417	453	676	751	552	432	493	382	338
29	634	329	445	421	525	675	682	455	335	539	374	341
30	659	332	437	418	---	668	695	464	312	572	368	387
31	708	---	427	415	---	690	---	526	---	572	377	---
TOTAL	17101	12697	13233	13395	12680	17837	24426	19966	11585	13624	14067	11993
MEAN	552	423	427	432	437	575	814	644	386	439	454	400
MAX	934	638	458	460	525	690	923	826	526	572	597	519
MIN	425	296	338	415	416	486	672	455	312	351	350	315
AC-FT	33920	25180	26250	26570	25150	35380	48450	39600	22980	27020	27900	23790
CAL YR 1975	TOTAL	312114	MEAN 855	MAX	3390	MIN 208	AC-FT	619100				
WTR YR 1976	TOTAL	182604	MEAN 499	MAX	934	MIN 296	AC-FT	362200				

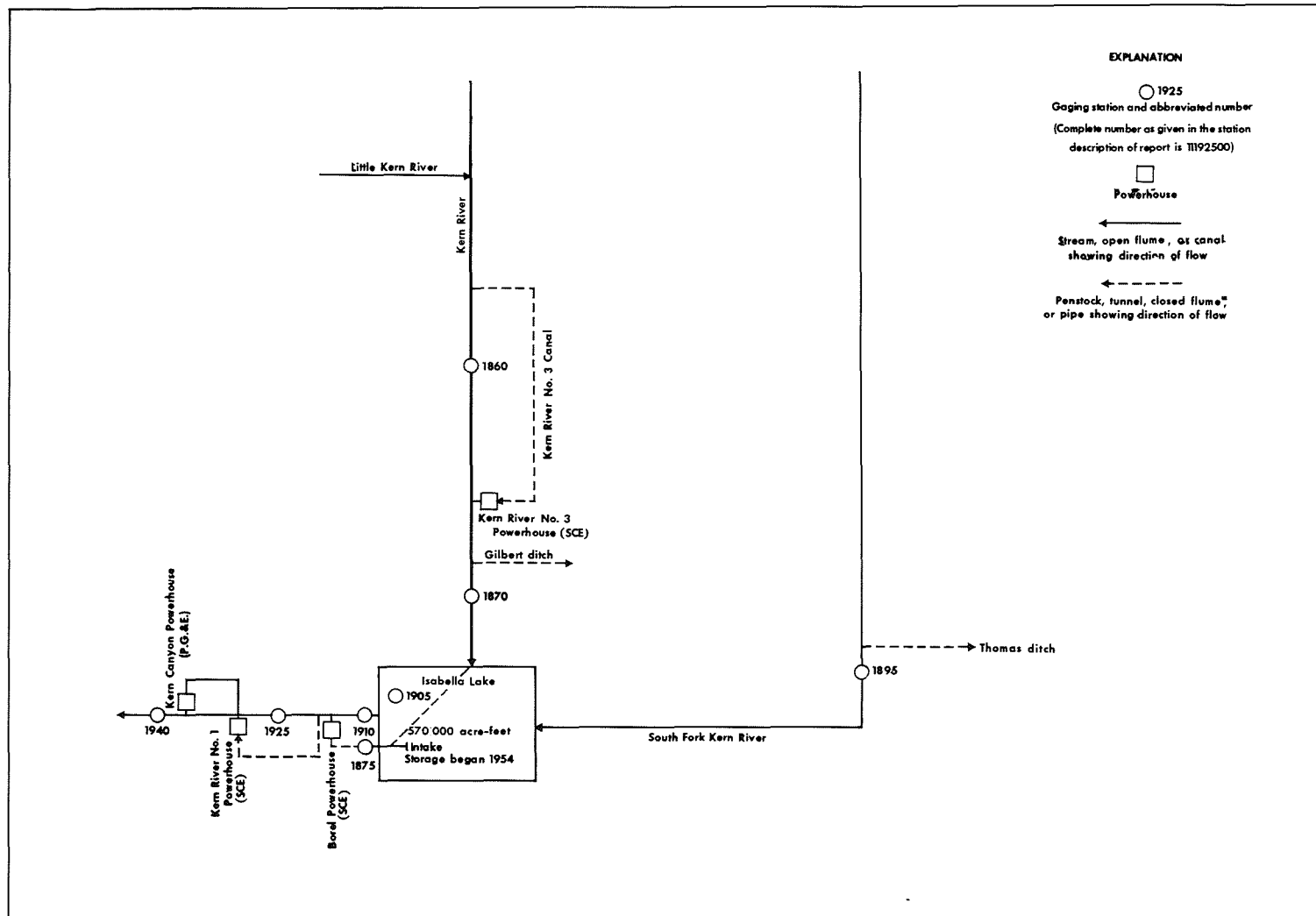


FIGURE 4.—Schematic diagram showing diversions and storage in Kern River basin.

LOCATION. --Lat 35°56'43", long 118°28'36" (unsurveyed), Tulare County, on left bank at Packsaddle Canyon Creek, 30 ft (9 m) upstream from sand trap sluice gates, 100 ft (30 m) downstream from diversion dam, and 13.4 mi (21.6 km) north of Kernville.

PERIOD OF RECORD.--January 1912 to current year. Records for water year 1912 incomplete, yearly estimates published in WSP 1315-A. March 1921 to October 1953, records for river and canal published separately; combined flow only, October 1953 to September 1960.

GAGE.--Water-stage recorder on river; water-stage recorder and rectangular concrete-line flume for canal diversion. Altitude of gage is 3,620 ft (1,103 m), from topographic map. Prior to Apr. 1, 1913, at site 1.4 mi (2.3 km) downstream at different datum. Apr. 1 to Sept. 14, 1913, nonrecording gage and Sept. 15, 1913, to Sept. 30, 1967, water-stage recorder, at site 1.2 mi (1.9 km) downstream at different datum.

COOPERATION.--Gage-height record and 19 discharge measurements for Kern River and gage-height record and 13 discharge measurements for canal furnished by Southern California Edison Co., in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 60,000 ft³/s (1,700 m³/s) Dec. 6, 1966, gage height, 22.77 ft (6.940 m) site and datum then in use, from floodmarks, from rating curve extended above 6,000 ft³/s (170 m³/s) on basis of computed flow over dam at gage height 17.55 ft (5.349 m), basic data for computation furnished by Southern California Edison Co., and slope-area measurement of maximum flow; no flow July 31 to Nov. 7, Nov. 12 to Dec. 7, 1924, Jan. 16 to Feb. 7, 1925.

Combined river and diversion: Maximum discharge, 60,000 ft³/s (1,700 m³/s) Dec. 6, 1966; minimum daily, 78 ft³/s (2.21 m³/s) Aug. 30, 31, Sept. 17, 19, 1924.

EXTREMES FOR CURRENT YEAR.--River only: Maximum discharge, 1,460 ft³/s (41.3 m³/s) Sept. 11, gage height, 6.07 ft (1.850 m); minimum daily, 42 ft³/s (1.19 m³/s) several days in January and February.
Combined river and diversion: Maximum discharge, 1,860 ft³/s (52.7 m³/s) Sept. 11; minimum daily, 115 ft³/s (3.26 m³/s) Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	52	47	44	42	75	106	98	89	86	93	92
2	64	47	47	44	42	76	106	128	90	88	73	92
3	63	47	47	43	42	76	107	112	90	88	74	91
4	65	46	47	44	43	76	109	99	90	87	73	91
5	56	46	46	44	42	76	109	105	90	86	72	92
6	57	46	44	44	43	76	110	91	90	87	72	83
7	57	46	44	44	42	76	110	90	92	87	72	65
8	57	46	44	44	43	76	110	96	93	87	72	67
9	57	46	44	45	43	75	107	103	92	87	71	68
10	58	46	44	46	42	76	104	123	95	86	76	69
11	58	46	44	45	42	75	104	136	95	85	78	685
12	58	46	44	45	42	75	104	288	95	86	78	606
13	58	46	44	45	42	75	104	423	94	97	78	157
14	59	46	44	45	42	76	104	552	95	109	78	73
15	58	46	44	45	42	76	105	530	94	107	78	67
16	57	46	44	45	42	76	104	434	95	109	79	66
17	58	46	44	43	42	76	104	396	95	110	78	66
18	58	46	44	42	42	76	106	290	95	95	78	65
19	58	46	44	42	43	76	105	168	95	78	78	69
20	57	46	44	42	42	76	105	116	96	80	79	69
21	58	46	44	42	42	76	105	96	95	79	79	68
22	59	46	44	42	42	75	104	90	94	79	78	67
23	58	46	44	42	43	75	102	92	94	86	78	67
24	57	46	44	42	43	75	103	90	92	74	88	67
25	57	46	44	42	43	75	103	89	92	74	100	68
26	58	46	44	42	43	73	104	89	93	73	101	68
27	59	46	44	42	43	73	102	90	92	77	97	68
28	59	45	44	42	43	72	101	92	91	77	90	67
29	58	46	44	42	52	72	101	92	92	122	91	69
30	58	46	44	42	---	72	102	90	91	74	91	74
31	58	---	44	42	---	86	---	88	---	76	92	---
TOTAL	1825	1387	1378	1343	1239	2339	3150	5376	2786	2716	2515	3416
MEAN	58.9	46.2	44.5	43.3	42.7	75.5	105	173	92.9	87.6	81.1	114
MAX	73	52	47	46	52	86	110	552	96	122	101	685
MIN	56	45	44	42	42	72	101	88	89	73	71	65
AC-FT	3620	2750	2730	2660	2460	4640	6250	10660	5530	5390	4990	6780
CAL YR 1975	TOTAL	114925	MEAN	315	MAX	3140	MIN	42	AC-FT	228000		
YR 1976	TOTAL	29470	MEAN	80.5	MAX	685	MIN	42	AC-FT	58450		

BUENA VISTA LAKE BASIN

11186000 KERN RIVER NEAR KERNNVILLE, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF KERN RIVER AND KERN RIVER
NO. 3 CANAL NEAR KERNNVILLE, CA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	197	268	229	161	178	322	297	522	454	199	580	125
2	195	266	244	151	177	258	291	683	432	197	509	118
3	191	254	241	167	177	241	293	692	410	189	394	115
4	193	248	238	199	182	244	296	679	400	178	360	116
5	184	239	232	198	180	248	289	667	380	172	333	125
6	184	234	222	192	191	249	279	644	365	170	306	138
7	206	228	218	180	195	251	277	632	354	164	272	183
8	250	226	217	183	216	250	294	611	353	164	247	205
9	237	224	217	187	252	246	287	683	326	160	227	186
10	234	222	217	184	252	247	286	725	304	154	217	189
11	271	227	218	177	222	250	283	718	307	150	205	1090
12	309	220	216	184	209	252	270	888	296	151	196	1210
13	283	221	207	182	204	253	265	1030	276	154	188	764
14	264	220	193	184	212	259	270	1160	270	143	180	583
15	253	218	176	185	215	268	272	1130	271	141	177	472
16	245	216	179	188	207	278	265	1040	297	157	179	401
17	238	216	193	192	204	300	268	1000	310	194	179	361
18	234	209	199	192	206	323	289	892	305	234	175	330
19	231	183	198	191	215	311	306	773	299	214	171	304
20	221	191	200	180	197	293	324	718	304	202	169	279
21	217	207	199	173	199	290	355	694	294	192	166	278
22	216	197	198	172	204	299	391	660	274	181	158	277
23	215	203	186	179	206	296	411	627	254	187	149	267
24	213	206	188	182	204	303	437	608	239	181	152	252
25	214	207	200	180	201	323	489	585	229	185	148	263
26	220	205	200	170	206	317	499	571	224	220	140	258
27	271	207	201	171	209	309	452	594	220	306	132	243
28	268	213	204	178	215	293	421	612	214	314	124	229
29	242	196	202	182	229	282	407	562	211	512	123	264
30	249	189	200	184	---	289	432	515	206	512	122	389
31	282	---	182	182	---	303	---	476	---	464	122	---
TOTAL	7227	6560	6414	5610	5964	8647	9995	22391	9078	6741	6800	10014
MEAN	233	219	207	181	206	279	333	722	303	217	219	334
MAX	309	268	244	199	252	323	499	1160	454	512	580	1210
MIN	184	183	176	151	177	241	265	476	206	141	122	115
AC-FT	14330	13010	12720	11130	11830	17150	19830	44410	18010	13370	13490	19860
CAL YR 1975	TOTAL	231054	MEAN 633	MAX 3730	MIN 176	AC-FT 458300						
WTR YR 1976	TOTAL	105441	MEAN 288	MAX 1210	MIN 115	AC-FT 209100						

11187000 KERN RIVER AT KERNNVILLE, CA

LOCATION.--Lat 35°45'34", long 118°25'12", in NE¼NW¼ sec.15, T.25 S., R.33 E., Kern County, on left bank 0.5 mi (0.8 km) upstream from highway bridge at Kernville, 1.7 mi (2.7 km) upstream from Caldwell Creek, 9.5 mi (15.3 km) upstream from Isabella Dam, and 42 mi (68 km) northeast of Bakersfield.

DRAINAGE AREA.--1,009 mi² (2,613 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1905 to December 1912, October 1953 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,634.57 ft (803.017 m) above mean sea level. January 1905 to September 1912, nonrecording gage at two sites 3.5 mi (5.6 km) downstream at different datums. October 1953 to Feb. 20, 1967, water-stage recorder 0.6 mi (1.0 km) downstream at datum 2,621.57 ft (799.055 m) above mean sea level.

REMARKS.--Records good. Slight regulation at times by operation of Kern River No. 3 canal and powerplant. A few small diversions for irrigation above station. Gilbert irrigation ditch diverts up to 7 ft³/s (0.20 m³/s) around station during irrigation season.

COOPERATION.--Seven discharge measurements furnished by Southern California Edison Co.

AVERAGE DISCHARGE.--30 years, 842 ft³/s (23.85 m³/s), 610,000 acre-ft/yr (752 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74,000 ft³/s (2,100 m³/s) Dec. 6, 1966, gage height, 19.32 ft (5.889 m) from floodmarks, present site, from rating curve extended above 11,000 ft³/s (312 m³/s) on basis of slope-area measurement of maximum flow; minimum, 74 ft³/s (2.10 m³/s) Oct. 27, 1954, Aug. 1, Oct. 4, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known from at least 1912 to December 1966, 18.4 ft (5.61 m) from floodmarks, Nov. 19, 1950, site and datum then in use, discharge, 38,700 ft³/s (1,100 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,010 ft³/s (56.9 m³/s) Sept. 11 (2245 hrs), gage height, 5.92 ft (1.804 m), no other peak above base of 2,000 ft³/s (56.6 m³/s); minimum daily, 103 ft³/s (2.92 m³/s) Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	188	281	238	165	187	365	320	559	422	174	532	113
2	180	273	260	153	186	284	313	651	411	168	482	105
3	178	260	261	162	187	261	314	686	400	160	369	103
4	177	257	255	209	189	258	319	645	372	151	316	105
5	176	245	239	210	188	262	304	642	349	145	280	116
6	175	241	222	204	196	263	290	616	334	142	252	155
7	202	235	211	191	198	265	288	599	323	138	230	182
8	246	234	207	191	222	265	309	569	325	135	212	191
9	227	230	207	197	273	261	299	651	298	132	197	173
10	222	224	215	197	275	260	298	706	281	122	180	185
11	271	239	222	185	239	267	291	670	291	126	173	794
12	315	225	218	190	220	265	279	812	280	128	164	1400
13	278	227	209	188	216	267	279	984	263	121	157	847
14	262	225	192	191	222	273	281	1110	251	120	153	568
15	252	223	177	192	227	281	288	1120	253	123	157	448
16	240	221	180	195	215	290	275	1010	276	137	166	382
17	232	220	195	201	213	312	281	963	290	170	157	339
18	229	211	202	198	215	340	304	885	286	223	151	310
19	226	184	200	197	225	325	330	764	279	189	150	282
20	216	191	205	185	207	305	345	683	283	172	153	265
21	212	209	206	178	208	301	375	654	277	161	147	263
22	210	197	203	176	213	309	416	616	259	151	134	263
23	212	204	194	186	214	307	428	573	240	151	123	255
24	209	206	193	190	213	317	459	559	222	159	120	246
25	211	209	204	187	208	349	516	540	206	161	120	265
26	216	208	204	178	214	338	505	517	202	202	118	256
27	279	212	205	181	217	325	447	552	196	287	119	243
28	272	230	208	187	224	306	417	568	189	300	117	237
29	243	202	205	189	233	296	407	527	183	518	113	325
30	248	195	205	190	---	305	437	480	178	479	110	519
31	298	---	190	191	---	310	---	438	---	433	111	---
TOTAL	7102	6718	6532	5834	6244	9132	10414	21349	8419	5978	5963	9935
MEAN	229	224	211	188	215	295	347	689	281	193	192	331
MAX	315	281	261	210	275	365	516	1120	422	518	532	1400
MIN	175	184	177	153	186	258	275	438	178	120	110	103
AC-FT	14090	13330	12960	11570	12380	18110	20660	42350	16700	11860	11830	19710
CAL YR 1975	TOTAL	241250	MEAN 661	MAX 3810	MIN 175	AC-FT 478500						
WTR YR 1976	TOTAL	103620	MEAN 283	MAX 1400	MIN 103	AC-FT 205500						

11187000 KERN RIVER AT KERNVILLE, CA--Continued

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1975 to current year.

WATER TEMPERATURES: Water years 1962 to current year.

SEDIMENT RECORDS: Water years 1967 to September 1974.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1962 to current year.

INSTRUMENTATION.--Temperature recorder since June 1962.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1962-63, 1965-76), 28.5°C (recorded) Aug. 20, 1972; minimum, 0.0°C Jan. 2, 4, 7, 1976.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.5°C July 14; minimum, 0.0°C Jan. 2, 4, 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	SPECIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	HARD- NESS (CA, MG) (MG/L)
NOV 18...	1530	206	100	7.8	8.0	10.9	5	1.2	--
APR 20...	1300	345	113	7.3	15.0	9.5	--	--	37
SEP 14...	1315	547	68	7.4	18.5	9.7	--	--	22

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	SODIUM AD- SORP- TION RATIO	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
NOV 18...	--	--	--	--	--	68	0	56	--
APR 20...	0	12	1.7	13	.9	59	0	48	7.1
SEP 14...	0	6.8	1.2	6.3	.6	32	0	26	4.8

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
NOV 18...	--	91	.12	50.6	.02	.00	.10	.06
APR 20...	5.2	86	.12	80.1	--	--	--	--
SEP 14...	3.6	40	.05	59.1	--	--	--	--

11187000 KERN RIVER AT KERNNVILLE, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.5	14.5	9.0	7.0	3.0	1.0	3.0	1.5	6.5	5.0	8.5	5.5
2	16.5	14.5	9.5	7.5	4.5	2.5	2.5	0.0	7.0	4.5	5.5	3.5
3	17.0	15.0	10.0	8.0	6.0	4.0	2.5	0.5	7.0	4.5	3.5	2.5
4	17.5	15.0	10.0	8.0	6.5	4.5	2.5	0.0	5.5	4.5	4.5	1.5
5	17.0	15.0	9.0	7.5	6.5	5.0	2.5	0.5	5.0	4.0	5.0	2.5
6	16.5	15.0	9.0	7.5	6.0	4.0	4.5	0.5	5.5	3.5	6.0	3.0
7	16.0	13.5	9.0	7.5	5.5	3.5	3.0	0.0	6.0	4.5	6.5	3.5
8	13.5	11.5	10.5	8.5	5.5	3.5	3.5	1.5	6.5	6.0	6.0	4.5
9	12.5	10.5	9.0	7.5	6.0	4.0	4.0	2.0	7.0	6.0	7.0	4.5
10	13.5	10.5	8.5	7.0	5.5	4.5	4.5	2.5	7.5	6.0	7.5	6.5
11	13.5	12.5	7.5	6.0	6.0	4.5	4.5	2.5	7.5	5.5	9.0	6.0
12	12.5	10.5	7.0	5.0	6.0	4.5	4.5	2.0	7.0	5.0	9.0	6.5
13	11.0	9.0	7.0	5.0	5.0	3.0	4.0	2.0	6.5	4.5	9.0	6.5
14	11.5	9.0	7.0	5.5	4.0	2.5	4.5	2.5	7.5	5.5	9.5	7.0
15	11.5	9.5	7.5	5.5	3.0	1.5	5.0	3.0	8.0	6.0	10.0	7.5
16	12.5	10.0	8.0	6.0	3.0	1.0	6.0	3.5	7.0	5.0	10.5	8.0
17	12.0	10.5	8.5	7.0	3.5	1.5	6.5	4.5	7.0	5.0	12.0	9.0
18	11.5	10.0	6.5	5.5	3.5	1.5	6.5	4.5	7.5	5.5	11.0	9.0
19	12.0	9.5	5.5	3.5	3.0	2.0	7.0	5.0	6.5	4.5	10.5	8.0
20	12.0	10.0	5.0	3.0	4.5	2.5	6.0	4.0	5.5	3.0	9.5	7.0
21	13.0	10.5	5.0	3.0	4.5	3.0	5.0	2.5	6.0	3.0	10.0	7.0
22	12.5	11.0	4.5	3.0	5.0	3.5	5.0	2.5	5.0	3.0	10.0	8.0
23	10.5	9.0	5.0	3.0	4.0	2.5	5.0	3.0	5.5	3.5	10.5	7.5
24	9.0	7.5	5.5	3.5	4.0	2.0	5.5	3.0	6.5	4.0	11.0	8.0
25	9.0	7.0	6.0	4.0	4.0	2.0	5.0	3.0	7.0	4.5	11.5	9.5
26	10.5	8.0	6.0	4.5	4.5	2.5	5.0	3.0	7.5	5.0	10.5	8.0
27	11.0	9.0	6.0	5.5	5.0	3.0	5.0	2.5	8.5	6.0	10.0	8.0
28	10.0	8.0	5.5	3.0	5.5	3.5	5.5	3.5	9.0	6.5	9.5	7.0
29	9.5	7.5	3.5	2.0	5.5	4.0	6.5	4.0	9.0	7.5	10.0	6.5
30	9.0	7.5	3.0	1.5	6.0	4.0	7.0	5.0	---	---	11.0	8.0
31	8.5	6.5	---	---	4.5	2.5	7.5	5.5	---	---	11.5	9.0
MONTH	17.5	6.5	10.5	1.5	6.5	1.0	7.5	0.0	9.0	3.0	12.0	1.5
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.5	9.0	15.5	13.0	18.0	15.5	20.5	18.0	19.5	18.5	25.0	19.5
2	11.0	8.0	15.5	13.5	18.0	16.0	20.5	17.5	19.0	17.0	24.5	19.0
3	11.5	8.5	15.0	12.5	18.0	15.5	21.5	18.0	19.0	17.0	24.0	19.5
4	10.5	8.0	15.5	12.5	17.5	15.0	22.5	19.0	19.0	16.5	24.0	20.0
5	10.0	8.0	14.5	13.0	17.5	14.5	23.0	19.5	19.5	16.5	23.0	19.5
6	11.0	8.0	13.0	11.5	18.0	14.5	23.5	19.5	19.5	16.0	21.5	18.5
7	12.0	8.5	12.5	11.0	17.0	15.0	23.0	19.5	19.5	16.0	20.5	17.5
8	11.5	9.5	14.5	12.0	17.0	14.5	23.0	19.5	19.5	16.5	20.5	18.0
9	11.0	7.5	14.5	12.5	17.5	14.5	23.5	19.5	20.0	17.0	19.5	18.0
10	10.5	8.5	15.0	13.0	16.5	15.0	25.0	20.0	20.5	17.5	18.5	18.0
11	11.0	8.5	16.5	13.5	16.5	13.0	25.0	20.5	21.0	18.0	18.5	15.5
12	10.5	8.5	18.0	14.5	18.0	14.5	24.5	20.0	21.0	18.5	16.5	14.0
13	10.0	8.0	18.0	14.5	19.5	15.5	25.0	20.5	21.5	18.5	16.5	14.0
14	8.0	6.5	17.5	14.5	20.0	17.0	25.5	20.5	20.0	18.0	17.5	15.5
15	8.5	6.5	17.0	13.5	20.5	17.0	24.5	21.0	19.0	17.0	17.0	16.0
16	7.0	5.0	17.0	13.5	21.0	17.5	24.5	21.0	18.5	15.5	16.0	14.5
17	9.0	5.5	17.0	14.0	21.0	17.5	24.5	20.5	19.5	16.0	15.5	13.5
18	11.5	7.5	16.0	13.0	21.5	18.0	23.0	20.0	18.5	17.0	16.5	13.5
19	13.0	9.0	15.5	12.5	21.5	18.5	22.5	19.5	20.0	16.5	17.5	14.5
20	14.5	10.5	15.5	13.0	21.5	18.5	23.0	20.0	20.5	16.5	17.0	15.5
21	15.0	11.5	16.0	13.0	21.0	18.0	23.0	20.0	20.5	17.5	17.0	15.0
22	15.0	12.5	16.5	13.5	20.5	17.5	21.5	19.5	22.0	18.5	17.0	14.5
23	15.0	11.5	16.0	14.0	21.0	17.5	22.5	19.5	22.5	18.0	17.0	14.5
24	15.0	12.0	16.0	13.5	21.0	18.0	23.0	20.0	23.0	18.0	17.5	15.0
25	15.0	12.5	16.5	13.5	21.0	18.0	23.5	21.0	24.0	18.5	---	---
26	13.0	11.0	18.0	14.5	22.0	19.0	22.0	20.5	24.0	19.0	---	---
27	12.5	9.5	18.5	16.0	22.0	19.0	22.0	20.0	24.0	18.5	---	---
28	13.0	9.5	17.5	16.0	22.0	19.5	22.0	18.5	24.5	19.0	17.0	15.0
29	14.0	10.0	16.5	14.5	22.5	20.0	22.5	20.0	24.5	19.5	15.5	14.0
30	15.5	11.5	16.5	14.5	21.0	19.0	20.0	19.0	24.5	19.5	15.5	13.5
31	---	---	17.5	14.5	---	---	20.0	19.0	24.5	19.5	---	---
MONTH	15.5	5.0	18.5	11.0	22.5	13.0	25.5	17.5	24.5	15.5	25.0	13.5

BUENA VISTA LAKE BASIN

11187500 BOREL CANAL BELOW ISABELLA DAM, CA

LOCATION.--Lat 35°38'32", long 118°28'09", in SW¼NE¼ sec.30, T.26 S., R.33 E., Kern County, on right bank 500 ft (152 m) downstream from Isabella Dam, and 3 mi (5 km) upstream from point where canal crosses Erskine Creek.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1910 to September 1914, October 1925 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as Kern River Power Co.'s Canal at or near Kernville 1910-14. Published as "at Tillie Creek" 1925-51.

GAGE.--Water-stage recorder. Altitude of gage is 2,540 ft (774 m), from topographic map. Prior to Apr. 29, 1952, at site 4 mi (6 km) upstream at different datum.

REMARKS.--Records good. Canal diverts from right bank of Kern River 5.5 mi (8.8 km) upstream from Isabella Dam, and above South Fork Kern River. When capacity of Isabella Reservoir is above 110,000 acre-ft (136 km³), the diversion is at the dam. Canal is used to supply Borel powerplant of Southern California Edison Co., 6 mi (10 km) downstream from station, at which point water is returned to the Kern River.

COOPERATION.--Water-stage recorder graph and 16 discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--55 years, 373 ft³/s (10.56 m³/s), 270,200 acre-ft/yr (333 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 634 ft³/s (18.0 m³/s) Mar. 13, 14, 1952; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	404	293	225	214	283	498	395	422	531	522	0	101
2	371	293	225	201	307	468	409	432	555	520	0	97
3	350	293	245	175	328	480	393	442	555	519	0	91
4	338	292	254	165	327	532	375	461	561	518	0	86
5	309	293	254	165	316	568	332	476	562	518	116	88
6	287	269	254	182	244	541	308	474	561	518	232	121
7	275	249	254	189	200	497	308	430	561	519	220	164
8	258	247	254	185	200	476	308	407	561	544	205	167
9	246	247	254	179	224	514	308	407	513	542	187	167
10	262	247	254	179	278	560	308	407	513	518	172	165
11	255	249	254	179	299	575	308	420	514	478	160	288
12	246	249	243	179	271	550	308	430	514	436	150	407
13	246	249	236	179	241	523	308	457	514	398	142	418
14	249	249	236	183	234	536	294	483	513	384	140	444
15	262	246	236	185	225	542	279	481	517	381	139	420
16	267	246	222	185	220	526	300	482	522	343	146	391
17	267	243	213	185	221	503	341	503	522	310	159	352
18	267	241	213	185	237	503	330	517	522	279	150	314
19	267	241	213	189	237	503	296	516	521	249	146	288
20	267	223	213	192	237	503	352	535	520	217	148	265
21	247	216	213	183	258	503	423	513	522	186	146	261
22	217	216	213	180	318	495	418	454	522	158	130	263
23	212	216	213	179	332	483	404	445	521	126	119	258
24	212	216	213	179	347	473	406	453	521	86	116	241
25	212	221	213	179	388	445	405	451	521	69	109	259
26	211	225	213	179	446	398	443	470	521	10	106	252
27	210	225	213	233	480	396	492	451	522	0	105	234
28	221	225	213	336	489	410	479	407	520	0	104	222
29	230	225	213	434	498	398	472	405	521	0	101	275
30	239	225	213	354	---	379	453	461	522	0	95	402
31	277	---	214	268	---	377	---	515	---	0	97	---
TOTAL	8181	7369	7096	6379	8685	15155	10955	14207	15865	9348	3840	7501
MEAN	264	246	229	206	299	489	365	458	529	302	124	250
MAX	404	293	254	434	498	575	492	535	562	544	232	444
MIN	210	216	213	165	200	377	279	405	513	0	0	86
AC-FT	16230	14620	14070	12650	17230	30060	21730	28180	31470	18540	7620	14880
CAL YR 1975	TOTAL	159943	MEAN	438	MAX	587	MIN	210	AC-FT	317200		
WTR YR 1976	TOTAL	114581	MEAN	313	MAX	575	MIN	---	AC			

11187500 BOREL CANAL BELOW ISABELLA DAM, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1958 to current year.

INSTRUMENTATION.--Temperature recorder since October 1958.

REMARKS.--No flow in canal July 25 to Aug. 5.

COOPERATION.--Temperature recorder graph furnished by Southern California Edison Co.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 26.5°C July 31, Aug. 1, 1959, July 25, 1976; minimum (water years 1959-72, 1974-76), 0.5°C Jan. 17, 18, 1960.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 26.5°C July 25; minimum, 5.5°C Jan. 6-9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	22.0	21.0	15.0	14.0	9.5	9.0	6.5	6.0	8.0	8.0	9.0	9.0
2	21.5	21.0	14.5	14.0	9.5	9.0	6.0	6.0	8.0	8.0	9.0	9.0
3	22.5	21.0	15.0	14.0	9.5	9.0	6.0	6.0	8.0	7.5	9.0	9.0
4	22.0	21.0	15.0	14.0	9.5	9.0	6.0	6.0	7.5	7.5	9.0	8.5
5	22.0	21.0	15.0	14.5	9.0	9.0	6.0	6.0	7.5	7.5	9.0	8.5
6	21.0	20.5	14.5	14.0	9.0	8.5	6.0	5.5	8.0	7.5	9.0	8.5
7	20.5	19.5	14.0	13.5	8.5	8.5	5.5	5.5	7.5	7.5	9.0	8.5
8	19.5	19.0	13.5	13.5	8.5	8.5	6.0	5.5	7.5	7.5	9.0	9.0
9	20.5	19.5	13.5	13.0	9.0	8.5	6.0	5.5	7.5	7.5	9.0	9.0
10	20.0	19.5	13.5	13.0	9.0	8.5	6.0	6.0	8.0	7.5	9.0	9.0
11	19.5	19.0	13.0	13.0	9.0	8.5	6.5	6.0	8.0	8.0	9.0	9.0
12	19.0	18.5	13.0	12.5	8.5	8.5	6.0	6.0	8.5	8.0	10.0	9.0
13	18.5	18.0	13.0	12.5	8.5	8.0	6.0	6.0	9.0	8.0	10.0	9.0
14	18.0	17.5	13.0	13.0	8.0	7.5	6.5	6.0	8.0	8.0	9.5	9.5
15	18.5	17.5	13.0	12.5	7.5	7.5	6.5	6.5	8.0	8.0	10.5	9.5
16	18.5	17.5	12.5	12.5	7.5	7.5	6.5	6.5	8.0	8.0	11.0	10.0
17	18.5	17.5	12.5	12.0	7.5	7.5	6.5	6.5	8.0	8.0	11.5	9.5
18	18.0	17.5	12.0	11.5	7.5	7.5	7.0	6.5	8.5	8.0	9.5	9.5
19	17.5	17.0	11.5	11.0	7.5	7.0	7.5	7.0	8.5	8.5	9.5	9.5
20	18.0	17.0	11.0	11.0	7.0	7.0	7.5	6.5	9.0	8.0	10.0	9.5
21	17.5	17.0	11.0	10.5	7.0	7.0	7.5	7.0	9.0	8.0	11.0	9.5
22	17.0	16.5	11.0	10.5	7.0	7.0	7.5	6.5	8.5	8.0	12.0	10.5
23	16.5	16.0	11.5	11.0	7.0	7.0	7.0	7.0	8.0	8.0	11.0	10.0
24	16.5	15.5	11.5	11.0	7.0	7.0	7.0	7.0	9.0	8.0	10.0	10.0
25	16.5	16.0	11.0	10.5	7.0	7.0	7.5	7.0	9.0	8.5	10.5	10.0
26	16.0	15.5	11.0	10.5	7.0	7.0	7.5	7.0	8.5	8.5	12.0	10.5
27	15.5	15.0	10.5	10.0	7.0	6.5	7.5	7.5	8.5	8.5	10.5	10.5
28	15.5	14.5	10.0	9.5	7.0	6.5	7.5	7.5	8.5	8.5	10.5	10.0
29	15.5	15.0	9.5	9.5	7.0	6.5	8.0	7.5	9.0	8.5	11.5	10.0
30	15.5	14.5	9.5	9.0	6.5	6.5	8.0	7.5	---	---	12.0	10.0
31	14.5	14.0	---	---	6.5	6.5	8.0	7.5	---	---	11.0	10.5
MONTH	22.5	14.0	15.0	9.0	9.5	6.5	8.0	5.5	9.0	7.5	12.0	8.5
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.5	10.5	16.5	14.0	17.0	16.5	19.5	18.5	---	---	24.5	20.5
2	12.0	10.0	14.5	14.0	17.0	16.5	19.0	18.5	---	---	24.5	20.0
3	10.5	10.5	15.0	13.5	17.0	16.5	21.0	19.0	---	---	24.0	20.5
4	11.0	10.5	15.5	13.5	17.0	17.0	20.5	19.5	---	---	24.0	21.0
5	10.5	10.0	14.0	14.0	17.0	17.0	21.5	19.5	---	---	23.5	20.5
6	10.5	10.0	15.5	14.0	17.0	16.5	22.0	19.5	21.5	17.0	22.5	18.0
7	12.0	10.5	17.0	15.0	17.0	17.0	22.0	20.0	21.5	17.0	23.0	18.0
8	10.5	10.5	17.0	15.5	17.5	17.0	23.5	20.5	22.0	17.0	23.0	18.0
9	12.0	10.5	17.5	16.5	17.0	17.0	22.5	20.0	23.5	17.5	22.0	18.5
10	11.5	11.0	18.0	16.0	17.0	17.0	22.5	20.0	24.0	18.0	20.0	18.5
11	11.5	11.5	16.5	15.0	17.0	17.0	22.0	21.0	24.0	18.0	19.0	17.0
12	11.5	11.5	19.5	15.0	17.5	17.0	21.0	20.5	24.0	18.5	17.0	15.0
13	11.5	11.5	21.5	19.0	17.0	17.0	23.0	20.5	23.5	18.5	17.5	15.0
14	12.0	11.5	19.0	17.0	19.0	17.0	23.5	21.5	22.0	17.0	19.5	16.0
15	11.5	11.5	20.0	17.0	20.0	18.5	23.5	21.5	21.5	16.0	19.5	16.5
16	11.5	11.0	19.5	17.5	19.0	18.0	24.0	21.5	20.5	16.0	18.5	15.5
17	11.5	11.0	17.5	17.0	20.0	17.5	22.5	22.0	21.0	15.5	17.5	14.5
18	11.5	11.0	19.0	17.0	19.5	18.0	22.5	22.0	20.0	16.0	18.5	14.0
19	13.0	11.5	18.0	15.5	20.0	18.0	23.5	22.0	22.0	16.5	19.5	14.5
20	12.5	11.5	17.0	15.5	19.5	19.0	23.0	22.0	22.0	16.0	18.5	16.0
21	12.5	11.5	17.0	16.5	19.0	19.0	22.5	21.5	23.0	17.0	19.5	15.5
22	12.0	11.5	17.5	16.5	19.0	18.0	24.0	21.5	22.5	18.0	18.0	15.0
23	12.0	12.0	16.5	16.0	20.5	18.0	25.5	23.0	23.0	18.0	19.0	15.0
24	13.5	12.0	16.5	16.0	22.0	19.5	23.5	22.5	23.5	18.5	19.0	15.5
25	13.0	12.0	16.5	16.0	21.0	20.0	26.5	22.5	23.5	19.5	18.5	15.0
26	13.0	13.0	19.5	16.5	21.0	20.0	---	---	22.5	19.5	19.0	14.5
27	14.5	13.0	19.0	17.5	22.5	20.0	---	---	24.0	19.0	19.5	15.5
28	13.5	13.5	18.0	16.5	23.5	20.5	---	---	24.5	20.0	17.5	15.5
29	13.5	13.5	16.5	16.5	21.5	21.0	---	---	25.0	20.5	16.5	13.0
30	16.5	13.5	16.5	16.5	21.0	19.0	---	---	25.0	20.5	16.5	13.5
31	---	---	17.0	16.5	---	---	---	---	24.5	21.0	---	---
MONTH	16.5	10.0	21.5	13.5	23.5	16.5	26.5	18.5	25.0	15.5	24.5	13.0

11189500 SOUTH FORK KERN RIVER NEAR ONYX, CA

LOCATION.--Lat 35°44'22", long 118°10'33", unsurveyed, T.25 S., R.35 E., Kern County, on left bank 0.8 mi (1.3 km) north of State Highway 178, 1.6 mi (2.6 km) upstream from Canebrake Creek, and 5 mi (8 km) northeast of Onyx.

DRAINAGE AREA.--530 mi² (1,370 km²).

PERIOD OF RECORD.--September 1911 to August 1914, January 1919 to September 1942, October 1947 to current year. Yearly estimate for water year 1927 (incomplete) and monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1151: 1948(M). WSP 1445: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,900 ft (884 m), from topographic map. Sept. 12, 1911, to Aug. 31, 1914, nonrecording gage and Jan. 23, 1919, to Apr. 17, 1936, water-stage recorder, at site 140 ft (43 m) upstream at datum 2.88 ft (0.878 m) lower. Apr. 18, 1936, to September 1942, and October 1947 to Feb. 8, 1967, at datum 6.88 ft (2.097 m) higher. Feb. 9, 1967, to May 31, 1972, at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good. Lowell and Thomas ditches divert above station for irrigation of 160 acres (64.8 hm²) below station; combined capacity, 7 ft³/s (0.20 m³/s).

AVERAGE DISCHARGE.--52 years (water years 1912-13, 1920-25, 1927, 1930-42, 1947-76), 112 ft³/s (3.172 m³/s), 81,140 acre-ft/yr (100 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,700 ft³/s (813 m³/s) Dec. 6, 1966, gage height, 18.9 ft (5.76 m) from floodmarks, present datum, from rating curve extended above 3,300 ft³/s (93.5 m³/s) on basis of slope-area measurement of maximum flow; no flow for several days in 1929, 1934, 1960-61.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 185 ft³/s (5.24 m³/s), Sept. 30 (2030 hrs), gage height, 4.49 ft (1.369 m); no other peak above base of 180 ft³/s (5.10 m³/s); minimum daily, 0.55 ft³/s (0.016 m³/s) July 7-27, Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	30	25	15	26	49	80	40	19	1.0	8.5	.70
2	13	31	31	12	25	43	72	41	18	1.2	7.8	.66
3	13	33	35	15	25	37	69	41	17	.67	9.1	.62
4	13	31	35	26	27	31	69	40	16	.62	8.6	.62
5	13	30	35	26	29	32	67	40	15	.62	7.6	.62
6	13	30	35	27	29	34	59	41	14	.58	6.6	.62
7	13	29	32	22	27	34	57	50	13	.55	5.9	.61
8	15	30	29	20	39	35	55	57	10	.55	2.9	.55
9	18	30	29	22	55	36	57	75	8.9	.55	1.1	.65
10	18	30	31	23	44	34	51	84	10	.55	.68	5.3
11	18	28	32	21	39	34	50	78	11	.55	.62	59
12	21	29	32	26	35	35	48	67	12	.55	.62	88
13	24	28	32	25	34	37	48	58	12	.55	.62	60
14	21	29	24	25	36	38	49	53	12	.55	.62	42
15	19	30	19	23	35	40	49	50	11	.55	.66	33
16	18	30	22	25	34	42	53	48	10	.55	.70	26
17	18	30	27	26	33	46	48	46	8.5	.55	.70	20
18	18	31	28	26	34	53	58	43	7.2	.55	.70	18
19	18	26	28	26	34	56	60	40	6.9	.55	.82	17
20	17	24	31	24	33	50	60	37	6.0	.55	.85	14
21	17	22	29	21	29	54	62	33	5.2	.55	.70	12
22	18	23	27	21	30	60	64	30	4.9	.55	.70	11
23	17	23	25	24	32	65	64	29	4.8	.55	.70	11
24	18	26	25	28	32	87	62	27	2.6	.55	.70	28
25	18	27	29	27	32	120	62	27	1.5	.55	.70	47
26	18	29	28	23	32	115	59	26	1.5	.55	.70	31
27	22	30	28	23	33	101	50	24	1.5	.55	.70	24
28	30	33	26	26	34	88	44	25	1.4	.56	.70	20
29	28	29	24	28	37	77	41	23	1.4	3.9	.70	24
30	26	24	24	26	---	76	40	20	1.2	10	.70	130
31	30	---	21	25	---	78	---	20	---	6.3	.70	---
TOTAL	576	855	878	727	964	1717	1707	1313	263.5	37.00	73.39	725.95
MEAN	18.6	28.5	28.3	23.5	33.2	55.4	56.9	42.4	8.78	1.19	2.37	24.2
MAX	30	33	35	28	55	120	80	84	19	10	9.1	130
MIN	13	22	19	12	25	31	40	20	1.2	.55	.62	.55
AC-FT	1140	1700	1740	1440	1910	3410	3390	2600	523	73	146	1440
CAL YR 1975	TOTAL	29354.00	MEAN 80.4	MAX 560	MIN 4.7	AC-FT 58220						
WTR YR 1976	TOTAL	9836.84	MEAN 26.9	MAX 130	MIN .55	AC-FT 19510						

11190500 ISABELLA LAKE NEAR LAKE ISABELLA, CA

LOCATION.--Lat 35°38'46", long 118°28'41", in SE¼SW¼ sec.19, T.26 S., R.33 E., Kern County, in main control tower near left abutment of main dam on Kern River, 1.5 mi (2.4 km) north of town of Lake Isabella, and 2.8 mi (4.5 km) upstream from Erskine Creek.

DRAINAGE AREA.--2,074 mi² (5,372 km²).

PERIOD OF RECORD.--October 1953 to current year. Prior to October 1968, published as Isabella Reservoir near Isabella. October 1968 to September 1970 published as "Isabella Reservoir."

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with sidehill spillway and auxiliary earthfill dam completed in 1954. Regulation began Apr. 15, 1954. Usable capacity, 570,024 acre-ft (703 hm³) between elevations 2,470.0 ft (752.86 m), invert of main outlet and 2,605.5 ft (794.16 m), spillway crest, above mean sea level. Dead storage, 496 acre-ft (6.12 hm³). Surcharge flood control storage, 271,687 acre-ft (335 hm³) between ungated spillway crest and elevation 2,627.0 ft (800.71 m), maximum design spillway flood pool. Capacity table revised Oct. 1, 1975. Records, including extremes, represent total contents at 2400 hours. Water is released to Kern River through tunnel in left abutment of main dam and to Borel Canal (station 11187500) through concrete conduit in auxiliary dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 578,100 acre-ft (713 hm³) July 14, 1969, elevation, 2,606.21 ft (794.373 m); minimum since reservoir first filled, 50,030 acre-ft (61.7 hm³) Oct. 16, 1972, elevation, 2,531.06 ft (771.467 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 175,820 acre-ft (217 hm³) Oct. 1, elevation, 2,560.43 ft (780.419 m); minimum, 64,523 acre-ft (79.6 hm³) Sept. 9, elevation, 2,536.07 ft (772.994 m).

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

2500	6546	2540	77772
2505	9556	2550	119465
2510	13717	2570	239356
2515	19300	2590	407903
2520	26580	2620	747789
2530	47292		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	175820	172094	170190	170131	170131	166888	156088	156200	169361	130996	88346	68487
2	175276	172094	170249	170131	169894	166712	155919	156651	169065	129436	87760	67799
3	174914	172094	170309	170190	169420	166420	155694	157103	168652	128037	86945	67148
4	174492	172035	170309	170131	169243	166069	155638	157103	167886	126550	86096	66565
5	174252	171796	170368	170190	169065	165485	155638	157499	167005	124779	85330	66083
6	173831	171736	170368	170309	169184	164961	155638	157952	166010	122829	84530	65507
7	173351	171319	170309	170368	169302	164554	155638	158406	164961	120756	83848	65061
8	173231	171498	170249	170487	169361	164147	155525	158804	163799	118705	83095	64681
9	173111	171498	170249	170546	169716	163625	155694	159316	162527	116676	82272	64523
10	172931	171319	170249	170784	169894	163104	155582	160058	161376	114669	81566	64713
11	172871	171438	170131	170724	169953	162527	155582	160630	160401	112869	80900	65316
12	172931	171379	170071	170843	169894	162124	155469	161318	159316	110905	80275	67375
13	172871	171260	170071	170962	169834	161491	155413	162296	158292	108873	79617	68257
14	172931	171141	170131	171022	169894	161031	155469	163567	157159	107176	79071	68553
15	172931	171081	169953	171141	169894	160687	155750	164844	155863	105717	78456	68619
16	172931	170903	169953	171141	169894	160344	155694	165952	154628	104401	77879	68586
17	172812	170843	169894	171260	169953	160001	155582	166830	153178	103227	77270	68553
18	172692	170784	169953	171438	169775	159544	155525	167534	151846	102061	76700	68520
19	172632	170665	169953	171557	169953	159259	155638	168063	150356	100860	76062	68553
20	172453	170487	169953	171498	170012	158917	155694	168181	149094	99585	75603	68553
21	172273	170546	169953	171498	169953	158633	155694	168475	147675	98446	75111	68520
22	172154	170427	169953	171557	169716	158179	155638	168770	146048	97107	74552	68520
23	172094	170427	169953	171498	169302	157725	155638	168947	144594	95739	73995	68520
24	172094	170427	169953	171557	169065	157386	155750	169006	143042	94343	73338	68586
25	171975	170427	170012	171557	168711	157159	155750	169124	141341	93163	72548	68520
26	171796	170309	170131	171617	168299	156933	155975	169420	139810	92074	71934	68520
27	171855	170309	170131	171617	167769	156820	155919	169598	138290	91272	71357	68520
28	172035	170487	170190	171319	167123	156651	155863	169598	136677	90355	70884	68487
29	172094	170249	170190	170724	166830	156538	155863	169834	134869	89722	70414	70012
30	172094	170190	170131	170427	---	156426	155863	169834	132771	89288	69879	70280
31	172214	---	170190	170309	---	156257	---	169716	---	88737	69214	---
MAX	175820	172094	170368	171617	170131	166888	156088	169834	169361	130996	88346	70280
MIN	171796	170190	169894	170131	166830	156257	155413	156200	132771	88737	69214	64523
†	2559.83	2559.49	2559.49	2559.51	2558.92	2557.08	2557.01	2559.41	2552.70	2542.92	2537.52	2537.84
‡	-4150	-2024	0	119	-3479	-10573	-394	13853	-36945	-44034	-19523	1066
††	2991	1848	1126	1480	1287	1951	2527	4588	5233	4559	3265	2112
CAL YR 1975	MAX	348695	MIN	169894	‡	-54048						
WTR YR 1976	MAX	175820	MIN	64523	‡	-106084						

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

†† Evaporation, in acre-feet.

NOTE.--Record computed on basis of revised capacity table put into use Oct. 1, 1975.

11191000 KERN RIVER BELOW ISABELLA DAM, CA

LOCATION.--Lat 35°38'21", long 118°29'02", in SW¼NW¼ sec.30, T.26 S., R.33 E., Kern County, on right bank 200 ft (61 m) downstream from highway bridge, 0.6 mi (1.0 km) downstream from Isabella Dam, and 1.6 mi (2.6 km) south-west of town of Lake Isabella.

DRAINAGE AREA.--2,074 mi² (5,372 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1945 to current year. Prior to October 1952, published as "below Isabella damsite."

REVISED RECORDS.--WSP 1515: 1956. WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,435.07 ft (742.209 m) above mean sea level (levels by Corps of Engineers). Prior to Mar. 12, 1952, water-stage recorder at site 0.6 mi (1.0 km) upstream at different datum. Mar. 12, 1952, to July 26, 1953, nonrecording gage at present site and datum.

REMARKS.--Records good. Flow regulated by Isabella Lake (station 11190500) beginning Apr. 15, 1954. Borel Canal (station 11187500) diverts above station. Diversion for irrigation of 3,500 acres (14.2 km²) between head of Isabella Lake and upstream stations. An additional 6,500 acres (26.3 km²) in the lakebed can be irrigated when the lake is low.

AVERAGE DISCHARGE (adjusted for diversion to Borel Canal since 1945 and for change in contents in and evaporation from Isabella Lake since 1954).--31 years, 866 ft³/s (24.53 m³/s), 672,400 acre-ft/yr (774 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,000 ft³/s (1,100 m³/s) Nov. 19, 1950, gage height, 28.6 ft (8.72 m) from floodmarks, present site and datum, from rating curve extended above 1,100 ft³/s (31.2 m³/s) on basis of slope-area measurement of maximum flow; minimum, 2.1 ft³/s (0.059 m³/s), regulated, Nov. 27, 1951. Maximum discharge since construction of Isabella Dam in 1954, 7,300 ft³/s (207 m³/s) May 3, 1969, gage height, 17.67 ft (5.386 m); no flow Oct. 29, 1954, Mar. 22, 1960, Dec. 2-4, 1970, Dec. 13, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 783 ft³/s (22.2 m³/s) July 29, gage height, 7.41 ft (2.259 m); minimum daily, 2.2 ft³/s (0.062 m³/s) Sept. 25-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	5.8	5.6	6.4	5.1	5.2	5.6	5.3	6.2	473	716	354
2	5.3	5.8	6.4	6.4	5.2	5.1	5.5	5.3	6.2	343	740	341
3	5.3	5.7	6.4	6.4	5.2	5.1	5.4	5.2	19	258	738	319
4	5.3	5.8	6.4	6.4	4.2	5.1	5.4	4.8	213	307	716	300
5	5.3	5.8	6.4	6.4	4.1	5.1	5.5	4.9	243	454	517	278
6	5.3	5.8	6.4	6.4	5.1	5.1	5.4	4.8	288	538	343	278
7	5.3	5.8	6.4	6.4	5.1	5.0	5.3	4.7	320	577	326	225
8	5.3	5.7	6.4	6.4	5.1	4.9	5.2	4.7	368	612	368	203
9	5.2	5.1	6.4	6.4	5.1	4.9	5.5	4.7	330	589	393	80
10	5.1	5.1	6.4	6.4	5.1	15	5.5	4.7	282	541	363	46
11	5.1	5.1	6.4	6.4	5.1	14	5.5	5.1	282	553	323	28
12	5.1	5.1	6.4	6.1	4.7	5.5	5.3	6.0	268	623	322	11
13	5.1	5.1	6.4	6.0	4.4	5.5	5.3	6.0	248	672	290	4.7
14	5.1	5.1	6.4	5.9	4.4	5.5	5.3	6.0	274	556	257	4.6
15	3.4	5.1	6.4	5.9	4.6	5.5	5.3	6.0	322	464	277	6.4
16	4.2	5.2	6.4	6.2	4.7	5.5	5.4	5.8	355	445	280	6.6
17	9.1	5.2	6.4	6.0	4.7	5.5	5.3	5.5	392	400	292	5.3
18	9.2	4.9	6.4	6.0	4.7	5.5	5.3	5.5	404	454	320	2.8
19	9.2	4.9	6.4	6.0	4.8	5.5	5.3	5.5	387	496	314	2.6
20	6.7	4.9	6.4	6.0	4.9	5.5	5.3	5.5	390	523	239	2.7
21	4.7	4.9	6.4	6.0	4.9	5.4	5.3	5.5	401	556	220	3.2
22	4.7	4.9	6.4	6.9	4.9	5.3	5.3	5.0	404	616	263	3.0
23	4.4	4.9	6.4	8.6	4.9	5.3	5.3	4.7	387	704	271	2.7
24	5.1	4.8	6.4	8.6	4.9	5.3	5.3	4.7	414	722	323	2.3
25	6.0	4.5	6.4	8.6	4.9	5.1	5.3	5.6	452	684	340	2.2
26	6.0	4.4	6.4	8.6	4.9	4.9	5.3	6.4	410	719	311	2.2
27	6.0	4.4	6.4	5.9	4.9	4.9	5.3	6.4	411	727	284	2.2
28	6.0	4.2	6.4	4.6	4.9	4.9	5.3	6.2	431	740	262	3.1
29	5.9	4.2	6.4	5.1	4.9	4.5	5.3	6.2	463	766	254	15
30	5.9	4.3	6.4	5.1	---	4.4	5.3	6.2	488	737	269	4.3
31	5.9	---	6.4	5.1	---	5.5	---	6.2	---	704	314	---
TOTAL	175.6	152.5	197.6	197.6	140.4	179.5	160.6	169.1	9658.4	17553	11245	2538.9
MEAN	5.66	5.08	6.37	6.37	4.84	5.79	5.35	5.45	322	566	363	84.6
MAX	9.2	5.8	6.4	8.6	5.2	15	5.6	6.4	488	766	740	354
MIN	3.4	4.2	5.6	4.6	4.1	4.4	5.2	4.7	6.2	258	220	2.2
AC-FT	348	302	392	392	278	356	319	335	19160	34820	22300	5040
MEAN ‡	244	248	254	238	266	354	406	764	318	226	222	388
AC-FT ‡	15020	14750	15590	14640	15320	21790	24180	46960	18920	13880	13660	23098
CAL YR 1975 TOTAL	119570.6											
WTR YR 1976 TOTAL	42368.2											
MEAN 328												
MAX 1360												
MIN 3.4												
AC-FT 237200												
MEAN ‡ 768												
AC-FT ‡ 556200												
MEAN ‡ 328												
AC-FT ‡ 237800												

‡ Adjusted for change in contents in and evaporation from Lake Isabella and diversion to Borel Canal.

11191000 KERN RIVER BELOW ISABELLA DAM, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-66, 1971 to current year.

CHEMICAL ANALYSES: Water years 1956-66.

WATER TEMPERATURES: Water years 1971 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1970 to current year.

INSTRUMENTATION.--Temperature recorder since November 1970.

REMARKS.--No record June 20 to Sept. 30; probe out of water.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1971-75), 24.5°C Sept. 3, 1971, Sept. 17, 1975; minimum (water years 1971-73, 1976), 4.0°C Jan. 4, 1972, Feb. 1, 1973.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Minimum, 6.5°C on several days during December and January.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	22.5	19.0	15.5	12.5	10.0	8.0	8.0	6.5	8.5	7.0	9.0	8.5
2	22.5	18.5	15.5	13.0	10.0	8.0	8.0	6.5	8.5	7.0	10.5	8.5
3	23.0	18.5	15.5	13.0	9.5	7.5	8.0	6.5	9.0	7.0	9.0	8.5
4	22.5	19.0	15.0	12.5	9.5	7.5	8.0	6.5	7.5	7.0	10.5	8.5
5	22.5	18.5	14.5	12.0	9.5	7.5	8.5	6.5	7.5	7.0	10.5	8.5
6	22.0	18.5	14.5	12.5	9.5	7.5	8.0	6.5	9.0	7.0	11.0	8.5
7	21.0	18.5	14.5	12.5	9.5	7.5	8.0	6.5	8.5	7.0	11.0	8.5
8	21.5	18.0	13.5	12.5	9.5	7.5	8.0	6.5	8.0	7.5	9.5	8.5
9	21.0	18.0	14.5	12.0	9.5	7.5	8.0	6.5	8.5	7.5	10.5	8.5
10	21.0	17.5	13.0	12.0	9.0	7.5	8.0	6.5	9.5	7.0	9.0	8.5
11	19.0	17.5	14.0	11.5	9.5	7.5	8.0	6.5	9.5	7.0	10.5	8.5
12	19.5	17.5	14.0	11.5	9.0	8.0	8.5	6.5	9.5	7.5	11.5	8.5
13	20.0	17.0	14.0	11.5	8.0	7.5	8.0	6.5	9.5	7.5	11.0	9.0
14	19.5	16.5	13.0	11.0	9.0	7.0	8.5	6.5	9.5	7.5	11.5	9.0
15	19.5	16.0	13.0	10.5	9.0	7.0	8.5	6.5	9.5	7.5	12.0	9.0
16	18.0	15.5	13.0	10.5	9.0	7.0	8.5	7.0	9.0	7.5	11.5	9.0
17	18.5	15.5	12.0	10.5	9.0	7.0	8.5	7.0	10.0	7.5	12.0	9.0
18	18.0	16.0	12.0	10.0	9.0	7.0	8.0	7.0	10.0	8.0	11.5	9.0
19	18.5	16.0	11.5	9.5	8.5	7.0	8.5	7.0	9.0	8.0	11.5	9.0
20	19.0	16.0	12.0	9.5	9.0	7.0	8.5	7.0	10.0	8.0	12.0	9.0
21	18.5	15.5	11.5	9.0	9.0	7.0	8.5	7.0	10.5	8.0	12.5	9.0
22	17.0	15.5	11.5	9.5	8.0	7.0	8.5	7.0	9.5	8.0	12.0	9.0
23	17.0	14.5	11.5	9.0	8.5	7.0	8.5	7.0	9.5	8.0	12.5	9.0
24	17.0	14.0	11.0	8.5	9.0	7.0	8.5	7.0	10.5	8.0	12.5	9.5
25	17.5	12.5	10.5	8.5	9.0	7.0	8.5	7.0	10.5	8.0	12.0	9.5
26	16.0	14.0	10.5	8.5	9.0	7.0	8.5	7.0	10.5	8.0	12.5	9.5
27	16.0	13.5	9.5	9.0	9.0	7.0	9.0	7.0	10.5	8.0	12.5	9.5
28	16.5	13.5	9.0	8.0	9.0	7.0	9.0	7.0	11.0	8.0	11.5	9.5
29	16.5	12.5	9.5	8.0	9.0	7.0	9.0	7.0	11.0	8.5	13.0	9.5
30	14.5	13.0	10.0	7.5	8.5	7.0	9.0	7.0	---	---	13.0	9.5
31	15.5	13.0	---	---	8.5	6.5	9.0	7.0	---	---	12.5	9.5
MONTH	23.0	12.5	15.5	7.5	10.0	6.5	9.0	6.5	11.0	7.0	13.0	8.5

11191000 KERN RIVER BELOW ISABELLA DAM, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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

11192500 KERN RIVER NEAR DEMOCRAT SPRINGS, CA

LOCATION.--Lat 35°31'15", long 118°40'34", in NE¼SE¼ sec.6, T.28 S., R.31 E., Kern County, on left bank 1.0 mi (1.6 km) southwest of Democrat Springs, and 2.1 mi (3.4 km) upstream from Cow Creek.

DRAINAGE AREA.--2,258 mi² (5,848 km²).

PERIOD OF RECORD.--July 1950 to current year. Prior to October 1954, records for river and conduit published separately; combined flow only, October 1954 to September 1960.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder on river; water-stage recorder for conduit diversion. Datum of gage is 1,837.7 ft (560.13 m) above mean sea level.

REMARKS.--Records good. Kern River No. 1 conduit diverts up to about 420 ft³/s (11.9 m³/s) from left bank of Kern River 0.4 mi (0.6 km) upstream from station in sec.13, T.28 S., R.30 E., for power development; water is returned to river 10 mi (16 km) below station. Flow regulated by Isabella Lake 22 mi (35 km) upstream beginning in 1954 (station 11190500). Many diversions above station for irrigation. See schematic diagram of Kern River basin. For records of combined discharge of river and conduit, see following page.

COOPERATION.--Gage-height record and 12 discharge measurements for river and gage-height record and 12 discharge measurements for conduit furnished by Southern California Edison Co., in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--River only, 26 years, 557 ft³/s (15.77 m³/s), 403,500 acre-ft/yr (498 hm³/yr).
Combined river and diversion, 26 years, 891 ft³/s (25.23 m³/s), 645,500 acre-ft/yr (796 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 40,000 ft³/s (1,130 m³/s) Nov. 19, 1950, gage height, 30.7 ft (9.36 m), from rating curve extended above 8,700 ft³/s (246 m³/s) on basis of computation of maximum flow over dam (basic data for computation furnished by Southern California Edison Co.); minimum daily, 0.7 ft³/s (0.020 m³/s) Nov. 17-19, 1951. Maximum discharge since construction of Isabella Dam in 1954, 10,100 ft³/s (286 m³/s) Dec. 6, 1966, gage height, 18.55 ft (5.654 m); minimum daily, 0.09 ft³/s (0.003 m³/s) on several days in 1970, 1972, 1974-75.
Combined flow: Maximum discharge, 40,000 ft³/s (1,130 m³/s) Nov. 19, 1950; minimum daily, 123 ft³/s (3.48 m³/s) Sept. 22, 1951. Maximum discharge since construction of Isabella Dam in 1954, 1,100 ft³/s (286 m³/s) Dec. 6, 1966; minimum daily, 10 ft³/s (0.28 m³/s) Dec. 17, 1968.

EXTREMES FOR CURRENT YEAR.--River only: Maximum discharge, 1,200 ft³/s (34.0 m³/s) Sept. 29, gage height, 9.13 ft (2.783 m); minimum daily, 0.11 ft³/s (0.003 m³/s) Apr. 20.
Combined flow: Maximum discharge, 1,493 ft³/s (42.3 m³/s) Sept. 29; minimum daily, 170 ft³/s (4.81 m³/s) Jan. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	.39	.17	.14	.14	148	.63	28	87	606	312	79
2	49	.33	.17	.14	.14	117	38	25	117	550	334	95
3	.63	.33	.14	.14	.14	94	18	36	108	389	356	78
4	.22	.33	.17	.14	.17	129	14	38	226	387	332	61
5	.17	.39	.17	.14	.17	161	.39	60	350	560	282	57
6	.17	.39	.17	.17	.17	162	.22	62	344	657	233	55
7	.22	.33	.17	.17	.14	122	.17	57	402	726	197	67
8	.27	.27	.17	.22	.17	95	.22	4.6	422	729	184	58
9	.27	.27	.17	.22	.27	104	.22	2.4	465	720	224	56
10	.27	.27	.17	.22	.27	145	.22	1.3	382	660	202	55
11	.33	.22	.22	.22	.27	190	.22	.93	380	603	137	56
12	.27	.17	.22	.22	.27	162	.22	15	382	636	117	67
13	.27	.17	.22	.22	.27	129	.27	25	356	669	109	75
14	.22	.22	.22	.22	.27	129	.17	61	362	606	71	94
15	.17	.22	.22	.22	.22	140	.22	62	420	585	63	96
16	.22	.17	.22	.22	.22	136	.22	62	458	433	71	66
17	.22	.22	.22	.22	.22	111	.14	64	500	344	73	58
18	.27	.22	.22	.22	.22	109	.17	91	528	326	84	56
19	.33	.22	.17	.22	.27	108	.14	90	508	364	102	55
20	.33	.22	.17	.22	.27	109	.11	99	508	348	75	54
21	.33	.22	.17	.22	.27	109	9.8	110	513	348	61	54
22	.33	.22	.17	.22	.27	108	46	56	533	358	60	54
23	.39	.22	.17	.22	.39	98	16	17	510	411	60	54
24	.39	.22	.17	.22	.54	94	14	30	523	445	64	54
25	.39	.17	.17	.22	.72	81	14	29	570	366	96	54
26	.39	.17	.17	.22	56	52	15	32	558	360	94	54
27	.46	.22	.17	.22	97	22	78	56	523	324	64	54
28	.39	.39	.17	.22	98	35	79	25	560	338	60	55
29	.39	.22	.17	93	110	35	62	47	568	346	59	251
30	.54	.17	.17	62	---	7.2	60	52	630	370	58	150
31	.54	---	.14	.33	---	.63	---	89	---	318	57	---
TOTAL	121.39	7.57	5.61	160.99	367.47	3241.83	467.75	1427.23	12793	14882	4291	2172
MEAN	3.92	.25	.18	5.19	12.7	105	15.6	46.0	426	480	138	72.4
MAX	63	.39	.22	93	110	190	79	110	630	729	356	251
MIN	.17	.17	.14	.14	.14	.63	.11	.93	87	318	57	54
AC-FT	241	15	11	319	729	6430	928	2830	25370	29520	8510	4310
CAL YR 1975	TOTAL	153541.47	MEAN	421	MAX	1520	MIN	.09	AC-FT	304500		
WTR YR 1976	TOTAL	39937.84	MEAN	109	MAX	729	MIN	.11	AC-FT	79220		

11192500 KERN RIVER NEAR DEMOCRAT SPRINGS, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF KERN RIVER AND KERN RIVER
NO. 1 CONDUIT NEAR DEMOCRAT SPRINGS, CA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	450	296	229	217	276	551	389	435	481	1010	696	435
2	447	294	231	214	295	520	434	433	517	954	718	452
3	377	293	238	193	326	496	411	447	506	793	735	429
4	371	297	257	170	329	534	405	450	622	790	714	401
5	344	295	258	170	328	566	372	474	747	962	664	368
6	315	289	257	174	297	567	321	476	757	1060	609	376
7	293	255	259	192	207	527	317	470	812	1130	569	412
8	288	250	257	192	207	500	318	411	831	1130	556	381
9	264	250	257	184	223	509	318	408	875	1130	598	332
10	264	252	257	184	270	551	316	408	798	1070	575	229
11	267	252	259	181	305	595	317	407	795	1010	504	252
12	250	251	256	184	297	567	318	425	794	1040	482	404
13	248	254	241	184	254	536	321	436	767	1070	471	430
14	247	252	239	184	242	537	312	472	772	1010	417	454
15	259	250	238	190	240	549	294	472	829	989	407	459
16	268	249	235	190	227	545	299	472	867	836	426	422
17	267	248	217	189	225	519	341	473	910	745	429	391
18	270	244	217	190	239	516	346	499	940	725	442	344
19	271	242	217	190	246	514	328	496	921	764	460	311
20	271	239	218	195	245	515	307	506	920	744	422	281
21	263	219	217	193	244	515	401	520	925	744	367	270
22	228	218	219	186	299	514	449	465	944	754	388	271
23	213	218	219	187	335	503	417	426	922	807	391	269
24	213	219	218	187	338	497	416	438	933	838	408	259
25	213	219	219	188	378	482	416	437	979	758	452	263
26	214	227	218	187	448	448	419	440	966	751	448	268
27	217	229	217	201	496	414	491	464	930	714	402	247
28	217	235	218	287	500	431	492	404	967	729	380	233
29	233	229	218	448	513	430	475	393	974	736	358	484
30	243	229	218	437	---	396	473	397	1040	757	355	461
31	269	---	219	279	---	389	---	478	---	702	387	---
TOTAL	8554	7494	7237	6547	8829	15733	11233	13932	25041	27252	15230	10588
MEAN	276	250	233	211	304	508	374	449	835	879	491	353
MAX	450	297	259	448	513	595	492	520	1040	1130	735	484
MIN	213	218	217	170	207	389	294	393	481	702	355	229
AC-FT	16970	14860	14350	12990	17510	31210	22280	27630	49670	54050	30210	21000
CAL YR 1975	TOTAL	283388	MEAN 776	MAX 1920	MIN 213	AC-FT 562100						
WTR YR 1976	TOTAL	157670	MEAN 431	MAX 1130	MIN 170	AC-FT 312700						

11194000 KERN RIVER NEAR BAKERSFIELD, CA

LOCATION.--Lat 35°25'54", long 118°56'43", in NW¼SW¼ sec.2, T.29 S., R.28 E., Kern County, on left bank 0.8 mi (1.3 km) northeast of Oil City, 1.9 mi (3.1 km) upstream from Sacramento Gulch, and 5.8 mi (9.3 km) northeast of Bakersfield Post Office.

DRAINAGE AREA.--2,407 mi² (6,234 km²).

PERIOD OF RECORD.--October 1893 to current year. Daily discharges for period October 1953 to September 1963 are in files of California district office of Geological Survey. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder and prior to Jan. 24, 1969, a wooden control. Datum of gage is at mean sea level.

REMARKS.--Flow regulated by Isabella Reservoir beginning in 1954 (station 11190500) and three powerplants; many diversions above station for irrigation. Daily discharge computed from 1200 to 1200 hours.

COOPERATION.--Records furnished by Kern County Canal and Water Co. and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--83 years, 946 ft³/s (26.79 m³/s), 685,400 acre-ft/yr (845 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 ft³/s (1,020 m³/s) Nov. 19, 1950, elevation, 461.37 ft (140.626 m); minimum daily, 74 ft³/s (2.1 m³/s) Sept. 19, 1948. Maximum discharge since construction of Isabella Dam in 1954, 9,290 ft³/s (263 m³/s) Dec. 6, 1966, elevation, 454.94 ft (138.666 m); minimum daily, 26 ft³/s (0.74 m³/s) Dec. 11, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,160 ft³/s (32.9 m³/s) July 7; minimum daily, 201 ft³/s (5.69 m³/s) Jan. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	429	304	214	226	316	583	413	455	520	1050	738	455
2	372	301	231	237	329	538	436	457	523	830	752	447
3	378	305	265	233	350	546	430	473	550	834	737	440
4	334	305	271	211	361	584	414	479	771	888	720	417
5	316	290	271	206	326	576	352	489	781	1050	617	381
6	291	268	271	206	287	555	350	458	845	1120	588	420
7	277	261	271	223	238	530	339	450	842	1160	585	391
8	261	259	270	216	245	528	337	431	900	1150	607	373
9	275	263	269	213	281	523	344	425	852	1100	589	349
10	261	262	276	213	334	589	342	436	814	1020	549	267
11	266	266	272	212	325	605	340	446	812	1060	495	283
12	263	266	276	213	287	556	359	459	798	1070	491	421
13	267	266	267	201	269	567	346	453	795	1050	465	454
14	278	257	265	211	256	571	315	489	846	940	419	478
15	279	258	261	213	255	564	328	489	886	844	428	451
16	286	260	244	215	244	554	350	493	921	783	431	416
17	283	251	244	215	248	519	381	496	966	712	444	371
18	289	248	231	214	259	523	341	522	986	742	473	329
19	285	238	231	224	267	522	362	506	972	745	457	304
20	264	227	228	221	277	526	420	522	972	748	415	280
21	252	219	231	209	324	519	425	542	981	772	416	273
22	225	213	226	208	360	506	452	483	956	828	422	274
23	227	224	225	219	373	495	422	456	962	826	402	277
24	224	224	231	222	379	475	427	457	1010	770	444	258
25	228	229	235	204	405	432	448	457	1020	751	459	272
26	225	233	227	239	424	420	454	469	986	726	429	262
27	235	237	224	285	496	439	503	466	990	740	398	251
28	241	232	231	397	521	427	505	402	1020	771	376	321
29	252	223	245	449	547	418	496	440	1050	772	367	611
30	259	228	238	339	---	420	472	456	1040	745	371	479
31	285	---	229	312	---	417	---	515	---	732	415	---
TOTAL	8607	7617	7670	7406	9583	16027	11903	14571	26367	27329	15499	11005
MEAN	278	254	247	239	330	517	397	470	879	882	500	367
MAX	429	305	276	449	547	605	505	542	1050	1160	752	611
MIN	224	213	214	201	238	417	315	402	520	712	367	251
AC-FT	17070	15110	15210	14690	19010	31790	23610	28900	52300	54210	30740	21830
CAL YR 1975	TOTAL	288420	MEAN 790	MAX 1920	MIN 213	AC-FT 572100						
WTR YR 1976	TOTAL	163584	MEAN 447	MAX 1160	MIN 201	AC-FT 324500						

BUENA VISTA LAKE BASIN

11195500 SAN EMIGDIO CREEK AT SAN EMIGDIO RANCHHOUSE, CA

LOCATION.--Lat 34°58'54", long 119°11'03", in San Emigdio Grant, Kern County, on left bank 50 ft (15 m) downstream from unnamed tributary, 0.8 mi (1.3 km) upstream from San Emigdio Ranchhouse, and 13 mi (21 km) west of Wheeler Ridge.

DRAINAGE AREA.--48.8 mi² (126.4 km²).

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

GAGE.--Water-stage recorder and sharp-crested weir with rectangular flume for flows below 7 ft³/s (0.2 m³/s). Datum of gage is 1,617.57 ft (493.035 m) above mean sea level.

REMARKS.--Records fair except those for flows over 3 ft³/s (0.085 m³/s), which are poor. Small diversions for stock and domestic use above station.

AVERAGE DISCHARGE.--17 years, 1.63 ft³/s (0.0462 m³/s), 1,180 acre-ft/yr (1.45 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,690 ft³/s (189 m³/s) Aug. 5, 1961, gage height, 19.87 ft (6.056 m) from floodmarks, from rating curve extended above 20 ft³/s (0.57 m³/s) on basis of slope-area measurements at gage heights 10.94 ft (3.335 m) and 19.87 ft (6.056 m); minimum daily, 0.30 ft³/s (0.008 m³/s) Apr. 23, 24, 1962 and many days in 1965-66.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1938 (from information by local residents), that of Aug. 5, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 25 ft³/s (0.71 m³/s) and maximum (*), from rating curve extended above 20 ft³/s (0.57 m³/s) as explained above:

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Feb. 8	Unknown	190	5.38	11.28	3.438
Sept. 10	Unknown	*310	8.78	11.80	3.597

Minimum daily, 0.84 ft³/s (0.024 m³/s) many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	2.5	2.2	2.0	1.9	1.8	1.4	1.1	1.0	.99	.96	.84
2	1.4	2.3	2.2	2.0	1.9	1.8	1.4	1.1	1.0	.99	.93	.84
3	1.4	2.3	2.2	2.0	1.9	1.9	1.6	1.1	1.0	.99	.96	.87
4	1.4	2.2	2.1	2.0	1.9	1.7	1.7	1.2	.98	.96	.96	.84
5	1.4	2.2	2.1	2.0	2.2	1.7	1.5	1.2	.99	.96	.93	1.2
6	1.4	2.2	2.1	2.0	2.5	1.7	1.4	1.6	1.0	.93	.93	.84
7	1.6	2.2	2.1	1.9	2.3	1.7	1.4	1.3	1.0	.93	.93	.84
8	1.5	2.3	2.1	1.9	35	1.7	1.9	1.2	1.0	.93	.93	.84
9	1.5	2.4	2.1	2.0	10	1.7	1.6	1.1	1.0	.93	.90	5.0
10	1.5	2.4	2.1	1.9	2.6	1.6	1.5	1.1	1.2	.93	.90	40
11	2.8	2.4	2.1	1.9	1.8	1.6	1.7	1.0	1.1	.93	.87	5.0
12	3.3	2.4	2.8	1.9	1.8	1.6	1.7	1.0	1.1	.93	.87	1.3
13	2.8	2.4	2.4	1.9	1.8	1.6	1.6	.96	1.1	.93	.87	1.3
14	2.7	2.3	2.2	1.9	1.9	1.6	1.8	.93	.99	.93	.90	1.3
15	2.6	2.2	2.1	1.9	1.7	1.6	1.6	.96	.99	.93	.93	1.3
16	2.5	3.0	2.2	1.9	1.7	1.5	1.5	.93	.96	.93	.90	1.3
17	2.4	2.1	2.1	2.0	1.7	1.5	1.4	.90	.96	.93	.90	1.3
18	2.4	2.1	2.1	1.9	1.8	1.6	1.4	.87	.96	.93	.93	1.3
19	2.4	2.1	2.1	1.9	1.8	1.6	1.4	.87	.96	.93	.96	1.2
20	2.4	2.0	2.1	1.9	1.8	1.6	1.3	.84	.96	.93	.93	1.3
21	2.3	2.1	2.1	1.9	1.8	1.6	1.3	.84	.96	.93	.90	1.3
22	2.5	2.1	2.0	1.9	1.8	1.5	1.3	.87	.93	.96	.93	1.3
23	2.6	2.1	2.0	1.9	1.8	1.5	1.3	.99	.93	.93	.90	1.3
24	2.6	2.1	2.0	1.9	1.8	1.5	1.2	1.0	.93	.93	.90	1.3
25	2.6	2.1	2.0	1.9	1.8	1.5	1.3	1.1	.93	.90	.87	1.3
26	2.6	2.1	2.0	1.9	1.8	1.5	1.3	1.0	.93	.90	.87	1.3
27	3.0	2.1	2.0	1.9	1.7	1.5	1.3	1.0	.93	.90	.87	1.3
28	3.0	2.4	2.0	1.9	1.7	1.4	1.3	1.0	.93	.93	.87	1.4
29	2.5	2.2	2.0	1.9	1.7	1.4	1.3	1.0	.93	.93	.84	10
30	2.6	2.1	2.0	1.9	---	1.4	1.2	1.0	.96	.93	.84	1.4
31	2.9	---	2.0	1.9	---	1.4	---	1.0	---	.93	.84	---
TOTAL	70.0	67.4	65.6	59.7	95.9	49.3	43.6	32.06	29.61	29.01	28.02	90.61
MEAN	2.26	2.25	2.12	1.93	3.31	1.59	1.45	1.03	.99	.94	.90	3.02
MAX	3.3	3.0	2.8	2.0	35	1.9	1.9	1.6	1.2	.99	.96	40
MIN	1.4	2.0	2.0	1.9	1.7	1.4	1.2	.84	.93	.90	.84	.84
AC-FT	139	134	130	118	190	98	86	64	59	58	56	180
CAL YR 1975	TOTAL	610.63	MEAN	1.67	MAX	4.9	MIN	.87	AC-FT	1210		
WTR YR 1976	TOTAL	660.81	MEAN	1.81	MAX	40	MIN	.84	AC-FT	1310		

11196400 CALIENTE CREEK ABOVE TEHACHAPI CREEK, NEAR CALIENTE, CA

LOCATION.--Lat 35°18'41", long 118°34'10", in SE¼SW¼ sec.17, T.30 S., R.32 E., Kern County, on right bank 0.5 mi (0.8 km) upstream from Harper Canyon, 1.0 mi (1.6 km) upstream from Oiler Canyon, and 3.6 mi (5.8 km) north-east of Caliente.

DRAINAGE AREA.--165 mi² (427 km²).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,617.27 ft (492.944 m) above mean sea level.

REMARKS.--Records good except those for Sept. 24-30, which are poor. Small diversion above station for stock and domestic use.

AVERAGE DISCHARGE.--15 years, 2.36 ft³/s (0.067 m³/s), 1,710 acre-ft/yr (2.11 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,410 ft³/s (39.9 m³/s) Aug. 8, 1963, gage height, 7.48 ft (2.280 m) from floodmarks, from rating curve extended above 190 ft³/s (5.38 m³/s) on basis of slope-area measurement of maximum flow; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 289 ft³/s (8.18 m³/s) Sept. 24 (2345 hrs), gage height, 3.54 ft (1.079 m), from floodmarks, no other peak above base of 50 ft³/s (1.42 m³/s); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.62	.70	.70	.78	.45	.32	.02			0
2		0	.60	.66	.71	.85	.50	.27	.02			0
3		0	.58	.71	.68	1.2	.48	.26	.02			0
4		0	.54	.72	.70	.93	.57	.24	.02			0
5		0	.54	.72	.70	.88	.58	.23	.01			0
6		0	.55	.70	.82	.83	.55	.29	.01			0
7		0	.57	.72	.77	.81	.55	.39	.01			0
8		0	.55	.72	.74	.77	.69	.29	0			0
9		0	.52	.73	.91	.73	.71	.22	0			0
10		0	.50	.74	.87	.71	.63	.18	.01			0
11		.05	.51	.77	.85	.70	.59	.15	0			0
12		.09	.64	.77	.82	.68	.62	.14	0			0
13		.08	.69	.77	.80	.67	.82	.12	0			0
14		.23	.63	.77	.80	.66	.73	.10	0			0
15		.28	.66	.76	.91	.62	.80	.09	0			0
16		.38	.66	.70	.83	.58	.91	.08	0			0
17		.48	.62	.68	.80	.51	.77	.08	0			0
18		.61	.60	.68	.79	.53	.70	.07	0			0
19		.67	.60	.65	.75	.51	.59	.07	0			0
20		.70	.56	.63	.74	.54	.57	.06	0			0
21		.71	.55	.67	.67	.54	.55	.06	0			0
22		.66	.57	.68	.59	.50	.49	.05	0			0
23		.68	.57	.70	.55	.52	.48	.05	0			0
24		.75	.62	.70	.51	.53	.46	.05	0			7.2
25		.76	.63	.70	.52	.52	.46	.05	0			8.0
26		.77	.62	.70	.51	.56	.46	.04	0			1.0
27		.79	.63	.72	.50	.57	.45	.04	0			.20
28		1.1	.63	.70	.48	.59	.42	.04	0			.10
29		.71	.61	.68	.50	.52	.39	.04	0			.05
30		.61	.67	.68	---	.51	.34	.03	0			0
31		---	.69	.67	---	.46	---	.02	---			---
TOTAL	0	11.11	18.53	21.90	20.52	20.31	17.31	4.12	.12	0	0	16.55
MEAN	0	.37	.60	.71	.71	.66	.58	.13	.004	0	0	.55
MAX	0	1.1	.69	.77	.91	1.2	.91	.39	.02	0	0	8.0
MIN	0	0	.50	.63	.48	.46	.34	.02	0	0	0	0
AC-FT	0	22	37	43	41	40	34	8.2	.2	0	0	33
CAL YR 1975	TOTAL	378.07	MEAN	1.04	MAX	12	MIN	0	AC-FT	750		
WTR YR 1976	TOTAL	130.47	MEAN	.36	MAX	8.0	MIN	0	AC-FT	259		

NOTE.--No gage-height record Sept. 24-30.

11196420 TEHACHAPI CREEK NEAR TEHACHAPI, CA

LOCATION.--Lat 35°10'26", long 118°28'43", in NE¼SW¼ sec.6, T.32 S., R.33 E., Kern County, on right bank 1.3 mi (2.1 km) downstream from Brite Creek, and 3.2 mi (5.1 km) northwest of Tehachapi.

DRAINAGE AREA.--53.2 mi² (137.8 km²).

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

REVISED RECORDS.--WDR CA-72-2: 1967.

GAGE.--Water-stage recorder. Datum of gage is 3,534.48 ft (1,077.310 m) above mean sea level. Prior to Aug. 5, 1964, at site 0.2 mi (0.3 km) upstream at different datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--14 years, 0.35 ft³/s (0.010 m³/s), 254 acre-ft/yr (313,000 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,700 ft³/s (48.1 m³/s) Aug. 8, 1963, gage height, 5.30 ft (1.615 m) in gage well, 6.40 ft (1.951 m) from floodmarks, site and datum then in use, from slope-area measurement of maximum flow; no flow for parts of most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2.4 ft³/s (0.068 m³/s) Mar. 2, gage height, 0.48 ft (0.146 m), no peak above base of 10 ft³/s (0.28 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.01	.01	.04	.03	.26	.31	.04	.05	0		0
2	.01	.01	.01	.04	.04	.28	.25	.04	.05	0		0
3	.01	.01	.01	.04	.04	.25	.26	.04	.06	0		0
4	.01	.01	.01	.04	.04	.07	.22	.06	.03	0		0
5	.01	.01	.01	.04	.05	.03	.06	.08	.03	0		0
6	.01	.01	.01	.04	.16	.03	.04	.10	.03	0		0
7	.02	.01	.01	.05	.05	.04	.04	.09	.03	0		0
8	.02	.01	.01	.10	.04	.03	.07	.08	.02	0		0
9	.02	.01	.01	.06	.24	.04	.05	.07	.02	0		0
10	.02	.01	.01	.04	.04	.05	.04	.04	.02	0		.06
11	.04	.01	.01	.04	.04	.08	.05	.04	.02	0		.02
12	.11	.01	.01	.04	.04	.07	.07	.03	.02	0		.01
13	.02	.01	.20	.03	.04	.09	.08	.03	.03	0		.01
14	.01	.02	.03	.03	.05	.13	.04	.03	.02	0		.01
15	.01	.02	.03	.03	.07	.13	.08	.03	.01	0		.01
16	.01	.03	.03	.03	.04	.20	.07	.02	.01	0		.01
17	.01	.02	.03	.03	.04	.15	.05	.02	.01	0		.01
18	.01	.02	.03	.04	.02	.26	.05	.02	.01	0		.01
19	.01	.02	.03	.03	.02	.26	.06	.03	.01	0		.01
20	.01	.02	.03	.03	.02	.26	.06	.03	.01	0		.01
21	.01	.02	.03	.03	.27	.32	.06	.03	.01	0		.01
22	.01	.02	.04	.03	.07	.35	.03	.03	.01	0		.01
23	.01	.02	.04	.04	.02	.37	.03	.02	.01	0		.01
24	.01	.02	.03	.04	.02	.38	.04	.03	0	0		.01
25	.01	.01	.03	.04	.02	.38	.04	.02	.01	0		.01
26	.01	.01	.03	.04	.02	.35	.04	.03	0	.01		.01
27	.04	.03	.04	.04	.04	.38	.04	.03	0	0		.01
28	.01	.02	.03	.03	.04	.38	.04	.03	0	0		.01
29	.01	.01	.03	.03	.09	.38	.04	.02	0	0		.02
30	.01	.01	.03	.04	---	.36	.04	.03	0	0		.01
31	.01	---	.04	.03	---	.26	---	.04	---	0		---
TOTAL	.52	.45	.90	1.21	1.70	6.62	2.35	1.23	.53	.01	0	.28
MEAN	.017	.015	.029	.039	.059	.21	.078	.040	.018	.0003	0	.009
MAX	.11	.03	.20	.10	.27	.38	.31	.10	.06	.01	0	.06
MIN	.01	.01	.01	.03	.02	.03	.03	.02	0	0	0	0
AC-FT	1.0	.9	1.8	2.4	3.4	13	4.7	2.4	1.1	.02	0	.6

CAL YR 1975 TOTAL 40.44 MEAN .11 MAX 4.4 MIN .01 AC-FT 80
WTR YR 1976 TOTAL 15.80 MEAN .043 MAX .38 MIN 0 AC-FT 31

NOTE.--No gage-height record Dec. 4 to Jan. 6.

11197000 TULARE LAKE IN KINGS COUNTY, CA

LOCATION.--Lat 36°02'36", long 119°38'34", in SE¼NE¼ sec.1, T.22 S., R.21 E., Kings County, at El Rico Ranch, 6.0 mi (9.7 km) southwest of Corcoran, and 14.2 mi (22.8 km) southeast of Stratford.

PERIOD OF RECORD.--March 1906 to September 1920 (incomplete), February 1937 to September 1961 (elevations only), January 1969 to current year.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level. March 1906 to September 1920, nonrecording gages at various sites at different datums. February 1937 to September 1958, water-stage recorder or nonrecording gage at various sites.

REMARKS.--Tulare Lake receives water from Kings, Kaweah, and Tule Rivers during high-water periods and occasionally from Kern River, Deer Creek, and several small intermittent streams. Its natural boundary has been greatly altered by construction of levees and other reclamation work. Elevation at lowest point of lakebed is now about 175 ft (53.3 m) above mean sea level, lower than previously determined because of variable subsidence.

COOPERATION.--Records of elevation furnished by J. G. Boswell Co. Area-capacity curves furnished by J. B. Summers, civil engineer, Corcoran, based on surveys in 1966.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 196.8 ft (59.98 m) June 27, 28, 1941; lake dry or practically dry for parts of 1906, 1914-16, 1919, 1937, 1946, 1950-53, 1955-56, 1958, 1969, 1971; lake dry for entire years 1920-22, 1924-36, 1947-49, 1954, 1957, 1959-61, 1972-76. Lake elevation of June 27, 28, 1941, was highest known since about 1890.

EXTREMES OUTSIDE PERIOD OF RECORD.--Historical accounts indicate that Tulare Lake under natural conditions reached an elevation of 216 ft (65.8 m) above mean sea level in 1862 and 1868. This lake elevation was the highest since at least the early 1800's.

EXTREMES FOR CURRENT YEAR.--Lake dry all year.

TULARE LAKE BASIN

11197250 AVENAL CREEK NEAR AVENAL, CA

LOCATION.--Lat 35°51'15", long 120°07'34", in SW¼NW¼ sec.10, T.24 S., R.17 E., Kings County, on right bank 550 ft (168 m) downstream from road ford, 0.4 mi (0.6 km) downstream from unnamed tributary, and 10 mi (16 km) south of Avenal.

DRAINAGE AREA.--57.1 mi² (147.9 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 825 ft (251.5 m), from topographic map.

REMARKS.--Records excellent except those for period of no gage-height record, which are poor. Minor diversions for stock above station.

AVERAGE DISCHARGE.--15 years, 2.61 ft³/s (0.0739 m³/s), 1,890 acre-ft/yr (2.33 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,600 ft³/s (74.6 m³/s) Feb. 24, 1969, gage height, 7.89 ft (2.405 m), from rating curve extended above 510 ft³/s (14.4 m³/s) on basis of slope-area measurements at gage heights 5.72 ft (1.743 m) and 7.54 ft (2.298 m); no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 249 ft³/s (7.05 m³/s) Sept. 29 (time unknown), gage height, 3.21 ft (0.978 m), no other peak above base of 30 ft³/s (0.850 m³/s); no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												0
2												0
3												0
4												0
5												0
6												0
7												0
8												0
9												0
10												0
11												0
12												0
13												0
14												0
15												0
16												0
17												0
18												0
19												0
20												0
21												0
22												0
23												0
24												0
25												0
26												0
27												0
28												.10
29												15
30												3.0
31		---			---		---		---			---
TOTAL	0	0	0	0	0	0	0	0	0	0	0	18.10
MEAN	0	0	0	0	0	0	0	0	0	0	0	.60
MAX	0	0	0	0	0	0	0	0	0	0	0	15
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	0	36
CAL YR 1975	TOTAL 30.08	MEAN .082	MAX 13	MIN 0	AC-FT 60							
WTR YR 1976	TOTAL 18.10	MEAN .050	MAX 15	MIN 0	AC-FT 36							

NOTE.--No gage-height record Sept. 18-30.

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LOCATION.--Lat 35°30'50", long 118°54'17", in SW¼SW¼ sec.6, T.28 S., R.29 E., Kern County, on downstream side of highway bridge opposite mouth of Hillvale Canyon, 10 mi (16 km) northeast of Oildale, and 12 mi (19 km) northeast of Bakersfield.

EXTREMES FOR PERIOD OF RECORD--Maximum discharge, 6,700 ft³/s (190 m³/s) Feb. 25, 1969, gage height, 12.85 ft (3.917 m), from rating curve extended above 820 ft³/s (23.2 m³/s) on basis of contracted-opening measurement at gage height 11.57 ft (3.527 m); no flow for many days in 1975, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 70 ft³/s (1.98 m³/s) and maximum (*), from rating curve extended above 340 ft³/s (9.63 m³/s) on basis of contracted-opening measurement at 11.38 ft (3.469 m):

Minimum, no flow for several months.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	11	13	12	10	19	12	11	1.5			0
2	0	9.4	15	11	8.6	64	13	11	1.3			0
3	0	8.6	19	11	9.4	58	13	11	.96			0
4	0	8.0	20	11	9.2	48	15	9.7	.58			0
5	0	7.8	19	13	10	44	16	9.2	.21			0
6	0	7.5	17	13	12	42	15	10	.12			0
7	0	8.0	16	13	12	40	15	10	.09			0
8	0	8.3	15	12	13	38	16	10	.22			0
9	0	9.7	15	13	16	36	17	9.2	.14			0
10	0	9.4	14	12	25	34	18	8.9	.41			0
11	0	9.4	15	12	23	34	18	8.6	1.7			0
12	0	9.7	16	13	16	32	17	8.0	2.0			0
13	0	9.2	18	12	15	31	25	6.9	1.4			0
14	0	8.6	19	12	14	28	27	5.4	.40			0
15	.31	8.0	16	11	14	27	27	4.3	0			0
16	1.8	8.6	15	12	15	25	35	4.6	0			0
17	1.8	8.9	15	11	13	24	36	4.3	0			0
18	2.0	9.2	15	12	13	23	32	3.8	0			0
19	2.3	9.4	14	12	13	23	29	4.3	0			0
20	2.5	9.7	14	11	15	22	26	4.3	0			0
21	2.0	9.7	14	11	19	21	24	4.3	0			0
22	2.0	9.4	13	11	14	20	19	3.6	0			0
23	3.0	10	12	11	12	20	18	3.0	0			0
24	3.8	10	13	10	12	19	16	3.0	0			0
25	4.6	10	12	11	11	18	15	3.0	0			0
26	4.9	10	12	11	12	17	13	2.7	0			0
27	6.2	10	12	10	11	16	14	2.0	0			0
28	7.2	11	11	10	10	16	15	1.2	0			0
29	6.9	14	12	10	11	15	12	.98	0			185
30	6.4	13	12	10	---	14	12	1.2	0			236
31	9.2	---	12	10	---	13	---	1.5	---			---
TOTAL	66.91	285.5	455	354	388.2	881	580	180.98	11.03	0	0	421
MEAN	2.16	9.52	14.7	11.4	13.4	28.4	19.3	5.84	.37	0	0	14.0
MAX	9.2	14	20	13	25	64	36	11	2.0	0	0	236
MIN	0	7.5	11	10	8.6	13	12	.98	0	0	0	0
AC-FT	133	566	902	702	770	1750	1150	359	22	0	0	835
CAL YR 1975	TOTAL	10787.51	MEAN	29.6	MAX	515	MIN	0	AC-FT	21400		
WTR YR 1976	TOTAL	3623.62	MEAN	9.90	MAX	236	MIN	0	AC-FT	7190		

TULARE LAKE BASIN

11199500 WHITE RIVER NEAR DUCOR, CA

LOCATION.--Lat 35°48'53", long 118°55'42", in SE¼NE¼ sec.27, T.24 S., R.28 E., Tulare County, on right bank 0.1 mi (0.2 km) downstream from Tyler Gulch, and 8.3 mi (13.4 km) southeast of Ducor.

DRAINAGE AREA.--92.9 mi² (240.6 km²).

PERIOD OF RECORD.--October 1942 to September 1953, February 1971 to current year. Monthly discharge only for October 1942 to September 1944, published in WSP 1315-A.

GAGE.--Water-stage recorder. Altitude of gage is 685 ft (212 m), from topographic map. October 1942 to September 1946, at site 200 ft (61 m) upstream and October 1946 to September 1953, at site 300 ft (91 m) downstream at different datum.

REMARKS.--Records good. Small diversions above station for irrigation.

AVERAGE DISCHARGE.--16 years (water years 1943-53, 1972-76), 9.57 ft³/s (0.271 m³/s), 6,930 acre-ft/yr (8.54 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,300 ft³/s (65.1 m³/s), estimated by Bureau of Reclamation, Mar. 9, 1943; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 78 ft³/s (2.21 m³/s) Sept. 29 (2030 hrs), gage height, 3.88 ft (1.183 m), no other peak above base of 30 ft³/s (0.850 m³/s); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	2.7	2.2	2.2	11	3.0	3.0	.06			0
2		0	3.0	1.9	1.9	14	3.0	3.0	.03			0
3		0	3.0	1.9	1.9	12	3.0	3.3	.01			0
4		0	2.6	1.9	2.2	8.4	3.9	3.0	0			0
5		0	2.4	1.9	2.4	7.5	4.6	2.7	0			0
6		0	2.2	2.2	5.0	6.2	3.9	2.7	0			0
7		0	2.2	1.9	3.3	5.8	3.9	2.7	0			0
8		0	2.2	1.9	2.7	5.4	4.6	2.4	0			0
9		0	1.9	2.2	4.3	5.0	6.2	2.2	0			0
10		0	1.9	2.4	5.8	4.6	5.0	2.2	0			0
11		0	2.2	2.4	4.6	4.3	4.6	2.2	0			0
12		0	2.7	2.4	3.3	4.3	4.3	1.9	0			0
13		0	3.3	2.2	3.0	4.3	6.2	1.4	0			0
14		0	3.0	1.9	3.0	3.9	6.2	1.0	0			0
15		0	2.4	1.9	3.6	3.9	5.4	.73	0			0
16		0	2.4	1.9	4.6	3.9	5.8	.64	0			0
17		0	2.4	1.9	3.6	3.9	5.0	.64	0			0
18		0	2.2	1.9	3.3	3.9	4.6	.64	0			0
19		0	2.2	1.9	3.3	3.9	4.6	.64	0			0
20		0	2.2	1.9	4.6	3.6	4.3	.64	0			0
21		0	1.9	1.7	3.9	3.6	4.6	.64	0			0
22		0	1.9	1.7	3.6	3.6	4.6	.55	0			0
23		0	2.2	1.9	3.3	3.3	4.3	.55	0			0
24		0	1.7	1.9	3.3	3.3	3.9	.46	0			0
25		0	1.7	1.9	3.3	3.3	4.3	.46	0			0
26		0	1.7	1.9	3.3	3.6	4.6	.46	0			0
27		.07	1.7	2.2	3.3	3.6	4.3	.27	0			0
28		2.2	1.7	2.2	3.3	3.6	3.6	.06	0			0
29		3.3	1.7	1.9	3.6	3.6	3.3	.03	0			7.3
30		2.4	1.7	1.9	---	3.3	3.3	.03	0			1.2
31		---	1.9	1.9	---	3.3	---	.06	---			---
TOTAL	0	7.97	68.9	61.8	99.5	157.9	132.9	41.20	.10	0	0	8.5
MEAN	0	.27	2.22	1.99	3.43	5.09	4.43	1.33	.003	0	0	.28
MAX	0	3.3	3.3	2.4	5.8	14	6.2	3.3	.06	0	0	7.3
MIN	0	0	1.7	1.7	1.9	3.3	3.0	.03	0	0	0	0
AC-FT	0	16	137	123	197	313	264	82	.2	0	0	17

CAL YR 1975 TOTAL 1766.50 MEAN 4.84 MAX 60 MIN 0 AC-FT 3500

WTR YR 1976 TOTAL 578.77 MEAN 1.58 MAX 14 MIN 0 AC-FT 1150

11200800 DEER CREEK NEAR FOUNTAIN SPRINGS, CA

LOCATION.--Lat 35°56'30", long 118°49'19", in SE¼NE¼ sec.10, T.23 S., R.29 E., Tulare County, on left bank 1.0 mi (1.6 km) upstream from Pothole Creek, 6.3 mi (10.1 km) northeast of Fountain Springs, and 12 mi (19 km) east of Terra Bella.

DRAINAGE AREA.--83.3 mi² (215.7 km²).

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

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

REMARKS.--Records excellent except those for Oct. 8 to Nov. 5, and the period of no gage-height record, which are fair. No storage or diversion above station.

AVERAGE DISCHARGE.--8 years, 34.0 ft³/s (0.963 m³/s), 24,630 acre-ft/yr (30.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,340 ft³/s (94.6 m³/s) Feb. 24, 1969, gage height, 9.85 ft (3.002 m), from rating curve extended above 600 ft³/s (17.0 m³/s) on basis of slope-area measurements at gage heights 8.83 ft (2.691 m) in gage well, 9.18 ft (2.798 m) from floodmarks, and 12.54 ft (3.822 m) from floodmarks; no flow Aug. 14-22, 1968 and for several months in 1972 and 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 6, 1966, reached a stage of 12.54 ft (3.822 m), from floodmarks, discharge, 5,330 ft³/s (151 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 160 ft³/s (4.53 m³/s) Mar. 1 (1215 hrs), gage height, 4.02 ft (1.225 m), no other peak above base of 100 ft³/s (2.83 m³/s); no flow June 27 to Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
1	2.0	12	12	11	9.0	79	13	15	5.2			0
2	2.2	10	15	10	9.0	51	14	14	4.9			0
3	1.8	8.4	19	10	9.0	39	13	13	4.5			0
4	2.0	7.6	19	11	9.4	31	17	12	4.5			0
5	2.3	7.6	16	11	14	28	17	12	4.4			0
6	2.5	7.7	15	11	15	27	16	13	3.9			0
7	3.5	8.2	14	11	15	25	16	14	3.5			0
8	16	8.7	14	10	15	24	18	13	3.8			0
9	12	9.2	14	11	20	23	21	12	3.8			0
10	9.0	8.9	14	11	25	22	18	14	3.6			0
11	8.4	9.4	13	11	18	22	16	12	4.3			5.8
12	7.8	9.0	14	10	15	22	16	11	4.7			13
13	7.1	8.8	17	10	14	21	21	9.6	4.0			5.8
14	6.6	8.4	14	10	14	21	21	8.2	3.4			4.3
15	6.4	8.2	13	10	17	21	20	7.5	2.9			3.2
16	6.8	8.3	13	9.9	16	22	26	7.4	2.7			2.8
17	6.5	8.5	12	9.7	14	23	20	7.2	2.4			2.7
18	6.4	8.9	12	9.6	14	23	20	7.2	2.0			2.7
19	6.5	8.8	11	9.6	14	22	19	6.3	2.0			2.8
20	7.0	8.9	11	9.6	17	20	21	5.4	1.5			2.7
21	7.8	8.8	12	9.4	14	19	22	5.8	.76			2.7
22	11	8.8	12	9.3	13	18	20	5.6	.61			2.6
23	10	8.6	12	9.3	13	17	19	5.9	.81			2.6
24	9.6	8.6	11	9.3	12	17	18	5.7	.68			2.6
25	8.8	8.6	11	9.3	12	16	18	5.2	.25			3.7
26	8.2	8.6	11	9.4	12	16	17	5.1	.06			4.1
27	8.0	8.8	11	9.3	12	16	17	4.7	0			3.6
28	8.4	16	11	9.3	12	15	16	4.3	0			3.5
29	9.1	13	11	9.2	11	15	15	4.3	0			9.1
30	20	12	11	9.0	---	14	15	4.4	0			17
31	16	---	11	9.0	---	14	---	4.8	---			---
TOTAL	239.7	277.3	406	308.2	406.4	743	540	269.6	75.17	0	0	97.3
MEAN	7.73	9.24	13.1	9.94	14.0	24.0	18.0	8.70	2.51	0	0	3.24
MAX	20	16	19	11	25	79	26	15	5.2	0	0	17
MIN	1.8	7.6	11	9.0	9.0	14	13	4.3	0	0	0	0
AC-FT	475	550	805	611	806	1470	1070	535	149	0	0	193

CAL YR 1975 TOTAL 8198.50 MEAN 22.5 MAX 225 MIN 1.4 AC-FT 16260
WTR YR 1976 TOTAL 3362.67 MEAN 9.19 MAX 79 MIN 0 AC-FT 6670

NOTE.--No gage-height record July 20 to Aug. 27.

TULARE LAKE BASIN

11201200 DEER CREEK DIVERSION NEAR TERRA BELLA, CA

LOCATION.--Lat 35°59'27", long 118°59'06", in NE¼NE¼ sec.30, T.22 S., R.28 E., Tulare County, on right bank 1,000 ft (305 m) downstream from diversion structure, 3.8 mi (6.1 km) northeast of Terra Bella.

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 510 ft (155 m), from topographic map.

REMARKS.--Records good. Diversion receives water from Deer Creek 1,000 ft (305 m) upstream. Water is used for ground-water recharge.

AVERAGE DISCHARGE.--6 years, 0.94 ft³/s (0.0266 m³/s), 681 acre-ft/yr (0.840 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 14 ft³/s (0.40 m³/s) Dec. 2, 1973; no flow for several months in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.14	.27	.30	1.7	.22	.57				
2		0	.57	.20	.27	.22	.40	.80				
3		0	1.0	.24	.22	2.8	.47	.92				
4		0	1.1	.16	.44	3.5	.40	.63				
5		0	.80	.17	.74	2.3	.54	1.1				
6		0	.32	.12	2.6	1.7	.14	3.2				
7		0	.06	.12	.60	1.2	.14	3.2				
8		0	.22	.17	.09	1.2	.22	2.8				
9		0	.04	.17	.51	1.1	.24	2.3				
10		0	.34	.22	1.7	.80	.44	1.9				
11		0	.44	.17	.86	.69	.24	2.4				
12		0	.58	.20	.63	.50	.92	1.6				
13		0	.78	.14	.32	.24	3.4	1.0				
14		0	.52	.06	0	.30	1.8	.51				
15		0	.20	.02	0	.27	1.1	0				
16		0	.24	0	0	.39	1.8	0				
17		0	.47	0	.52	.63	.98	0				
18		0	.34	0	.74	.47	.72	0				
19		0	.22	0	.60	1.8	.16	0				
20		0	.22	0	.57	3.0	.20	0				
21		0	.05	0	.27	2.0	.73	0				
22		0	.14	0	.14	1.4	.22	0				
23		0	.57	.36	.04	1.3	.30	0				
24		0	.57	.80	.19	.92	.44	0				
25		0	.72	.63	.31	.83	.30	0				
26		0	.57	.60	.04	.69	.47	0				
27		0	.54	.60	.20	.80	.30	0				
28		.37	.37	.52	.10	.72	.30	0				
29		.07	.30	.47	.21	.44	.47	0				
30		.03	.24	.34	---	.37	.44	0				
31		---	.20	.27	---	.30	---	0	---			---
TOTAL	0	.47	12.87	7.02	13.21	34.58	18.50	22.93	0	0	0	0
MEAN	0	.016	.42	.23	.46	1.12	.62	.74	0	0	0	0
MAX	0	.37	1.1	.80	2.6	3.5	3.4	3.2	0	0	0	0
MIN	0	0	.04	0	0	.22	.14	0	0	0	0	0
AC-FT	0	.9	26	14	26	69	37	45	0	0	0	0
CAL YR 1975	TOTAL	118.50	MEAN .32	MAX 3.5	MIN 0	AC-FT 235						
WTR YR 1976	TOTAL	109.58	MEAN .30	MAX 3.5	MIN 0	AC-FT 217						

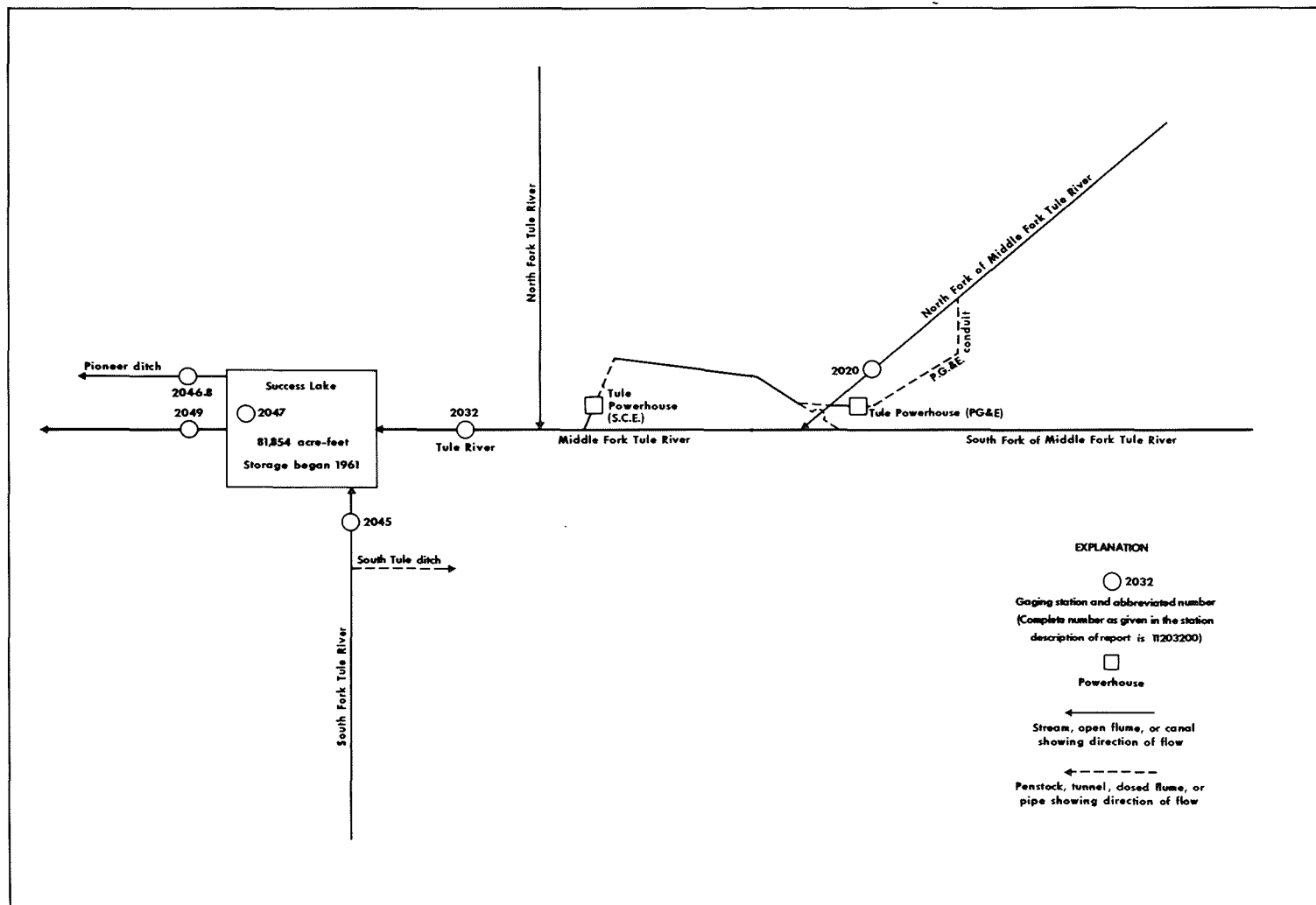


FIGURE 5.--Schematic diagram showing diversions and storage in Tule River basin.

11202000 NORTH FORK OF MIDDLE FORK TULE RIVER NEAR SPRINGVILLE, CA

LOCATION.--Lat 36°10'29", long 118°41'41", in T.20 S., R.30 E., unsurveyed, Tulare County, on right bank 1.2 mi (1.9 km) upstream from mouth, 2.2 mi (3.5 km) downstream from Hossack Creek, and 7.4 mi (11.9 km) northeast of Springville.

DRAINAGE AREA.--39.3 mi² (101.8 km²).

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-A. January 1909 to December 1912 at site 2 mi (3 km) upstream, records not equivalent. Prior to October 1954, records for river and conduit published separately; combined flow only, October 1954 to September 1960.

REVISED RECORDS.--WSP 1445: 1951.

GAGE.--Water-stage recorder. Concrete control on river since Aug. 6, 1958. Water-stage recorder and rectangular concrete channel for conduit diversion. Altitude of gage is 2,920 ft (890 m), from topographic map.

REMARKS.--Pacific Gas and Electric Co. conduit diverts 2.5 mi (4.0 km) upstream from station; water is returned to North Fork of Middle Fork Tule River 1.1 mi (1.8 km) downstream from station. See schematic diagram of Tule River basin. For records of combined discharge of river and conduit, see following page.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--River only: 37 years, 25.7 ft³/s (0.728 m³/s), 18,620 acre-ft/yr (23.0 hm³/yr).
Combined river and diversion: 37 years, 56.9 ft³/s (1.611 m³/s), 41,220 acre-ft/yr (50.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 16,900 ft³/s (479 m³/s) Dec. 6, 1966, gage height, 13.83 ft (4.215 m) from floodmarks, from rating curve extended above 270 ft³/s (7.65 m³/s) on basis of critical-depth determinations at gage heights 9.67 ft (2.947 m) and 12.47 ft (3.801 m); no flow Sept. 10, 11, 1955.

Combined flow, maximum discharge, 16,900 ft³/s (479 m³/s) Dec. 6, 1966; minimum daily, 7.2 ft³/s (0.20 m³/s) Aug. 18, Oct. 17, 1961.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 34 ft³/s (0.96 m³/s) Dec. 3, gage height, 3.10 ft (0.945 m); minimum daily, 0.20 ft³/s (0.006 m³/s) July 6.

Combined flow, maximum discharge, 73 ft³/s (2.07 m³/s) Sept. 11; minimum daily, 10 ft³/s (0.28 m³/s) Aug. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.7	19	3.0	2.3	16	1.9	4.2	1.4	.29	.84	.58
2	1.9	2.4	28	2.9	2.3	6.7	1.8	4.5	1.4	.25	.85	.57
3	1.9	2.4	29	3.0	2.3	5.6	1.7	4.5	1.3	.25	.72	.61
4	2.0	2.6	26	2.9	2.8	5.2	1.7	4.3	1.3	.25	.75	.67
5	2.0	2.3	24	2.9	2.9	4.3	1.8	3.6	1.3	.22	.70	.73
6	2.2	2.3	19	2.9	3.3	4.1	2.2	3.5	1.3	.20	.81	.76
7	4.0	2.4	12	2.8	3.0	4.0	2.1	3.5	1.3	.23	.91	.83
8	3.1	3.1	8.2	2.8	3.1	3.9	3.0	3.2	1.3	.29	.91	.77
9	2.9	4.1	7.9	2.9	3.9	3.8	2.7	3.1	1.3	.36	.88	.89
10	2.9	3.5	7.8	2.9	4.4	3.7	2.4	2.9	1.2	.44	.83	1.5
11	9.9	4.5	6.5	2.8	3.3	3.7	2.5	2.6	1.2	.49	.74	8.4
12	9.9	2.3	4.2	2.8	3.0	3.7	2.8	2.6	1.2	.58	.71	3.1
13	6.0	3.0	4.6	2.8	2.9	3.6	3.0	2.7	1.2	.63	.72	2.1
14	3.8	2.6	4.1	2.6	2.9	3.3	2.8	2.7	1.1	.57	.77	1.4
15	2.4	2.6	4.0	2.6	3.4	3.2	3.6	2.5	.96	.60	.98	4.0
16	2.2	2.5	4.2	2.5	3.0	3.2	3.3	2.1	.91	.65	1.0	2.1
17	2.1	7.5	3.8	2.6	2.9	3.1	2.9	1.9	.91	.66	5.4	2.1
18	2.2	17	3.7	2.5	2.8	3.2	2.8	1.8	.91	.60	11	2.0
19	2.2	15	4.6	2.5	4.4	3.2	2.8	1.5	.87	2.1	10	2.0
20	2.2	17	3.5	2.5	3.3	2.8	3.5	1.4	.63	3.6	1.6	1.9
21	2.3	16	3.4	2.4	2.7	2.6	3.7	1.5	.63	1.7	1.0	2.0
22	3.2	14	3.3	2.4	2.5	2.4	3.3	1.4	.63	.84	.90	1.8
23	4.0	15	3.3	2.4	2.3	2.3	3.0	1.4	.62	1.3	.72	1.8
24	2.7	16	3.2	2.4	2.2	2.3	3.5	1.3	.48	3.9	1.1	1.3
25	2.8	17	3.2	2.4	2.1	2.2	4.8	1.3	.43	2.8	.92	1.5
26	3.2	16	3.1	2.4	2.0	2.3	4.6	1.3	.42	1.2	.89	1.9
27	6.6	15	3.1	2.3	2.0	2.1	4.3	1.3	.43	.90	.85	1.1
28	5.5	17	3.1	2.3	2.0	2.1	3.9	1.5	.43	.80	.80	1.2
29	4.1	16	3.0	2.3	3.2	2.1	3.8	1.4	.43	.67	.61	2.3
30	4.3	16	3.1	2.3	---	2.0	3.9	1.4	.33	.67	.63	3.8
31	5.3	---	3.1	2.3	---	1.9	---	1.4	---	.78	.65	---
TOTAL	111.8	259.8	259.0	81.1	83.2	114.6	90.1	74.3	27.82	28.82	50.19	55.71
MEAN	3.61	8.66	8.35	2.62	2.67	3.70	3.00	2.40	.93	.93	1.62	1.86
MAX	9.9	17	29	3.0	4.4	16	4.8	4.5	1.4	3.9	11	8.4
MIN	1.9	2.3	3.0	2.3	2.0	1.9	1.7	1.3	.33	.20	.61	.57
AC-FT	222	515	514	161	165	227	179	147	55	57	100	111
CAL YR 1975 TOTAL	7374.90			MEAN 20.2	MAX 187	MIN 1.9	AC-FT 14630					
WTR YR 1976 TOTAL	1236.44			MEAN 3.38	MAX 29	MIN .20	AC-FT 2450					

11202000 NORTH FORK OF MIDDLE FORK TULE RIVER NEAR SPRINGVILLE, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF NORTH FORK OF MIDDLE FORK TULE RIVER AND
PACIFIC GAS AND ELECTRIC CO. CONDUIT NEAR SPRINGVILLE, CA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FER	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	25	22	18	17	56	29	52	25	15	14	11
2	17	23	29	18	17	33	29	54	24	15	14	11
3	17	21	30	19	17	30	29	53	23	14	14	11
4	17	22	27	19	19	28	30	51	23	14	14	12
5	17	20	25	19	19	26	28	52	22	14	14	12
6	17	20	23	19	20	26	28	49	22	14	13	12
7	27	20	23	18	20	27	28	49	21	14	13	13
8	21	20	23	19	23	27	32	45	21	14	13	12
9	20	20	23	19	27	28	32	48	21	13	13	12
10	19	21	23	19	26	29	30	48	22	13	13	14
11	43	21	23	19	22	28	31	49	22	13	13	53
12	34	19	23	19	22	29	30	54	21	15	12	26
13	26	20	24	18	22	30	30	57	21	15	12	18
14	24	20	22	19	22	32	29	56	20	14	13	14
15	22	20	22	19	23	34	31	53	19	15	13	15
16	21	20	22	19	21	37	29	48	19	17	14	14
17	20	17	22	19	21	41	29	45	18	15	10	14
18	20	18	21	19	22	40	29	42	18	14	12	14
19	20	18	21	19	25	35	35	39	18	14	14	14
20	19	18	21	18	22	32	47	36	18	11	14	14
21	19	18	20	17	23	32	51	36	18	15	12	14
22	19	17	20	17	22	32	49	33	17	14	12	13
23	19	16	20	17	20	31	48	32	17	12	12	14
24	20	17	20	17	20	31	51	31	16	13	12	13
25	19	18	20	17	20	32	53	30	15	14	12	14
26	20	17	20	17	21	31	50	29	15	13	12	14
27	31	18	20	17	21	31	45	28	15	14	12	14
28	24	21	20	17	22	29	44	28	15	14	12	13
29	22	20	20	17	26	28	44	26	14	14	12	16
30	28	20	20	17	---	29	48	26	15	14	11	22
31	29	---	19	17	---	29	---	25	---	14	12	---
TOTAL	689	585	688	562	622	983	1098	1304	575	434	393	463
MEAN	22.2	19.5	22.2	18.1	21.4	31.7	36.6	42.1	19.2	14.0	12.7	15.4
MAX	43	25	30	19	27	56	53	57	25	17	14	53
MIN	17	16	19	17	17	26	28	25	14	11	10	11
AC-FT	1370	1160	1360	1110	1230	1950	2180	2590	1140	861	780	918
CAL YR 1975	TOTAL	18752	MEAN 51.4	MAX 254	MIN 16	AC-FT 37190						
WTR YR 1976	TOTAL	8396	MEAN 22.9	MAX 57	MIN 10	AC-FT 16650						

TULARE LAKE BASIN

11203200 TULE RIVER NEAR SPRINGVILLE, CA

LOCATION.--Lat 36°06'02", long 118°52'07", in NE¼SW¼ sec.17, T.21 S., R.29 E., Tulare County, on left bank 10 ft (3 m) downstream from highway bridge, 3.5 mi (5.6 km) southwest of Springville, and 4.1 mi (6.6 km) upstream from Success Dam.

DRAINAGE AREA.--247 mi² (640 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 680 ft (207 m), from topographic map. Prior to Mar. 20, 1968, at site 1.9 mi (3.1 km) upstream at different datum.

REMARKS.--Records good. Many small diversions above station for irrigation. Power is developed on Middle Fork and tributaries. Diversion to Tule River diversion ditch starts 400 ft (122 m) upstream most of which is returned to the river 0.5 mi (0.8 km) downstream. Records since Mar. 20, 1968, include flow diverted to Tule River diversion ditch.

AVERAGE DISCHARGE.--19 years, 137 ft³/s (3.880 m³/s), 99,260 acre-ft/yr (122 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,600 ft³/s (1,400 m³/s) Dec. 6, 1966, gage height, 17.18 ft (5.236 m) in gage well, 19.7 ft (6.00 m) from floodmarks, site and datum then in use, from rating curve extended above 7,400 ft³/s (210 m³/s) on basis of slope-area measurement of maximum flow; no flow many days in 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in December 1955 reached a stage of 13.7 ft (4.18 m) previous site and datum, from floodmarks, discharge, 21,000 ft³/s (595 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 375 ft³/s (10.6 m³/s) Mar. 1 (1215 hrs), no other peak above base of 350 ft³/s (9.91 m³/s); minimum daily, 0.21 ft³/s (0.006 m³/s) Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	4.4	34	23	12	201	38	53	8.9	.11	.11	.12
2	13	2.4	40	21	12	132	37	55	8.1	.11	.11	.12
3	13	1.2	54	21	12	120	37	57	7.3	.11	.12	.12
4	12	9.4	53	22	12	91	41	55	4.9	.10	.12	.12
5	12	24	47	22	20	76	42	56	6.1	.10	.12	.15
6	12	23	42	22	33	68	41	52	5.6	.09	.12	.10
7	21	22	38	22	30	63	41	59	5.8	.09	.11	.09
8	27	23	36	22	25	62	47	51	5.0	.09	.12	.09
9	22	23	34	22	41	62	55	48	4.3	.09	.11	.09
10	19	23	33	22	75	61	50	50	5.0	.08	.11	.10
11	71	23	33	22	50	62	46	48	6.4	.09	.11	67
12	75	23	32	21	40	62	47	48	6.9	.09	.11	66
13	59	21	37	21	35	59	52	48	5.1	.09	.11	19
14	39	21	37	21	33	59	53	46	2.8	.09	.10	9.2
15	35	20	32	21	36	62	52	45	2.4	.09	.10	3.4
16	30	20	30	21	36	66	58	40	1.3	.10	.10	5.7
17	27	19	30	20	33	71	48	34	.64	.10	.11	5.5
18	26	20	29	20	31	77	45	27	.47	.10	.11	2.5
19	26	20	27	20	34	71	45	24	.40	.10	.11	3.1
20	25	20	26	20	43	64	60	23	.41	.10	.12	1.6
21	23	20	26	18	34	58	84	22	.28	.10	.12	2.9
22	23	19	26	18	32	56	84	20	.22	.10	.12	5.5
23	24	20	26	17	31	55	75	18	.19	.10	.12	.90
24	24	20	25	16	30	53	74	16	.17	.10	.12	.41
25	24	20	25	17	29	53	77	15	.14	.10	.12	.53
26	24	20	25	17	29	53	72	16	.15	.10	.12	.86
27	43	20	25	16	28	50	61	12	.14	.10	.12	1.3
28	42	52	25	16	28	48	54	10	.12	.10	.12	1.0
29	33	41	24	16	31	46	50	10	.12	.10	.12	7.5
30	28	34	23	15	---	42	48	9.7	.11	.10	.12	22
31	40	---	24	13	---	42	---	10	---	.11	.12	---
TOTAL	905	628.4	998	605	915	2145	1614	1077.7	89.46	3.03	3.55	227.00
MEAN	29.2	20.9	32.2	19.5	31.6	69.2	53.8	34.8	2.98	.098	.11	7.57
MAX	75	52	54	23	75	201	84	59	8.9	.11	.12	67
MIN	12	1.2	23	13	12	42	37	9.7	.11	.08	.10	.09
AC-FT	1800	1250	1980	1200	1810	4250	3200	2140	177	6.0	7.0	450
CAL YR 1975	TOTAL	44351.40	MEAN	122	MAX	696	MIN	1.2	AC-FT	87970		
WTR YR 1976	TOTAL	9211.14	MEAN	25.2	MAX	201	MIN	.08	AC-FT	18270		

11203200 TULE RIVER NEAR SPRINGVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-67, 1969 to current year.

CHEMICAL ANALYSES: Water years 1964-66.

WATER TEMPERATURES: Water years 1966-67, 1969 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1965 to September 1967, October 1968 to current year.

INSTRUMENTATION.--Temperature recorder since October 1965.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 35.5°C July 1, 1972; minimum (water years 1967, 1970-75), 2.5°C Jan. 5-8, 1971.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 29.5°C July 7-10, 25.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1			---	---	7.0	5.5					---	---
2			---	---	7.5	6.0					---	---
3			---	---	8.5	6.5					---	---
4			---	---	9.5	7.5					---	---
5			14.5	12.5	9.5	8.0					---	---
6			14.5	13.5	9.0	7.5					---	---
7			15.0	13.5	9.0	7.0					---	---
8			14.0	12.5	9.0	7.0					---	---
9			13.0	12.0	9.0	7.0					---	---
10			12.0	11.5	9.0	8.0					---	---
11			12.0	10.0	9.0	8.5					---	---
12			11.5	10.0	9.0	8.5					---	---
13			12.0	10.0	9.0	8.0					---	---
14			12.5	10.5	8.0	6.5					---	---
15			12.5	10.5	7.0	5.5					---	---
16			12.0	10.0	6.5	5.0					---	---
17			11.5	10.0	---	---					---	---
18			10.0	8.5	---	---					15.5	13.0
19			9.0	7.5	---	---					13.0	11.5
20			9.0	7.0	---	---					12.5	10.5
21			8.5	7.0	---	---					14.0	11.0
22			9.0	7.0	---	---					14.5	12.5
23			9.0	7.5	---	---					14.0	12.5
24			9.5	7.5	---	---					15.0	12.5
25			10.0	8.0	---	---					15.0	13.5
26			10.0	8.0	---	---					14.5	12.5
27			10.0	9.5	---	---					14.0	12.0
28			9.5	7.0	---	---					12.0	10.5
29			7.0	5.5	---	---					14.5	12.0
30			6.5	5.0	---	---					16.5	13.0
31			---	---	---	---					17.0	14.5
MONTH			15.0	5.0	---	---					---	---

TULARE LAKE BASIN

11203200 TULE RIVER NEAR SPRINGVILLE, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.0	14.5	19.5	16.5	24.5	19.0	25.5	23.0	27.0	25.0	28.0	25.0
2	16.5	13.5	19.5	17.0	23.5	18.5	25.5	22.5	26.5	24.5	28.0	24.5
3	15.5	14.0	19.5	17.0	24.0	18.5	27.0	23.0	26.0	24.0	28.0	24.5
4	14.0	13.5	20.0	16.5	24.5	18.0	27.5	24.0	25.5	23.0	27.5	25.0
5	13.5	13.5	19.0	16.5	24.5	18.5	28.0	24.5	26.0	23.0	27.5	25.0
6	15.0	13.5	18.5	15.5	24.5	18.5	28.5	25.5	25.5	23.5	27.5	24.0
7	17.5	14.0	18.0	15.0	23.5	19.0	29.5	26.0	25.5	23.0	27.5	24.0
8	17.0	15.0	20.5	16.5	24.0	18.5	29.5	26.0	26.0	23.0	27.5	24.5
9	16.0	13.5	21.5	18.0	24.0	18.5	29.5	26.5	26.5	23.5	26.0	24.5
10	16.0	14.5	21.5	18.0	21.0	18.0	29.5	27.0	27.0	24.0	25.0	23.5
11	17.0	16.0	21.5	18.5	21.0	17.0	29.0	27.0	27.0	24.0	23.5	21.0
12	16.5	15.5	22.5	19.0	23.5	17.5	28.0	26.0	27.0	24.5	22.0	20.0
13	16.0	14.5	23.0	20.0	25.0	18.5	29.0	25.5	26.0	24.0	25.5	21.5
14	14.5	14.0	23.0	20.0	26.0	20.0	29.0	25.5	25.0	23.0	26.5	22.0
15	15.0	11.5	22.5	19.0	27.0	21.5	28.5	26.0	23.5	22.5	25.5	21.5
16	11.5	10.5	23.0	19.0	27.5	22.0	28.5	26.0	24.0	22.0	24.0	20.0
17	14.0	10.5	22.5	19.0	28.0	22.5	28.0	25.5	23.5	22.0	24.5	20.0
18	15.0	11.5	22.0	18.5	28.0	23.0	28.0	25.5	23.5	22.0	25.0	20.0
19	16.5	13.0	22.0	18.0	28.0	23.5	28.0	25.0	23.0	22.0	26.0	20.5
20	17.5	14.0	21.0	18.0	28.5	23.5	28.0	25.0	26.0	22.5	25.5	21.5
21	18.0	15.5	22.0	18.0	27.5	23.5	28.0	25.0	26.5	23.0	26.0	21.0
22	17.5	15.0	22.0	18.0	26.5	22.0	28.0	25.0	25.5	24.0	25.0	21.0
23	18.0	15.0	22.5	18.0	27.5	23.0	28.5	25.5	26.5	23.0	25.5	21.0
24	18.0	15.5	22.5	18.0	27.5	24.0	28.0	25.5	26.5	23.5	24.5	21.0
25	17.5	15.5	23.0	18.5	27.0	23.5	29.5	26.0	26.5	24.0	25.0	21.0
26	15.5	13.0	24.5	19.5	28.0	24.5	29.0	26.5	27.0	23.5	24.5	20.5
27	15.5	12.5	25.5	20.5	28.5	25.0	28.5	26.5	26.5	23.5	25.0	21.0
28	16.0	13.0	24.5	20.0	28.5	25.5	28.5	26.0	27.5	23.5	22.5	20.5
29	17.5	13.0	23.5	18.5	27.5	24.5	28.5	26.5	28.0	24.0	21.5	20.0
30	19.0	15.0	23.5	18.0	26.5	24.0	28.0	26.0	28.0	24.0	22.5	19.5
31	---	---	24.0	18.5	---	---	27.0	25.5	28.5	24.5	---	---
MONTH	19.0	10.5	25.5	15.0	28.5	17.0	29.5	22.5	28.5	22.0	28.0	19.5

11204500 SOUTH FORK TULE RIVER NEAR SUCCESS, CA

LOCATION.--Lat 36°02'33", long 118°51'24", in NW¼SW¼ sec.4, T.22 S., R.29 E., Tulare County, on left bank 0.5 mi (0.8 km) upstream from Crew Creek, 4 mi (6 km) southeast of Success, and 5 mi (8 km) upstream from mouth.

DRAINAGE AREA.--109 mi² (282 km²).

PERIOD OF RECORD.--June 1930 to December 1954, January 1956 to current year. Monthly and yearly discharge only for some periods, published in WSP 1735.

REVISED RECORDS.--WSP 1315-A: 1931-32(M). WSP 1445: 1952-53(P), drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 770 ft (235 m), from topographic map. Prior to June 26, 1951, at site 0.4 mi (0.6 km) downstream at different datum.

REMARKS.--Records excellent. Diversions for irrigation of about 640 acres (92.59 km²) above station.

AVERAGE DISCHARGE.--44 years, 41.1 ft³/s (1.164 m³/s), 29,780 acre-ft/yr (36.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 ft³/s (405 m³/s) Dec. 6, 1966, gage height, 12.50 ft (3.810 m) in gage well, 13.3 ft (4.05 m) from floodmarks, from rating curve extended above 4,300 ft³/s (122 m³/s) on basis of slope-area measurement of maximum flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 246 ft³/s (6.97 m³/s) Mar. 1 (1115 hrs), gage height, 3.62 ft (1.103 m) no other peak above base of 200 ft³/s (5.66 m³/s); no flow Aug. 26 to Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	25	18	11	5.7	115	23	23	6.5	.49	.05	0
2	2.3	16	24	10	5.5	63	23	22	6.0	.42	.07	0
3	2.3	13	30	11	5.5	50	22	22	5.8	.35	.08	0
4	2.2	11	27	12	6.3	41	25	21	5.2	.29	.10	0
5	1.6	10	22	11	10	34	26	21	5.0	.24	.08	0
6	1.5	9.9	20	11	16	33	25	21	5.0	.20	.08	0
7	7.0	10	18	10	13	30	25	24	5.6	.17	.10	0
8	33	10	17	12	15	31	30	21	5.9	.14	.10	0
9	30	11	17	11	28	28	32	19	5.0	.12	.10	0
10	20	10	18	11	29	29	30	19	5.6	.10	.10	.04
11	13	11	18	10	20	28	24	19	6.7	.08	.05	26
12	11	10	19	10	16	28	23	17	6.5	.07	.05	17
13	9.7	9.7	21	9.7	14	28	25	15	5.4	.10	.04	4.1
14	8.8	9.1	18	10	15	29	24	14	4.5	.13	.04	2.0
15	8.4	8.9	17	9.8	17	29	26	11	3.7	.14	.05	.67
16	8.6	9.0	17	9.7	17	31	27	10	3.1	.15	.08	.90
17	8.1	9.6	16	10	16	33	25	9.9	2.8	.14	.08	1.1
18	7.8	10	16	10	15	33	27	9.1	2.8	.14	.05	.64
19	8.0	9.7	15	9.9	18	30	27	8.9	2.5	.14	.05	1.1
20	8.5	9.7	15	8.8	20	31	34	9.1	2.3	.14	.05	1.1
21	11	10	15	8.1	19	28	36	9.0	1.5	.14	.05	.53
22	23	10	15	8.1	17	27	32	8.5	1.4	.14	.05	1.0
23	16	10	15	8.2	16	27	28	8.3	1.6	.12	.05	.66
24	12	10	14	8.3	16	27	27	8.1	1.0	.11	.02	.58
25	11	10	14	8.5	15	27	28	8.3	.98	.10	.01	.70
26	10	10	14	8.3	15	26	27	7.9	.95	.09	0	.85
27	10	11	14	8.0	15	25	25	6.9	1.2	.08	0	.83
28	11	30	14	9.1	15	24	24	6.7	.91	.07	0	.85
29	12	19	14	11	17	23	23	6.3	.71	.06	0	8.4
30	46	18	14	8.0	---	23	23	6.6	.60	.03	0	17
31	37	---	14	6.6	---	23	---	6.8	---	.03	0	---
TOTAL	393.1	360.6	540	300.1	447.0	1034	796	419.4	106.75	4.72	1.58	86.05
MEAN	12.7	12.0	17.4	9.68	15.4	33.4	26.5	13.5	3.56	.15	.051	2.87
MAX	46	30	30	12	29	115	36	24	6.7	.49	.10	26
MIN	1.5	8.9	14	6.6	5.5	23	22	6.3	.60	.03	0	0
AC-FT	780	715	1070	595	887	2050	1580	832	212	9.4	3.1	171

CAL YR 1975 TOTAL 13836.20 MEAN 37.9 MAX 240 MIN 1.5 AC-FT 27440
WTR YR 1976 TOTAL 4489.30 MEAN 12.3 MAX 115 MIN 0 AC-FT 8900

TULARE LAKE BASIN

11204680 PIONEER DITCH BELOW SUCCESS DAM, CA

LOCATION.--Lat 36°03'34", long 118°55'22", in SW¼NW¼ sec.35, T.21 S., R.28 E., Tulare County, on left bank 0.1 mi (0.2 km) downstream from Success Dam, and 5.5 mi (8.8 km) east of Porterville.

PERIOD OF RECORD.--April 1959 to current year. Prior to October 1960, monthly diversions only, published with Tule River near Porterville.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 549.00 ft (167.335 m) above mean sea level (levels by Corps of Engineers). Prior to Feb. 1, 1961, at site 0.5 mi (0.8 km) downstream at different datum.

REMARKS.--Records good. Ditch receives water from Success Lake (station 11204700).

AVERAGE DISCHARGE.--17 years, 7.05 ft³/s (0.200 m³/s), 5,110 acre-ft/yr (6.30 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 29 ft³/s (0.82 m³/s) Apr. 15, 1961; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	5.2		0	5.8	0	9.6	8.0	11	15	19	17
2	12	5.2		0	3.9	0	11	7.7	11	15	16	17
3	13	5.0		0	3.8	0	11	9.2	10	16	16	17
4	13	5.0		0	3.8	0	11	10	10	14	16	17
5	12	5.0		0	7.2	0	11	10	10	14	16	17
6	12	3.3		0	6.5	0	11	10	10	15	16	17
7	12	0		0	5.0	0	9.5	10	11	15	16	15
8	12	0		0	5.0	0	7.6	9.6	11	14	17	14
9	12	0		.70	5.0	0	6.9	9.4	12	14	16	14
10	11	0		3.5	2.0	0	6.9	9.4	11	16	16	14
11	6.6	0		4.0	0	0	8.3	9.6	11	13	16	7.2
12	4.9	0		4.0	0	0	9.1	10	11	13	16	2.0
13	4.9	0		4.0	0	0	6.6	10	11	13	17	2.0
14	4.5	0		4.0	0	0	5.8	10	11	12	17	2.0
15	4.0	0		4.0	0	0	5.8	9.0	11	12	17	2.7
16	4.0	0		4.0	0	0	5.5	9.3	11	12	14	3.3
17	4.0	3.0		4.0	0	0	5.4	10	12	12	13	4.4
18	4.0	5.0		4.0	0	0	5.9	10	12	15	13	8.3
19	4.0	7.7		4.0	0	0	7.2	10	12	14	13	10
20	4.1	9.1		5.3	0	1.3	9.0	10	12	16	13	9.5
21	4.3	9.1		5.9	0	3.3	10	10	12	16	13	9.4
22	4.3	9.1		5.8	0	5.3	11	10	12	16	13	10
23	6.1	9.1		5.8	0	7.6	11	10	12	16	13	10
24	6.1	9.1		5.8	0	9.4	11	11	12	14	13	10
25	5.0	9.1		5.8	0	8.2	11	11	14	18	13	10
26	5.0	9.1		5.8	0	7.3	11	11	14	14	13	10
27	5.0	4.9		5.8	0	7.3	11	11	14	14	13	10
28	5.1	1.1		5.8	0	7.3	11	11	18	14	14	10
29	5.2	0		6.7	0	7.6	11	11	14	14	15	5.0
30	5.2	0		7.1	---	8.0	10	11	14	16	16	1.1
31	5.2	---		7.1	---	8.6	---	11	---	16	17	---
TOTAL	222.5	114.1	0	112.90	48.0	81.2	272.1	309.2	357	448	466	295.9
MEAN	7.18	3.80	0	3.64	1.66	2.62	9.07	9.97	11.9	14.5	15.0	9.86
MAX	13	9.1	0	7.1	7.2	9.4	11	11	18	18	19	17
MIN	4.0	0	0	0	0	0	5.4	7.7	10	12	13	1.1
AC-FT	441	226	0	224	95	161	540	613	708	889	924	587

CAL YR 1975 TOTAL 2028.90 MEAN 5.56 MAX 16 MIN 0 AC-FT 4020
WTR YR 1976 TOTAL 2726.90 MEAN 7.45 MAX 19 MIN 0 AC-FT 5410

11204700 SUCCESS LAKE NEAR SUCCESS, CA

LOCATION.--Lat 36°03'40", long 118°55'18", in SE¼NW¼ sec.35, T.21 S., R.28 E., Tulare County, in control tower near right abutment of Success Dam on Tule River, 5 mi (8 km) east of Porterville.

DRAINAGE AREA.--391 mi² (1,013 km²).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Lake is formed by earthfill dam and dike. Storage began November 1961. Usable capacity, 81,854 acre-ft (101 hm³) between elevations 559.0 ft (170.38 m), invert of outlet structure and 652.5 ft (198.88 m), spillway crest. Surcharge flood control storage, 117,402 acre-ft (145 hm³) between ungated spillway crest and elevation 686.8 ft (209.34 m), maximum spillway design flood pool. No dead storage. Siltation in the reservoir has eliminated dead storage. Records, including extremes, represent total contents at 2400 hours.

COOPERATION.--Records furnished by Corps of Engineers, not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 101,300 acre-ft (125 hm³) Dec. 7, 1966, elevation, 658.63 ft (200.750 m); minimum since reservoir first filled, 3,406 acre-ft (4.20 hm³) Oct. 17, 1972, elevation, 579.52 ft (176.638 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 31,938 acre-ft (39.4 hm³) May 25, 26, elevation, 622.31 ft (189.680 m); minimum, 7,101 acre-ft (8.76 hm³) Sept. 28, elevation, 587.98 ft (179.216 m).

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

575	2281	620	28717
580	3543	640	55952
585	5170	660	101553
590	7197	690	213567
600	12528		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12515	11404	12429	12862	14187	19041	25578	30247	31785	21905	13703	8853
2	11844	11511	12483	12825	14206	19559	25708	30352	31774	21580	13396	8772
3	11175	11608	12572	12789	14245	19968	25839	30468	31731	21249	13093	8691
4	10507	11688	12644	12765	14290	20293	25989	30563	31687	20922	12947	8610
5	9815	11700	12698	12747	14355	20558	26139	30637	31655	20606	12880	8530
6	9172	11694	12747	12710	14556	20833	26281	30732	31611	20301	12825	8450
7	8885	11682	12795	12680	14694	21077	26442	30849	31579	20158	12753	8376
8	8799	11677	12825	12650	14812	21315	26662	30934	31525	20063	12674	8123
9	8673	11682	12856	12620	15038	21555	26873	31052	31460	19936	12596	7858
10	8534	11665	12886	12692	15353	21771	27017	31191	31438	19818	12525	7603
11	8688	11659	12892	12795	15576	21981	27162	31298	31406	19684	12234	7464
12	8905	11654	12928	12892	15754	22191	27308	31406	31395	19435	11919	7426
13	9053	11642	12965	12996	15911	22386	27484	31503	30945	19117	11619	7417
14	9146	11625	12996	13106	16077	22582	27660	31590	30090	18819	11331	7460
15	9239	11608	13020	13204	16244	22788	27857	31666	29304	18508	11063	7477
16	9317	11591	13038	13297	16412	23012	28055	31742	28534	18178	10930	7499
17	9390	11562	13038	13408	16539	23255	28204	31796	27680	17851	10865	7499
18	9448	11528	13051	13508	16701	23465	28323	31818	26873	17536	10799	7473
19	9506	11511	13044	13596	16879	23632	28474	31840	26092	17216	10734	7443
20	9543	11511	13038	13659	17072	23844	28685	31872	25337	16872	10663	7404
21	9617	11506	13026	13715	17231	24004	28917	31894	24578	16539	10593	7374
22	9675	11534	13020	13766	17390	24165	29161	31905	23915	16237	10528	7353
23	9724	11585	13032	13810	17528	24308	29356	31927	23703	16077	10464	7311
24	9772	11619	12996	13861	17675	24461	29499	31927	23615	15987	10230	7268
25	9825	11682	12983	13905	17800	24587	29644	31938	23509	15843	9979	7226
26	9890	11722	12965	13943	17947	24741	29789	31938	23421	15583	9726	7176
27	9993	11814	12959	13988	18051	24869	29892	31916	23290	15265	9473	7134
28	10097	12046	12941	14033	18200	25006	29986	31905	22978	14958	9219	7101
29	10185	12205	12922	14078	18380	25153	30080	31872	22591	14641	9091	7180
30	10284	12364	12904	14116	---	25300	30163	31851	22250	14329	9013	7268
31	10485	---	12892	14148	---	25457	---	31807	---	14020	8940	---
MAX	12515	12364	13051	14148	18380	25457	30163	31938	31785	21905	13703	8853
MIN	8534	11404	12429	12620	14187	19041	25578	30247	22250	14020	8940	7101
†	596.54	598.43	599.31	601.32	607.40	615.87	620.65	622.19	612.25	601.12	592.07	588.38
‡	-2699	+1879	+528	+1256	+4232	+7077	+4706	+1644	-9557	-8230	-5080	-1672
††	200	102	54	77	93	207	313	657	688	601	382	225

CAL YR 1975 ‡ +794

WTR YR 1976 ‡ -5916

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

†† Evaporation, in acre-feet.

11204900 TULE RIVER BELOW SUCCESS DAM, CA

LOCATION.--Lat 36°03'23", long 118°55'22", in NW¼SW¼ sec.35, T.21 S., R.28 E., Tulare County, on right bank 1,000 ft (300 m) downstream from Success Dam, and 5 mi (8 km) east of Porterville.

DRAINAGE AREA.--393 mi² (1,018 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year. Prior to October 1960, published as "at Worth Bridge, near Porterville."

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 536.00 ft (163.373 m) above mean sea level (levels by Corps of Engineers). Prior to October 1960, at site 0.5 mi (0.8 km) downstream at different datum.

REMARKS.--Records good. Flow regulated by Success Lake beginning Nov. 23, 1961 (station 11204700). Discharge records during periods of high flow include flow over spillway that bypasses the gaging station. Pioneer ditch (station 11204680) diverts above station for irrigation.

AVERAGE DISCHARGE (adjusted for change in contents, evaporation, and diversion).--23 years, 174 ft³/s (4.928 m³/s), 126,100 acre-ft/yr (155 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,000 ft³/s (765 m³/s) Dec. 23, 1955, gage height, 21.65 ft (6.599 m) site and datum then in use, from rating curve extended above 1,400 ft³/s (39.6 m³/s) on basis of studies of upstream peaks; no flow at times in 1954-57, 1959-61. Maximum discharge since construction of Success Dam in 1961, 9,050 ft³/s (256 m³/s) Dec. 6, 1966 (includes flow through spillway); no flow at times in 1962, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 19, 1950, reached a stage of 26 ft (7.9 m) from floodmarks, site and datum then in use, discharge, 32,000 ft³/s (906 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 722 ft³/s (20.4 m³/s) June 14, gage height, 6.48 ft (1.975 m); minimum daily, 0.20 ft³/s (0.006 m³/s) many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	347	15	40	70	19	.20	.40	44	18	151	142	19
2	347	15	60	70	18	.20	.40	39	18	141	138	19
3	344	13	60	70	18	.20	.70	36	18	141	134	19
4	341	12	68	70	19	.20	.80	37	18	141	52	19
5	338	37	68	70	19	.20	.80	41	18	140	17	19
6	334	59	64	70	5.5	.20	.60	41	18	140	19	18
7	157	59	61	70	.20	.20	.20	41	18	65	19	18
8	94	59	62	70	.20	.20	.20	41	20	33	18	108
9	94	59	64	70	.20	.20	.20	16	21	42	18	118
10	93	59	64	24	.40	10	8.6	11	20	48	18	116
11	47	59	64	.90	.20	15	13	21	16	48	124	112
12	24	59	64	.70	.20	15	13	19	14	111	136	105
13	24	59	64	.50	.20	15	13	19	225	143	128	34
14	20	59	64	.60	.20	15	13	19	437	139	125	.50
15	16	58	64	.70	.20	15	13	19	389	146	115	.40
16	15	58	64	.70	.20	15	14	20	405	150	48	.40
17	14	58	64	.70	.20	15	13	20	422	150	17	9.3
18	12	58	64	.80	.20	32	13	19	417	150	17	15
19	18	52	67	.90	.20	41	12	18	397	150	17	15
20	18	41	69	14	.20	24	12	18	382	150	17	15
21	15	40	70	18	.20	24	12	17	371	150	17	15
22	16	24	70	18	.20	24	12	17	352	150	17	14
23	15	17	70	20	.20	21	29	17	89	71	17	15
24	14	15	70	21	.20	17	37	18	31	37	100	15
25	14	13	70	21	.20	20	37	18	39	48	108	16
26	14	13	70	21	.20	22	39	18	45	109	108	16
27	15	12	70	20	.20	22	44	18	45	142	108	16
28	14	13	70	20	.20	19	42	17	133	142	108	16
29	15	5.5	70	19	.20	6.0	42	17	172	142	42	6.9
30	15	.20	70	19	---	.60	44	17	149	141	16	.50
31	15	---	70	19	---	.40	---	18	---	141	18	---
TOTAL	2859	1190.70	2029	890.50	103.30	389.80	479.90	731	4717	3652	1978	910.00
MEAN	92.2	36.7	65.5	28.7	3.56	12.6	16.0	23.6	157	118	63.8	30.3
MAX	347	59	70	70	19	41	44	44	437	151	142	118
MIN	12	.20	40	.50	.20	.20	.20	11	14	33	16	.40
AC-FT	5670	2180	4020	1770	205	773	952	1450	9360	7240	3920	1800
MEAN ‡	58.7	73.7	74.8	54.1	80.4	134	109	71.0	20.1	8.13	2.37	15.8
AC-FT ‡	3610	4390	4600	3330	4620	8220	6510	4360	1200	500	146	940
CAL YR 1975 TOTAL	56406.70			MEAN 155	MAX 600	MIN .20	AC-FT 111900	MEAN ‡ 171		AC-FT ‡ 124100		
WTR YR 1976 TOTAL	19840.20			MEAN 54.2	MAX 437	MIN .20	AC-FT 39350	MEAN ‡ 58.4		AC-FT ‡ 42430		

‡ Adjusted for change in contents in and evaporation from Success Lake and for diversion to Pioneer ditch.

11204900 TULE RIVER BELOW SUCCESS DAM, CA--Continued

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1962-69, 1970 to current year.

WATER TEMPERATURES: Water years 1971 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1970 to current year.

INSTRUMENTATION.--Temperature recorder since November 1970.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 31.5°C Sept. 14, 1976; minimum (water years 1971-75), 3.0°C Jan. 3, 1975.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 31.5°C Sept. 14.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG)
DEC 16...	1200	65	293	8.1	--	11.9	120	0	36	--
JUL 21...	1415	150	247	7.8	23.5	9.8	112	0	33	7.2
SEP 21...	1000	15	270	7.3	24.0	4.8	121	0	33	9.4

DATE	DIS-SOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (PER AC-FT)	DISSOLVED SOLIDS (PER DAY)
DEC 16...	19	--	168	0	138	5.9	8.9	177	.24	31.1
JUL 21...	16	.7	156	0	128	4.3	7.8	182	.25	73.7
SEP 21...	18	.7	171	0	140	6.7	9.6	186	.25	7.53

TULARE LAKE BASIN

11204900 TULE RIVER BELOW SUCCESS DAM, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	25.0	25.0	19.0	16.0	13.0	7.0			---	---	17.5	11.5
2	26.5	25.0	19.0	16.0	11.5	11.0			---	---	16.5	9.0
3	26.5	26.0	18.5	15.5	11.5	10.5			---	---	14.0	8.5
4	26.5	26.5	18.5	15.5	11.5	11.0			---	---	17.0	9.0
5	26.5	26.0	17.0	15.5	11.5	10.5			10.5	9.0	21.0	7.5
6	26.5	26.0	16.5	16.0	11.5	10.5			15.0	9.0	21.0	9.0
7	26.0	25.0	16.5	16.0	11.5	10.5			12.5	9.5	22.0	9.0
8	25.5	24.5	16.5	15.5	11.5	10.5			13.5	10.0	17.5	10.5
9	25.0	24.0	16.5	15.5	11.0	10.5			16.5	11.0	19.5	10.0
10	24.5	23.5	16.0	15.5	11.0	10.5			19.5	11.0	14.5	10.0
11	24.5	22.5	16.5	15.0	10.5	10.0			20.0	11.0	11.5	10.0
12	24.0	21.5	17.0	13.0	11.0	10.5			19.5	10.5	13.5	10.0
13	22.5	20.0	16.5	12.5	11.0	10.0			19.0	10.0	13.5	9.5
14	22.5	19.0	16.5	11.5	10.5	10.0			19.5	13.0	13.5	9.5
15	22.5	18.5	16.5	11.5	10.5	10.0			19.0	12.0	14.0	9.0
16	22.5	18.5	11.5	11.5	10.5	9.5			17.5	11.0	14.0	9.5
17	23.0	18.5	17.0	11.5	---	---			18.5	12.0	14.0	10.0
18	21.5	18.5	16.5	11.0	---	---			18.5	10.5	12.0	9.5
19	22.0	18.0	16.5	10.5	---	---			15.0	10.5	12.0	9.5
20	22.5	19.0	16.0	11.5	---	---			18.5	7.0	12.5	9.0
21	22.5	18.5	14.5	11.0	---	---			20.0	8.5	13.0	9.0
22	20.0	17.0	16.0	11.0	---	---			18.0	8.5	12.5	9.5
23	21.0	16.5	16.0	11.0	---	---			17.5	9.5	13.0	9.5
24	21.0	16.5	15.0	11.0	---	---			20.5	9.5	13.5	9.5
25	20.5	17.0	13.5	11.5	---	---			20.5	10.5	14.5	9.0
26	20.0	17.0	15.5	11.5	---	---			20.0	10.5	13.0	9.0
27	---	---	13.5	11.0	---	---			21.5	11.0	12.0	9.5
28	---	---	14.0	11.5	---	---			22.0	13.5	12.5	9.5
29	---	---	14.0	8.5	---	---			17.5	12.5	23.0	9.0
30	---	---	16.5	6.0	---	---			---	---	26.0	9.0
31	19.5	16.0	---	---	---	---			---	---	25.0	9.5
MONTH	26.5	16.0	19.0	6.0	---	---			22.0	7.0	26.0	7.5
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	24.5	9.5	13.0	11.0	15.0	11.5	19.5	15.0	25.0	24.0	26.5	23.5
2	25.5	8.5	13.0	11.0	16.0	11.5	18.0	15.0	25.5	24.0	26.0	22.5
3	18.5	9.5	13.0	11.0	15.5	11.5	19.0	16.0	25.5	24.5	26.5	23.0
4	18.0	10.5	13.0	11.0	15.5	11.5	18.5	15.5	25.0	20.5	26.0	23.5
5	18.5	10.5	13.0	11.0	16.5	11.5	19.0	17.0	25.0	19.5	25.5	21.5
6	25.0	11.0	13.0	11.0	15.5	12.0	19.0	17.0	25.0	20.5	26.0	22.0
7	27.0	9.5	13.5	11.0	16.0	11.5	18.5	16.0	25.0	19.5	26.0	23.0
8	20.0	11.0	13.5	11.5	15.5	11.5	19.0	15.5	25.5	20.5	26.0	22.0
9	27.5	9.5	29.5	11.0	16.0	11.5	18.5	15.0	26.0	21.0	25.5	23.5
10	15.5	10.5	18.0	11.5	15.0	11.5	18.5	16.5	26.5	20.5	26.0	23.5
11	14.0	10.5	15.0	11.0	17.0	13.5	19.0	16.5	26.0	22.5	26.0	24.5
12	13.5	10.0	15.5	11.0	18.5	13.5	20.5	16.5	26.0	25.0	25.5	24.0
13	12.5	10.5	15.5	11.0	15.0	13.0	20.0	19.0	26.5	25.0	31.0	24.5
14	14.5	10.5	17.0	11.0	15.0	14.0	20.5	19.0	26.0	25.0	31.5	20.5
15	12.5	10.0	17.5	11.0	15.5	13.5	21.0	19.0	25.5	25.0	28.5	21.0
16	14.5	9.5	15.5	11.0	15.5	14.0	21.0	19.5	26.0	23.5	29.0	18.0
17	15.5	10.0	16.0	11.0	16.0	14.0	21.5	19.5	26.5	22.5	26.0	19.0
18	16.0	10.0	15.5	11.0	16.0	14.5	21.5	20.0	26.0	23.5	26.5	21.5
19	15.5	10.0	15.5	11.0	16.0	15.0	22.0	20.0	26.0	23.0	26.5	22.0
20	16.0	10.5	15.5	11.0	16.5	15.5	23.0	20.5	27.0	23.5	25.5	23.0
21	15.5	10.5	15.5	11.0	18.0	14.5	22.5	20.5	27.0	23.5	26.0	22.5
22	17.5	10.5	15.5	11.0	18.5	15.0	22.5	21.0	26.5	22.5	26.0	20.5
23	13.0	10.5	16.5	11.0	19.0	14.0	23.5	18.5	27.0	22.5	26.0	21.5
24	13.0	11.0	15.5	11.0	17.0	13.5	23.0	17.5	25.5	23.5	26.0	23.0
25	13.5	10.5	15.5	11.5	16.5	14.0	22.5	19.5	25.5	23.5	26.0	22.5
26	13.0	10.5	16.0	11.0	16.5	14.0	23.5	19.5	25.5	24.5	26.0	21.5
27	13.0	11.0	16.5	11.5	16.5	14.0	24.0	21.5	25.5	24.0	26.0	21.5
28	13.0	11.0	16.5	11.0	17.0	13.5	24.0	22.5	25.5	24.5	25.0	21.0
29	13.0	11.0	16.0	10.5	19.0	14.5	24.0	23.0	27.0	23.5	25.0	19.5
30	13.0	11.0	15.5	11.0	18.5	14.5	24.5	23.5	26.5	23.0	29.0	20.0
31	---	---	16.0	11.0	---	---	25.0	24.0	26.5	23.0	---	---
MONTH	27.5	8.5	29.5	10.5	19.0	11.5	25.0	15.0	27.0	19.5	31.5	18.0

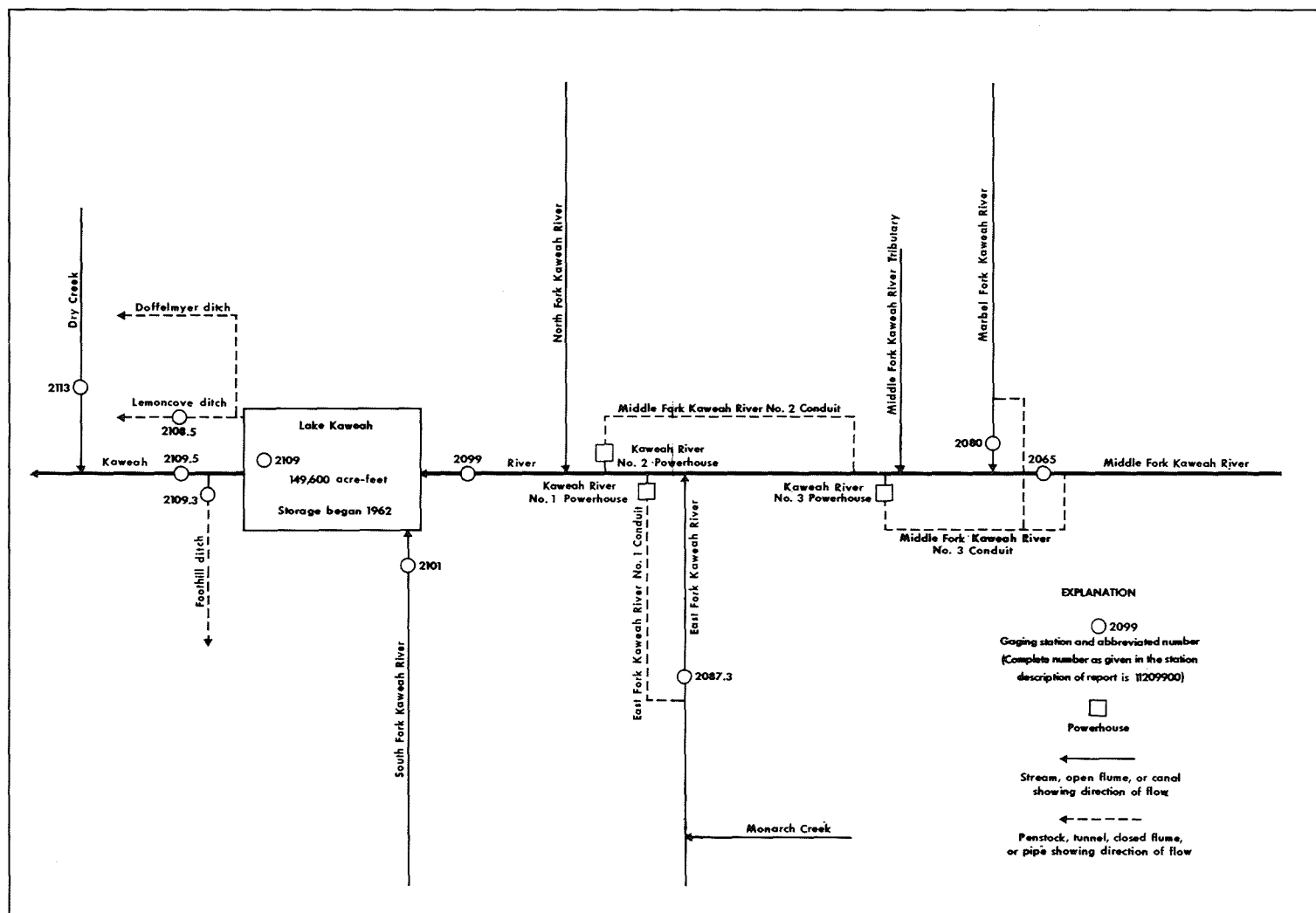


FIGURE 6.—Schematic diagram showing diversions and storage in Kaweah River basin.

TULARE LAKE BASIN

11206500 MIDDLE FORK KAWEAH RIVER NEAR POTWISHA CAMP, CA

LOCATION.--Lat 36°30'46", long 118°47'25", in NW¼NW¼ sec.25, T.16 S., R.29 E., unsurveyed, Tulare County, Sequoia National Park, on right bank 0.7 mi (1.1 km) southeast of Potwisha Camp, and 0.9 mi (1.4 km) upstream from confluence with Marble Fork Kaweah River.

DRAINAGE AREA.--102 mi² (264 km²).

PERIOD OF RECORD.--July 1949 to current year. Monthly discharge only for water years 1956-57, published in WSP 1735. Prior to October 1954, records for river and conduit published separately; combined flow only, October 1954 to September 1960.

GAGE.--Water-stage recorder and concrete control on river; water-stage recorder and concrete-lined channel for conduit diversion. Altitude of gage is 2,100 ft (640 m), from topographic map. Prior to October 1955, at datum 0.70 ft (0.213 m) higher.

REMARKS.--Records good. Middle Fork No. 3 conduit diverts from left bank of Middle Fork Kaweah River, 0.5 mi (0.8 km) upstream from station in NE $\frac{1}{4}$ sec.26, T.16 S., R.29 E. Flow from this conduit joins with that of Marble Fork Kaweah River No. 3 conduit, and the combined flow passes through Kaweah River No. 3 powerhouse of Southern California Edison Co.; water is returned to Kaweah River 2.7 mi (4.3 km) downstream from confluence of Marble and Middle Forks. See schematic diagram of Kaweah River basin. For records of combined discharge of river and conduit, see following page.

COOPERATION.--Gage-height record and 12 discharge measurements for river and gage-height record and 12 discharge measurements for conduit furnished by California Edison Co., in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--River only: 27 years, 131 ft³/s (3.710 m³/s), 94,910 acre-ft/yr (117 hm³/yr).
Combined river and diversion: 27 years, 171 ft³/s (4.843 m³/s), 123,900 acre-ft/yr (153 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 46,800 ft³/s (1,330 m³/s) Dec. 23, 1955, gage height, 29.0 ft (8.84 m) from floodmarks, datum then in use, by slope-area measurement of maximum flow; minimum daily, 0.1 ft³/s (0.003 m³/s) Nov. 12-15, 1949.
Combined flow, maximum discharge, 46,800 ft³/s (1,330 m³/s) Dec. 23, 1955; minimum daily, 8.8 ft³/s (0.25 m³/s) Sept. 23-25, 1949.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 1,220 ft³/s (34.6 m³/s) Sept. 11, gage height, 7.41 ft (2.259 m); minimum daily, 9.1 ft³/s (0.26 m³/s) Sept. 16.
Combined flow, maximum discharge, 1,290 ft³/s (36.5 m³/s) Sept. 11; minimum daily, 14 ft³/s (0.40 m³/s) Sept. 1-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	17	43	14	15	91	29	207	60	19	27	13
2	11	14	63	15	15	28	28	204	61	19	21	12
3	11	13	48	16	15	25	32	180	51	18	18	12
4	11	13	25	16	15	25	33	171	46	18	18	13
5	11	13	16	16	16	24	29	165	40	18	18	13
6	11	12	15	15	16	23	27	128	36	17	18	19
7	40	12	15	15	16	22	26	117	33	16	17	15
8	14	11	14	15	17	24	40	142	26	16	17	12
9	13	11	13	15	19	23	42	217	21	16	17	12
10	13	11	12	15	19	25	40	180	23	16	17	12
11	169	12	12	15	17	22	35	208	27	16	17	673
12	63	11	12	15	18	22	35	286	22	16	17	196
13	36	11	12	15	17	25	31	334	19	16	17	65
14	27	11	12	15	17	29	29	323	20	16	17	27
15	26	11	12	15	18	35	29	279	23	17	18	10
16	22	11	12	15	17	41	24	245	22	20	18	9.1
17	17	11	12	15	16	52	27	227	19	22	18	12
18	14	11	12	15	17	57	28	188	17	20	18	13
19	13	10	12	15	18	41	49	160	18	19	18	13
20	12	10	12	15	17	32	82	153	17	17	18	11
21	12	10	11	15	17	33	108	142	18	17	17	11
22	12	12	11	15	17	36	114	130	23	18	17	11
23	12	12	11	15	17	33	125	122	23	17	17	11
24	11	11	11	15	16	37	154	114	22	18	16	10
25	9.5	12	11	15	16	47	162	107	22	17	16	11
26	23	12	11	15	15	39	130	114	21	19	16	10
27	183	12	11	15	15	35	95	114	21	21	16	10
28	49	13	11	15	15	27	82	107	21	21	16	10
29	27	13	11	15	26	23	108	95	20	27	15	12
30	28	23	11	15	---	24	155	77	20	22	15	82
31	25	---	13	15	---	29	---	63	---	21	15	---
TOTAL	936.5	366	507	467	489	1029	1228	5299	812	570	540	1340.1
MEAN	30.2	12.2	16.4	15.1	16.9	33.2	64.3	171	27.1	18.4	17.4	44.7
MAX	183	23	63	16	26	91	162	334	61	27	27	673
MIN	9.5	10	11	14	15	22	24	63	17	16	15	9.1
AC-FT	1860	726	1010	926	970	2040	3820	10510	1610	1130	1070	2660
CAL YR 1975	TOTAL	45038.5	MEAN	123	MAX	1040	MIN	9.5	AC-FT	89330		
WTR YR 1976	TOTAL	14283.6	MEAN	39.0	MAX	673	MIN	9.1	AC-FT	28330		

11206500 MIDDLE FORK KAWEAH RIVER NEAR POTWISHA CAMP, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF MIDDLE FORK KAWEAH RIVER AND MIDDLE FORK KAWEAH RIVER NO. 3 CONDUIT NEAR POTWISHA CAMP, CA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	80	52	28	21	147	91	264	117	39	93	14
2	16	75	72	26	21	81	90	261	118	40	68	14
3	16	71	76	32	20	76	94	236	108	38	54	14
4	16	66	69	31	23	72	95	227	103	37	48	14
5	16	59	62	32	26	71	90	221	97	36	42	15
6	16	53	54	30	30	67	87	183	93	34	37	36
7	89	49	51	29	31	67	86	171	91	32	33	32
8	44	48	48	29	36	72	103	196	85	30	32	23
9	36	45	47	29	52	72	103	272	77	28	28	22
10	37	48	45	28	52	77	103	235	78	27	26	23
11	234	46	42	29	43	73	98	263	87	27	24	713
12	128	43	44	28	45	70	97	341	81	27	23	239
13	100	41	42	26	43	77	92	389	74	26	22	130
14	90	39	38	26	43	85	89	379	77	24	21	95
15	90	37	42	26	48	94	88	335	82	26	25	74
16	86	36	39	26	44	102	80	301	83	41	25	60
17	78	36	38	26	44	116	82	283	81	48	24	49
18	68	34	37	26	46	122	85	244	77	39	23	44
19	58	31	36	25	52	105	108	216	77	35	23	40
20	50	31	34	23	44	95	142	209	75	31	22	37
21	49	28	33	23	48	96	169	198	69	27	20	41
22	49	30	33	22	47	99	175	186	63	26	20	35
23	45	29	32	22	43	96	186	178	58	24	19	35
24	39	27	33	22	42	100	214	170	53	26	18	32
25	36	27	32	22	44	111	221	163	50	24	17	34
26	53	27	32	21	45	102	188	170	48	33	17	32
27	249	31	32	21	47	98	152	171	46	40	17	30
28	114	65	32	21	52	89	138	164	43	40	17	28
29	91	78	32	21	69	80	164	152	39	80	16	43
30	92	63	32	21	---	84	211	134	38	62	16	152
31	90	---	29	21	---	92	---	120	---	62	15	---
TOTAL	2191	1373	1320	792	1201	2788	3721	7032	2268	1109	885	2150
MEAN	70.7	45.8	42.6	25.5	41.4	89.9	124	227	75.6	35.8	28.5	71.7
MAX	249	80	76	32	69	147	221	389	118	80	93	713
MIN	16	27	29	21	20	67	80	120	38	24	15	14
AC-FT	4350	2720	2620	1570	2380	5530	7380	13950	4500	2200	1760	4260
CAL YR 1975	TOTAL	61467	MEAN 168	MAX 1110	MIN 16	AC-FT 121900						
WTR YR 1976	TOTAL	26830	MEAN 73.3	MAX 713	MIN 14	AC-FT 53220						

11208000 MARBLE FORK KAWEAH RIVER AT POTWISHA CAMP, CA

LOCATION.--Lat 36°31'08", long 118°48'03", in SE¼ sec.23, T.16 S., R.29 E., unsurveyed, Tulare County, Sequoia National Park, on left bank 0.1 mi (0.2 km) north of Potwisha Camp, 0.3 mi (0.5 km) upstream from confluence with Middle Fork Kaweah River, and 7.9 mi (12.7 km) northeast of Three Rivers.

DRAINAGE AREA.--51.4 mi² (133.1 km²).

PERIOD OF RECORD.--March 1950 to current year. Monthly discharge only for March 1950, published in WSP 1315-A. Prior to October 1954, records for river and conduit published separately; combined flow only, October 1954 to September 1960.

GAGE.--Water-stage recorder on river; water-stage recorder and concrete control for conduit diversion. Altitude of gage is 2,150 ft (655 m), from topographic map.

REMARKS.--Records good. Marble Fork Kaweah River No. 3 conduit diverts from left bank of Marble Fork 0.3 mi (0.5 km) above station; water is returned to Kaweah River 2.7 mi (4.3 km) downstream from confluence of Marble and Middle Forks. See schematic diagram of Kaweah River basin. For records of combined discharge of river and conduit, see following page.

COOPERATION.--Gage-height record and 16 discharge measurements for river and gage-height record and 10 discharge measurements for conduit furnished by Southern California Edison Co., in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--River only: 26 years, 72.2 ft³/s (2.045 m³/s), 52,310 acre-ft/yr (64.5 hm³/yr).
Combined river and diversion: 26 years, 96.9 ft³/s (2.744 m³/s), 70,200 acre-ft/yr (86.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 12,500 ft³/s (354 m³/s) Dec. 23, 1955, gage height, 13.4 ft (4.08 m), from rating curve extended above 1,100 ft³/s (31.2 m³/s) on basis of slope-area measurement of maximum flow; no flow Sept. 5-15, Oct. 24-28, 1953, Oct. 26-31, 1957.
Combined flow, maximum discharge, 12,500 ft³/s (354 m³/s) Dec. 23, 1955; minimum daily, 1.6 ft³/s (0.045 m³/s) several days in 1961, 1968, 1976.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 1,740 ft³/s (49.3 m³/s) Sept. 11, gage height, 7.85 ft (2.393 m); minimum daily, 0.69 ft³/s (0.020 m³/s) Sept. 2.
Combined flow, maximum discharge, 1,740 ft³/s (49.3 m³/s) Sept. 11; minimum daily, 1.6 ft³/s (0.045 m³/s) Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	4.6	13	6.8	6.3	23	20	155	15	5.9	23	2.1
2	1.4	3.2	19	6.8	6.3	9.8	19	148	15	5.9	19	.69
3	1.6	1.6	17	7.7	6.3	10	24	136	10	8.7	14	.79
4	1.6	1.1	12	7.2	6.8	11	22	144	8.2	9.2	11	1.3
5	1.7	1.1	1.8	6.8	5.9	9.2	14	124	8.2	7.2	12	2.1
6	1.8	1.1	1.8	6.3	8.2	8.7	13	92	7.7	6.8	10	3.5
7	8.1	1.3	1.7	6.3	5.9	8.2	12	74	7.7	6.8	7.7	4.8
8	2.5	1.6	1.8	5.9	6.8	8.7	28	69	7.7	6.8	7.2	2.4
9	1.0	1.7	1.8	5.9	9.2	9.2	20	124	8.2	6.3	5.9	4.6
10	.95	1.8	1.9	5.9	6.8	11	25	107	8.7	5.9	4.2	3.9
11	139	1.7	2.2	6.3	7.2	9.8	16	123	9.8	4.8	3.9	694
12	57	1.7	2.7	5.9	7.2	9.2	10	182	8.7	3.1	3.9	99
13	30	1.7	2.8	5.9	6.3	14	7.2	209	8.7	3.7	4.2	24
14	23	1.7	2.7	5.9	7.7	19	7.6	197	8.7	4.2	4.2	4.3
15	24	1.7	3.0	5.9	8.7	22	6.8	164	8.7	4.2	5.2	1.9
16	21	1.7	3.0	6.3	6.8	24	5.9	138	9.2	5.5	7.2	2.2
17	11	1.8	3.3	6.3	5.9	38	5.9	124	9.8	7.7	7.2	2.2
18	3.5	1.9	3.3	6.8	6.3	42	5.9	94	9.8	7.7	7.2	2.3
19	1.1	1.9	3.7	6.3	8.9	21	14	78	10	6.3	6.3	2.3
20	1.1	2.0	3.1	5.9	7.6	14	49	80	10	6.3	5.9	2.8
21	1.5	2.0	3.1	5.9	9.5	16	78	74	10	5.5	5.2	4.4
22	1.7	2.7	3.1	6.3	9.6	25	82	64	11	4.8	4.2	2.5
23	1.8	3.1	3.7	6.3	8.2	18	91	65	11	4.5	3.7	2.4
24	1.9	3.0	3.1	6.3	6.8	25	117	57	13	4.5	3.7	2.5
25	1.9	3.0	3.1	5.9	6.8	36	112	43	9.8	4.2	3.7	4.5
26	12	3.0	3.3	5.9	8.2	26	83	52	8.2	4.5	3.7	3.7
27	148	4.5	3.1	6.3	10	22	52	49	12	4.2	3.9	2.5
28	29	5.5	3.1	7.7	18	11	46	43	7.7	9.2	4.2	2.2
29	9.7	3.7	3.3	6.3	24	9.2	68	34	7.2	14	3.7	2.7
30	6.6	13	3.7	6.3	---	13	118	23	7.7	11	3.5	41
31	4.2	---	5.9	6.3	---	24	---	18	---	11	3.7	---
TOTAL	551.15	80.4	140.1	196.6	242.2	547.0	1172.3	3084	287.4	200.4	212.4	929.58
MEAN	17.8	2.68	4.52	6.34	8.35	17.6	39.1	99.5	9.58	6.46	6.85	31.0
MAX	148	13	19	7.7	24	42	118	209	15	14	23	694
MIN	.95	1.1	1.7	5.9	5.9	8.2	5.9	18	7.2	3.1	3.5	.69
AC-FT	1090	159	278	390	480	1080	2330	6120	570	397	421	1840
CAL YR 1975	TOTAL	26906.45	MEAN 73.7	MAX 679	MIN .95	AC-FT 53370						
WTR YR 1976	TOTAL	7643.53	MEAN 20.9	MAX 694	MIN .69	AC-FT 15160						

11208000 MARBLE FORK KAWEAH RIVER AT POTWISHA CAMP, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF MARBLE FORK KAWEAH RIVER AND MARBLE FORK KAWEAH RIVER NO. 3 CONDUIT AT POTWISHA CAMP, CA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	37	23	12	11	44	54	185	48	6.6	23	2.6
2	6.1	35	33	12	11	31	53	178	49	6.8	19	1.7
3	6.1	34	36	13	11	28	58	167	43	9.1	14	1.6
4	6.1	31	32	12	12	29	56	175	40	9.4	11	2.1
5	6.0	26	26	12	10	26	47	155	39	7.6	12	3.2
6	6.1	23	23	12	15	24	45	123	37	7.2	10	5.1
7	22	21	21	11	12	24	45	106	35	7.0	7.9	6.8
8	22	22	20	12	15	26	60	101	31	7.0	7.4	5.0
9	17	20	20	12	19	26	51	157	28	6.5	6.0	6.2
10	15	20	20	10	17	30	56	141	28	6.1	4.2	5.4
11	161	21	20	12	16	28	47	159	30	5.0	3.9	709
12	80	20	21	11	17	27	41	216	29	3.3	3.9	134
13	52	18	21	11	16	34	38	241	27	3.8	4.2	58
14	45	17	21	11	19	40	37	229	27	4.3	4.2	35
15	49	16	21	11	20	48	37	195	27	4.3	5.2	28
16	49	16	21	11	17	53	33	172	24	5.7	7.4	23
17	41	16	21	12	16	70	33	158	23	7.7	7.2	19
18	35	14	21	13	16	76	35	126	22	7.7	7.2	17
19	30	13	22	12	21	53	45	110	19	6.3	6.3	15
20	26	14	21	11	16	45	80	112	18	6.3	5.9	15
21	26	13	21	10	20	47	109	107	17	5.5	5.2	11
22	26	14	21	10	21	56	113	97	16	4.9	4.2	15
23	22	14	22	11	19	50	122	98	16	4.6	3.7	13
24	19	14	21	11	18	58	149	90	16	4.5	3.7	12
25	18	14	21	10	18	70	144	77	12	4.2	3.7	15
26	29	13	21	9.8	20	59	115	86	9.6	4.5	3.7	15
27	179	16	21	9.9	22	55	84	83	12	4.2	3.9	14
28	60	19	21	12	30	43	80	77	8.2	9.4	4.2	12
29	42	18	21	11	36	37	102	68	7.6	16	3.7	13
30	39	23	22	11	---	44	150	57	7.9	13	3.5	60
31	36	---	11	11	---	58	---	51	---	11	3.7	---
TOTAL	1176.4	592	687	349.7	511	1339	2119	4097	746.3	209.5	213.1	1272.7
MEAN	37.9	19.7	22.2	11.3	17.6	43.2	70.6	132	24.9	6.76	6.87	42.4
MAX	179	37	36	13	36	76	150	241	49	16	23	709
MIN	6.0	13	11	9.8	10	24	33	51	7.6	3.3	3.5	1.6
AC-FT	2330	1170	1360	694	1010	2660	4200	8130	1480	416	423	2520
CAL YR 1975	TOTAL	34165.0	MEAN	93.6	MAX	696	MIN	6.0	AC-FT	67770		
WTR YR 1976	TOTAL	13312.7	MEAN	36.4	MAX	709	MIN	1.6	AC-FT	26410		

TULARE LAKE BASIN

11208730 EAST FORK KAWEAH RIVER NEAR THREE RIVERS, CA

LOCATION.--Lat 36°27'05", long 118°47'15", in NW¼NW¼ sec.14, T.17 S., R.29 E., Tulare County, on left bank just downstream from diversion dam, and 6.6 mi (10.6 km) east of Three Rivers.

DRAINAGE AREA.--85.8 mi² (222.2 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1952 to September 1955, October 1957 to current year. Prior to October 1962, combined only.

GAGE.--Water-stage recorder and Parshall flume on river; water-stage recorder and Parshall flume for conduit diversion. Altitude of gage is 2,500 ft (762 m), from topographic map. May 15, 1952, to Sept. 30, 1955, at site 200 ft (61 m) downstream at different datum.

REMARKS.--East Fork Kaweah River No. 1 conduit diverts up to 30 ft³/s (0.85 m³/s) from left bank of river near diversion dam. Flow from this conduit passes through Kaweah River No. 1 powerplant of Southern California Edison Co.; water is returned to Middle Fork Kaweah River in sec.8, T.17 S., R.29 E., 1.9 mi (3.1 km) downstream from mouth of East Fork. For records of combined discharge of river and conduit, see following page.

COOPERATION.--Records furnished by Southern California Edison Co. and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--River only: 22 years, 95.8 ft³/s (2.713 m³/s), 69,410 acre-ft/yr (85.6 hm³/yr).
Combined river and conduit: 22 years, 117 ft³/s (3.313 m³/s), 84,770 acre-ft/yr (105 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 13,000 ft³/s (368 m³/s) Dec. 6, 1966, gage height, 21 ft (6.4 m) from floodmarks, from rating curve extended as explained below; no flow Jan. 22, Oct. 18-20, 1962.

Combined flow, maximum discharge, 13,000 ft³/s (368 m³/s) Dec. 6, 1966, gage height, 21 ft (6.4 m) from floodmarks, from rating curve extended above 850 ft³/s (24.1 m³/s) on basis of critical-depth measurement of peak flow over diversion dam; minimum daily, 3.5 ft³/s (0.099 m³/s) Sept. 28, 29, 1960.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 522 ft³/s (14.8 m³/s) Sept. 11, gage height, 5.36 ft (1.633 m); minimum daily, 0.50 ft³/s (0.014 m³/s) Oct. 9.

Combined flow, maximum discharge, 535 ft³/s (15.2 m³/s) Sept. 11; minimum daily, 9.7 ft³/s (0.27 m³/s) Sept. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	16	15	1.2	1.4	72	35	198	65	.90	7.2	.90
2	1.3	15	26	11	1.4	17	35	206	63	.80	4.6	.90
3	1.3	13	26	26	1.3	13	38	187	54	.80	1.4	.90
4	1.3	11	18	25	1.6	12	38	176	50	.80	.80	.90
5	1.2	9.4	13	14	1.6	11	29	183	43	.80	.80	.90
6	1.2	7.8	10	3.5	2.0	9.7	32	138	39	.80	1.1	.90
7	19	7.4	9.4	3.3	2.5	9.2	35	125	35	1.1	1.1	.90
8	3.2	7.5	8.7	3.0	4.8	11	40	112	30	1.4	1.2	.90
9	.50	5.8	8.7	3.0	11	9.7	45	153	26	1.3	1.4	.90
10	.90	8.6	7.8	3.0	9.3	11	40	161	25	1.2	1.3	1.0
11	66	6.3	6.6	2.9	4.0	11	35	196	25	1.2	1.1	310
12	28	6.1	7.2	2.9	2.8	11	35	260	23	1.8	1.1	106
13	16	5.0	6.6	2.8	2.0	13	35	298	18	2.0	1.2	39
14	13	3.9	5.9	2.8	1.9	15	30	292	18	1.7	1.2	22
15	14	3.2	5.3	2.6	4.4	22	33	261	17	1.7	1.2	15
16	13	2.7	4.2	2.3	2.6	25	29	237	15	1.8	1.2	10
17	11	3.0	3.7	2.3	2.0	36	29	218	15	1.7	1.2	7.6
18	9.0	1.3	3.6	2.3	4.0	41	30	193	13	1.7	1.2	5.6
19	7.2	1.6	3.5	1.9	7.5	30	41	172	12	1.5	1.2	4.1
20	5.1	2.0	2.8	1.6	5.1	25	72	164	11	1.5	1.2	4.1
21	4.2	1.3	2.0	1.6	5.6	25	103	153	10	1.5	1.1	4.9
22	4.2	1.5	2.0	1.5	5.2	28	125	136	9.0	1.5	1.1	3.3
23	3.7	1.3	1.9	1.5	4.0	28	128	138	8.1	1.5	1.1	3.2
24	3.0	1.2	1.8	1.5	5.2	35	145	128	5.7	1.5	1.1	2.0
25	2.9	1.2	1.8	1.5	2.8	48	157	122	1.9	1.4	1.1	4.1
26	5.7	1.1	1.7	1.5	1.7	35	135	115	1.8	1.2	1.0	2.4
27	70	1.6	1.7	1.5	1.7	33	106	103	1.7	1.4	1.0	1.5
28	23	3.1	1.7	1.4	3.5	26	103	94	1.6	1.7	1.0	1.5
29	13	5.6	1.7	1.4	17	24	122	85	1.2	15	.90	44
30	30	9.5	1.6	1.4	---	28	172	77	1.1	2.6	.90	185
31	19	---	1.4	1.4	---	35	---	70	---	1.4	.90	---
TOTAL	392.10	164.0	213.3	133.6	119.9	749.6	2032	5153	639.1	57.20	43.90	784.40
MEAN	12.6	5.47	6.88	4.31	4.13	24.2	67.7	166	21.3	1.85	1.42	26.1
MAX	70	16	28	26	17	72	172	298	65	15	7.2	310
MIN	.50	1.1	1.4	1.2	1.3	9.2	29	70	1.1	.80	.80	.90
AC-FT	778	325	423	265	238	1490	4030	10220	1270	113	87	1560

CAL YR 1975 TOTAL 34929.50 MEAN 95.7 MAX 736 MIN .50 AC-FT 69280
WTR YR 1976 TOTAL 10482.10 MEAN 28.6 MAX 310 MIN .50 AC-FT 20790

11208730 EAST FORK KAWEAH RIVER NEAR THREE RIVERS, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF EAST FORK KAWEAH RIVER AND EAST FORK KAWEAH RIVER NO. 1 CONDUIT NEAR THREE RIVERS, CA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	42	36	20	20	96	57	223	91	24	33	9.9
2	17	41	49	22	20	43	57	231	89	24	30	9.7
3	16	39	47	26	20	38	60	212	80	23	25	10
4	16	37	41	26	22	38	60	201	76	22	24	12
5	16	35	37	25	23	37	51	208	69	21	22	13
6	18	34	34	24	25	36	54	163	65	20	20	16
7	45	33	33	23	26	35	57	150	61	19	19	18
8	28	34	34	24	29	37	62	137	56	18	19	15
9	26	32	34	24	36	36	67	178	52	17	18	14
10	24	35	33	23	34	37	62	186	52	17	17	17
11	91	31	32	23	29	35	57	221	52	17	16	323
12	53	32	33	22	28	35	57	285	50	17	15	126
13	41	30	31	23	26	36	57	323	45	17	15	65
14	38	29	28	23	27	37	52	317	45	16	16	48
15	39	29	31	23	29	44	55	286	44	17	18	41
16	39	28	30	23	27	48	51	262	42	24	17	35
17	36	28	29	24	26	58	51	242	42	20	16	33
18	34	24	29	23	27	63	52	216	40	19	17	30
19	32	25	28	23	31	52	63	198	39	18	17	28
20	30	27	28	22	26	47	93	190	37	17	16	29
21	29	23	27	22	28	47	123	179	36	16	14	29
22	29	25	28	21	32	50	145	164	35	16	14	26
23	29	24	26	21	26	50	148	164	33	18	13	26
24	28	25	27	22	26	56	165	154	32	17	13	25
25	28	24	27	21	27	68	177	148	28	15	12	29
26	31	24	27	21	27	57	155	141	28	17	12	27
27	96	27	27	21	28	56	128	129	28	19	12	25
28	49	26	27	20	30	49	126	120	26	24	12	24
29	39	30	27	20	44	47	140	111	25	41	11	68
30	56	32	27	20	---	51	179	103	24	28	10	209
31	45	---	22	20	---	58	---	96	---	27	10	---
TOTAL	1115	905	969	695	799	1477	2661	5938	1422	625	523	1380.6
MFAN	36.0	30.2	31.3	22.4	27.6	47.6	88.7	192	47.4	20.2	16.9	46.0
MAX	96	42	49	26	44	96	179	323	91	41	33	323
MIN	16	23	22	20	20	35	51	96	24	15	10	9.7
AC-FT	2210	1800	1920	1380	1580	2930	5280	11780	2820	1240	1040	2740
CAL YR 1975	TOTAL	43629.0	MEAN	120	MAX	762	MIN	16	AC-FT	86540		
WTR YR 1976	TOTAL	18509.6	MEAN	50.6	MAX	323	MIN	9.7	AC-FT	36710		

TULARE LAKE BASIN

11208730 EAST FORK KAWEAH RIVER NEAR THREE RIVERS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

CHEMICAL ANALYSES: Water years 1968-71.

WATER TEMPERATURES: Water years 1968 to current year.

SEDIMENT RECORDS: Water years 1968-71.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1968 to current year.

INSTRUMENTATION.--Temperature recorder since June 1968.

COOPERATION.--Records furnished by Southern California Edison Co.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 24.5°C July 12, 1976; minimum, 0.5°C on several days in 1970 and 1971.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 24.0°C July 12; minimum, 1.0°C on several days during January.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.0	13.0	7.0	6.5	3.5	3.0	3.5	1.5	4.5	4.0	6.5	5.0
2	13.0	13.0	7.0	6.5	4.5	3.5	1.5	1.0	4.5	4.5	5.0	3.0
3	13.0	13.0	8.0	7.0	5.0	4.5	1.0	1.0	4.5	4.5	3.0	2.0
4	13.5	13.0	8.0	8.0	5.5	5.0	1.0	1.0	4.5	4.5	3.0	2.0
5	13.5	13.5	8.0	8.0	6.0	5.5	1.5	1.0	4.5	4.0	3.0	2.0
6	13.5	13.5	8.0	8.0	6.0	5.5	1.5	1.5	4.0	3.0	3.5	3.0
7	13.5	11.0	8.0	7.0	5.5	5.5	1.5	1.0	3.0	3.0	4.0	3.5
8	11.0	10.5	8.0	7.0	5.5	5.0	1.0	1.0	4.0	3.0	4.5	4.0
9	10.5	10.5	8.0	6.5	5.5	5.0	1.5	1.0	4.5	4.0	5.0	4.5
10	10.5	10.5	6.5	6.0	6.0	5.5	2.0	1.5	5.0	4.5	5.5	5.0
11	10.5	10.5	6.5	6.5	6.0	6.0	1.5	1.0	5.0	5.0	5.5	5.5
12	10.5	10.5	6.5	6.0	6.0	6.0	1.0	1.0	5.0	4.5	6.0	5.5
13	10.5	10.5	6.0	6.0	6.0	5.5	1.0	1.0	4.5	4.0	6.0	5.5
14	10.5	9.5	7.0	6.0	5.5	4.0	1.0	1.0	4.5	4.0	6.5	6.0
15	10.5	10.0	7.0	7.0	4.0	3.0	1.5	1.0	5.0	4.5	6.5	6.0
16	10.5	10.0	7.0	7.0	3.0	3.0	2.0	1.5	5.0	4.5	8.0	6.5
17	10.5	10.5	8.0	7.0	3.0	3.0	3.0	2.0	4.5	4.5	8.5	8.0
18	10.5	10.0	8.0	7.0	3.0	3.0	3.5	3.0	4.5	4.5	8.5	7.0
19	10.5	10.0	7.0	5.5	3.0	3.0	3.5	3.5	4.5	4.5	7.0	6.5
20	10.5	10.0	5.5	5.0	3.0	3.0	3.5	3.5	4.5	3.5	6.5	6.0
21	11.0	10.5	5.0	4.5	3.5	3.0	3.5	3.0	3.5	3.0	7.0	6.0
22	11.0	11.0	4.5	4.0	4.0	3.5	3.0	2.0	3.5	3.0	7.0	6.5
23	11.0	9.0	4.0	4.0	4.0	3.5	2.0	2.0	4.0	3.5	8.5	6.5
24	9.0	8.0	5.0	4.0	3.5	3.0	3.0	2.0	4.5	4.0	8.5	7.0
25	8.0	6.5	5.0	5.0	3.0	3.0	3.0	3.0	4.5	4.5	8.5	8.0
26	8.0	6.5	5.5	5.0	3.5	3.0	3.0	2.0	5.0	4.5	8.0	6.5
27	9.5	8.0	6.5	5.5	4.0	3.5	3.0	2.0	5.5	5.0	7.0	6.5
28	9.5	7.0	6.5	4.5	4.0	4.0	3.0	3.0	6.5	5.5	6.5	6.0
29	7.0	6.5	4.5	3.5	4.0	4.0	3.5	3.0	6.5	6.5	6.5	5.5
30	7.0	6.5	3.5	3.0	4.0	4.0	3.5	3.5	---	---	8.0	6.5
31	7.0	6.5	---	---	4.0	3.5	4.0	3.5	---	---	8.5	7.0
MONTH	13.5	6.5	8.0	3.0	6.0	3.0	4.0	1.0	6.5	3.0	8.5	2.0

11208730 EAST FORK KAWEAH RIVER NEAR THREE RIVERS, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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

TULARE LAKE BASIN

11209900 KAWEAH RIVER AT THREE RIVERS, CA

LOCATION.--Lat 36°26'38", long 118°54'09", in SW¼SW¼ sec.13, T.17 S., R.28 E., Tulare County, on right bank opposite schoolhouse in Three Rivers, 0.2 mi (0.3 km) downstream from North Fork Kaweah River.

DRAINAGE AREA.--418 mi² (1,083 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 809.62 ft (246.772 m) above mean sea level.

REMARKS.--Records good. Diversions of 200 acres (80.9 hm²) above station. Power is developed on the Middle and East Fork Kaweah River.

AVERAGE DISCHARGE.--18 years, 494 ft³/s (13.99 m³/s), 357,900 acre-ft/yr (441 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 73,000 ft³/s (2,070 m³/s) Dec. 5, 1966, gage height, 16.69 ft (5.087 m) in gage well, 19.0 ft (5.79 m) from floodmarks, from rating curve extended above 13,000 ft³/s (368 m³/s) on basis of slope-area measurements at gage heights 13.68 ft (4.170 m) and 16.69 ft (5.087 m); minimum, 14 ft³/s (0.40 m³/s) Sept. 9, 10, 1959, Oct. 16, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 17.9 ft (5.46 m) from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,400 ft³/s (125 m³/s) Sept. 11 (1330 hrs), gage height, 7.76 ft (2.365), no other peak above base of 1,800 ft³/s (50.98 m³/s); minimum daily, 21 ft³/s (0.59 m³/s) Sept. 2-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	206	136	82	73	502	254	687	269	72	116	22
2	41	188	184	74	73	269	250	731	264	68	110	21
3	42	176	212	80	72	239	254	664	242	65	87	21
4	41	162	194	93	76	212	265	652	227	62	77	21
5	40	148	172	97	88	202	250	651	216	59	69	22
6	40	136	154	91	110	195	239	517	204	55	62	46
7	139	129	143	85	106	187	236	487	197	53	58	62
8	137	127	134	87	107	198	280	445	187	49	53	50
9	98	121	132	87	143	195	269	629	174	47	48	46
10	88	119	130	87	196	208	307	617	172	46	44	46
11	494	129	127	86	148	202	265	621	191	44	41	2050
12	360	119	130	85	136	194	269	825	179	43	38	679
13	263	114	134	83	130	205	261	941	165	42	36	313
14	221	110	119	83	130	225	243	938	162	41	36	210
15	212	106	122	82	137	254	256	837	163	40	41	164
16	200	102	121	82	132	270	239	732	160	61	43	132
17	184	101	118	83	125	306	232	706	155	68	40	116
18	162	98	113	83	124	343	241	603	148	55	39	106
19	146	88	108	83	143	298	256	516	143	55	39	95
20	132	91	107	80	142	258	357	499	139	57	39	87
21	126	88	106	77	142	254	441	475	130	46	35	97
22	122	86	104	75	138	267	490	441	120	43	34	93
23	119	86	101	75	132	258	475	428	111	41	33	85
24	110	85	101	75	123	272	558	410	103	43	30	77
25	102	83	100	75	126	302	623	381	98	40	28	80
26	100	83	100	74	130	285	524	394	94	46	28	82
27	509	90	98	74	132	276	474	385	88	55	27	77
28	298	130	98	73	147	250	389	370	82	58	25	72
29	214	119	98	73	170	225	412	339	77	146	24	80
30	190	114	97	73	---	234	529	307	73	101	22	375
31	236	---	90	74	---	250	---	281	---	83	22	---
TOTAL	5207	3534	3883	2511	3631	7835	10088	17509	4733	1784	1424	5427
MEAN	168	118	125	81.0	125	253	336	565	158	57.5	45.9	181
MAX	509	206	212	97	196	502	623	941	269	146	116	2050
MIN	40	83	90	73	72	187	232	281	73	40	22	21
AC-FT	10330	7010	7700	4980	7200	15540	20010	34730	9390	3540	2820	10760
CAL YR 1975 TOTAL	180961			MEAN 496	MAX 3360	MIN 40	AC-FT 358900					
WTR YR 1976 TOTAL	67566			MEAN 185	MAX 2050	MIN 21	AC-FT 134000					

11209900 KAWEAH RIVER AT THREE RIVERS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

CHEMICAL ANALYSES: Water years 1964-66.

WATER TEMPERATURES: Water years 1966, 1968 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1965 to December 1966, January 1968 to current year.

INSTRUMENTATION.--Temperature recorder October 1965 to December 1966, and since January 1968.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 30.0°C July 14, 15, 1972; minimum, 0.5°C Jan. 7, 1971, Dec. 12, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 29.0°C July 10, 25; minimum, 2.0°C Jan. 2-4.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	22.0	16.0	11.5	8.0	6.5	3.0	6.5	3.5	11.5	7.0	10.0	7.5
2	22.0	16.0	12.5	8.0	7.0	3.5	5.5	2.0	12.0	7.0	8.5	5.5
3	22.5	17.0	13.0	8.5	8.0	4.5	5.0	2.0	12.0	7.0	7.0	4.0
4	22.5	17.0	13.5	9.0	9.0	5.5	5.5	2.0	8.0	7.0	7.5	4.0
5	22.5	17.0	13.0	9.0	8.5	5.5	6.0	3.0	7.5	6.5	9.5	4.0
6	21.5	17.0	12.5	10.0	8.0	5.0	6.5	3.0	9.0	5.5	10.5	5.0
7	19.0	14.5	13.0	10.0	8.5	5.0	6.5	3.0	9.5	6.5	11.0	5.5
8	17.0	12.0	11.5	10.5	8.5	4.5	6.5	3.0	9.5	7.0	10.0	6.5
9	15.5	12.0	12.5	9.5	9.0	5.5	6.0	4.0	9.5	8.5	12.5	7.0
10	16.0	13.0	10.5	9.0	8.5	6.5	8.0	5.5	12.0	8.5	12.0	8.5
11	15.5	12.0	11.0	7.0	8.5	6.5	8.0	6.0	12.5	8.0	10.0	9.0
12	12.5	10.5	10.5	6.5	7.5	6.5	6.5	5.5	12.0	7.5	13.5	8.0
13	13.5	9.0	10.5	6.5	7.0	6.0	7.5	5.0	12.0	7.0	13.5	8.0
14	14.0	9.5	11.0	7.5	7.5	4.5	7.5	3.5	11.5	8.5	14.0	8.5
15	14.0	10.0	11.5	7.5	6.0	2.5	8.0	4.0	10.5	8.5	14.0	9.0
16	15.0	10.0	10.5	7.0	6.0	2.5	9.0	4.5	9.5	7.5	15.0	10.0
17	15.0	10.5	9.5	7.0	6.5	2.5	9.5	5.5	9.0	7.0	16.0	11.0
18	14.0	11.0	9.5	6.0	6.5	2.5	10.5	6.0	12.0	7.0	13.0	10.5
19	15.5	10.5	8.0	4.5	6.5	3.0	10.5	6.5	9.5	7.0	13.5	9.0
20	16.0	11.5	8.0	4.5	7.0	3.0	10.0	5.5	11.0	5.5	13.5	8.5
21	16.5	11.5	7.5	4.0	7.0	3.5	9.5	5.0	11.0	5.5	14.5	8.0
22	13.5	11.0	7.5	3.5	6.5	5.0	9.0	4.5	10.0	6.0	14.5	9.5
23	13.0	9.0	8.0	4.0	7.0	4.5	9.0	5.0	10.0	6.5	14.5	9.5
24	12.5	8.0	8.5	4.0	7.5	4.5	9.5	6.0	12.0	6.5	15.0	10.0
25	12.5	7.5	8.5	5.0	7.0	3.5	10.0	5.5	12.0	7.0	13.0	10.0
26	11.5	9.0	9.0	5.0	7.0	4.0	9.5	5.0	11.5	7.0	14.0	8.0
27	12.0	10.5	8.5	7.5	8.0	4.5	9.5	5.0	13.0	7.5	11.0	8.5
28	12.0	8.5	7.5	4.5	9.0	6.5	10.0	5.0	13.5	9.0	13.0	7.5
29	12.0	7.5	6.0	3.0	9.0	5.5	10.5	5.5	11.5	9.5	14.5	8.0
30	9.5	8.5	6.0	2.5	8.5	5.5	10.5	6.5	---	---	15.5	9.0
31	11.5	8.0	---	---	7.0	4.5	11.0	6.5	---	---	15.5	10.0
MONTH	22.5	7.5	13.5	2.5	9.0	2.5	11.0	2.0	13.5	5.5	16.0	4.0

TULARE LAKE BASIN

11209900 KAWEAH RIVER AT THREE RIVERS, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.0	10.0	17.0	12.5	20.5	14.5	24.0	18.0	24.0	19.0	28.0	22.5
2	14.5	8.0	16.0	12.0	19.5	14.5	24.5	17.5	23.5	19.0	28.0	22.0
3	11.5	9.0	16.5	12.0	20.0	14.0	25.5	18.0	22.5	19.0	27.5	22.0
4	11.0	8.5	17.0	12.0	19.5	13.5	26.5	19.5	23.0	18.0	26.5	23.0
5	10.5	8.5	15.0	12.0	19.5	13.0	27.5	20.0	24.0	17.0	27.5	22.5
6	14.0	8.5	14.0	11.0	19.0	13.5	28.0	21.0	24.0	18.0	26.0	22.5
7	15.5	9.0	15.5	10.0	19.0	14.0	28.0	21.0	24.0	17.5	25.5	20.0
8	12.0	10.0	18.0	12.0	18.5	13.5	28.0	21.0	24.5	17.5	27.0	20.5
9	14.5	8.0	17.0	12.5	17.5	13.5	28.5	21.5	25.5	18.0	24.0	21.0
10	13.0	9.0	18.0	12.5	15.5	13.0	29.0	22.0	26.0	18.5	22.0	20.5
11	12.0	10.0	18.0	13.0	17.5	12.0	28.0	22.0	26.0	19.0	21.0	16.0
12	11.5	9.0	19.0	14.0	19.0	12.0	27.5	20.5	26.0	19.5	19.0	15.0
13	10.0	8.5	18.5	14.0	21.0	14.5	28.0	20.5	25.5	19.0	21.0	16.5
14	12.5	7.5	18.0	13.5	22.5	16.0	28.0	21.0	21.5	19.0	21.5	17.0
15	10.5	8.0	17.5	13.0	23.5	17.0	26.5	21.5	24.0	18.0	20.0	17.5
16	10.5	6.0	18.5	14.0	23.5	17.5	26.5	22.0	23.5	18.0	19.5	14.5
17	12.5	6.0	18.0	14.0	23.5	17.0	26.5	21.0	22.5	17.5	20.0	15.0
18	14.5	8.0	17.0	13.0	24.0	18.0	27.0	20.5	23.5	18.0	21.0	15.5
19	16.5	10.0	17.5	12.5	24.0	18.5	27.5	21.0	23.0	18.5	22.0	16.5
20	17.5	11.0	16.5	12.5	24.5	18.5	27.0	21.0	25.5	19.0	22.0	17.0
21	17.5	12.0	18.0	13.0	24.0	19.0	27.5	20.5	26.5	20.0	21.5	17.0
22	17.0	12.0	18.5	13.0	23.5	18.0	27.0	20.0	27.0	21.0	21.5	17.0
23	17.0	11.5	18.5	13.0	24.5	18.0	27.0	21.5	26.5	20.0	22.0	17.0
24	16.5	12.0	18.0	12.5	25.5	18.5	28.0	21.5	27.0	20.5	21.0	17.0
25	16.0	12.5	19.0	13.0	25.0	19.0	29.0	22.0	27.0	21.0	21.5	16.5
26	14.5	10.0	20.5	14.0	26.0	19.5	27.5	22.5	27.0	21.0	21.0	16.5
27	14.5	8.5	21.5	15.5	26.5	19.5	24.5	22.0	27.0	21.0	21.5	16.5
28	15.0	9.0	19.5	15.0	27.0	20.0	27.5	21.0	27.5	21.0	20.0	16.5
29	16.0	9.5	18.5	13.0	26.0	20.0	25.5	22.0	27.5	21.0	18.0	16.0
30	17.0	11.0	19.0	13.0	25.0	19.0	25.5	20.0	28.5	21.5	17.5	14.5
31	---	---	20.0	14.0	---	---	23.0	20.5	28.5	22.0	---	---
MONTH	17.5	6.0	21.5	10.0	27.0	12.0	29.0	17.5	28.5	17.0	28.0	14.5

11210100 SOUTH FORK KAWEAH RIVER AT THREE RIVERS, CA

LOCATION.--Lat 36°25'00", long 118°54'48", in SW¼SE¼ sec.26, T.17 S., R.28 E., Tulare County, on right bank 200 ft (61 m) upstream from unnamed tributary, 0.5 mi (0.8 km) upstream from mouth, and 1.8 mi (2.9 km) southwest of Three Rivers.

DRAINAGE AREA.--86.7 mi² (224.6 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 807.22 ft (246.041 m) above mean sea level.

REMARKS.--Records good. Several small diversions above station for irrigation.

AVERAGE DISCHARGE.--18 years, 65.0 ft³/s (1.841 m³/s), 47,090 acre-ft/yr (58.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft³/s (329 m³/s) Dec. 6, 1966, gage height, 9.30 ft (2.835 m) in gage well, 10.4 ft (3.17 m) from floodmarks, from rating curve extended above 2,600 ft³/s (73.6 m³/s) on basis of slope-area measurement of maximum flow; no flow at times in 1960-62.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 23, 1955, reached a stage of 9.5 ft (2.90 m) from floodmarks, discharge, 10,000 ft³/s (283 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 209 ft³/s (5.92 m³/s) May 13, gage height, 2.83 ft (0.863 m), no peak above base of 500 ft³/s (14.2 m³/s); minimum daily, 0.13 ft³/s (0.004 m³/s) Sept. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	20	17	11	8.6	58	26	124	28	1.2	1.3	.18
2	1.5	19	21	10	8.3	38	26	132	26	1.2	1.6	.16
3	1.5	18	26	10	8.2	34	27	123	24	1.2	1.3	.16
4	1.5	18	25	11	9.0	27	29	120	21	1.3	1.2	.16
5	1.2	16	22	11	11	26	27	123	19	1.1	1.1	.17
6	1.2	15	20	11	15	26	25	87	19	.85	1.1	.20
7	3.8	14	17	10	14	25	26	91	18	.95	1.2	.13
8	6.5	14	17	10	13	27	36	83	17	.94	1.2	.13
9	4.7	14	16	10	18	24	32	108	16	.91	1.1	.14
10	4.7	13	16	11	29	23	33	108	17	.98	.75	.17
11	28	14	16	10	21	23	30	114	18	.83	.61	.68
12	26	13	16	10	18	23	29	148	17	.81	.51	.45
13	20	12	17	10	16	22	30	159	16	.76	.45	.19
14	15	12	16	10	15	22	29	150	14	.66	.42	.13
15	14	12	15	10	18	24	30	130	12	.59	.69	9.2
16	13	11	14	9.6	16	24	30	110	10	.40	.81	7.6
17	13	11	14	9.8	15	26	29	99	8.8	.51	.85	6.9
18	12	11	13	9.8	14	29	28	82	8.0	.62	.84	6.2
19	12	9.9	13	9.6	16	28	29	72	7.5	.48	.92	5.4
20	10	10	13	9.3	16	25	41	67	6.8	.39	.90	4.9
21	9.2	10	13	9.0	16	24	58	62	7.0	.35	.81	5.3
22	9.6	9.8	12	8.7	15	24	69	56	6.6	.34	.63	6.0
23	10	9.6	12	8.6	14	24	77	52	6.5	.36	.54	4.4
24	9.6	9.2	12	8.8	14	24	92	49	5.8	.33	.39	3.7
25	9.2	8.4	12	8.9	14	26	107	46	5.8	.31	.29	3.8
26	8.7	8.2	12	8.7	13	26	89	42	4.4	.42	.26	5.2
27	22	9.0	12	8.7	13	26	67	39	3.0	.44	.25	3.6
28	22	22	12	8.6	14	24	65	36	1.7	.94	.21	3.5
29	16	15	12	8.7	16	23	71	34	1.1	1.3	.20	3.9
30	16	15	12	8.7	---	23	96	30	1.2	1.1	.19	22
31	24	---	12	8.8	---	25	---	29	---	1.6	.19	---
TOTAL	347.4	393.1	477	299.3	428.1	823	1383	2705	366.2	24.17	22.81	248.20
MEAN	11.2	13.1	15.4	9.65	14.8	26.5	46.1	87.3	12.2	.78	.74	8.27
MAX	28	22	26	11	29	58	107	159	28	1.6	1.6	68
MIN	1.2	8.2	12	8.6	8.2	22	25	29	1.1	.31	.19	.13
AC-FT	689	780	946	594	849	1630	2740	5370	726	48	45	492
CAL YR 1975 TOTAL	24083.50			MEAN 66.0	MAX 572	MIN 1.2	AC-FT 47770					
TR YR 1976 TOTAL	7517.28			MEAN 20.5	MAX 159	MIN .13	AC-FT 14910					

TULARE LAKE BASIN

11210850 LEMONCOVE DITCH BELOW TERMINUS DAM, CA

LOCATION.--Lat 36°24'55", long 119°00'22", in SW¼SW¼ sec.25, T.17 S., R.27 E., Tulare County, on left bank 250 ft (76 m) downstream from outlet tunnel of Terminus Dam, and 2.4 mi (3.9 km) northeast of Lemoncove.

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

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 546.3 ft (166.51 m) above mean sea level (levels by Corps of Engineers).

REMARKS.--Records excellent. Ditch receives water from Lake Kaweah (station 11210900) which is used for irrigation. At times up to 3 ft³/s (0.085 m³/s) is diverted 200 feet (61 m) upstream into Doffelmyer ditch for irrigation.

AVERAGE DISCHARGE.--14 years, 4.98 ft³/s (0.141 m³/s), 3,610 acre-ft/yr (4.45 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 8.8 ft³/s (0.25 m³/s) May 5, 1970; no flow at times in 1962, 1969, 1975.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	1.1	.90	1.0	7.0	1.0	7.0	8.1	8.0	7.9	8.1	8.0
2	8.1	1.1	1.0	1.0	7.0	1.0	7.0	8.0	8.0	7.8	8.1	8.0
3	8.1	1.1	1.0	1.0	6.2	1.0	7.0	7.9	8.0	7.9	8.1	8.0
4	8.1	1.1	1.0	1.0	4.5	1.0	7.0	8.0	7.4	8.0	8.1	8.0
5	8.1	1.1	1.1	1.1	3.4	1.0	7.0	8.1	7.0	8.0	8.1	8.0
6	8.1	1.0	1.1	1.0	2.0	1.0	7.0	7.8	7.0	8.0	8.1	8.0
7	8.1	1.1	1.1	1.0	1.2	1.0	7.0	6.4	7.0	8.0	8.1	8.0
8	8.1	1.3	1.1	1.0	1.2	1.0	7.0	5.9	7.6	8.0	8.1	8.0
9	8.1	1.3	1.0	1.0	1.2	1.0	7.0	5.9	8.1	8.0	8.1	8.0
10	8.1	1.3	1.0	1.0	1.2	1.1	7.0	5.9	8.1	8.0	8.0	8.0
11	4.2	1.3	1.0	1.1	1.2	1.1	6.0	7.1	8.1	8.0	8.0	8.0
12	1.4	1.3	1.1	1.1	1.2	1.1	5.1	8.0	8.1	7.8	8.0	8.1
13	1.3	1.3	1.1	1.1	1.2	1.1	3.8	8.0	8.1	8.1	8.0	8.1
14	1.3	1.3	1.1	1.0	1.2	1.1	3.2	7.9	8.1	8.2	8.1	8.1
15	1.3	1.3	1.1	1.0	1.2	1.1	3.3	7.8	8.1	8.1	8.1	8.1
16	1.3	1.3	1.0	3.0	1.2	1.1	3.3	7.8	8.1	8.1	8.1	8.1
17	1.3	2.4	1.0	4.0	1.2	1.2	3.3	7.8	8.1	8.1	8.1	8.1
18	1.3	3.0	1.0	4.0	1.2	1.2	3.3	7.7	8.1	8.1	8.1	8.1
19	2.4	4.5	1.0	4.1	1.2	1.2	3.3	7.8	8.1	8.1	8.0	8.1
20	4.0	5.9	1.1	4.1	1.2	2.4	3.3	8.0	8.1	8.1	8.0	8.1
21	6.0	6.4	1.1	5.4	1.1	3.1	3.3	7.5	8.1	8.1	8.0	8.1
22	7.0	6.2	1.1	6.0	1.1	3.1	3.3	7.0	8.2	8.1	8.0	8.1
23	7.0	6.2	1.1	6.0	1.1	3.1	3.2	7.0	8.2	8.1	8.0	8.1
24	7.0	6.2	1.1	6.0	1.1	3.1	6.0	7.0	8.1	8.1	8.0	8.1
25	7.0	6.2	1.1	6.0	1.1	3.1	8.0	7.0	8.0	8.1	8.0	8.1
26	7.0	6.2	1.0	6.0	1.1	3.0	8.0	7.3	8.0	8.1	8.0	8.1
27	7.0	6.3	1.0	6.3	1.1	3.0	8.0	8.0	8.0	8.1	8.0	8.1
28	7.0	2.8	1.0	7.0	1.1	3.0	8.0	8.0	8.0	8.1	8.0	8.1
29	7.0	1.0	1.0	7.0	1.1	5.0	8.0	8.0	8.0	8.1	8.0	8.1
30	3.5	1.0	1.0	7.0	---	7.0	8.1	8.0	8.0	8.1	8.0	8.1
31	1.1	---	1.0	7.0	---	7.0	---	8.0	---	8.1	8.0	---
TOTAL	167.4	83.6	32.40	104.3	56.8	66.2	171.8	232.7	237.8	249.4	249.4	241.9
MEAN	5.40	2.79	1.05	3.36	1.96	2.14	5.73	7.51	7.93	8.05	8.05	8.06
MAX	8.1	6.4	1.1	7.0	7.0	7.0	8.1	8.1	8.2	8.2	8.1	8.1
MIN	1.1	1.0	.90	1.0	1.1	1.0	3.2	5.9	7.0	7.8	8.0	8.0
AC-FT	332	166	64	207	113	131	341	462	472	495	495	480
CAL YR 1975	TOTAL	1652.60	MEAN 4.53	MAX 8.2	MIN 0	AC-FT 3280						
WTR YR 1976	TOTAL	1893.70	MEAN 5.17	MAX 8.2	MIN .90	AC-FT 3760						

TULARE LAKE BASIN

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11210900 LAKE KAWEAH NEAR LEMONCOVE, CA

LOCATION.--Lat 36°24'53", long 119°00'07", in SE¼SW¼ sec.25, T.17 S., R.27 E., Tulare County, in control tower near left abutment of Terminus Dam on Kaweah River, 2.1 mi (3.4 km) northeast of Lemoncove.

DRAINAGE AREA.--560 mi² (1,450 km²).

PERIOD OF RECORD.--October 1961 to current year. Fragmentary prior to March 1962.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to May 22, 1962, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam and earthfill auxiliary dam, completed in February 1962. Usable capacity, 149,454 acre-ft (184 hm³) between elevations 520.0 ft (158.50 m) invert of outlet structure, and 694.0 ft (211.53 m) spillway crest. Dead storage, 87 acre-ft (107,000 m³). Spillway design flood pool elevation, 745.1 ft (227.11 m), capacity, 265,994 acre-ft (328 hm³). Records, including extremes, represent total contents at 2400 hours.

COOPERATION.--Records furnished by Corps of Engineers, not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 160,200 acre-ft (198 hm³) July 3, 4, 1967, elevation, 699.39 ft (213.174 m) storage increased by a temporary sandbag dam in the ungated spillway; minimum since reservoir first filled, 7,559 acre-ft (9.32 hm³) Oct. 20, 1970, elevation, 568.38 ft (173.242 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 74,982 acre-ft (92.5 hm³) June 5, 6, elevation, 649.96 ft (198.108 m); minimum, 8,850 acre-ft (10.9 hm³) Sept. 6, elevation, 572.43 ft (174.477 m).

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

520	87	580	11840
525	246	600	22842
530	513	620	39223
535	904	640	61609
540	1429	660	89866
550	2924	680	123339
560	5080	700	161452
570	8008	720	204328

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9506	15335	14759	14644	11476	16832	28840	46484	73855	48954	20493	9045
2	9506	15469	14875	14589	11307	17315	29237	47840	74220	47818	20075	8987
3	9506	15471	14971	14534	11118	17693	29630	48976	74572	46689	19663	8933
4	9506	15397	14966	14514	10932	18042	30067	50049	74869	45565	19232	8889
5	9502	15283	14926	14504	10801	18390	30467	51136	74982	44426	18778	8861
6	9502	15145	14835	14504	10867	18719	30838	51914	74982	43244	18338	8850
7	9623	14992	14724	14474	10978	19028	31204	52595	74854	42061	17910	8879
8	9855	14830	14664	14435	11089	19365	31690	53282	74572	40909	17495	8886
9	9967	14664	14649	14336	11298	19687	32147	54351	73715	39796	17075	8871
10	10072	14589	14649	14233	11724	20019	32659	55396	72487	38626	16646	8889
11	11011	14614	14644	14105	12037	20343	33108	56381	71326	37507	16219	12830
12	11810	14609	14654	14023	12279	20638	33535	57816	70201	36362	15767	14410
13	12248	14604	14684	13964	12489	20949	33956	59508	69073	35240	15299	14966
14	12552	14579	14684	13906	12715	21296	34336	61190	67942	34062	14840	15278
15	12830	14554	14664	13858	12930	21711	34728	62719	66927	33108	14390	15459
16	13000	14519	14659	13796	13143	22165	35096	63906	65841	32283	13945	15563
17	13111	14479	14634	13748	13330	22673	35448	65039	64752	31488	13514	15610
18	13180	14435	14619	13714	13509	23250	35821	65920	63660	30632	13074	15641
19	13222	14361	14609	13681	13700	23719	36242	66594	62565	29808	12638	15652
20	13250	14292	14584	13604	13906	24116	36862	67300	61444	28958	12208	15657
21	13283	14282	14554	13462	14096	24469	37667	67968	60321	28063	11745	15709
22	13316	14292	14559	13288	14301	24882	38569	68668	59234	27126	11286	15788
23	13344	14292	14579	13101	14484	25279	39378	69303	58098	26262	10814	15862
24	13349	14292	14584	12917	14659	25665	40316	69915	56938	25446	10347	15920
25	13344	14292	14574	12743	14845	26136	41387	70475	55803	24654	9890	15984
26	13325	14287	14574	12561	15037	26560	42253	71064	54682	23983	9502	16053
27	14096	14311	14609	12360	15232	26959	42875	71643	53539	23373	9349	16117
28	14529	14499	14624	12151	15454	27293	43522	72182	52352	22747	9290	16160
29	14724	14614	14649	11962	15751	27638	44249	72668	51216	22238	9231	16235
30	14880	14709	14674	11801	---	28009	45225	73100	50094	21665	9169	16843
31	15134	---	14684	11638	---	28407	---	73477	---	21039	9106	---
MAX	15134	15475	14971	14644	15751	28407	45225	73477	74982	48954	20493	16843
MIN	9502	14282	14554	11638	10801	16832	28840	46484	50094	21039	9106	8850
†	586.98	586.14	586.09	579.53	588.17	607.63	625.93	648.89	630.39	597.26	573.14	590.20
†	+5628	-425	-25	-3046	+4113	+12656	+16818	+28252	-23383	-29055	-11933	+7737
††	190	108	61	74	66	177	310	814	981	756	368	274

CAL YR 1975 ‡ +234

WTR YR 1976 ‡ +7337

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

†† Evaporation, in acre-feet.

NOTE.--Computed on basis of revised capacity table put into use Oct. 1, 1975.

TULARE LAKE BASIN

11210930 FOOTHILL DITCH BELOW TERMINUS DAM, CA

LOCATION.--Lat 36°24'48", long 119°00'47", in NW¼NE¼ sec.35, T.17 S., R.27 E., Tulare County, on left bank 0.7 mi (1.1 km) downstream from Terminus Dam, and 2.1 mi (3.4 km) northeast of Lemoncove.

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

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 492.8 ft (150.21 m) above mean sea level (levels by Corps of Engineers).

REMARKS.--Records excellent except those for the periods June 15 to July 13, and Aug. 27 to Sept. 30, which are poor. Ditch receives water from Lake Kaweah (station 11210900) which is used for irrigation.

AVERAGE DISCHARGE.--15 years, 19.3 ft³/s (0.547 m³/s), 13,980 acre-ft/yr (17.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 50 ft³/s (1.42 m³/s) Feb. 10, 1962; no flow many days in February and March 1975.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	28	26	20	21	19	17	18	15	30	29	16
2	25	28	28	20	21	20	17	18	15	30	27	16
3	22	30	29	20	21	20	17	19	15	30	26	23
4	22	30	31	20	21	19	18	19	14	32	25	23
5	22	28	31	20	21	18	18	19	16	33	23	22
6	22	28	31	20	20	18	18	19	18	34	22	22
7	22	27	30	20	19	18	18	18	18	35	22	23
8	23	28	29	20	19	18	18	18	19	36	21	24
9	23	28	28	21	19	18	17	18	21	36	21	25
10	23	27	27	21	18	18	17	18	22	38	20	25
11	22	25	27	21	17	18	17	18	22	38	20	25
12	21	24	28	21	18	18	17	18	23	39	19	25
13	23	24	28	21	18	18	17	18	23	40	18	27
14	25	24	27	21	18	18	18	18	23	32	18	27
15	24	24	26	21	18	18	18	18	21	32	19	28
16	25	24	26	20	18	18	17	18	21	33	19	28
17	26	24	26	20	18	18	17	18	22	34	18	29
18	26	23	24	20	18	18	17	18	22	34	18	28
19	26	23	21	20	18	18	17	18	22	35	18	28
20	25	23	21	20	19	18	17	18	23	36	17	28
21	25	22	21	21	19	18	18	17	23	36	17	27
22	25	21	20	21	19	18	18	17	24	37	16	26
23	26	22	20	21	19	18	18	16	24	37	16	25
24	25	22	20	21	18	18	19	16	25	36	16	24
25	25	22	20	21	18	18	18	16	25	36	15	24
26	25	24	20	21	18	18	18	16	26	35	14	24
27	25	24	20	21	18	18	18	16	26	34	11	24
28	26	25	20	21	18	18	18	16	27	34	8.8	24
29	26	25	20	21	18	18	17	16	28	33	8.9	25
30	27	24	20	21	---	18	17	16	28	32	7.3	27
31	28	---	20	21	---	18	---	15	---	30	11	---
TOTAL	755	751	765	638	545	564	526	541	651	1067	561.0	742
MEAN	24.4	25.0	24.7	20.6	18.8	18.2	17.5	17.5	21.7	34.4	18.1	24.7
MAX	28	30	31	21	21	20	19	19	28	40	29	29
MIN	21	21	20	20	17	18	17	15	14	30	7.3	16
AC-FT	1500	1490	1520	1270	1080	1120	1040	1070	1290	2120	1110	1470

CAL YR 1975 TOTAL 8279.80 MEAN 22.7 MAX 34 MIN 0 AC-FT 16420
WTR YR 1976 TOTAL 8106.00 MEAN 22.1 MAX 40 MIN 7.3 AC-FT 16080

NOTE.--Unstable stage-discharge relationship June 15 to Sept. 30.

11210950 KAWEAH RIVER BELOW TERMINUS DAM, CA

LOCATION.--Lat 36°24'51", long 119°00'42", in SE&SE¼ sec.26, T.17 S., R.27 E., Tulare County, on left bank 0.6 mi (1.0 km) downstream from Terminus Dam, and 2.2 mi (3.5 km) northeast of Lemnecove.

DRAINAGE AREA.--561 mi² (1,453 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR CA-71-2: 1963.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 495.90 ft (151.150 m) above mean sea level (levels by Corps of Engineers).

REMARKS.--Records excellent. Flow regulated by Lake Kaweah (station 11210900). Lemnecove ditch (station 11210850) diverts water from Lake Kaweah for irrigation. Foothill ditch (station 11210930) diverts water from the gage pool for irrigation. Doffelmyer ditch diverts up to 3 ft³/s (0.085 m³/s) above station for irrigation. At times some of this water is returned to the river above the station.

AVERAGE DISCHARGE (adjusted for change in contents, evaporation, and diversion).--15 years, 626 ft³/s (17.73 m³/s), 453,500 acre-ft/yr (559 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,610 ft³/s (159 m³/s) June 3, 1969, gage height, 8.77 ft (2.673 m); no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 755 ft³/s (21.4 m³/s) June 11, gage height, 4.31 ft (1.314 m); minimum daily, 4.2 ft³/s (0.12 m³/s) Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	99	79	82	119	34	40	115	70	584	336	11
2	9.5	99	97	82	120	71	44	145	62	590	280	7.7
3	11	146	140	80	126	85	44	164	52	586	249	8.2
4	11	183	181	80	131	56	44	183	43	586	249	6.3
5	11	183	182	80	128	37	43	187	116	593	249	4.3
6	11	183	176	80	95	41	43	189	184	608	243	4.2
7	15	182	176	80	53	40	45	191	219	618	229	8.3
8	22	182	147	87	46	40	41	159	283	598	219	16
9	22	180	115	108	49	39	40	136	548	576	218	17
10	22	135	107	116	29	39	44	163	743	572	221	17
11	16	95	107	116	9.0	47	44	182	737	572	221	16
12	14	94	105	110	22	51	45	179	706	570	222	17
13	44	90	102	97	24	50	50	196	693	571	224	40
14	64	91	102	91	27	50	57	200	659	573	224	49
15	58	91	102	87	26	49	55	200	628	487	225	54
16	86	91	102	86	26	49	51	200	644	422	226	61
17	106	91	102	84	25	46	49	200	642	413	224	64
18	101	91	98	80	31	65	45	202	633	416	224	62
19	101	92	97	78	39	67	42	198	630	415	220	60
20	90	91	97	90	38	68	44	167	625	417	217	60
21	78	70	97	116	38	70	49	138	619	430	220	42
22	75	54	86	128	38	62	64	126	614	438	221	24
23	74	59	75	131	34	60	103	114	619	411	219	22
24	74	59	80	133	27	65	116	104	617	388	212	19
25	75	58	86	133	25	68	116	93	607	382	201	16
26	76	58	79	132	22	73	131	91	601	331	168	16
27	76	59	72	132	27	76	129	90	605	302	75	16
28	87	56	71	141	28	71	93	86	613	316	22	18
29	96	49	70	136	28	55	69	81	592	332	24	20
30	98	52	70	120	---	34	79	77	575	346	23	23
31	98	---	76	120	---	34	---	75	---	344	17	---
TOTAL	1731.5	3063	3276	3216	1430.0	1702	1859	4631	14979	14787	6122	799.0
MEAN	55.9	102	106	104	49.3	54.9	62.0	149	499	477	197	26.6
MAX	106	183	182	141	131	85	131	202	743	618	336	64
MIN	9.5	49	70	78	9.0	34	40	75	43	302	17	4.2
AC-FT	3430	6080	6500	6380	2840	3380	3690	9190	29710	29330	12140	1580
MEAN ‡	180	125	132	79.4	143	284	373	647	152	59.3	35.5	194
AC-FT ‡	11080	7420	8120	4860	8210	17460	22200	39790	9070	3650	2180	11540

CAL YR 1975 TOTAL 183969.0 MEAN 504 MAX 2430 MIN 9.4 AC-FT 364900 MEAN ‡ 540 AC-FT ‡ 390600
WTR YR 1976 TOTAL 57595.5 MEAN 157 MAX 743 MIN 4.2 AC-FT 114200 MEAN ‡ 201 AC-FT ‡ 145600

‡ Adjusted for change in contents in and evaporation from Lake Kaweah and diversion to Lemnecove and Foothill ditches.

11210950 KAWEAH RIVER BELOW TERMINUS 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 1971 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1970 to current year.

INSTRUMENTATION.--Temperature recorder since November 1970.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 29.5°C Sept. 1, 2, 4, 1976; minimum (water years 1971-72, 1974-76), 5.0°C Jan. 9, 10, 1971.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 29.5°C Sept. 1, 2, 4; minimum, 7.0°C on several days during January.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS 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)
DEC 16...	1045	101	107	7.6	--	11.4	40	0	12	--
JUN 07...	1000	248	75	7.7	14.5	10.5	30	0	9.4	1.6
JUL 21...	1715	436	70	7.3	25.0	9.4	29	0	8.8	1.7

DATE	DIS- SOLVED SODIUM (NA) (MG/L)	SODIUM AD- SORP- TION RATIO	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 SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)
DEC 16...	7.4	--	53	0	43	3.4	5.4	61	.08	16.6
JUN 07...	4.0	.3	38	0	31	3.3	1.5	54	.07	36.2
JUL 21...	3.5	.3	35	0	29	2.0	.6	55	.07	64.7

11210950 KAWEAH RIVER BELOW TERMINUS DAM, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	26.0	20.0	15.5	13.0	10.5	8.5	9.0	7.5	10.0	8.0	12.0	9.5
2	25.5	20.5	15.5	13.0	10.5	9.0	9.0	7.5	10.0	8.5	11.5	9.5
3	25.5	20.5	15.0	13.0	10.5	8.5	8.5	7.0	10.0	8.5	11.0	9.5
4	25.5	20.5	15.0	13.0	10.0	9.0	8.0	7.0	9.0	8.5	12.0	9.0
5	25.5	20.0	14.5	13.5	10.0	9.0	8.0	7.0	9.0	8.5	13.0	8.5
6	25.0	20.0	14.5	13.5	10.0	9.0	8.5	7.0	10.5	8.5	12.5	8.5
7	24.0	19.5	15.0	13.5	10.0	8.5	8.5	7.0	9.5	8.5	13.5	8.5
8	23.5	19.0	14.0	13.0	10.5	9.0	8.0	7.0	10.0	8.5	12.5	9.0
9	21.5	18.5	15.0	13.5	10.0	9.0	7.5	7.0	9.5	8.5	13.5	9.0
10	21.0	19.0	14.5	13.5	10.0	9.0	7.5	7.0	13.5	8.5	13.0	9.5
11	22.5	18.5	15.0	13.0	10.0	9.0	7.5	7.0	14.0	8.5	11.5	9.5
12	20.5	16.5	15.0	13.0	9.5	8.5	7.5	7.0	12.0	8.5	13.5	9.5
13	20.0	15.5	14.5	12.5	9.5	8.5	8.0	7.0	12.0	8.0	13.0	9.5
14	20.0	16.5	14.5	12.5	10.0	8.5	8.0	7.0	11.0	9.0	13.5	9.5
15	19.5	16.0	14.5	12.5	10.0	8.5	8.5	7.0	11.5	9.0	14.0	9.5
16	19.0	16.0	14.0	12.5	9.0	8.0	8.5	7.0	10.5	8.5	14.0	10.0
17	19.0	16.5	13.5	12.0	9.0	7.5	9.0	7.0	12.0	8.5	13.5	10.5
18	18.0	16.5	14.0	12.0	9.0	7.5	9.0	7.0	12.0	8.5	12.5	10.0
19	19.0	16.5	13.0	11.5	9.0	7.5	9.0	7.0	11.0	9.0	13.0	10.0
20	19.0	16.0	13.0	11.0	9.0	7.5	9.0	7.0	12.0	8.5	13.0	9.5
21	19.0	16.0	13.0	10.5	9.0	7.5	9.0	7.5	12.5	8.5	12.5	9.5
22	18.0	16.0	13.0	10.5	9.0	8.0	9.0	7.5	12.0	8.5	12.5	9.5
23	18.5	15.5	12.5	10.5	8.5	7.5	9.0	7.5	11.5	9.0	12.0	9.0
24	18.0	15.0	12.5	10.5	9.0	7.5	9.0	7.5	13.5	9.0	12.5	9.5
25	17.5	14.5	12.5	10.5	9.0	7.5	9.0	7.5	14.0	8.5	12.0	9.0
26	17.0	14.5	12.5	10.0	9.0	7.5	9.0	8.0	13.5	9.0	12.0	8.5
27	17.0	14.5	11.0	10.0	9.0	7.5	9.0	8.0	14.0	9.5	10.5	9.0
28	16.5	13.5	11.0	10.0	9.5	8.0	9.0	8.0	13.5	9.5	12.0	8.0
29	16.0	13.5	11.5	9.5	9.5	7.5	9.5	8.0	12.0	10.0	13.0	8.5
30	14.5	13.0	11.5	8.5	9.0	7.5	9.5	8.0	---	---	14.5	8.5
31	15.5	13.5	---	---	9.0	7.5	9.5	8.0	---	---	14.5	8.0
MONTH	26.0	13.0	15.5	8.5	10.5	7.5	9.5	7.0	14.0	8.0	14.5	8.0

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.0	9.0	14.5	12.0	19.5	14.0	17.5	16.5	25.0	23.0	29.5	24.5
2	14.5	9.0	14.0	12.0	18.5	14.0	17.5	17.0	25.0	23.5	29.5	23.5
3	12.0	9.0	14.0	12.0	20.0	14.0	18.0	17.0	25.0	24.0	29.0	24.0
4	12.0	9.5	14.5	12.0	20.0	13.5	18.0	17.0	25.5	23.5	29.5	24.0
5	12.0	9.5	14.5	12.5	17.0	13.5	18.5	17.5	25.5	24.0	29.0	24.5
6	14.0	9.5	14.0	12.5	16.5	14.0	18.5	18.0	25.5	23.5	28.5	24.0
7	15.0	9.0	14.5	12.5	16.0	13.5	19.0	18.0	25.5	24.5	28.5	23.5
8	11.5	9.5	15.0	12.5	16.0	14.0	19.0	18.5	25.5	24.0	28.5	24.0
9	14.5	9.0	15.5	13.0	15.0	14.0	19.5	18.5	25.5	24.0	26.5	24.0
10	13.0	9.5	15.0	13.0	15.0	14.5	20.0	19.0	25.5	24.0	25.5	24.0
11	12.0	10.0	15.0	13.0	15.5	14.5	20.0	19.0	25.5	23.5	25.5	22.5
12	12.0	9.5	15.5	13.0	15.5	14.5	20.5	19.5	25.5	24.0	25.0	21.0
13	11.0	9.5	15.5	13.0	15.5	14.5	21.0	20.0	25.5	23.5	24.0	21.0
14	13.0	9.5	15.5	13.0	16.0	15.0	21.5	20.5	25.0	24.0	23.5	21.0
15	11.5	10.0	15.5	12.5	16.0	14.5	21.5	21.0	25.0	24.5	23.0	21.0
16	14.0	9.5	15.5	13.5	16.0	15.0	22.0	21.0	25.5	24.5	23.0	20.5
17	14.0	9.5	15.5	13.5	16.0	15.0	22.0	21.5	25.0	24.5	23.0	20.5
18	15.0	10.0	15.5	12.5	16.0	15.5	22.5	21.5	25.0	24.5	23.0	20.5
19	16.0	10.0	15.5	13.5	16.0	15.5	23.0	22.0	25.0	24.5	23.5	20.5
20	16.0	10.5	16.0	13.0	16.0	15.5	23.0	22.0	25.5	24.5	23.0	20.5
21	15.0	11.0	16.5	12.5	16.0	15.5	23.5	22.0	25.5	24.5	23.5	20.5
22	14.5	11.0	16.5	13.5	16.5	15.5	23.5	22.5	25.5	24.5	23.5	20.0
23	13.5	11.0	17.0	13.0	16.5	16.0	23.5	22.5	25.5	24.5	23.5	20.5
24	13.5	11.0	17.0	13.5	16.5	16.0	24.0	22.5	25.5	25.0	23.5	20.0
25	13.5	11.0	17.0	14.0	16.5	16.0	24.0	23.0	26.0	25.0	23.5	20.0
26	13.5	11.0	17.5	14.0	17.0	16.0	24.5	23.0	26.0	24.5	23.5	20.0
27	14.0	11.0	17.5	14.0	17.0	16.0	24.0	23.0	27.5	25.0	23.5	20.0
28	15.0	11.5	17.5	14.0	17.0	16.5	24.5	23.0	27.0	24.0	22.5	20.0
29	15.0	11.5	17.5	14.0	17.0	16.5	25.0	23.5	27.0	24.0	21.0	20.5
30	15.0	11.5	17.5	13.5	17.0	16.5	25.0	23.5	28.5	24.0	23.5	20.0
31	---	---	18.0	13.5	---	---	24.5	23.5	29.0	24.5	---	---
MONTH	16.0	9.0	18.0	12.0	20.0	13.5	25.0	16.5	29.0	23.0	29.5	20.0

TULARE LAKE BASIN

11211300 DRY CREEK NEAR LEMONCOVE, CA

LOCATION.--Lat 36°26'51", long 119°01'38", in NE¼SE¼ sec.15, T.17 S., R.27 E., Tulare County, on right bank 0.5 mi (0.8 km) downstream from Bequette Canyon, 2.9 mi (4.7 km) upstream from mouth, and 4.4 mi (7.1 km) north of Lemoncove.

DRAINAGE AREA.--75.6 mi² (195.8 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 570 ft (174 m), from topographic map. Prior to Mar. 8, 1969, 1.6 mi (2.6 km) downstream at different datum.

REMARKS.--Records good. Small diversions above station for irrigation.

AVERAGE DISCHARGE.--17 years, 19.2 ft³/s (0.544 m³/s), 13,910 acre-ft/yr (17.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,500 ft³/s (411 m³/s) Dec. 6, 1966, gage height, 7.30 ft (2.225 m) in gage well, 8.94 ft (2.725 m) from floodmarks, site and datum then in use; no flow for several months in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a discharge of 6,070 ft³/s (172 m³/s) from slope-area measurement. Flood of 1867 is believed to have exceeded that of December 1955, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 62 ft³/s (1.76 m³/s) Mar. 1 (1030 hrs), gage height, 2.79 ft (0.850 m), no other peak above base of 50 ft³/s (1.42 m³/s); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	1.6	1.7	1.2	44	2.0	2.2	.27			
2		0	1.4	1.7	1.2	27	2.0	2.0	.23			
3		0	1.4	1.7	1.2	25	2.2	2.0	.21			
4		0	1.6	1.7	1.6	19	2.8	2.0	.21			
5		0	1.6	1.7	2.1	15	4.3	1.8	.22			
6		0	1.4	1.7	15	14	4.0	1.8	.24			
7		0	1.4	1.7	14	13	3.4	1.8	.29			
8		0	1.1	1.7	6.4	12	3.4	1.8	.30			
9		0	1.1	1.7	9.8	11	7.3	1.8	.30			
10		0	1.1	1.8	39	9.2	5.6	1.8	.35			
11		0	1.2	1.7	19	8.6	5.0	1.8	.40			
12		0	1.6	1.7	10	7.8	4.6	1.6	.37			
13		0	2.1	1.7	7.3	6.8	6.0	1.6	.33			
14		0	2.4	1.7	6.0	6.3	6.8	1.3	.33			
15		0	2.5	1.7	5.3	6.0	6.0	1.3	.25			
16		0	2.1	1.7	5.0	5.6	11	1.2	.21			
17		0	1.8	1.7	4.6	4.9	8.8	1.1	.16			
18		0	1.7	1.7	4.3	4.6	6.0	1.0	.15			
19		0	1.6	1.5	4.6	4.6	5.0	.93	.12			
20		0	1.5	1.5	9.8	4.3	4.6	.93	.11			
21		0	1.5	1.5	6.8	3.4	4.3	.90	.11			
22		0	1.7	1.5	5.3	2.0	4.0	.79	.12			
23		0	1.8	1.4	4.3	1.8	3.0	.75	.09			
24		0	1.7	1.4	4.0	1.8	2.2	.73	.06			
25		0	1.8	1.4	3.7	1.8	2.4	.61	.04			
26		0	1.8	1.4	3.4	1.8	2.4	.57	.02			
27		0	1.7	1.4	3.4	2.0	2.4	.45	0			
28		3.8	1.7	1.4	3.4	2.0	2.4	.42	0			
29		4.8	1.7	1.4	4.3	2.0	2.2	.39	0			
30		2.8	1.7	1.4	---	2.0	2.2	.32	0			
31		---	1.7	1.4	---	2.0	---	.32	---			---
TOTAL	0	11.4	51.0	49.3	206.0	271.3	128.3	38.01	5.49	0	0	0
MEAN	0	.38	1.65	1.59	7.10	8.75	4.28	1.23	.18	0	0	0
MAX	0	4.8	2.5	1.8	39	44	11	2.2	.40	0	0	0
MIN	0	0	1.1	1.4	1.2	1.8	2.0	.32	0	0	0	0
AC-FT	0	23	101	98	409	538	254	75	11	0	0	0
WAL YR 1975	TOTAL	4341.42	MEAN	11.9	MAX	199	MIN	0	AC-FT	8610		
CAL YR 1976	TOTAL	760.80	MEAN	2.08	MAX	44	MIN	0	AC-FT	1510		

11211790 COTTONWOOD CREEK NEAR ELDERWOOD, CA

LOCATION.--Lat 36°31'47", long 119°07'33", in SE&SE& sec.15, T.16 S., R.26 E., Tulare County, on left bank 25 ft (8 m) upstream from State Highway 65 bridge, 4.0 mi (6.4 km) north of Elderwood, and 8.0 mi (12.9 km) north of Woodlake.

DRAINAGE AREA.--60.4 mi² (156.4 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 575 ft (175.3 m), from topographic map.

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

AVERAGE DISCHARGE.--5 years, 8.43 ft³/s (0.239 m³/s), 6,110 acre-ft/yr (7.53 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,660 ft³/s (47.0 m³/s) Apr. 1, 1974, gage height, 5.56 ft (1.695 m); no flow for several months in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 24, 1969, reached a stage of 10.4 ft (3.17 m) from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17 ft³/s (0.48 m³/s) Mar. 1, gage height, 2.25 ft (0.686 m), no peak above base of 40 ft³/s (1.13 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	2.4	2.7	11	1.8	.10	0	0	0	
2			0	2.1	2.7	6.3	2.1	.10	0	0	0	
3			0	2.1	2.7	8.0	2.1	.10	0	0	.10	
4			0	2.4	3.3	6.8	3.4	.10	.90	0	0	
5			0	2.4	4.1	5.3	4.1	.10	.10	0	0	
6			0	2.1	6.8	4.5	3.4	.10	0	0	0	
7			0	2.1	6.3	4.1	2.7	1.0	0	0	0	
8			0	2.4	4.9	3.7	3.7	.96	0	0	0	
9			0	2.7	5.8	3.4	5.3	.94	.02	0	0	
10			0	2.7	8.6	3.0	3.7	.94	.80	0	0	
11			0	2.7	5.8	2.7	3.7	.40	.80	0	0	
12			0	2.7	4.9	2.4	3.7	.20	.80	0	0	
13			.30	2.7	4.5	2.4	4.1	.10	.10	0	0	
14			1.1	2.4	4.5	2.7	3.7	.10	0	0	0	
15			1.6	2.4	4.5	2.7	3.7	.10	0	0	0	
16			1.8	2.4	4.1	2.7	4.5	.10	0	0	0	
17			1.8	2.4	3.7	2.8	3.7	.10	0	0	0	
18			1.8	2.1	3.7	3.0	2.7	.20	0	0	0	
19			2.1	2.1	4.5	3.0	1.5	.90	0	.20	0	
20			2.1	1.8	4.9	2.7	.80	.90	1.0	.47	0	
21			2.1	1.8	4.5	2.7	.50	0	.10	.47	0	
22			2.1	2.4	4.1	2.7	.30	0	0	.10	0	
23			2.1	2.4	4.1	2.4	.25	0	.70	0	0	
24			2.1	2.4	3.7	2.7	.20	0	.70	0	0	
25			2.1	1.8	3.7	2.7	.15	0	.70	0	0	
26			2.1	1.8	4.1	2.7	.15	0	0	0	0	
27			2.1	1.8	4.1	2.4	.10	0	0	0	0	
28			2.1	2.1	4.5	2.4	.10	0	0	0	0	
29			2.1	2.4	5.3	2.4	.10	0	0	0	0	
30			2.4	2.4	---	2.4	.10	0	0	0	0	
31		---	2.4	2.7	---	2.1	---	0	---	0	0	---
TOTAL	0	0	36.30	71.1	131.1	110.8	66.35	7.54	6.72	1.24	.10	0
MEAN	0	0	1.17	2.29	4.52	3.57	2.21	.24	.22	.040	.003	0
MAX	0	0	2.4	2.7	8.6	11	5.3	1.0	1.0	.47	.10	0
MIN	0	0	0	1.8	2.7	2.1	.10	0	0	0	0	0
AC-FT	0	0	72	141	260	220	132	15	13	2.5	.2	0

CAL YR 1975 TOTAL 2085.33 MEAN 5.71 MAX 78 MIN 0 AC-FT 4140
WTR YR 1976 TOTAL 431.25 MEAN 1.18 MAX 11 MIN 0 AC-FT 855

NOTE.--Stage-discharge relation indefinite Apr. 18 to Sept. 30.

TULARE LAKE BASIN

11212000 SAND CREEK NEAR ORANGE COVE, CA

LOCATION.--Lat 36°37'36", long 119°14'48", in SW¼NW¼ sec.15, T.15 S., R.25 E., Tulare County, on right bank 3.8 mi (6.1 km) east of Orange Cove.

DRAINAGE AREA.--31.6 mi² (81.8 km²).

PERIOD OF RECORD.--October 1944 to September 1954, annual maximum, water years 1956, 1967, 1969, February 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 490 ft (149 m), from topographic map.

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

AVERAGE DISCHARGE.--15 years (water years 1945-54, 1972-76), 2.20 ft³/s (0.062 m³/s), 1,590 acre-ft/yr (1.96 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 805 ft³/s (22.8 m³/s) Apr. 1, 1974, gage height, 4.96 ft (1.512 m), from rating curve extended above 56 ft³/s (1.6 m³/s) on basis of slope-area measurements at gage heights 4.00 ft (1.219 m), 4.80 ft (1.463 m), and 8.75 ft (2.667 m); no flow for several months in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 25, 1969, reached a stage of 8.35 ft (2.545 m) from floodmarks, discharge, 2,900 ft³/s (82.1 m³/s). Maximum discharge since 1944, 3,520 ft³/s (99.7 m³/s) Jan. 25, 1969, gage height, 8.75 ft (2.667 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25 ft³/s (0.65 m³/s) Feb. 6 (1630 hrs), gage height, 3.42 ft (1.042 m), no other peak above base of 20 ft³/s (0.57 m³/s); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	1.6	1.3	7.9	1.6	.27				
2			0	1.6	1.3	3.1	1.6	.33				
3			0	1.7	1.3	6.6	1.6	.35				
4			0	1.7	1.7	4.5	2.3	.26				
5			0	1.7	2.1	2.7	2.7	.19				
6			0	1.7	9.1	2.1	2.1	.17				
7			0	1.8	4.5	1.9	1.7	.14				
8			0	1.8	2.3	1.8	2.2	.13				
9			0	1.8	3.6	1.7	3.1	.10				
10			0	1.8	6.7	1.6	2.2	.06				
11			0	1.8	2.7	1.5	2.0	.03				
12			.02	1.8	2.0	1.5	2.1	.02				
13			.22	1.8	1.8	1.4	2.3	.01				
14			.38	1.8	1.7	1.4	2.0	0				
15			.50	1.8	1.6	1.4	2.3	0				
16			.75	1.8	1.6	1.4	3.5	0				
17			.80	1.9	1.5	1.4	2.2	0				
18			.80	1.8	1.4	1.4	1.7	0				
19			.80	1.7	1.7	1.4	1.5	0				
20			.89	1.6	1.9	1.4	1.4	0				
21			1.0	1.5	1.6	1.4	1.2	0				
22			1.2	1.5	1.4	1.4	.94	0				
23			1.5	1.5	1.4	1.4	.72	0				
24			1.5	1.6	1.3	1.5	.53	0				
25			1.5	1.6	1.2	1.4	.45	0				
26			1.5	1.5	1.0	1.5	.49	0				
27			1.5	1.5	1.1	1.5	.47	0				
28			1.5	1.5	1.1	1.6	.36	0				
29			1.6	1.5	1.5	1.6	.28	0				
30			1.7	1.5	---	1.5	.24	0				
31		---	1.7	1.5	---	1.6	---	0	---			---
TOTAL	0	0	21.36	51.7	63.4	64.5	47.78	2.06	0	0	0	0
MEAN	0	0	.69	1.67	2.19	2.08	1.59	.067	0	0	0	0
MAX	0	0	1.7	1.9	9.1	7.9	3.5	.35	0	0	0	0
MIN	0	0	0	1.5	1.0	1.4	.24	0	0	0	0	0
AC-FT	0	0	42	103	126	128	95	4.1	0	0	0	0
CAL YR 1975	TOTAL	708.70	MEAN	1.94	MAX	25	MIN	0	AC-FT	1410		
WTR YR 1976	TOTAL	250.80	MEAN	.69	MAX	9.1	MIN	0	AC-FT	497		

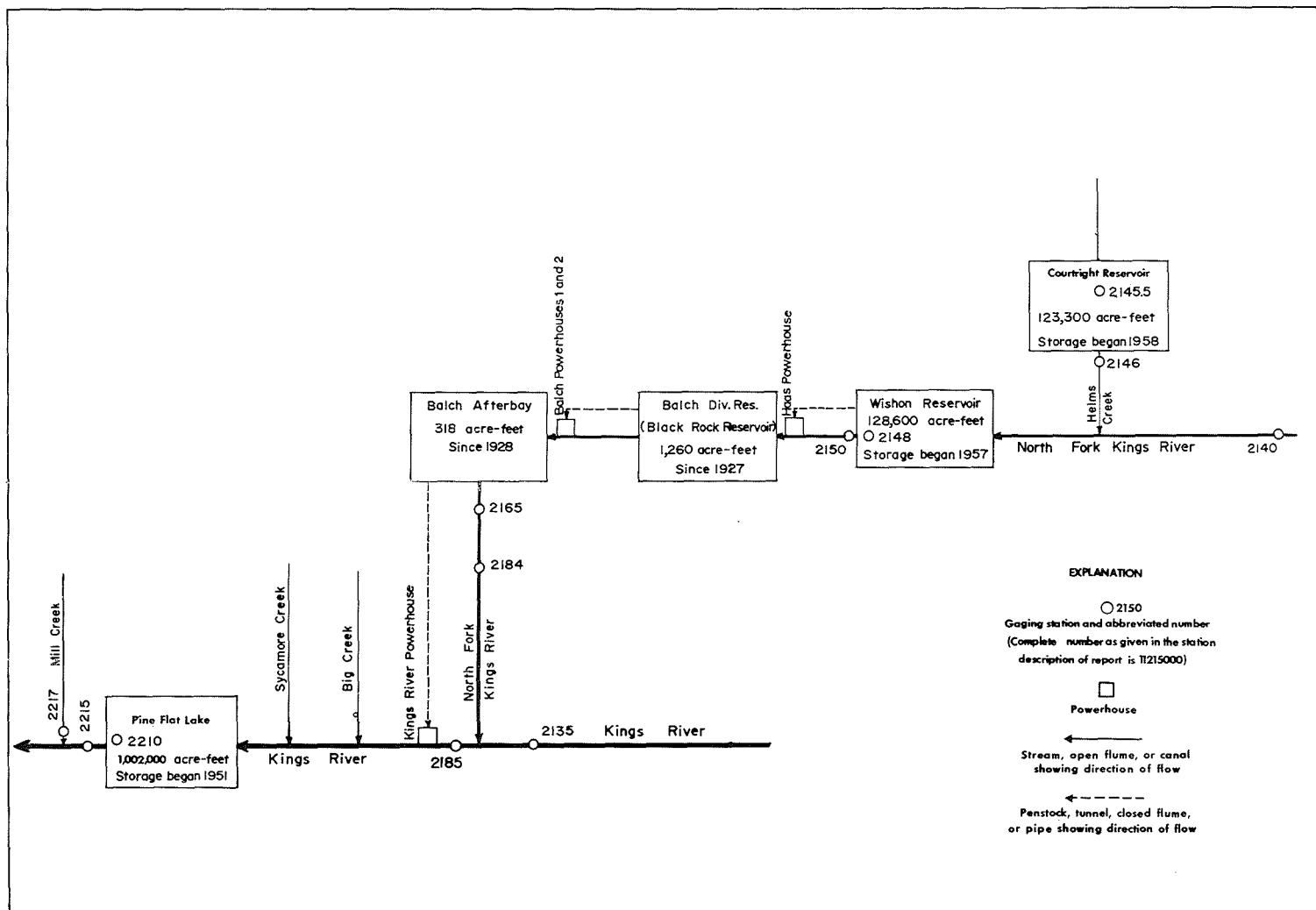


FIGURE 7.--Schematic diagram showing diversions and storage in Kings River basin.

11213500 KINGS RIVER ABOVE NORTH FORK, NEAR TRIMMER, CA

LOCATION.--Lat 36°51'48", long 119°07'24", in NW¼NE¼ sec.27, T.12 S., R.26 E., Fresno County, on right bank at Rogers Crossing, 0.9 mi (1.4 km) upstream from North Fork, 2.9 mi (4.7 km) south of Balch Camp, and 9.6 mi (15.4 km) southeast of Trimmer.

DRAINAGE AREA.--952 mi² (2,466 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1926 to December 1928, October 1931 to current year. Monthly figures only for some periods, published in WSP 1315-A. Prior to September 1965, published as Kings River above North Fork.

REVISED RECORDS.--WSP 1395: 1938(M), 1951(M).

GAGE.--Water-stage recorder. Datum of gage is 1,001.5 ft (305.26 m) above mean sea level (river-profile survey). March 1927 to December 1928, at site 0.5 mi (0.8 km) downstream at different datum. October 1931 to September 1965, on left bank at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good. No diversion or regulation above station. See schematic diagram of Kings River basin.

AVERAGE DISCHARGE.--47 years, 1,415 ft³/s (40.07 m³/s), 1,025,000 acre-ft/yr (1.26 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,100 ft³/s (1,670 m³/s) Dec. 23, 1955, gage height, 18.26 ft (5.566 m) present datum, from rating curve extended above 19,000 ft³/s (538 m³/s) on basis of slope-area measurement of maximum flow; minimum daily, 70 ft³/s (1.98 m³/s) Jan. 14, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,830 ft³/s (165 m³/s) Sept. 11, gage height, 7.28 ft (2.219 m), no peak above base of 6,300 ft³/s (178 m³/s); minimum daily, 111 ft³/s (3.14 m³/s) Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	444	250	161	155	464	448	1730	1180	360	1100	117
2	181	432	303	138	155	329	444	1980	1180	340	837	116
3	177	406	297	136	155	332	452	1870	1060	322	650	114
4	171	396	285	167	157	322	468	1730	942	306	540	113
5	169	382	270	167	165	329	448	1790	879	297	464	111
6	165	368	252	171	169	329	410	1510	830	291	410	153
7	277	340	240	157	177	343	406	1290	806	285	364	191
8	306	332	235	165	177	346	468	1260	752	276	329	205
9	270	329	232	165	238	340	452	1620	674	264	300	199
10	261	315	230	165	300	343	480	1800	630	255	273	197
11	695	315	228	165	225	346	456	1950	630	248	252	3030
12	630	309	228	167	208	343	440	2470	630	245	235	2440
13	510	309	225	167	205	343	416	2760	600	245	220	1400
14	464	300	210	165	208	354	402	3150	620	238	208	920
15	444	294	205	165	218	360	428	2970	698	235	215	715
16	424	285	218	165	215	385	402	2700	770	250	235	585
17	413	279	212	167	205	424	410	2730	788	371	225	515
18	402	267	208	169	208	460	432	2360	770	388	210	450
19	385	238	203	169	238	432	440	1940	764	350	205	413
20	371	238	199	161	228	406	510	1830	758	318	203	392
21	354	245	197	157	228	396	692	1740	698	294	191	425
22	346	232	195	153	225	410	935	1510	625	270	173	455
23	343	230	193	153	218	406	1000	1490	545	255	165	420
24	329	230	191	153	212	416	1240	1530	488	261	157	398
25	318	230	197	155	212	456	1520	1340	456	273	149	417
26	326	225	195	147	210	452	1280	1420	440	346	143	388
27	931	230	193	151	212	448	1030	1460	424	452	140	357
28	605	252	193	153	212	420	907	1500	413	510	134	332
29	488	232	191	153	245	399	914	1380	399	806	129	326
30	456	220	187	155	---	406	1190	1200	382	710	124	674
31	464	---	183	155	---	436	---	1110	---	680	121	---
TOTAL	11860	8904	6845	4937	5980	11975	19520	57120	20831	10741	9101	16568
MEAN	383	297	221	159	206	386	651	1843	694	346	294	552
MAX	931	444	303	171	300	464	1520	3150	1180	806	1100	3030
MIN	165	220	183	136	155	322	402	1110	382	235	121	111
AC-FT	23520	17660	13580	9790	11860	23750	38720	113300	41320	21300	18050	32860
CAL YR 1975 TOTAL	484218			1327	MAX	9060	MIN 165	AC-FT	960400			
WTR YR 1976 TOTAL	184382			MEAN 504	MAX 3150		MIN 111	AC-FT	365700			

11213500 KINGS RIVER ABOVE NORTH FORK, NEAR TRIMMER, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951-55, 1966 to current year.

CHEMICAL ANALYSES: Water years 1951-55.

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.

REMARKS.--Clock stopped Oct. 25 to Nov. 25, range in temperature, 5.0°C to 12.0°C.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-76), 27.0°C Aug. 9-11, 1972; minimum, 0.0°C Dec. 14, 15, 1967.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.5°C on several days during July to September; minimum, 1.5°C Jan. 2-4.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.5	19.0	---	---	3.0	4.5	3.0	4.5	6.5	8.0	7.0	9.0
2	17.0	19.0	---	---	3.5	5.5	1.5	3.0	6.5	8.0	5.0	7.0
3	17.0	19.5	---	---	5.0	6.5	1.5	2.5	6.0	7.5	4.5	6.0
4	17.0	19.5	---	---	5.5	7.0	1.5	3.0	5.5	7.5	4.5	6.5
5	17.5	19.5	---	---	6.0	7.0	2.5	4.0	5.0	6.0	4.5	7.5
6	17.5	19.0	---	---	5.0	6.5	3.0	4.5	4.5	6.5	5.5	8.0
7	16.5	18.5	---	---	4.5	6.0	3.0	4.0	5.5	7.0	6.0	9.0
8	14.0	16.5	---	---	4.5	5.5	2.5	4.0	6.5	8.0	7.0	8.5
9	13.5	15.5	---	---	4.5	6.5	3.0	4.0	7.0	8.0	7.0	10.0
10	14.0	15.0	---	---	5.5	7.0	4.0	5.0	7.0	9.0	8.0	9.5
11	13.5	15.0	---	---	6.5	7.5	3.5	5.0	7.0	9.0	9.0	10.0
12	12.5	13.5	---	---	6.5	7.0	4.0	5.0	6.5	8.5	8.5	11.0
13	11.5	13.0	---	---	6.0	6.5	4.5	5.5	6.0	8.5	8.5	11.0
14	11.0	13.0	---	---	4.5	6.0	3.5	5.0	7.5	9.0	8.5	11.5
15	11.0	13.5	---	---	3.0	4.5	3.0	5.0	7.5	9.0	9.0	11.5
16	11.5	13.5	---	---	2.5	3.5	4.0	5.5	7.0	8.0	9.5	12.5
17	12.0	13.5	---	---	2.0	3.5	4.5	6.0	6.0	8.5	10.5	13.5
18	12.0	14.0	---	---	2.5	3.5	5.0	6.5	7.0	9.0	11.0	13.0
19	12.0	14.0	---	---	2.5	4.0	5.5	6.5	7.0	8.0	10.0	12.0
20	12.0	14.0	---	---	2.5	4.0	5.0	6.0	5.5	7.5	9.0	12.0
21	12.0	13.5	---	---	3.0	4.5	4.0	5.5	5.0	8.0	9.5	12.5
22	13.0	14.0	---	---	4.5	6.0	4.0	5.0	6.0	8.0	10.0	12.5
23	11.0	13.0	---	---	4.5	5.5	3.5	5.5	6.0	7.5	10.0	13.5
24	9.0	11.0	---	---	4.0	5.0	5.0	6.5	6.0	9.0	11.0	14.0
25	---	---	---	---	3.5	5.0	5.0	6.0	6.5	9.5	12.0	14.0
26	---	---	5.0	7.0	3.5	5.0	4.5	6.0	7.0	9.0	10.5	13.0
27	---	---	7.0	7.5	4.0	6.0	4.5	6.0	7.0	10.0	10.5	13.0
28	---	---	5.5	7.0	5.5	6.5	4.5	6.0	8.0	10.5	10.0	12.0
29	---	---	4.5	6.0	5.0	6.0	5.0	6.5	9.0	10.5	9.5	13.0
30	---	---	3.0	4.5	4.5	6.0	5.5	7.0	---	---	11.0	14.0
31	---	---	---	---	4.5	5.5	6.0	7.5	---	---	11.5	14.0
MONTH	---	---	---	---	6.5	3.5	6.0	2.5	9.0	6.0	12.0	6.0

TULARE LAKE BASIN

11213500 KINGS RIVER ABOVE NORTH FORK, NEAR TRIMMER, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.0	12.5	12.5	15.0	14.5	17.0	18.0	21.5	18.5	21.0	22.5	25.5
2	10.0	13.5	12.5	14.0	14.5	16.5	18.0	21.5	18.5	21.0	22.5	25.5
3	11.0	12.5	12.5	15.0	14.0	16.5	18.5	22.5	18.5	20.5	22.0	25.0
4	10.0	12.0	13.0	15.0	13.5	16.5	19.5	23.5	18.0	21.5	22.5	24.0
5	9.5	10.5	13.0	14.0	13.5	16.5	20.0	24.5	18.0	21.5	22.0	24.0
6	10.0	13.5	12.5	13.5	13.5	17.0	20.5	25.0	18.0	21.5	21.5	23.0
7	11.0	14.5	11.0	14.0	14.0	16.5	21.0	25.0	18.0	21.5	20.0	23.0
8	11.0	13.5	12.5	16.0	14.0	16.5	21.0	25.0	18.0	22.0	20.5	23.5
9	10.0	13.5	13.0	15.5	14.0	16.5	21.0	25.0	19.0	22.5	21.0	23.0
10	11.0	13.0	12.5	15.0	13.5	15.0	21.5	25.5	19.5	23.0	20.5	22.0
11	11.0	12.0	13.5	15.5	13.0	16.0	22.0	25.5	20.0	23.5	16.0	20.5
12	10.5	12.5	13.5	15.0	14.0	18.5	21.5	25.0	20.0	23.5	15.5	17.0
13	10.0	11.5	13.5	15.0	15.5	19.5	21.0	25.0	20.0	23.5	16.5	18.0
14	9.0	11.0	13.0	15.0	16.5	20.5	21.5	25.5	19.0	22.0	17.0	19.0
15	9.0	10.5	12.5	14.5	17.0	20.5	22.0	24.5	18.5	20.5	17.0	19.0
16	8.0	11.5	13.0	15.0	17.5	20.5	22.0	25.0	18.5	20.5	16.0	18.0
17	8.0	12.5	13.5	15.0	17.0	20.5	21.5	24.5	18.5	20.5	15.5	18.0
18	10.0	14.0	12.5	14.0	17.5	21.0	20.5	24.0	18.5	20.0	16.0	19.0
19	11.5	15.5	12.5	14.5	18.0	21.0	20.5	24.0	18.0	19.5	16.5	19.0
20	12.5	16.5	12.5	14.0	18.0	21.5	21.0	24.5	18.0	22.5	17.0	19.5
21	13.5	16.5	13.0	14.5	18.0	21.5	20.5	24.5	20.0	23.5	17.0	19.5
22	13.5	15.5	12.5	15.5	17.0	20.5	20.5	23.5	21.0	23.5	17.0	19.0
23	12.5	15.5	13.5	15.5	17.0	21.0	21.5	24.0	19.5	23.0	17.5	19.5
24	13.0	15.0	13.0	15.5	18.0	22.0	21.5	25.0	20.0	23.5	17.0	19.0
25	13.0	14.5	12.5	16.0	18.5	21.5	22.0	25.5	20.5	23.5	17.0	19.0
26	10.5	13.0	14.5	17.0	18.0	22.5	22.5	25.5	20.5	23.5	17.0	19.0
27	10.0	13.0	14.5	17.0	19.0	23.0	21.5	24.0	20.5	24.0	17.5	19.0
28	10.0	13.5	14.5	16.5	19.5	23.5	21.0	24.5	21.0	24.0	17.5	18.5
29	11.0	14.5	13.0	15.5	19.5	23.0	20.0	22.5	21.0	24.5	17.0	18.0
30	12.0	15.0	13.0	16.0	19.0	22.0	20.0	22.5	21.5	25.0	16.5	17.5
31	---	---	14.0	17.0	---	---	19.5	20.5	22.0	25.5	---	---
MONTH	13.5	10.5	14.5	13.5	19.5	15.0	22.5	20.5	22.0	19.5	22.5	17.0

11214000 NORTH FORK KINGS RIVER BELOW MEADOW BROOK, CA

LOCATION.--Lat 37°04'53", long 118°51'43", in NE¼NE¼ sec.12, T.10 S., R.28 E., Fresno County, Sierra National Forest, on left bank 800 ft (244 m) downstream from Nichols Canyon, 0.6 mi (1.0 km) downstream from Meadow Brook, 3.9 mi (6.3 km) west of Blackcap Mountain, 5.9 mi (9.5 km) east of Courtright Dam, and 23 mi (37 km) southeast of town of Huntington Lake.

DRAINAGE AREA.--37.7 mi² (97.6 km²).

PERIOD OF RECORD.--October 1921 to September 1935, October 1956 to current year. Monthly discharge only for some periods and yearly estimates for some incomplete years, published in WSP 1315-A. Records for Jan. 1-23, and Dec. 1-21, 1934, published in WSP 551 and 766, respectively, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1315-A: 1922(M). WSP 1515: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 8,144.66 ft (2,482.492 m) above mean sea level, unadjusted (levels by Pacific Gas and Electric Co.).

REMARKS.--No regulation or diversion above station. See schematic diagram of Kings River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--34 years, 71.4 ft³/s (2.022 m³/s), 51,730 acre-ft/yr (63.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,040 ft³/s (57.8 m³/s) June 2, 1969, gage height, 5.65 ft (1.722 m), from rating curve extended above 800 ft³/s (22.7 m³/s); minimum recorded, 0.3 ft³/s (0.008 m³/s) Sept. 12-14, 1924.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 5.85 ft (1.783 m) from floodmarks, discharge, 2,000 ft³/s (56.6 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s (11 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 13	2000	441 12.5	4.00 1.219
July 28	1600	*1260 35.7	5.08 1.548
Sept. 11	1115	589 16.7	4.32 1.317

Minimum daily discharge, 1.4 ft³/s (0.040 m³/s) Sept. 2-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	29	9.0	2.7	3.2	6.6	25	192	60	7.1	68	1.5
2	2.0	28	10	2.5	3.2	7.3	27	186	56	6.6	43	1.4
3	1.9	26	11	2.7	3.1	9.0	29	158	47	5.9	31	1.4
4	1.9	23	9.4	2.8	2.8	9.6	25	142	40	5.2	24	1.4
5	1.8	21	7.8	3.2	2.8	9.9	20	130	35	4.6	18	2.5
6	2.2	17	6.8	2.8	2.8	11	19	103	32	4.2	14	13
7	13	16	6.4	2.6	2.9	12	26	98	29	3.8	12	7.9
8	9.8	17	6.3	2.7	3.0	11	27	126	26	3.4	10	7.1
9	8.2	13	6.2	2.9	3.2	11	27	153	24	3.1	9.2	9.4
10	20	13	5.9	2.9	3.4	9.9	24	159	29	2.8	8.1	8.2
11	52	14	6.1	3.0	3.7	9.2	21	202	37	2.6	7.0	354
12	32	14	5.8	3.2	4.0	9.1	20	264	33	2.5	6.2	156
13	26	13	6.0	3.4	4.6	9.7	19	305	28	2.3	5.5	77
14	26	12	6.6	3.4	5.5	11	21	301	26	2.2	5.3	48
15	24	11	6.4	3.5	6.3	13	17	238	26	2.2	8.4	34
16	24	9.9	6.4	3.8	6.9	15	18	223	27	4.2	8.8	25
17	23	8.4	5.8	4.1	6.8	20	19	202	26	7.4	6.9	21
18	20	5.5	5.4	4.0	6.7	22	20	163	24	5.7	6.1	17
19	17	6.5	4.9	3.6	6.5	17	28	136	23	5.9	6.1	15
20	15	7.7	4.4	3.2	6.4	15	48	133	22	5.3	5.9	18
21	15	5.9	4.3	3.0	6.4	16	70	123	20	4.1	4.5	45
22	15	5.9	4.5	2.8	6.3	19	82	109	17	3.4	3.8	33
23	13	5.8	4.1	2.7	5.9	19	96	108	15	4.0	3.4	27
24	11	5.9	4.5	2.8	5.7	23	124	106	12	5.3	3.0	25
25	10	6.0	4.6	2.7	5.5	26	127	92	11	6.4	2.6	31
26	38	5.7	4.5	2.5	5.4	24	100	94	10	14	2.4	23
27	63	5.7	4.4	2.6	5.3	22	84	90	9.9	28	2.2	19
28	34	5.9	4.4	2.6	5.8	18	78	86	9.3	135	2.0	16
29	25	7.4	4.4	2.8	6.1	19	94	77	8.5	53	1.8	16
30	20	9.2	4.1	2.9	---	25	147	67	7.7	37	1.7	17
31	30	---	3.4	3.0	---	30	---	61	---	49	1.6	---
TOTAL	595.8	368.4	183.8	93.4	140.2	479.3	1482	4627	770.4	426.2	332.5	1070.8
MEAN	19.2	12.3	5.93	3.01	4.83	15.5	49.4	149	25.7	13.7	10.7	35.7
MAX	63	29	11	4.1	6.9	30	147	305	60	135	68	354
MIN	1.8	5.5	3.4	2.5	2.8	6.6	17	61	7.7	2.2	1.6	1.4
AC-FT	1180	731	365	185	278	951	2940	9180	1530	845	660	2120

CAL YR 1975 TOTAL 28506.9 MEAN 78.1 MAX 686 MIN 1.8 AC-FT 56540
WTR YR 1976 TOTAL 10569.8 MEAN 28.9 MAX 354 MIN 1.4 AC-FT 20970

RESERVOIRS IN TULARE LAKE BASIN, CA

11214550 COURTRIGHT RESERVOIR.--Lat 37°04'40", long 118°58'05", in NW¼ sec.7, T.10 S., R.28 E., Fresno County, Sierra National Forest, at left end of dam on Helms Creek 2.5 mi (4.0 km) upstream from mouth, 4.6 mi (7.4 km) east of Nelson Mountain, and 9.7 mi (15.6 km) west of Blackcap Mountain. DRAINAGE AREA, 39.7 mi² (102.8 km²). PERIOD OF RECORD, October 1958 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by Pacific Gas and Electric Co.).

Reservoir is formed by rockfill dam completed in 1958. Usable capacity, 123,300 acre-ft (152 hm³) between elevations 7,902 ft (2,408.5 m), invert of tunnel and 8,184 ft (2,494.5 m), elevation of spillway. Dead storage negligible. See schematic diagram of Kings River basin. Records furnished by Pacific Gas and Electric Co. in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 124,200 acre-ft (153 hm³) July 13, 1967, elevation, 8,184.55 ft (2,494.651 m); no contents in 1961-62, 1968, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 62,210 acre-ft (76.7 hm³) Dec. 28, elevation, 8,137.44 ft (2,480.292 m); minimum, 34,290 acre-ft (42.3 hm³) Sept. 4, elevation, 8,104.35 ft (2,470.206 m).

11214800 WISHON RESERVOIR.--Lat 37°00'20", long 118°58'00", in NW¼ sec.6, T.11 S., R.28 E., Fresno County, Sierra National Forest, on right end of dam on North Fork Kings River 1.2 mi (1.9 km) north of Cliff Camp, 1.3 mi (2.1 km) upstream from Cliff Camp gaging station, and 20 mi (32 km) southeast of town of Big Creek. DRAINAGE AREA, 177 mi² (458 km²). PERIOD OF RECORD, December 1957 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by Pacific Gas and Electric Co.).

Reservoir is formed by rockfill dam completed in 1957. Capacity, 128,600 acre-ft (159 hm³) between elevations 6,317 ft (1,925.4 m), bottom of slide gates and 6,550 ft (1,996.4 m), operating crest of spillway gates. Dead storage negligible. Water is diverted to Haas powerhouse for power. See schematic diagram of Kings River basin. Records furnished by Pacific Gas and Electric Co. in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 129,700 acre-ft (160 hm³) July 29, 1958, elevation, 6,551.1 ft (1,996.78 m); no contents in 1960.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 104,500 acre-ft (129 hm³) Oct. 1, elevation, 6,525.19 ft (1,988.878 m); minimum, 12,690 acre-ft (15.6 hm³) Mar. 20, elevation, 6,387.48 ft (1,946.904 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
11214550 COURTRIGHT RESERVOIR				11214800 WISHON RESERVOIR		
Sept. 30.....	8136.3	61000	--	6525.2	104500	--
Oct. 31.....	8137.2	62000	+1000	6495.5	78600	-25900
Nov. 30.....	8137.4	62100	+100	6458.1	50600	-28000
Dec. 31.....	8137.4	62200	+100	6430.7	34200	-16400
CAL YR 1975.....	--	--	+1800	--	--	-53800
Jan. 31.....	8123.8	49400	-12800	6441.1	40100	+5900
Feb. 29.....	8124.5	50000	+600	6402.7	19600	-20500
Mar. 31.....	8125.5	50900	+900	6392.4	14900	-4700
Apr. 30.....	8129.4	54400	+3500	6416.8	26700	+11800
May 31.....	8125.1	50500	-3900	6472.1	60300	+33600
June 30.....	8105.4	35000	-15500	6489.6	73800	+13500
July 31.....	8104.9	34700	-300	6482.9	68500	-5300
Aug. 31.....	8104.5	34400	-300	6477.5	64300	-4200
Sept. 30.....	8105.2	34800	+400	6476.8	63800	-500
WTR YR 1976.....	--	--	-26200	--	--	-40700

11214600 HELMS CREEK BELOW COURTRIGHT DAM, CA

LOCATION.--Lat 37°04'35", long 118°58'04", in SW¼NW¼ sec.7, T.10 S., R.28 E., Fresno County, Sierra National Forest, on left bank 500 ft (152 m) downstream from Courtright Dam, 2.5 mi (4.0 km) upstream from North Fork Kings River, and 17 mi (27 km) southeast of town of Huntington Lake.

DRAINAGE AREA.--39.7 mi² (102.8 km²).

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

REVISED RECORDS.--WSP 1715: 1959. WSP 2130: 1959.

GAGE.--Water-stage recorder and broad-crested weir with V-notch. Altitude of gage is 7,840 ft (2,390 m), from Pacific Gas and Electric Co. survey.

REMARKS.--Flow regulated by Courtright Reservoir (station 11214550) 500 ft (152 m) upstream since October 1958. No diversion above station. See schematic diagram of Kings River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE (adjusted for storage).--18 years, 73.3 ft³/s (2.076 m³/s), 53,110 acre-ft/yr (65.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,340 ft³/s (37.9 m³/s) Aug. 29, 1969, gage height, 5.81 ft (1.771 m); maximum gage height, 6.52 ft (1.987 m) June 2, 1961, Sept. 16, 1971; no flow Nov. 21-24, Dec. 1, 3-6, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 868 ft³/s (24.6 m³/s) Jan. 14, gage height, 7.29 ft (2.222 m); minimum daily, 2.1 ft³/s (0.059 m³/s) May 27 to June 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	4.7	4.1	2.8	3.4	3.7	3.6	3.6	2.1	2.6	3.4	3.3
2	6.0	4.7	3.7	2.8	3.4	3.8	3.6	3.6	2.1	3.4	3.4	3.3
3	6.0	4.7	3.1	2.8	3.4	3.8	3.6	3.6	2.1	3.4	3.4	3.3
4	6.0	4.7	3.1	2.8	3.4	3.8	3.6	3.6	2.1	3.4	3.4	3.3
5	6.0	4.7	3.1	2.8	3.4	3.8	3.6	3.6	2.1	3.4	3.4	3.3
6	6.1	4.7	3.0	2.8	3.5	3.8	3.6	3.6	2.1	3.4	3.4	3.3
7	6.1	4.7	3.0	2.8	3.6	3.8	3.6	3.6	2.1	3.4	3.4	3.3
8	6.0	4.7	3.0	2.8	3.6	3.8	3.6	3.6	2.1	3.4	3.4	3.3
9	5.3	4.7	3.0	2.8	3.6	3.8	3.6	3.6	2.1	3.4	3.4	3.2
10	5.2	4.6	3.0	2.8	3.6	3.7	3.6	3.6	2.1	3.4	3.4	3.2
11	5.6	4.5	3.0	2.8	3.6	3.7	3.6	3.6	2.1	3.4	3.4	4.4
12	5.3	4.4	3.0	2.8	3.6	3.7	3.6	3.6	2.1	3.4	3.4	3.2
13	5.2	4.4	3.0	404	3.6	3.7	3.6	300	2.1	3.4	3.4	3.1
14	5.2	4.4	3.0	828	3.6	3.7	3.6	529	2.1	3.4	3.4	3.0
15	5.2	4.4	3.0	810	3.6	3.7	3.6	523	248	3.4	3.4	3.0
16	5.2	4.4	3.0	810	3.6	3.7	3.6	521	512	3.4	3.4	3.0
17	5.1	4.4	3.0	810	3.6	3.7	3.6	522	510	3.4	3.4	2.9
18	5.1	4.4	2.9	804	3.6	3.7	3.6	519	504	3.4	3.4	2.9
19	5.1	4.3	2.9	802	3.6	3.7	3.6	517	502	3.4	3.4	2.9
20	5.1	4.3	2.9	801	3.6	3.7	3.6	516	497	3.4	3.4	2.9
21	4.8	4.3	2.9	798	3.6	3.7	3.7	373	498	3.4	3.4	2.9
22	4.5	4.3	2.9	349	3.6	3.7	3.7	261	505	3.4	3.4	2.9
23	4.6	4.3	2.9	3.6	3.6	3.7	3.7	261	506	3.4	3.4	2.9
24	4.6	4.2	2.8	3.6	3.6	3.7	3.7	116	510	3.4	3.3	2.9
25	4.6	4.1	2.8	3.6	3.6	3.7	3.7	2.3	514	3.4	3.3	2.9
26	4.9	4.1	2.8	3.6	3.6	3.7	3.7	2.3	512	3.4	3.3	2.9
27	5.1	4.1	2.8	3.6	3.6	3.7	3.7	2.1	508	3.4	3.3	2.9
28	5.0	4.1	2.8	3.5	3.6	3.7	3.6	2.1	508	3.4	3.3	2.9
29	4.9	4.1	2.8	3.4	3.6	3.6	3.6	2.1	505	3.4	3.3	2.9
30	4.9	4.1	2.8	3.4	---	3.6	3.6	2.1	243	3.6	3.3	2.9
31	4.8	---	2.8	3.4	---	3.6	---	2.1	---	3.4	3.3	---
TOTAL	163.5	132.5	92.9	7281.3	103.3	115.2	108.7	5016.3	7611.4	104.8	104.6	93.1
MEAN	5.27	4.42	3.00	235	3.56	3.72	3.62	162	254	3.38	3.37	3.10
MAX	6.1	4.7	4.1	828	3.6	3.8	3.7	529	514	3.6	3.4	4.4
MIN	4.5	4.1	2.8	2.8	3.4	3.6	3.6	2.1	2.1	2.6	3.3	2.9
AC-FT	324	263	184	14440	205	228	216	9950	15100	208	207	185
CAL YR 1975	TOTAL	26874.6	MEAN	73.6	MAX	502	MIN	2.6	AC-FT	53310		
WTR YR 1976	TOTAL	20927.6	MEAN	57.2	MAX	828	MIN	2.1	AC-FT	41510		

TULARE LAKE BASIN

11215000 NORTH FORK KINGS RIVER NEAR CLIFF CAMP, CA

LOCATION.--Lat 36°59'38", long 118°58'49", in NE¼NW¼ sec.12, T.11 S., R.27 E., Fresno County, Sierra National Forest, on right bank at Cliff Camp bridge, 1 mi (2 km) northwest of Cliff Camp, 1.2 mi (1.9 km) downstream from Wishon Dam, and 2 mi (3 km) downstream from Woodchuck Creek.

DRAINAGE AREA. - 181 mi² (469 km²).

PERIOD OF RECORD.--August 1921 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1715: 1951, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,143.95 ft (1,872.676 m) above mean sea level, adjustment of 1912 (levels by San Joaquin Light and Power Corp.). Prior to Nov. 24, 1922, at site 1 mi (2 km) upstream at different datum.

REMARKS.--Flow regulated by Wishon Reservoir (station 11214800) 1.2 mi (1.9 km) upstream since Dec. 5, 1957 and Courtright Reservoir (11214550) since Oct. 17, 1958. Water diverted for power from Wishon Reservoir by tunnel to Haas powerhouse since Dec. 10, 1958. See schematic diagram of Kings River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE (adjusted for storage and diversion).--55 years, 357 ft³/s (10.11 m³/s), 258,600 acre-ft/yr (319 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (prior to regulation by Wishon Reservoir).--Maximum discharge, 14,000 ft³/s (396 m³/s) Dec. 11, 1937, gage height, 18.0 ft (5.49 m) from floodmarks, from rating curve extended above 4,200 ft³/s (119 m³/s) on basis of velocity-area studies; minimum, 0.6 ft³/s (0.017 m³/s) Dec. 30, 1930. 1957 to current year.--Maximum discharge, 4,880 ft³/s (138 m³/s) May 28, 1958, gage height, 11.75 ft (3.581 m); minimum daily, 0.8 ft³/s (0.023 m³/s) Dec. 14, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44 ft³/s (1.25 m³/s) Sept. 11, gage height, 3.39 ft (1.033 m); minimum daily, 10 ft³/s (0.28 m³/s) Feb. 24, Mar. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	18	14	11	12	13	12	11	14	16	15	15
2	20	18	15	11	11	12	11	11	14	16	15	15
3	20	17	14	11	11	11	11	11	14	16	15	14
4	20	17	14	11	11	11	12	11	14	16	15	15
5	20	17	13	11	11	10	11	12	14	16	15	14
6	20	17	13	11	11	10	11	12	14	16	15	15
7	21	17	13	11	11	11	11	12	14	16	15	14
8	19	17	13	11	11	11	12	12	14	16	15	14
9	19	17	13	11	12	12	11	13	14	16	15	14
10	21	17	13	11	11	13	11	13	14	16	15	14
11	24	17	12	11	12	12	11	12	14	16	15	23
12	20	16	12	11	12	13	11	12	14	16	15	15
13	19	16	12	11	11	14	11	12	14	16	15	15
14	19	16	12	11	12	14	11	12	14	16	15	15
15	19	16	12	11	12	15	11	12	14	16	15	15
16	19	16	12	11	11	16	11	12	14	16	15	15
17	18	16	11	12	11	17	11	13	14	15	15	15
18	18	16	11	12	11	15	11	13	14	16	15	15
19	18	15	11	12	12	13	12	13	14	15	15	14
20	18	15	11	12	11	13	12	13	14	15	15	15
21	18	15	11	12	11	13	13	14	15	15	15	15
22	18	15	11	13	11	13	13	14	15	15	15	14
23	18	15	11	13	11	14	13	14	15	15	15	14
24	18	15	11	13	10	15	12	14	15	15	15	14
25	18	15	11	13	11	14	12	14	15	15	15	14
26	19	14	11	13	11	13	12	14	15	15	15	14
27	20	15	11	12	12	12	11	14	15	15	15	14
28	18	15	11	12	13	11	11	14	15	15	15	14
29	18	14	11	12	13	11	11	14	16	15	15	14
30	19	14	11	12	---	11	11	14	16	15	15	14
31	19	---	11	12	---	12	---	14	---	15	15	---
TOTAL	595	478	372	361	330	395	344	396	432	482	465	442
MEAN	19.2	15.9	12.0	11.6	11.4	12.7	11.5	12.8	14.4	15.5	15.0	14.7
MAX	24	18	15	13	13	17	13	14	16	16	15	23
MIN	18	14	11	11	10	10	11	11	14	15	15	14
AC-FT	1180	948	738	716	655	783	682	785	857	956	922	877
CAL YR 1975	TOTAL	503	MEAN 26.0	MAX 551	MIN 11	AC-FT 18850						
WTR YR 1976	TOTAL	5092	MEAN 13.9	MAX 24	MIN 10	AC-FT 10100						

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	18	18	10	14	17	8.8	8.8	8.5	9.0	8.9	9.2
2	18	18	16	10	13	16	9.0	8.8	8.8	9.2	9.0	9.2
3	18	18	14	10	13	16	8.8	8.8	8.5	8.6	7.8	9.2
4	19	18	13	10	14	14	9.4	8.8	8.5	8.5	7.7	9.1
5	18	18	12	44	14	11	9.2	8.8	8.5	8.8	8.7	9.3
6	19	18	12	37	15	11	8.8	8.8	8.5	8.8	9.0	9.2
7	19	17	11	41	14	11	8.8	8.8	8.5	9.4	8.9	9.2
8	18	18	10	38	14	10	9.6	8.8	8.5	9.5	8.7	8.5
9	17	18	10	42	17	10	9.2	8.5	8.5	9.4	8.9	8.7
10	18	18	10	37	15	10	9.2	8.5	8.8	9.4	9.0	9.6
11	19	18	10	36	14	10	9.2	8.5	8.8	9.3	9.0	15
12	18	18	10	37	14	10	9.2	8.5	8.8	8.9	9.0	8.5
13	18	18	10	31	14	10	9.4	8.5	8.5	9.0	9.0	8.4
14	18	18	10	39	14	9.8	9.4	8.5	8.5	9.0	8.8	8.8
15	18	18	10	10	14	9.8	9.6	8.5	8.8	9.1	8.8	8.7
16	21	18	10	7.2	14	9.8	9.4	8.3	8.8	9.1	8.5	8.4
17	19	18	10	4.0	14	9.8	9.2	8.5	8.8	9.0	8.4	8.3
18	19	18	9.8	2.4	14	9.8	9.2	8.5	8.8	8.9	8.3	8.3
19	17	18	9.9	8.0	15	9.8	9.0	8.5	8.5	8.9	8.9	8.5
20	18	18	10	4.8	14	9.8	9.0	8.3	8.8	9.0	9.2	8.5
21	21	18	10	6.9	14	9.8	9.0	8.5	9.0	8.9	9.2	8.4
22	18	17	10	5.0	14	9.8	9.2	8.3	8.8	8.8	9.2	8.2
23	18	19	10	3.7	14	9.8	9.0	8.3	8.8	9.0	9.0	8.1
24	18	18	10	3.7	14	9.8	9.2	8.5	8.8	8.9	9.1	8.3
25	17	18	9.8	3.7	14	9.8	9.0	8.5	8.8	9.0	9.1	8.3
26	18	18	9.8	3.5	14	9.8	9.0	8.5	8.8	9.0	9.1	8.3
27	18	18	10	42	14	10	9.0	8.3	8.8	9.0	9.0	8.2
28	18	19	9.8	81	14	11	9.0	8.8	8.8	8.5	9.1	8.3
29	18	18	10	81	16	10	9.0	9.0	8.8	8.9	9.1	8.4
30	19	17	9.9	81	---	10	8.8	8.8	8.8	8.2	9.2	8.3
31	18	---	10	42	---	10	---	8.5	---	9.1	9.2	---
TOTAL	567	539	335.0	811.9	412	334.4	273.6	266.0	260.9	278.1	274.8	265.4
MEAN	18.3	18.0	10.8	26.2	14.2	10.8	9.12	8.58	8.70	8.97	8.86	8.85
MAX	21	19	18	81	17	17	9.6	9.0	9.0	9.5	9.2	15
MIN	17	17	9.8	2.4	13	9.8	8.8	8.3	8.5	8.2	7.7	8.1
AC-FT	1120	1070	664	1610	817	663	543	528	517	552	545	526
CAL YR 1975	TOTAL	15108.0	MEAN	41.4	MAX	738	MIN	9.8	AC-FT	29970		
WTR YR 1976	TOTAL	4618.1	MEAN	12.6	MAX	81	MIN	2.4	AC-FT	9160		

TULARE LAKE BASIN

11216500 NORTH FORK KINGS RIVER ABOVE DINKEY CREEK, AT BALCH CAMP, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: September 1967 to current year.

INSTRUMENTATION.--Temperature recorder since September 1967.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 26.0°C June 22, 23, 25-27, 1968, July 14, 1972; minimum, 0.0°C Dec. 14-16, 21, 1967.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.5°C Aug. 21; minimum, 4.0°C Jan. 8.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.0	14.5	10.5	9.5	7.0	6.5	6.0	5.0	6.0	5.5	---	---
2	15.5	14.0	10.5	9.5	7.5	7.0	5.0	4.5	6.0	5.5	---	---
3	15.5	14.5	11.0	10.0	8.0	7.5	5.0	4.5	6.0	5.5	---	---
4	15.5	14.0	11.0	10.0	8.5	8.0	5.0	4.5	6.0	5.5	---	---
5	15.5	14.0	10.5	10.0	8.5	8.0	5.0	4.5	5.5	5.0	---	---
6	15.5	14.5	11.0	10.0	8.0	7.5	5.0	5.0	5.5	5.0	---	---
7	15.0	13.5	11.0	10.5	7.5	7.0	5.0	4.5	5.5	5.0	---	---
8	13.5	12.5	11.5	10.5	8.0	7.0	4.5	4.0	6.0	5.5	---	---
9	13.0	12.0	11.0	9.5	8.0	7.0	4.5	4.5	6.0	6.0	---	---
10	13.0	12.5	10.5	10.0	8.5	7.5	5.0	4.5	6.5	5.5	---	---
11	13.0	12.5	10.0	9.0	8.5	8.0	5.0	4.5	6.5	6.0	---	---
12	12.5	12.0	9.5	9.0	8.0	8.0	4.5	4.5	6.0	6.0	---	---
13	12.0	11.0	10.0	9.0	8.0	8.0	4.5	4.5	6.0	5.5	---	---
14	12.0	11.0	10.0	9.5	8.0	7.0	4.5	4.5	6.5	6.0	---	---
15	12.5	11.0	10.0	9.0	7.0	6.5	5.0	4.5	6.5	6.5	---	---
16	12.5	11.5	10.0	9.0	6.5	6.5	5.5	5.0	6.5	6.0	---	---
17	12.5	11.0	9.5	9.5	6.5	6.5	6.0	5.0	6.0	5.5	---	---
18	12.5	11.5	9.5	9.0	6.5	6.5	6.5	5.5	6.5	6.0	---	---
19	12.0	11.0	9.0	8.0	6.5	6.0	6.5	5.5	6.5	6.0	---	---
20	12.0	11.0	8.5	8.0	6.5	6.0	6.0	5.5	6.5	5.5	---	---
21	12.0	11.0	8.5	7.5	6.5	6.0	5.5	5.0	6.0	5.0	---	---
22	11.5	11.5	8.0	7.5	7.5	6.5	5.5	5.0	6.0	5.5	---	---
23	11.0	9.5	8.5	7.5	7.5	6.5	5.5	5.5	6.0	5.5	---	---
24	10.0	9.0	8.5	8.0	7.0	6.5	6.0	5.5	6.0	5.5	---	---
25	10.0	9.0	8.5	8.0	6.5	6.5	6.5	6.0	6.5	5.5	---	---
26	10.5	10.0	8.5	8.0	6.5	6.0	6.0	5.5	6.0	5.5	13.5	6.5
27	11.5	10.5	9.0	8.5	7.0	6.5	6.0	5.5	6.5	6.0	12.0	7.0
28	11.0	10.0	9.0	8.0	7.5	7.0	5.5	5.0	7.0	6.0	11.5	6.5
29	10.5	9.5	8.0	7.0	7.0	6.5	5.5	5.0	7.0	6.5	13.5	6.5
30	10.5	10.0	7.0	6.5	6.5	6.0	5.5	5.5	---	---	15.5	7.5
31	10.5	9.0	---	---	6.5	6.0	5.5	5.0	---	---	15.0	7.5
MONTH	16.0	9.0	11.5	6.5	8.5	6.0	6.5	4.0	7.0	5.0	---	---
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.0	8.0	19.0	11.0	21.5	13.0	21.0	13.0	---	---	21.0	13.5
2	14.5	6.5	19.0	11.5	20.5	13.0	21.5	13.5	---	---	23.0	13.5
3	11.0	7.5	19.5	11.5	21.0	12.5	22.5	14.5	---	---	21.0	13.0
4	11.0	8.0	19.5	11.5	21.0	12.0	23.0	15.0	23.0	14.0	20.0	14.0
5	9.5	8.0	17.5	11.5	21.0	12.0	23.5	15.0	24.0	13.5	21.5	13.5
6	15.0	8.0	14.5	12.0	19.5	12.5	23.5	15.5	24.0	13.5	20.0	14.5
7	15.5	7.5	18.5	10.5	19.0	13.0	23.5	16.0	23.0	13.5	20.5	13.0
8	11.5	9.0	18.5	12.5	19.5	13.0	23.5	15.0	24.5	13.5	22.5	13.5
9	15.0	6.5	20.0	12.0	17.0	13.5	24.0	16.0	22.0	14.0	19.5	14.5
10	12.0	7.5	20.5	12.5	15.5	14.0	24.5	16.5	22.5	14.0	15.5	14.0
11	10.5	9.0	20.5	13.0	17.5	13.5	24.0	17.0	23.0	14.5	17.0	15.0
12	11.5	8.0	22.5	13.0	21.5	13.5	24.5	16.0	22.5	14.5	18.5	13.0
13	8.5	8.0	22.0	13.5	21.5	14.0	21.5	16.5	23.0	14.0	20.0	13.5
14	11.0	7.5	22.0	13.0	23.5	15.0	24.5	17.0	17.0	14.0	19.5	13.5
15	9.0	7.0	21.5	12.5	23.0	15.0	22.0	17.5	21.5	13.5	18.5	14.0
16	12.0	5.0	22.0	12.5	23.0	14.5	23.0	17.0	21.0	14.0	17.5	11.5
17	14.0	5.5	21.0	12.5	22.5	14.0	24.0	15.5	20.0	13.0	18.5	12.0
18	15.0	7.0	19.5	12.0	22.5	14.5	23.0	15.5	20.5	14.0	19.0	12.5
19	16.5	7.5	20.0	12.0	21.0	14.5	23.5	15.5	18.0	14.0	18.5	12.5
20	17.5	8.5	18.5	12.0	22.5	14.5	23.0	15.5	24.0	14.0	19.0	13.0
21	18.0	10.0	19.0	12.5	22.5	14.5	22.5	15.0	25.5	15.0	19.0	13.0
22	17.5	9.5	20.5	12.5	21.5	14.0	22.0	16.5	23.0	15.5	18.5	13.0
23	18.0	9.5	21.0	13.0	22.0	13.5	21.5	16.0	22.5	13.5	19.0	13.0
24	18.5	10.0	21.0	12.5	22.5	14.5	---	---	22.5	14.0	18.0	13.0
25	18.0	11.0	22.0	13.5	21.5	15.0	---	---	22.5	14.0	18.5	13.0
26	16.5	8.5	23.0	14.5	23.0	15.0	---	---	24.0	14.5	18.5	13.0
27	17.0	8.5	22.5	14.5	23.0	15.0	---	---	22.5	14.0	18.5	13.5
28	17.0	9.0	20.5	13.5	23.5	15.5	---	---	22.5	14.0	17.0	13.5
29	18.0	9.0	20.0	11.5	23.0	15.0	---	---	22.5	14.0	15.5	14.0
30	19.5	10.5	20.5	12.0	22.0	13.5	---	---	21.0	14.5	18.5	13.5
31	---	---	21.0	13.0	---	---	---	---	20.5	14.0	---	---
MONTH	19.5	5.0	23.0	10.5	23.5	12.0	---	---	25.5	13.0	23.0	11.5

11218400 NORTH FORK KINGS RIVER BELOW DINKEY CREEK, NEAR BALCH CAMP, CA

LOCATION.--Lat 36°52'47", long 119°07'40", in NW¼ sec.22, T.12 S., R.26 E., Fresno County, Sierra National Forest, on right bank 1.1 mi (1.8 km) upstream from mouth, 1.7 mi (2.7 km) south of Balch Camp, 2.1 mi (3.4 km) downstream from Dinkey Creek, and 9 mi (14 km) east of Trimmer.

DRAINAGE AREA.--387 mi² (1,002 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 1,035 ft (315.5 m), from river-profile map.

REMARKS.--Flow regulated by Courtright Reservoir (station 11214550), Wishon Reservoir (station 11214800), Black Rock Reservoir, capacity, 1,260 acre-ft (1.55 hm³), Balch Afterbay, capacity, 318 acre-ft (392,000 m³), and Haas and Balch powerplants. Diversion from Balch Afterbay to Kings River powerhouse began Mar. 1, 1962. See schematic diagram of Kings River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft³/s (776 m³/s) Feb. 1, 1963, gage height, 19.20 ft (5.852 m), from rating curve extended above 4,900 ft³/s (139 m³/s); minimum daily, 13 ft³/s (0.37 m³/s) Sept. 2-5, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,750 ft³/s (77.9 m³/s) Sept. 11, gage height, 7.79 ft (2.374 m); minimum daily, 13 ft³/s (0.37 m³/s) Sept. 2-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	119	70	39	46	153	180	345	75	27	19	14
2	34	104	83	40	47	108	181	344	71	28	20	13
3	34	92	87	45	46	100	184	330	67	27	18	13
4	34	85	81	46	50	96	176	329	63	26	17	13
5	34	76	70	86	46	87	148	313	61	26	18	13
6	34	72	63	78	57	85	135	269	58	25	18	15
7	128	69	60	67	58	89	148	240	56	25	18	17
8	71	67	58	65	62	94	196	239	55	24	17	19
9	51	65	57	70	88	89	173	322	54	24	17	16
10	50	64	57	65	81	103	194	393	55	23	17	16
11	451	70	57	65	76	111	172	309	63	23	16	775
12	177	67	58	65	74	103	161	315	61	22	16	155
13	115	66	56	61	76	116	151	308	56	22	15	65
14	98	64	49	72	82	128	140	286	52	22	15	45
15	98	61	55	49	81	138	142	254	48	21	16	37
16	90	59	56	43	69	148	125	219	44	21	25	33
17	78	60	55	42	70	195	128	204	42	24	24	31
18	70	59	53	40	72	204	138	183	41	23	20	29
19	64	51	51	44	89	152	155	160	39	21	20	29
20	60	55	51	40	69	132	237	148	38	21	22	28
21	58	54	51	39	77	141	301	139	37	20	22	27
22	55	52	52	37	76	165	315	131	36	19	20	26
23	54	53	49	37	73	166	308	124	36	19	18	26
24	53	53	52	40	70	186	350	116	34	19	18	25
25	52	53	52	37	70	216	360	109	32	19	17	24
26	60	52	52	34	76	190	296	105	31	19	16	24
27	453	58	52	96	82	178	232	97	30	18	16	24
28	160	64	52	59	95	151	224	92	29	18	15	24
29	106	53	53	49	126	135	241	87	28	19	15	26
30	98	63	52	48	---	159	299	83	27	17	14	25
31	114	---	49	48	---	186	---	79	---	18	14	---
TOTAL	3067	1980	1793	1646	2084	4304	6190	6672	1419	680	553	1627
MEAN	98.9	66.0	57.8	53.1	71.9	139	206	215	47.3	21.9	17.8	54.2
MAX	453	119	87	96	126	216	360	393	75	28	25	775
MIN	33	51	49	34	46	85	125	79	27	17	14	13
AC-FT	6080	3930	3560	3260	4130	8540	12280	13230	2810	1350	1100	3230
CAL YR 1975	TOTAL	105259	MEAN 288	MAX 2210	MIN 33	AC-FT 208800						
WTR YR 1976	TOTAL	32015	MEAN 87.5	MAX 775	MIN 13	AC-FT 63500						

TULARE LAKE BASIN

11218500 KINGS RIVER BELOW NORTH FORK, NEAR TRIMMER, CA

LOCATION.--Lat 36°52'29", long 119°08'27", in SW¼NE¼ sec.21, T.12 S., R.26 E., Fresno County, on right bank 0.8 mi (1.3 km) downstream from North Fork, 2.4 mi (3.9 km) southwest of Balch Camp, and 8.5 mi (13.7 km) southeast of Trimmer.

DRAINAGE AREA.--1,342 mi² (3,476 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1951 to current year. Prior to January 1952 monthly discharge only, published in WSP 1735. Published as Kings River below North Fork, October 1951 to September 1965.

REVISED RECORDS.--WSP 1930: Drainage area, WDR CA-72-2: Adjusted data for 1971.

GAGE.--Water-stage recorder. Datum of gage is 942.42 ft (287.250 m) above mean sea level (levels by Corps of Engineers).

REMARKS.--Records good. Flow regulated by Courtright and Wishon Reservoirs (stations 11214550, 11214800). Records include flow diverted to Kings River powerplant since Mar. 1, 1962. This station measures inflow to Pine Flat Lake. See schematic diagram of Kings River basin.

COOPERATION.--Records of diversion to Kings River powerplant and contents for Courtright and Wishon Reservoirs furnished by Pacific Gas and Electric Co.

AVERAGE DISCHARGE (adjusted for change in contents in Wishon and Courtright Reservoirs).--25 years, 2,120 ft³/s (60.04 m³/s), 1,536,000 acre-ft/yr (1,894 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 85,200 ft³/s (2,410 m³/s) Dec. 23, 1955, gage height, 23.08 ft (7.035 m), from rating curve extended above 22,000 ft³/s (623 m³/s) on basis of slope-area measurement of maximum flow; minimum daily, 97 ft³/s (2.75 m³/s) Jan. 13, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 19, 1950, reached a stage of 21.6 ft (6.58 m) from floodmarks, discharge, 74,200 ft³/s (2,100 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 4,300 ft³/s (122 m³/s) Sept. 11; minimum daily, 127 ft³/s (3.60 m³/s) Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	498	947	910	292	849	1160	653	2140	1240	490	1140	352
2	518	862	922	444	841	989	722	2520	1250	392	961	447
3	662	1100	1050	654	843	641	628	2350	1140	357	680	455
4	315	1100	1060	322	925	665	658	2150	1050	346	568	134
5	256	1130	932	275	1080	607	621	2250	949	336	489	127
6	657	1080	688	249	1100	436	549	1910	904	381	484	202
7	1040	1080	623	223	1100	454	578	1720	889	351	380	405
8	1050	723	904	228	1110	713	746	1590	837	388	340	539
9	917	664	987	234	1050	739	694	2100	698	432	446	450
10	935	894	890	231	604	803	762	2410	723	382	455	286
11	1600	1010	965	227	623	772	630	2440	780	274	413	4300
12	1150	996	853	229	617	805	649	3130	682	283	323	2740
13	1280	966	607	222	625	522	625	3690	645	295	233	1530
14	1210	942	610	234	299	533	597	3560	963	413	222	1030
15	1200	655	830	215	384	826	586	3380	1080	406	232	870
16	1160	761	907	205	500	900	585	2970	1220	512	257	660
17	1140	924	396	207	611	1030	542	3030	1180	409	244	562
18	769	946	262	206	615	1080	562	2580	884	405	227	602
19	452	949	258	208	693	929	652	2100	796	618	244	476
20	957	826	265	200	595	608	798	2030	778	445	260	470
21	1120	829	254	195	305	536	1080	1910	756	355	253	453
22	1180	622	255	190	370	815	1400	1640	670	388	193	473
23	962	605	243	188	573	623	1460	1630	700	361	242	446
24	1020	834	241	192	662	652	1710	1680	641	308	222	449
25	676	908	245	192	567	723	2020	1480	684	380	168	432
26	819	878	259	182	662	678	1670	1800	625	665	236	411
27	1960	598	241	593	635	682	1310	1760	524	784	355	435
28	1410	961	249	859	310	604	1180	1670	775	785	274	387
29	1120	600	239	844	593	560	1260	1450	477	1120	325	333
30	1220	616	256	841	---	665	1540	1270	417	796	574	738
31	1200	---	316	850	---	609	---	1190	---	732	522	---
TOTAL	30453	26006	17717	10431	19741	28359	27467	67530	24957	14589	11962	21194
MEAN	982	867	572	336	681	721	916	2178	832	471	386	706
MAX	1960	1130	1060	859	1110	1160	2020	3690	1250	1120	1140	4300
MIN	256	598	239	182	299	436	542	1190	417	274	168	127
AC-FT	60400	51580	35140	20690	39160	44350	54480	133900	49500	28940	23730	42040
MEAN ‡	576	399	304	225	335	659	1173	2663	797	379	314	705
AC-FT ‡	35420	23740	18690	13830	19270	40520	69800	163700	47420	23300	19310	41950

CAL YR 1975 TOTAL 794357 MEAN 2176 MAX 12600 MIN 239 AC-FT 1576000 MEAN ‡ 2104 AC-FT ‡ 1523000
WTR YR 1976 TOTAL 294406 MEAN 804 MAX 4300 MIN 127 AC-FT 584000 MEAN ‡ 712 AC-FT ‡ 516900

‡ Adjusted for change in contents in Wishon and Courtright Reservoirs.

11218500 KINGS RIVER BELOW NORTH FORK, NEAR TRIMMER, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956 to current year.

CHEMICAL ANALYSES: Water years 1956-66, 1968-70, 1973 to current year.

WATER TEMPERATURES: Water years 1967 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1966 to current year.

INSTRUMENTATION.--Temperature recorder since October 1966.

REMARKS.--Chemical-quality samples collected at gaging station 1 mi (2 km) upstream. Temperature subject to fluctuation because of powerplant operation upstream.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1967-73, 1976), 24.0°C July 31, 1971; minimum, 0.0°C on several days in 1966 and 1967.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 22.5°C July 25, Sept. 4, 5; minimum, 2.0°C Jan. 2, 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)
OCT 15...	1600	538	35	7.1	14.0	9.6	1	.9	--
MAR 15...	0930	512	46	7.2	9.0	11.0	--	--	18
JUL 22...	0830	296	45	8.0	21.0	9.2	--	--	14

DATE	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT 15...	--	--	--	--	--	18	0	15	--
MAR 15...	0	6.8	.2	3.8	.4	22	0	18	5.1
JUL 22...	1	4.7	.6	3.0	.3	16	0	13	3.8

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 15...	--	31	.04	45.0	.01	.00	.10	.01
MAR 15...	2.7	39	.05	53.9	--	--	--	--
JUL 22...	1.3	39	.05	31.2	--	--	--	--

TULARE LAKE BASIN

11218500 KINGS RIVER BELOW NORTH FORK, NEAR TRIMMER, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.5	13.5	11.5	8.5	8.5	5.0	5.5	3.0	5.5	3.0	6.5	4.5
2	16.5	14.0	11.5	8.5	8.5	5.5	5.0	2.0	5.5	3.0	5.0	3.5
3	16.0	13.5	11.5	9.5	8.5	6.0	5.0	3.0	5.5	3.0	5.5	3.0
4	17.0	15.0	12.0	9.5	8.5	6.5	5.0	2.0	3.5	3.0	6.0	3.5
5	18.0	15.0	11.5	9.5	8.5	6.5	5.0	3.0	3.0	2.5	7.0	3.5
6	15.5	12.5	11.0	9.5	8.5	6.5	5.5	3.0	4.5	2.5	8.0	4.5
7	14.5	12.5	11.5	9.5	8.5	5.5	5.5	3.0	4.5	3.0	8.0	5.0
8	13.5	11.5	11.5	10.0	8.5	6.0	5.5	3.0	4.0	3.0	7.0	5.0
9	13.0	11.5	11.5	9.0	8.5	6.5	4.5	3.5	5.0	3.5	7.0	5.0
10	13.0	12.0	10.5	8.5	8.0	6.5	6.0	3.5	6.0	4.0	7.5	5.5
11	13.0	11.0	10.0	8.0	8.5	6.5	6.0	3.5	6.0	4.0	7.5	5.5
12	12.0	10.5	10.5	8.0	7.0	6.5	5.0	4.5	5.5	3.5	7.5	6.0
13	12.0	10.5	10.5	8.0	7.0	6.5	6.5	4.5	5.5	3.5	9.0	7.0
14	12.5	10.5	10.5	8.0	8.0	5.0	6.0	3.5	6.5	5.0	10.5	6.5
15	12.5	10.5	11.0	7.5	7.5	5.0	6.5	3.5	6.5	4.0	8.0	7.0
16	13.0	11.0	10.0	7.5	7.0	4.0	7.0	4.0	5.0	3.5	9.0	6.5
17	13.0	11.0	9.0	8.5	6.0	4.0	7.0	4.5	6.0	3.5	10.0	7.5
18	13.0	11.5	9.5	7.5	6.0	3.0	7.0	4.5	6.0	4.0	9.0	7.0
19	14.0	11.0	9.5	7.0	6.5	3.5	7.0	4.0	5.5	3.5	9.5	7.0
20	13.0	11.0	10.0	6.5	---	---	7.0	4.0	5.5	3.5	10.5	7.5
21	12.5	10.5	9.5	6.0	---	---	7.0	3.5	7.0	4.0	11.5	7.5
22	12.0	10.5	9.5	6.5	---	---	6.5	3.5	6.5	4.0	10.0	8.0
23	12.0	10.0	9.5	6.0	---	---	6.5	3.5	5.0	4.0	11.0	9.0
24	12.0	9.5	9.5	6.0	7.5	5.0	6.5	4.0	5.5	3.5	11.5	9.0
25	12.0	8.5	9.5	7.0	7.0	4.5	6.5	4.0	7.0	4.0	12.0	9.5
26	11.0	10.0	9.5	7.0	6.5	4.5	7.0	3.5	6.0	4.0	12.0	9.0
27	11.5	10.0	8.5	7.5	6.5	4.0	6.0	3.0	6.5	4.5	11.5	8.0
28	11.5	9.5	8.0	7.0	8.0	6.0	5.0	2.5	9.0	6.5	11.0	8.5
29	12.0	9.0	8.5	6.0	8.0	5.5	5.0	2.5	7.5	5.5	11.5	8.0
30	10.0	9.0	8.5	5.0	7.0	5.0	5.0	3.0	---	---	11.5	9.0
31	11.0	8.5	---	---	7.0	4.0	5.0	3.0	---	---	12.5	9.5
MONTH	18.0	8.5	12.0	5.0	8.5	3.0	7.0	2.0	9.0	2.5	12.5	3.0

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.5	8.5	13.5	10.0	15.5	12.0	16.5	14.0	19.5	16.5	20.5	14.0
2	11.5	8.0	13.0	10.0	15.0	12.0	17.5	13.5	20.0	16.0	21.0	13.5
3	11.0	9.0	13.0	10.0	15.0	11.5	18.5	14.5	19.0	16.5	21.0	13.5
4	10.5	8.5	13.0	10.5	15.0	11.5	20.0	16.0	19.5	16.5	22.5	16.5
5	9.5	8.5	12.5	10.0	15.0	11.5	20.0	16.5	19.5	16.0	22.5	18.5
6	12.0	8.5	12.0	10.0	14.5	11.5	20.5	15.5	19.5	15.5	21.5	16.5
7	13.0	9.0	12.0	9.0	15.0	11.5	20.0	16.5	19.5	16.5	21.0	14.5
8	11.0	9.0	13.5	10.5	14.5	11.5	20.0	16.0	20.0	16.5	21.0	14.0
9	11.0	8.0	13.5	11.0	14.5	12.0	19.5	15.0	20.0	16.0	21.0	14.0
10	11.0	9.0	13.0	10.5	12.5	11.0	20.0	16.5	20.0	16.0	18.5	14.0
11	11.0	9.5	13.5	11.0	13.0	11.0	21.0	17.0	20.5	15.5	16.0	14.5
12	10.5	9.0	13.5	11.0	15.5	11.5	---	---	21.0	16.5	16.5	14.5
13	9.0	8.5	13.5	11.0	16.5	12.5	---	---	21.0	18.0	17.5	15.0
14	9.5	8.0	13.5	11.5	15.0	13.5	---	---	18.5	17.0	18.0	15.5
15	9.5	8.0	13.0	11.0	15.0	13.5	---	---	18.5	16.5	18.0	15.5
16	10.5	7.0	14.0	11.0	15.0	12.5	---	---	20.0	17.0	17.5	15.0
17	11.0	7.0	14.0	11.5	15.5	13.5	20.5	17.0	19.5	16.5	17.5	14.5
18	12.0	8.5	13.0	11.0	16.5	14.0	20.5	17.0	19.0	17.0	18.0	15.0
19	12.0	9.5	13.5	10.5	18.0	14.5	18.5	14.0	18.0	15.5	18.5	15.0
20	13.0	10.5	13.0	10.5	18.5	14.5	18.5	14.0	19.5	16.5	19.0	15.5
21	14.5	10.5	13.5	11.0	18.0	14.0	20.5	16.5	19.5	18.0	18.5	16.0
22	13.0	10.5	14.5	11.0	17.0	14.0	21.5	16.0	21.5	19.0	18.5	16.0
23	14.0	10.5	14.5	11.5	17.0	14.0	20.0	15.5	21.0	17.5	18.5	16.0
24	13.5	10.5	14.0	11.0	17.0	14.5	22.0	18.0	21.5	17.5	19.0	16.0
25	13.5	9.0	14.5	10.5	17.0	14.5	22.5	15.5	22.0	18.5	19.0	16.0
26	12.0	9.0	15.0	12.0	17.5	14.5	21.0	16.5	20.5	17.5	19.0	16.0
27	11.5	8.0	15.0	12.5	18.0	15.0	21.0	16.5	19.5	16.0	18.0	16.0
28	11.5	8.0	15.0	12.0	17.5	13.5	21.0	16.5	21.5	16.0	18.0	15.0
29	12.0	8.5	14.5	11.5	17.5	15.5	19.5	15.5	22.0	15.0	16.5	16.0
30	13.5	9.5	14.5	11.0	18.0	14.5	20.5	16.5	19.5	14.0	17.5	15.0
31	---	---	15.5	11.5	---	---	19.0	17.5	20.0	14.0	---	---
MONTH	14.5	7.0	15.5	9.0	18.5	11.0	22.5	13.5	22.0	14.0	22.5	13.5

TULARE LAKE BASIN

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11221000 PINE FLAT LAKE NEAR PIEDRA, CA

LOCATION.--Lat 36°49'58", long 119°19'29", in SE¼NE¼ sec.2, T.13 S., R.24 E., Fresno County, near center of Pine Flat Dam on Kings River, 1.9 mi (3.1 km) upstream from Mill Creek, 3.5 mi (5.6 km) northeast of Piedra, and 16 mi (26 km) northeast of Sanger.

DRAINAGE AREA.--1,545 mi² (4,002 km²).

PERIOD OF RECORD.--October 1951 to current year. Prior to October 1970, published as "Pine Flat Reservoir."

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to Apr. 8, 1952, nonrecording mercury gage on dam at same datum.

REMARKS.--Reservoir is formed by gravity-type concrete dam; regulation of discharge from reservoir began Dec. 4, 1951. Total capacity, 1,001,055 acre-ft (1.23 km³) between elevations 565.5 ft (172.36 m), bottom of lower tier of river outlets, and 951.5 ft (290.02 m), gross pool elevation. No dead storage. Reservoir is used for flood control and conservation storage. Water is released down Kings River for diversion by the Kings River Water Association. Records, including extremes, represent contents at 2400 hours. See schematic diagram of Kings River basin.

COOPERATION.--Records furnished by Corps of Engineers, not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,009,000 acre-ft (1.24 km³) July 15, 1967, June 8, 9, 1974, elevation, 952.76 ft (290.401 m); minimum since gross pool elevation first obtained, 179,329 acre-ft (221 hm³) Sept. 10, 1976, elevation, 751.08 ft (228.929 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 579,769 acre-ft (715 hm³) May 28, elevation, 869.57 ft (265.045 m); minimum, 179,329 acre-ft (221 hm³) Sept. 10, elevation, 751.08 ft (228.929 m).

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

715	104283	840	457481
720	113424	860	538559
740	154021	890	673065
760	201186	920	823775
780	255055	950	992146
800	315716	960	1052445
820	383196		

 CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	352801	408753	458219	475646	481131	505230	516287	547254	576351	415119	258243	193860
2	352801	410404	459815	475805	481569	507235	516204	548021	575171	406849	256604	192476
3	353276	412389	461842	476439	481968	508341	516204	548448	573686	398775	255027	191073
4	353412	414528	463796	476399	482726	509408	516659	548448	572072	391071	253597	189089
5	353514	416598	465244	476241	484125	510270	517114	548917	569982	383019	251973	187066
6	354432	418747	466263	475923	485926	510722	517693	549045	567505	375370	250298	185104
7	356443	420716	467009	475567	487089	511051	518272	549087	565078	367870	248205	183585
8	358460	422094	468305	475210	488333	511709	519764	549173	562828	360414	245953	182264
9	360105	423324	469839	474814	491068	512409	521093	550155	560195	352903	243824	180734
10	361961	425043	471061	474577	492600	513274	522547	551864	556322	345541	241454	179329
11	365168	426990	472402	474379	494013	514263	523837	553577	552635	338226	238847	185999
12	367523	428828	473667	474300	495186	515378	525087	556666	548362	330928	235871	190459
13	369885	430558	474537	474102	496359	515915	526297	560842	543216	323226	232696	192970
14	372221	432292	475329	474023	497008	516411	527383	564775	538643	315268	229463	194827
15	374564	433651	476399	473983	497940	517320	528470	568417	533839	307824	226119	196344
16	376703	434899	477709	473865	498630	518314	529475	571157	528554	303101	222988	197493
17	378849	436679	478106	473706	499158	519267	530396	573991	522630	299132	220145	198469
18	380295	438653	478106	473548	499646	520096	531319	575914	515915	296182	217637	199549
19	381143	440403	477907	473469	500662	520677	532368	576876	508792	293863	215275	200404
20	382806	441928	477709	473430	501273	520719	533796	577752	501680	291186	213134	201186
21	384864	443456	477550	473351	501110	520428	535564	578453	494498	288124	211290	201919
22	386998	444718	477391	473351	501029	520345	538179	578585	487089	284806	209455	202653
23	388746	445905	477153	473430	501273	519599	540377	578672	479736	281539	207577	203338
24	390569	447402	476875	473627	501843	518894	542919	578892	471929	278742	205911	203923
25	391644	449208	476836	473785	502087	518604	545680	578848	464187	275989	204304	204457
26	393151	450864	476479	473944	502332	518231	547979	579418	456239	273369	202729	204941
27	397040	452176	476360	474775	502699	517900	549002	579725	447939	270408	201363	205579
28	399825	454186	476241	476280	502536	517569	548362	579769	440099	267522	199674	206065
29	401966	455348	475963	477788	503147	517155	547553	579330	431688	265150	198043	206525
30	404513	456433	475805	479219	---	516989	546956	578453	423138	262643	196669	207654
31	406849	---	475725	480732	---	516576	---	577358	---	259975	195398	---
MAX	406849	456433	478106	480732	503147	520719	549002	579769	576351	415119	258243	207654
MIN	352801	408753	458219	473351	481131	505230	516204	547254	423138	259975	195398	179329
†	826.57	839.73	844.65	845.91	851.47	854.74	861.98	869.02	830.98	781.71	757.69	762.54
‡	+52859	+49584	+19292	+5007	+22415	+13429	+30380	+30402	-154220	-163163	-64577	+12256
††	1101	539	270	390	385	853	1124	2307	2619	2491	1717	1247

CAL YR 1975 ‡ -14618

WTR YR 1976 ‡ -146336

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

†† Evaporation, in acre-feet.

NOTE.--Computed on basis of revised capacity table put into use Oct. 1, 1975.

TULARE LAKE BASIN

11221500 KINGS RIVER BELOW PINE FLAT DAM, CA

LOCATION.--Lat 36°49'50", long 119°20'07", in SW¼NW¼ sec.2, T.13 S., R.24 E., Fresno County, on right bank 3,200 ft (975 m) downstream from Pine Flat Dam, and 2.9 mi (4.7 km) northeast of Piedra.

DRAINAGE AREA.--1,545 mi² (4,002 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year. Monthly and yearly discharges only and adjusted flow for some periods published in WSP 1735.

REVISED RECORDS.--WSP 1930: Drainage area. WDR-CA-72-1: Adjusted discharge.

GAGE.--Water-stage recorder and concrete control since Sept. 1, 1956. Datum of gage is 556.97 ft (169.764 m) above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1956, at site 0.2 mi (0.3 km) downstream at datum 3.48 ft (1.061 m) lower.

REMARKS.--Records excellent. Flow regulated by Pine Flat Lake (station 11221000) 0.6 mi (1.0 km) upstream and Wishon and Courtright Reservoirs (stations 11214550 and 11214800). See schematic diagram of Kings River basin.

AVERAGE DISCHARGE (adjusted for change in contents and evaporation).--23 years, 2,177 ft³/s (61.65 m³/s), 1,577,000 acre-ft/yr (1.94 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,100 (484 m³/s) June 3, 4, 8, 9, 1969, gage height, 10.73 ft (3.271 m); minimum daily, 1.1 ft³/s (0.031 m³/s) Feb. 26, 27, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,620 ft³/s (159 m³/s) June 15, gage height, 6.98 ft (2.128 m); minimum daily, 29 ft³/s (0.82 m³/s) Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	995	78	72	372	626	413	839	1850	1680	4550	1930	1100	
2	516	78	72	372	591	344	800	1990	1760	4520	1710	1090	
3	404	78	73	372	594	239	643	2090	1760	4420	1450	1080	
4	288	76	125	372	615	278	540	2030	1780	4170	1240	1070	
5	216	75	229	387	549	300	441	1910	1880	4370	1230	1070	
6	149	75	256	406	360	322	340	1790	2050	4170	1250	1070	
7	87	75	241	406	577	379	338	1600	2020	4070	1390	1080	
8	85	75	261	417	516	431	205	1510	1920	4140	1420	1140	
9	85	75	285	422	220	458	100	1480	1950	4190	1440	1130	
10	85	76	288	373	29	435	107	1480	2640	4050	1580	1050	
11	85	76	293	319	49	382	107	1460	2650	3890	1650	813	
12	85	76	280	316	92	332	106	1470	2820	3960	1750	665	
13	84	76	267	331	91	328	110	1480	3120	4100	1760	313	
14	75	76	267	284	94	357	117	1480	3250	4370	1760	141	
15	74	55	267	251	93	393	133	1480	3520	4140	1870	154	
16	74	45	271	291	231	461	151	1480	3780	2800	1780	109	
17	75	44	279	293	363	574	154	1490	4150	2400	1590	81	
18	76	45	317	293	387	640	154	1510	4270	1790	1430	81	
19	76	44	375	293	391	655	157	1510	4320	1710	1370	82	
20	76	45	375	239	381	655	171	1480	4360	1710	1290	83	
21	76	46	375	238	428	692	171	1470	4400	1800	1150	86	
22	75	46	374	199	467	851	171	1470	4440	1970	1050	101	
23	74	46	372	135	452	1020	370	1470	4440	1940	1080	128	
24	75	47	373	124	432	1010	409	1450	4500	1660	1000	154	
25	75	48	372	123	454	928	543	1440	4550	1680	900	156	
26	75	48	372	109	483	878	545	1410	4570	1850	948	156	
27	74	48	372	95	490	867	813	1480	4690	2160	955	156	
28	74	48	372	95	502	827	1430	1570	4680	2170	1060	156	
29	75	72	372	95	502	787	1620	1570	4710	2150	1050	136	
30	75	72	372	103	---	769	1750	1600	4660	2020	1150	105	
31	77	---	372	117	---	785	---	1620	---	1970	1120	---	
TOTAL	4515	1864	8991	8242	11059	17795	13535	49120	101320	94890	42353	14736	
MEAN	146	62.1	290	266	381	574	451	1585	3377	3061	1366	491	
MAX	995	78	375	422	626	1020	1750	2090	4710	4550	1930	1140	
MIN	74	44	72	95	29	239	100	1410	1680	1660	900	81	
AC-FT	8960	3700	17830	16350	21940	35300	26850	97430	201000	188200	84010	29230	
MEAN ‡	617	436	341	242	432	744	1238	2601	795	356	272	716	
AC-FT ‡	37960	25970	20990	14890	24880	45740	73660	160000	47310	21880	16700	42630	
CAL YR 1975	TOTAL	821767	MEAN	2251	MAX	7300	MIN 28	AC-FT	1630000	MEAN ‡	2185	AC-FT	1582000
WTR YR 1976	TOTAL	368420	MEAN	1007	MAX	4710	MIN 29	AC-FT	730800	MEAN ‡	734	AC-FT	532600

‡ Adjusted for change in contents in Wishon and Courtright Reservoirs, Pine Flat Lake, and evaporation from Pine Flat Lake.

11221500 KINGS RIVER BELOW PINE FLAT DAM, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-66, 1970 to current year.

CHEMICAL ANALYSES: Water years 1956-66.

WATER TEMPERATURES: Water years 1970 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1969 to current year.

INSTRUMENTATION.--Temperature recorder since October 1969.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1971-76), 25.0°C Sept. 21, 1976; minimum (water years 1970-73, 1975-76), 7.0°C Dec. 23, 24, 26, 1970, Jan. 4, 1971.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.0°C Sept. 21; minimum, 9.0°C Mar. 2, 3, 30.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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

TULARE LAKE BASIN

11221500 KINGS RIVER BELOW PINE FLAT DAM, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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

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LOCATION.--Lat 36°49'07", long 119°20'27", in NE¼NE¼ sec.10, T.13 S., R.24 E., Fresno County, on left bank 150 ft (46 m) upstream from road bridge, 0.7 mi (1.1 km) upstream from mouth, and 2.3 mi (3.7 km) east of Piedra.

PERIOD OF RECORD.--October 1957 to current year in reports of Geological Survey. November 1938 to September 1957 in reports of Kings River Water Association.

REMARKS.--Records good. Some small diversions above station for irrigation. See schematic diagram of Kings River basin.

EXTREMES FOR PERIOD OF RECORD--Maximum discharge, 11,000 ft³/s (311 m³/s) Dec. 6, 1966, gage height, 9.53 ft (2.905 m) in gage well, 10.2 ft (3.11 m) from floodmarks; maximum gage height, 9.65 ft (2.941 m) in gage well, Jan. 19, 1969 (backwater from debris); no flow for several months in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	5.5	5.5	5.0	71	8.8	6.5				
2		0	5.0	5.0	4.6	62	8.8	6.5				
3		0	5.0	5.0	4.6	72	8.8	6.5				
4		0	5.5	5.0	5.5	56	11	6.0				
5		0	5.5	5.0	12	41	12	5.5				
6		0	5.5	5.0	26	35	11	5.5				
7		0	5.5	5.0	25	32	9.5	5.5				
8		0	5.0	5.0	16	29	12	5.5				
9		0	4.6	5.0	32	27	18	5.0				
10		0	4.6	5.5	68	25	14	4.6				
11		.22	5.0	5.5	32	23	12	4.2				
12		.90	5.5	5.5	23	20	13	4.2				
13		1.2	6.0	5.5	18	19	14	3.4				
14		1.4	6.5	5.5	16	18	15	3.0				
15		1.4	6.5	5.5	15	17	14	2.6				
16		1.6	6.5	5.5	15	16	27	2.2				
17		1.6	6.0	5.5	13	15	19	2.0				
18		2.0	5.5	5.5	12	15	16	1.6				
19		2.2	5.5	5.5	15	14	13	1.4				
20		2.2	5.5	5.5	23	14	13	1.2				
21		2.2	5.5	5.0	17	12	13	1.2				
22		2.2	5.5	5.0	13	12	12	1.2				
23		2.6	5.5	5.0	12	12	11	.90				
24		2.6	5.5	5.0	11	12	9.5	.90				
25		3.0	5.5	5.0	10	11	8.8	.65				
26		3.0	5.5	5.0	10	11	8.8	.65				
27		3.4	5.5	5.0	10	11	8.2	.45				
28		6.0	5.5	5.0	10	10	7.6	.25				
29		7.6	5.0	5.0	12	10	7.0	.08				
30		6.0	5.0	5.0	---	9.5	7.0	0				
31		---	5.0	5.0	---	9.5	---	0				---
TOTAL	0	53.32	169.2	161.0	485.7	741.0	362.8	89.18	0	0	0	0
MEAN	0	1.78	5.46	5.19	16.7	23.9	12.1	2.88	0	0	0	0
MAX	0	7.6	6.5	5.5	68	72	27	6.5	0	0	0	0
MIN	0	0	4.6	5.0	4.6	9.5	7.0	0	0	0	0	0
AC-FT	0	106	336	319	963	1470	720	177	0	0	0	0
CAL YR 1975	TOTAL	9009.72	MEAN	24.7	MAX	392	MIN	0	AC-FT	17870		
WTR YR 1976	TOTAL	2062.20	MEAN	5.63	MAX	72	MIN	0	AC-FT	4090		

11224500 LOS GATOS CREEK ABOVE NUNEZ CANYON, NEAR COALINGA, CA

LOCATION.--Lat 36°12'53", long 120°28'11", in NW¼SE¼ sec.5, T.20 S., R.14 E., Fresno County, on right bank 50 ft (15 m) downstream from highway bridge, 1.1 mi (1.8 km) upstream from Nunez Canyon, 3.0 mi (4.8 km) downstream from White Creek, and 8.1 mi (13.0 km) northwest of Coalinga.

DRAINAGE AREA.--95.8 mi² (248.1 km²).

PERIOD OF RECORD.--May 1945 to current year. Prior to October 1949 monthly discharge only, published in WSP 1315-A.

REVISED RECORDS.--WSP 1215: 1950. WSP 1735: 1952(M), 1956(M). WSP 1930: Drainage area. WDR CA-72-2: 1971(P).

GAGE.--Water-stage recorder. Datum of gage is 1,067.2 ft (325.28 m) above mean sea level. Prior to Aug. 2, 1959, at site 100 ft (30 m) downstream at same datum.

REMARKS.--Records fair. Minor diversion for irrigation and stock ponds.

AVERAGE DISCHARGE.--31 years, 4.01 ft³/s (0.114 m³/s), 2,910 acre-ft/yr (3.59 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1950).--Maximum discharge, 4,360 ft³/s (123 m³/s) Feb. 24, 1969, gage height, 10.34 ft (3.152 m) in gage well, 11.30 ft (3.444 m) from floodmarks, from rating curve extended above 800 ft³/s (22 m³/s) on basis of slope-area measurement at gage height 10.34 ft (3.152 m), maximum gage height, 11.2 ft (3.41 m) Jan. 25, 1969; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 1,300 ft³/s (36.8 m³/s) Sept. 29 (time unknown), gage height, 8.80 ft (2.682 m) from rating curve extended above 150 ft³/s (4.25 m³/s), on basis of slope-area measurement at gage height 8.80 ft (2.682 m) from floodmarks, no other peak above base of 40 ft³/s (1.13 m³/s); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	.05	.03	.03				0
2					0	.10	.03	.03				0
3					0	.05	.03	.03				0
4					0	.05	.05	.03				0
5					0	.03	.05	.03				0
6					0	.03	.05	.03				0
7					0	.05	.05	.03				0
8					0	.05	.10	.03				0
9					0	.05	.22	.02				0
10					0	.05	.22	.02				0
11					0	.05	.22	.02				0
12					0	.10	.22	.02				0
13					0	.10	.28	.01				0
14					0	.10	.22	.01				0
15					0	.10	.22	0				0
16					0	.10	.22	0				0
17					0	.10	.22	0				0
18					0	.10	.22	0				0
19					0	.10	.10	0				0
20					.02	.10	.10	0				0
21					.02	.10	.10	0				0
22					.02	.05	.05	0				0
23					.02	.05	.05	0				0
24					.03	.05	.03	0				0
25					.03	.05	.03	0				0
26					.03	.05	.03	0				0
27					.03	.05	.03	0				0
28					.03	.05	.03	0				0
29					.03	.05	.03	0				110
30					---	.03	.03	0				140
31		---			---	.03	---	0	---			---
TOTAL	0	0	0	0	.26	2.02	3.26	.34	0	0	0	250
MEAN	0	0	0	0	.009	.065	.11	.011	0	0	0	8.33
MAX	0	0	0	0	.03	.10	.28	.03	0	0	0	140
MIN	0	0	0	0	0	.03	.03	0	0	0	0	0
AC-FT	0	0	0	0	.5	4.0	6.5	.7	0	0	0	496

CAL YR 1975 TOTAL 800.40 MEAN 2.19 MAX 105 MIN 0 AC-FT 1590
WTR YR 1976 TOTAL 255.88 MEAN .70 MAX 140 MIN 0 AC-FT 508

NOTE.--No gage height record Aug. 24 to Sept. 30.

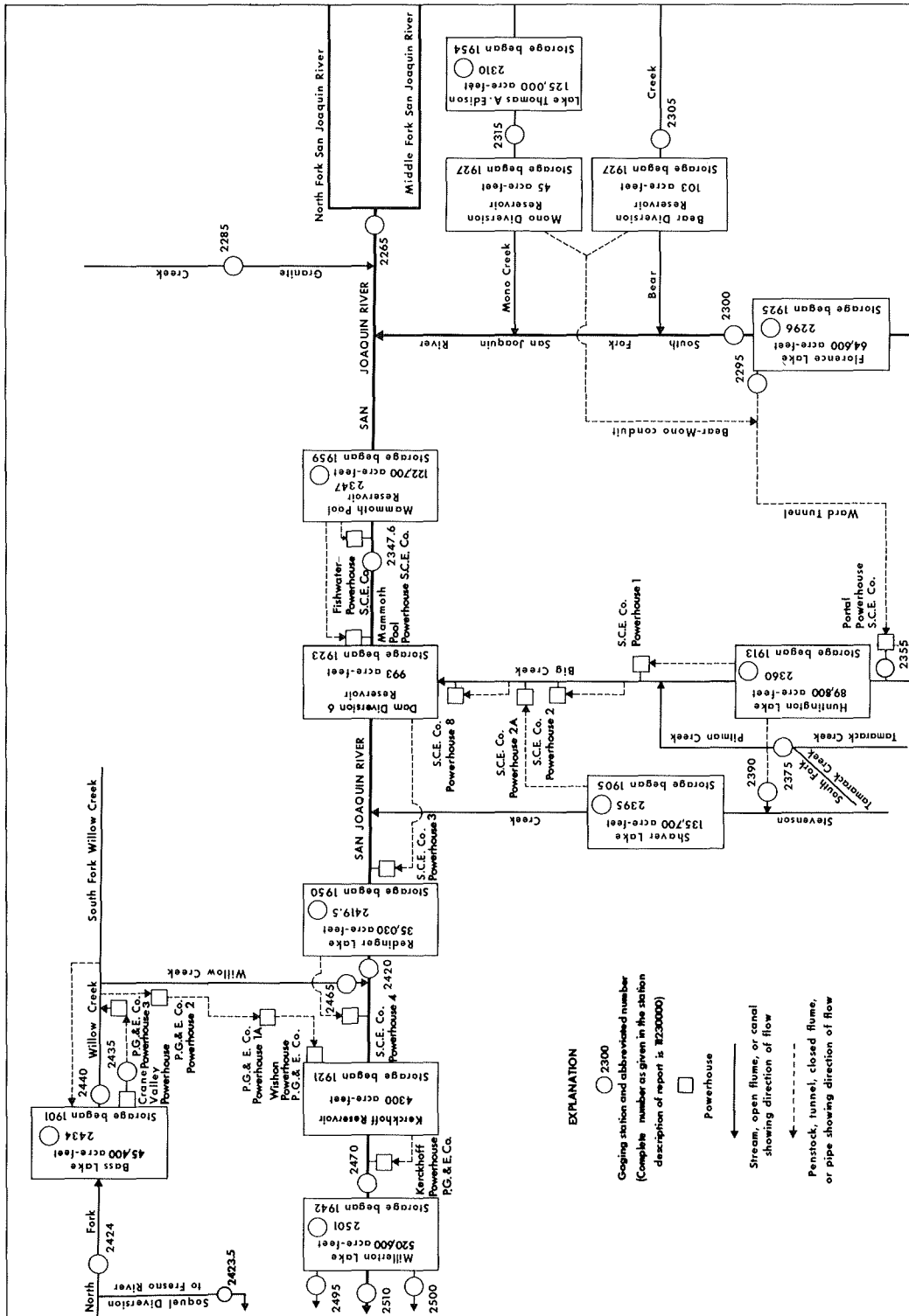


FIGURE 8.-- Schematic diagram showing diversions and storage in San Joaquin River basin.

11226500 SAN JOAQUIN RIVER AT MILLER CROSSING, CA

LOCATION.--Lat 37°30'38", long 119°11'47", in SE¼NE¼ sec.11, T.5 S., R.25 E., Madera County, Sierra National Forest, on right bank at Miller Crossing, 2.4 mi (3.9 km) downstream from North Fork San Joaquin River, 4.6 mi (7.4 km) east of Clover Meadow Ranger Station, and 23 mi (37 km) northeast of town of Bass Lake.

DRAINAGE AREA.--249 mi² (645 km²).

PERIOD OF RECORD.--October 1921 to September 1928, October 1951 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1954, published as Middle Fork San Joaquin River at Miller Bridge.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,570 ft (1,393 m), from topographic map. Prior to Mar. 24, 1922, nonrecording gage at same site and datum.

REMARKS.--Records good. No regulation or diversion above station. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage height record and four discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--32 years, 590 ft³/s (16.71 m³/s), 427,500 acre-ft/yr (527 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,600 ft³/s (470 m³/s) Dec. 23, 1955, gage height, 21.28 ft (6.486 m), from rating curve extended above 5,200 ft³/s (147 m³/s) on basis of contracted-opening measurement of maximum flow; minimum, 19 ft³/s (0.54 m³/s) Nov. 17, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (57 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
May 13	2230	2010	56.9	14.17	4.319
Sept. 11	1230	*2780	78.7	14.94	4.554

Minimum daily discharge, 60 ft³/s (1.70 m³/s) Dec. 31, Sept. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	267	130	67	72	110	256	948	607	159	278	63
2	85	274	141	75	72	128	256	974	594	145	204	62
3	84	269	131	80	71	120	271	980	525	140	162	60
4	82	256	128	80	65	125	258	1010	463	141	141	60
5	81	234	120	79	67	130	220	946	431	144	124	66
6	82	206	107	80	79	125	204	739	403	142	114	104
7	183	195	105	80	88	130	230	611	391	138	103	87
8	126	206	103	80	93	140	278	743	361	126	95	76
9	113	170	103	80	103	145	232	919	317	119	93	70
10	313	172	102	80	102	150	247	919	285	116	88	73
11	573	170	96	80	100	160	234	1090	271	119	87	1520
12	293	184	100	80	106	160	220	1260	256	121	86	733
13	251	179	85	80	109	160	230	1450	267	119	84	349
14	249	172	88	79	120	165	249	1600	301	116	83	234
15	251	159	101	79	114	170	245	1490	334	116	144	191
16	274	154	102	86	106	175	208	1370	385	126	170	179
17	274	142	94	90	106	190	201	1310	397	150	167	141
18	247	90	91	85	108	220	238	1150	382	130	136	120
19	210	109	86	79	107	200	290	941	400	116	125	106
20	208	130	85	74	105	180	431	887	382	106	133	97
21	214	114	86	71	107	190	561	830	323	101	126	186
22	230	107	89	70	106	210	577	675	254	99	119	162
23	188	107	86	70	101	215	594	684	220	102	109	138
24	159	107	92	74	96	225	753	734	208	131	94	120
25	153	106	87	65	96	240	791	753	208	183	85	110
26	668	102	86	70	97	220	586	791	212	295	80	101
27	675	105	86	70	107	210	444	840	206	222	74	95
28	349	100	87	70	119	185	391	791	195	241	70	88
29	278	93	88	71	131	175	457	693	195	370	69	85
30	262	102	86	74	---	190	692	641	177	216	66	128
31	258	---	60	70	---	240	---	607	---	242	65	---
TOTAL	7500	4781	3031	2368	2853	5383	10844	29376	9950	4791	3574	5604
MEAN	242	159	97.8	76.4	98.4	174	361	948	332	155	115	187
MAX	675	274	141	90	131	240	791	1600	607	370	278	1520
MIN	81	90	60	65	65	110	201	607	177	99	65	60
AC-FT	14880	9480	6010	4700	5660	10680	21510	58270	19740	9500	7090	11120
CAL YR 1975 TOTAL	241882		MEAN 663	MAX 4760	MIN 60	AC-FT 479800						
WTR YR 1976 TOTAL	90055		MEAN 246	MAX 1600	MIN 60	AC-FT 178600						

11228500 GRANITE CREEK NEAR CATTLE MOUNTAIN, CA

LOCATION.--Lat 37°31'36", long 119°15'28", in NE¼ sec.5, T.5 S., R.25 E., Madera County, Sierra National Forest, on right bank 0.7 mi (1.1 km) downstream from confluence of East and West Forks of Granite Creek, 1.6 mi (2.6 km) northwest of Cattle Mountain, and 21 mi (34 km) northeast of town of Bass Lake.

DRAINAGE AREA.--47.8 mi² (123.8 km²).

PERIOD OF RECORD.--October 1921 to September 1928, May 1952 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1445: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,800 ft (2,073 m), from topographic map. Prior to May 14, 1922, nonrecording gage at same site at different datum.

REMARKS.--Records poor. Some regulation by manipulation of stoplogs in controls for fishwater purposes; no diversion above station. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and 12 discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--7 years (water years 1922-28), 110 ft³/s (3.115 m³/s) 79,640 acre-ft/yr (98.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 3,140 ft³/s (88.9 m³/s) Dec. 23, 1964, gage height, 9.49 ft (2.893 m), from rating curve extended above 1,100 ft³/s (31.2 m³/s); no flow at times in 1924, 1926.

EXTREMES FOR CURRENT YEAR.--Maximum discharge recorded, 573 ft³/s (16.2 m³/s) May 13, gage height, 7.15 ft (2.179 m); minimum daily, 0.17 ft³/s (0.005 m³/s) Sept. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	63	32	3.6	6.9	---	70	147	48	1.8	2.3	.18
2	13	71	33	3.0	6.9	---	75	149	45	1.6	3.3	.20
3	12	64	30	4.5	8.2	---	86	152	35	1.4	2.5	.18
4	12	56	22	5.2	6.9	---	80	152	29	1.2	1.8	.17
5	12	43	16	6.0	4.9	---	50	147	25	1.1	1.2	.21
6	14	33	13	6.0	6.4	---	45	147	22	1.1	1.1	.29
7	28	27	14	6.0	6.9	---	62	142	20	.91	1.1	2.7
8	23	33	13	9.1	9.1	---	90	226	19	.77	.91	3.9
9	19	24	13	8.7	11	---	85	314	16	.65	.54	2.0
10	61	24	11	6.9	11	---	83	311	15	.56	.44	1.6
11	124	26	9.1	10	11	---	80	311	15	.65	.29	251
12	73	29	8.7	9.1	12	---	71	345	14	.44	.23	100
13	59	29	9.1	9.1	---	---	46	374	14	.44	.21	29
14	62	26	28	8.7	---	---	50	348	14	.44	.21	17
15	71	24	38	8.2	---	---	51	268	15	.36	2.0	14
16	79	22	14	8.7	---	---	46	244	14	1.1	7.3	19
17	78	20	8.2	11	---	---	52	219	14	1.7	6.4	13
18	58	15	8.7	12	---	---	63	166	12	2.3	6.4	10
19	39	23	13	9.6	---	---	79	136	11	2.5	5.6	7.8
20	38	18	19	6.0	---	---	124	136	11	1.6	12	5.6
21	36	16	18	4.9	---	---	145	124	9.6	1.2	7.8	17
22	37	15	17	6.4	---	---	58	149	96	8.7	.91	4.5
23	27	15	13	7.3	---	---	62	152	105	6.9	.65	2.7
24	21	15	9.1	7.8	---	---	68	152	111	6.0	.77	2.3
25	19	15	7.3	7.3	---	---	75	152	113	4.9	.77	1.6
26	97	13	8.7	8.2	---	---	64	141	114	4.2	.91	1.1
27	145	10	10	6.9	---	---	64	93	103	3.3	1.1	.65
28	77	11	11	6.4	---	---	54	78	87	3.0	3.0	.44
29	48	28	6.9	6.9	---	---	50	106	66	2.5	1.6	.29
30	34	45	6.0	7.3	---	---	64	149	56	2.0	1.4	.23
31	53	---	3.3	6.9	---	---	85	---	50	---	1.4	.20
TOTAL	1482	853	463.1	227.7			2705	5459	459.1	36.33	77.64	556.83
MEAN	47.8	28.4	14.9	7.35			90.2	176	15.3	1.17	2.50	18.6
MAX	145	71	38	12			152	374	48	3.0	12	251
MIN	12	10	3.3	3.0			45	50	2.0	.36	.20	.17
AC-FT	2940	1690	919	452			5370	10830	911	72	154	1100

SAN JOAQUIN RIVER BASIN

11229500 WARD TUNNEL INTAKE AT FLORENCE LAKE, CA

LOCATION.--Lat 37°16'27", long 118°58'23", in NW¼ sec.1, T.8 S., R.27 E., Fresno County, Sierra National Forest, in gatehouse at entrance to tunnel.

PERIOD OF RECORD.--April 1925 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as Florence Lake tunnel at intake 1925-36 and as Ward tunnel at intake 1937-60.

REVISED RECORDS.--WSP 1515: 1931.

GAGE.--Water-stage recorder, concrete control, and Venturi meter. Datum of gage is 7,213.89 ft (2,198.794 m) above mean sea level (levels by Southern California Edison Co.).

REMARKS.--Records good. Ward tunnel diverts from Florence Lake, a reservoir on South Fork San Joaquin River, to Huntington Lake via Portal powerhouse and further used in Big Creek powerplants. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record, five discharge measurements, and rating table for Venturi meter furnished by Southern California Edison Co., in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--51 years, 279 ft³/s (7,901 m³/s), 202,100 acre-ft/yr (249 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,990 ft³/s (56.4 m³/s) Apr. 30, 1926; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	302	295	46	15	18	23	52	269	412	168	233	33
2	424	407	50	14	17	26	48	318	412	124	236	33
3	419	412	48	16	17	35	50	371	410	112	236	33
4	417	417	45	18	15	40	53	402	410	99	236	33
5	414	395	41	19	14	44	50	388	409	90	234	33
6	545	498	38	18	16	44	48	341	407	88	233	33
7	644	504	37	18	18	40	50	278	405	86	233	257
8	639	371	37	19	20	40	61	272	322	83	231	480
9	570	171	37	19	21	40	55	341	275	82	231	496
10	456	90	35	18	22	40	61	436	245	80	230	480
11	454	70	35	19	22	41	60	440	233	79	226	189
12	452	73	35	20	23	40	56	308	231	77	226	3.3
13	449	70	29	20	24	41	60	254	230	75	223	232
14	442	67	28	21	25	43	62	245	230	81	222	472
15	463	64	31	20	24	44	62	206	229	85	219	472
16	472	60	31	20	22	48	54	204	229	85	167	415
17	482	60	30	22	26	58	54	198	227	84	138	504
18	483	47	29	22	24	60	60	293	223	84	138	493
19	478	31	26	20	24	52	60	419	221	112	218	544
20	511	46	24	18	20	47	78	454	219	132	287	565
21	525	44	24	18	26	46	118	436	264	132	280	556
22	445	40	25	18	26	50	150	407	307	132	275	526
23	403	40	24	17	26	50	158	407	305	131	274	376
24	395	41	26	19	24	52	194	409	304	131	144	180
25	383	40	27	16	24	56	240	407	302	131	37	124
26	373	40	27	17	24	54	231	407	298	131	36	110
27	184	40	27	17	23	52	183	407	295	183	35	100
28	178	37	26	18	24	46	146	407	292	231	35	91
29	176	31	26	18	24	44	143	412	290	233	35	88
30	175	36	25	18	---	45	204	412	261	231	34	111
31	174	---	19	17	---	53	---	412	---	231	33	---
TOTAL	12927	4537	988	569	633	1394	2901	10960	8897	3803	5615	8062.3
MEAN	417	151	31.9	18.4	21.8	45.0	96.7	354	297	123	181	269
MAX	644	504	50	22	26	60	240	454	412	233	287	565
MIN	174	31	19	14	14	23	48	198	219	75	33	3.3
AC-FT	25640	9000	1960	1130	1260	2760	5750	21740	17650	7540	11140	15990
CAL YR 1975	TOTAL	117264.0	MEAN 321	MAX 1500	MIN 19	AC-FT 232600						
WTR YR 1976	TOTAL	61286.3	MEAN 167	MAX 644	MIN 3.3	AC-FT 121600						

11229600 FLORENCE LAKE NEAR BIG CREEK, CA

LOCATION.--Lat 37°16'26", long 118°58'23", in NW¼ sec.1, T.8 S., R.27 E., Fresno County, Sierra National Forest, in gatehouse of Ward tunnel intake near dam on South Fork San Joaquin River, 16 mi (26 km) northeast of town of Big Creek.

DRAINAGE AREA.--171 mi² (443 km²).

PERIOD OF RECORD.--November 1925 to current year. Prior to October 1931, published in WSP 721.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Southern California Edison Co.).

REMARKS.--Lake is formed by multiple-arch concrete dam; storage began in April 1925. Usable capacity, 64,400 acre-ft (79.4 hm³) between elevations 7,220.9 ft (2,200.93 m), throat of Venturi tube in Ward Tunnel intake and 7,327.5 ft (2,233.42 m), top of spillway drum gates, above mean sea level. Additional storage of 168 acre-ft (207,000 m³) is not available for diversion. Water is diverted through Ward tunnel to Huntington Lake via Portal powerhouse and used for further power development in Big Creek powerplants. See schematic diagram of San Joaquin River basin. Figures given herein represent usable contents.

COOPERATION.--Records furnished by Southern California Edison Co. in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 66,000 acre-ft (81.4 hm³) July 3, 1932, elevation, 7,329.14 ft (2,233.922 m); minimum occurred during period of no record, Oct. 2-4, 1926, or Nov. 30 to Dec. 2, 1927. NOTE.--Prior to 1960, maximum and minimum daily contents were published. Maximum and minimum daily contents (water years 1926-39) summarized in WSP 881.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 26,000 acre-ft (32.1 hm³) Oct. 1, elevation, 7,282.00 ft (2,219.554 m); minimum, 241 acre-ft (297,000 m³) Jan. 25, elevation, 7,224.50 ft (2,202.028 m).

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

7220.9	0	7235	1770	7260	11600	7290	32000
7222	63	7240	2980	7265	14600	7300	39900
7224	201	7245	4670	7270	17800	7310	48300
7227	495	7250	6650	7275	21100	7320	57300
7230	887	7255	8950	7280	24600	7330	66800

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25482	5447	287	245	251	259	296	795	13338	9756	12625	7003
2	24702	4807	289	245	251	268	292	944	13404	9704	12802	7003
3	23936	4095	286	250	251	278	296	946	13314	9678	12844	7003
4	23176	3378	282	250	245	284	298	836	13142	9662	12790	7003
5	22408	2707	278	251	247	286	293	798	12933	9678	12660	7081
6	21475	1949	275	250	252	281	291	679	12701	9709	12472	7224
7	20465	1136	275	251	252	281	295	595	12442	9741	12242	6882
8	19455	569	275	251	254	279	308	661	12277	9761	11988	5979
9	18516	352	274	251	255	279	306	843	12137	9777	11723	5177
10	17781	321	272	250	256	280	305	1125	12045	9782	11447	4293
11	17256	320	272	252	259	281	305	1528	11970	9798	11163	6036
12	16613	318	267	252	261	278	305	2508	11884	9813	10867	6973
13	15937	313	270	253	261	285	311	4154	11798	9834	10562	7184
14	15263	308	264	253	261	285	311	6093	11780	9845	10268	6765
15	14543	305	269	253	260	287	307	7300	11832	9881	9975	6266
16	13506	299	267	254	263	296	307	8843	11953	9965	9767	5760
17	13064	285	266	255	263	306	297	10231	12068	10114	9605	5019
18	12289	262	264	255	264	303	304	11080	12183	10215	9434	4244
19	11513	271	261	254	262	292	310	11436	12324	10242	9111	3361
20	10460	288	259	253	264	287	342	11792	12448	10183	8638	2500
21	9803	273	259	252	267	288	387	11878	12419	10098	8164	1731
22	9066	273	260	251	266	292	410	11907	12207	10012	7676	1017
23	8401	277	259	251	263	292	431	11993	11953	9959	7211	538
24	7712	278	263	249	261	296	526	12103	11666	10007	6994	406
25	7064	278	263	248	262	300	595	12224	11380	10092	6994	377
26	6556	275	262	250	262	294	534	12460	11091	10337	6999	365
27	6480	275	262	251	260	294	447	12760	10796	10541	7007	355
28	6333	271	262	251	260	286	398	13046	10492	11025	7007	348
29	6163	263	261	251	258	285	426	13201	10172	11552	7012	352
30	6004	279	259	251	---	287	593	13261	9892	11809	7012	372
31	5849	---	250	251	---	296	---	13285	---	12160	7007	---
MAX	25482	5447	289	255	267	306	595	13285	13404	12160	12844	7224
MIN	5849	262	250	245	245	259	291	595	9892	9662	6994	348
(†)	7248.07	7224.98	7224.61	7224.62	7224.71	7225.15	7227.80	7262.86	7256.84	7260.96	7250.83	7225.92
(‡)	-20200	-5570	-29	+1	+7	+38	+297	+12700	-3390	+2270	-5150	-6640

CAL YR 1975 † -21
WTR YR 1976 ‡ -25700

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet, rounded to Geological Survey standards.

11230000 SOUTH FORK SAN JOAQUIN RIVER NEAR FLORENCE LAKE, CA

LOCATION.--Lat 37°16'24", long 118°57'54", in SE¼ sec.36, T.7 S., R.27 E., Fresno County, Sierra National Forest, on left bank 0.1 mi (0.2 km) downstream from spillway of Florence Lake Dam, 6 mi (10 km) upstream from Bear Creek, and 14.7 mi (23.7 km) east of Big Creek.

DRAINAGE AREA.--171 mi² (443 km²).

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1925, published as "near Lake Florence."

GAGE.--Water-stage recorder, Parshall flume, and concrete control. Altitude of gage is 7,200 ft (2,195 m), from topographic map.

REMARKS.--Records good. Flow regulated by Florence Lake (station 11229600) 0.1 mi (0.2 km) upstream beginning in 1925 and by diversion into Ward tunnel (station 11229500). See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage height record and 11 discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE (combined flow of South Fork San Joaquin River and Ward tunnel at intake).--55 years, 316 ft³/s (8.949 m³/s), 228,900 acre-ft/yr (282 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,320 ft³/s (122 m³/s) June 6, 1940, gage height, 15.38 ft (4.688 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 38 ft³/s (1.08 m³/s) July 28, gage height, 9.70 ft (2.957 m); minimum daily, 3.2 ft³/s (0.091 m³/s) Feb. 19-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	5.1	3.6	3.5	3.4	3.5	3.4	4.8	4.3	5.1	6.0	6.0
2	5.9	5.0	3.6	3.6	3.4	3.5	3.4	4.8	4.3	5.2	5.8	6.0
3	5.7	4.7	3.6	3.6	3.4	3.5	3.3	4.9	4.4	5.2	5.8	6.1
4	5.6	4.5	3.6	3.6	3.4	3.5	3.4	4.9	4.7	5.2	5.9	6.2
5	5.5	4.5	3.6	3.6	3.4	3.4	3.4	4.9	5.1	5.2	5.9	6.1
6	5.6	4.3	3.6	3.6	3.4	3.4	3.4	4.9	5.8	5.2	5.9	6.2
7	5.5	4.0	3.6	3.6	3.5	3.4	3.3	4.8	5.7	5.2	5.9	6.2
8	5.1	3.8	3.6	3.6	3.5	3.4	3.4	4.9	5.5	5.2	5.9	6.2
9	5.0	3.6	3.6	3.6	3.6	3.4	3.4	5.0	5.6	5.2	5.9	6.1
10	5.2	3.6	3.6	3.6	3.6	3.4	3.4	5.0	5.7	5.3	5.8	6.0
11	5.5	3.6	3.6	3.6	3.5	3.4	3.4	5.1	5.7	5.3	5.8	6.7
12	5.0	3.6	3.6	3.5	3.5	3.4	3.6	5.3	5.8	5.2	5.8	5.9
13	5.0	3.6	3.6	3.5	3.4	3.4	3.6	5.3	5.7	5.2	5.7	4.7
14	5.0	3.6	3.5	3.5	3.4	3.4	3.6	5.0	5.6	5.3	5.7	4.1
15	4.9	3.6	3.5	3.6	3.4	3.4	3.6	4.8	5.6	5.8	5.7	4.0
16	4.9	3.5	3.5	3.6	3.4	3.4	3.6	4.9	5.6	5.6	5.7	4.0
17	4.9	3.5	3.4	3.6	3.4	3.4	3.6	5.0	5.6	5.5	5.7	4.0
18	4.9	3.5	3.4	3.6	3.3	3.3	3.6	5.0	5.5	5.5	5.6	3.9
19	4.9	3.4	3.4	3.5	3.2	3.4	3.6	5.1	5.5	5.9	5.6	3.9
20	4.8	3.4	3.4	3.5	3.2	3.4	3.6	5.1	5.6	6.0	5.8	3.9
21	4.8	3.4	3.4	3.6	3.2	3.4	3.5	5.1	5.6	6.0	5.8	3.6
22	5.1	3.4	3.4	3.6	3.2	3.3	3.5	5.1	5.6	6.0	5.7	3.4
23	5.2	3.4	3.4	3.6	3.2	3.4	3.5	5.1	5.5	6.0	5.7	3.3
24	5.1	3.4	3.4	3.5	3.2	3.4	3.5	5.1	5.5	6.0	5.7	3.4
25	5.1	3.4	3.4	3.5	3.3	3.4	3.6	5.2	5.5	6.0	5.7	3.6
26	5.3	3.4	3.4	3.5	3.3	3.4	3.5	5.2	5.5	6.1	5.7	3.6
27	5.1	3.4	3.4	3.5	3.4	3.4	3.4	4.7	5.3	6.1	5.8	3.6
28	5.0	3.5	3.4	3.5	3.5	3.4	3.9	4.3	5.2	7.5	5.8	3.6
29	5.1	3.5	3.4	3.4	3.5	3.4	4.6	4.3	5.2	6.3	5.8	3.5
30	5.2	3.5	3.4	3.4	---	3.4	4.7	4.3	5.2	6.2	6.0	3.4
31	5.2	---	3.5	3.4	---	3.4	---	4.3	---	6.0	6.0	---
TOTAL	161.0	112.7	108.4	109.9	98.1	105.6	107.3	152.2	161.4	175.5	179.6	141.2
MEAN	5.19	3.76	3.50	3.55	3.38	3.41	3.58	4.91	5.38	5.66	5.79	4.71
MAX	5.9	5.1	3.6	3.6	3.6	3.5	4.7	5.3	5.8	7.5	6.0	6.7
MIN	4.8	3.4	3.4	3.4	3.2	3.3	3.3	4.3	4.3	5.1	5.6	3.3
AC-FT	319	224	215	218	195	209	213	302	320	348	356	280

CAL YR 1975 TOTAL 2977.56 MEAN 8.16 MAX 510 MIN .96 AC-FT 5910
WTR YR 1976 TOTAL 1612.90 MEAN 4.41 MAX 7.5 MIN 3.2 AC-FT 3200

11230500 BEAR CREEK NEAR LAKE THOMAS A. EDISON, CA

LOCATION.--Lat 37°20'18", long 118°58'23", in SW¼ sec.12, T.7 S., R.27 E., unsurveyed, Fresno County, Sierra National Forest, on right bank 0.2 mi (0.3 km) upstream from diversion dam, 1.7 mi (2.7 km) upstream from mouth, 2.1 mi (3.4 km) south of Lake Thomas A. Edison, and 2.4 mi (3.9 km) northeast of Mono Hot Springs.

DRAINAGE AREA.--52.5 mi² (136.0 km²).

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1954, published as "near Vermilion Valley."

REVISED RECORDS.--WSP 611: 1922(M). WSP 1345: 1931-35. WSP 1515: 1922-30. WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,366.94 ft (2,245.443 m) above mean sea level (levels by Southern California Edison Co.).

REMARKS.--Records good except those for winter periods, which are fair. No storage or diversion above station. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and 12 discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,800 ft³/s (51.0 m³/s) Sept. 5, 1972, gage height, 6.98 ft (2.128 m); maximum gage height, 7.12 ft (2.170 m) July 26, 1956; minimum discharge recorded, 1.2 ft³/s (0.034 m³/s) Sept. 29 to Oct. 5, 1924.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 424 ft³/s (12.0 m³/s) Sept. 11, gage height, 4.86 ft (1.481 m), no peak above base of 440 ft³/s (12 m³/s); minimum daily, 3.7 ft³/s (0.10 m³/s) Feb. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	38	18	6.2	4.2	8.5	18	137	135	31	155	6.5
2	13	36	22	7.7	4.2	11	18	131	135	29	111	6.5
3	12	33	17	6.5	4.2	13	20	124	113	28	90	5.9
4	11	32	13	7.7	3.7	15	19	123	99	25	70	6.2
5	9.9	30	13	6.9	5.1	19	15	131	94	25	57	13
6	9.9	26	13	6.9	5.6	20	15	99	90	25	46	28
7	27	26	12	7.3	6.9	20	19	88	86	24	38	22
8	25	26	11	4.9	6.9	14	23	99	75	22	34	20
9	24	21	10	4.9	6.2	11	19	129	62	21	30	22
10	27	22	10	4.9	6.6	11	22	157	63	20	28	20
11	52	24	9.4	4.9	9.5	11	19	183	71	19	26	285
12	52	24	8.5	4.9	9.5	12	18	229	73	19	25	228
13	50	22	8.6	4.9	8.2	12	18	281	71	18	22	150
14	47	22	6.5	4.9	6.9	12	24	306	78	17	21	107
15	43	21	9.4	5.2	6.9	14	23	281	99	18	25	83
16	43	18	8.5	7.3	8.7	20	22	273	111	32	24	67
17	45	15	10	13	8.1	23	21	261	109	53	21	56
18	41	10	16	13	7.8	20	26	216	101	42	18	47
19	34	15	17	13	6.9	15	31	168	103	37	20	40
20	33	18	17	13	10	14	49	163	94	31	19	38
21	34	14	16	12	10	15	64	150	81	27	15	49
22	34	16	17	12	7.0	18	59	131	67	23	13	47
23	29	15	18	12	6.9	16	59	126	54	28	12	49
24	26	15	16	9.4	6.4	18	83	128	46	41	11	41
25	26	13	15	12	7.0	21	84	117	42	43	9.9	38
26	42	11	13	12	7.3	16	62	143	42	68	9.9	35
27	57	9.9	9.9	11	7.3	16	49	158	42	86	8.5	32
28	44	7.7	9.0	8.1	7.3	13	45	158	41	93	8.1	28
29	36	9.9	8.5	6.5	7.3	13	58	150	40	111	7.7	29
30	33	16	8.1	4.9	---	16	96	135	35	97	7.3	49
31	39	---	4.9	4.6	---	21	---	133	---	127	6.9	---
TOTAL	1012.8	606.5	385.3	252.5	202.6	478.5	1098	5108	2352	1280	989.3	1648.1
MEAN	32.7	20.2	12.4	8.15	6.99	15.4	36.6	165	78.4	41.3	31.9	54.9
MAX	57	38	22	13	10	23	96	306	135	127	155	285
MIN	9.9	7.7	4.9	4.6	3.7	8.5	15	88	35	17	6.9	5.9
AC-FT	2010	1200	764	501	402	949	2180	10130	4670	2540	1960	3270
CAL YR 1975	TOTAL	33744.6	MEAN	92.5	MAX	617	MIN	4.9	AC-FT	66930		
WTR YR 1976	TOTAL	15413.6	MEAN	42.1	MAX	306	MIN	3.7	AC-FT	30570		

11231000 LAKE THOMAS A. EDISON NEAR BIG CREEK, CA

LOCATION.--Lat 37°22'13", long 118°59'13", in sec.26, T.6 S., R.27 E., unsurveyed, Fresno County, Sierra National Forest, in outlet works of dam on Mono Creek at lower end of Vermilion Valley, 18.1 mi (29.1 km) northeast of town of Big Creek.

DRAINAGE AREA.--90.0 mi² (233.1 km²).

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Southern California Edison Co.).

REMARKS.--Lake is formed by earthfill dam; dam completed and storage began on Oct. 12, 1954. Usable capacity, 125,000 acre-ft (154 hm³) between elevations 7,508.9 ft (2,288.71 m), invert of outlet works and 7,642.5 ft (2,329.43 m), top of gates in service spillway, above mean sea level. Dead storage negligible. Water is released for diversion to Ward tunnel via Mono Creek diversion works. See schematic diagram of San Joaquin River basin. Figures given herein represent usable contents.

COOPERATION.--Records furnished by Southern California Edison Co. in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 125,900 acre-ft (155 hm³) Aug. 18, 1958, elevation, 7,642.95 ft (2,329.571 m); minimum since appreciable storage was attained, 5,080 acre-ft (6.26 hm³) Mar. 27, 1969, elevation, 7,553.09 ft (2,302.182 m).

NOTE.--Prior to 1960, maximum and minimum daily contents were published.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 92,200 acre-ft (114 hm³) Oct. 22, elevation, 7,624.17 ft (2,323.847 m); minimum, 9,810 acre-ft (12.1 hm³) Sept. 30, elevation, 7,560.38 ft (2,304.404 m).

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

7508.9	0	7535	513	7560	9520	7610	68600
7515	18	7540	928	7570	18100	7620	85000
7520	64	7545	1830	7580	28500	7630	102400
7525	156	7550	3570	7590	40500	7640	120400
7530	297	7555	6150	7600	53800	7643	126000

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91309	89551	71279	57789	39008	31200	32761	30386	43478	42227	32679	15667
2	91309	89585	70482	57068	38572	31258	32808	30546	43829	41561	32515	14956
3	91309	89654	69690	56379	38111	31304	32866	30705	44140	40925	32245	14273
4	91291	89534	68853	55637	37641	31362	32949	30831	44414	40290	31859	13626
5	91291	89396	68053	54898	37161	31397	32984	31016	44676	39673	31385	12975
6	91291	89276	67256	54136	36693	31431	33031	31131	44951	39033	30865	12377
7	91343	89139	66404	53420	36217	31466	33089	31177	45200	38385	30330	12034
8	91343	88967	65616	52695	35741	31524	33172	31270	45332	37826	29795	12042
9	91343	88434	64851	52002	35292	31535	33220	31420	45266	37358	29232	12067
10	91430	87887	64042	51271	34822	31582	33268	31685	45161	36889	28706	12126
11	91568	87254	63242	50559	34339	31616	33351	32104	45004	36412	28161	12544
12	91619	86554	62457	49863	33875	31651	33410	32690	44833	36034	27618	12770
13	91671	85788	61607	49132	33410	31685	33482	33410	44676	35668	27069	12916
14	91706	84989	60760	48403	32972	31732	33565	34196	44532	35304	26567	13018
15	91740	84211	60008	47693	32503	31778	33637	34990	44440	35003	26068	13069
16	91861	83449	59215	47064	32045	31836	33637	35778	44361	34773	25486	12881
17	91913	82607	58822	46587	31582	31893	33291	36534	44335	34520	24812	12907
18	92000	81732	58763	46097	31108	31963	32937	37210	44493	34208	24059	12958
19	91948	80895	58691	45568	30831	32010	32608	37777	44571	33839	23534	12993
20	92069	80109	58632	45043	30831	32069	32292	38285	44820	33541	23177	13069
21	92138	79295	58588	44532	30854	32127	32022	38759	45030	33196	22825	13129
22	92034	78482	58559	44036	30877	32186	31755	39158	45017	32937	22464	13189
23	91688	77640	58486	43530	30912	32256	31489	39573	44742	32784	22092	13069
24	91395	76850	58443	43011	30946	32315	31270	40013	44414	32702	21513	12527
25	91119	76031	58384	42497	30981	32385	31120	40404	44127	32632	20777	11876
26	91102	75247	58341	42009	31016	32444	30969	40836	43829	32667	20009	11183
27	91274	74451	58282	41484	31039	32491	30785	41319	43504	32702	19274	10522
28	91171	73640	58224	40963	31073	32538	30591	41803	43310	32702	18550	10061
29	90705	72786	58180	40492	31154	32585	30409	42240	43245	32726	17807	9922
30	90290	72030	58122	39988	---	32632	30295	42677	42818	32620	17101	9814
31	89774	---	58020	39510	---	32702	---	43076	---	32585	16379	---
MAX	92138	89654	71279	57789	39008	32702	33637	43076	45332	42227	32679	15667
MIN	89774	72030	58020	39510	30831	31200	30295	30386	42818	32585	16379	9814
(†)	7622.79	7612.15	7602.98	7589.25	7582.33	7583.66	7581.58	7592.05	7591.85	7583.56	7568.12	7560.38
(‡)	-1620	-17700	-14000	-18500	-8360	+1550	-2410	+12800	-258	-10200	-16200	-6570

CAL YR 1975 † +2780

WTR YR 1976 ‡ -81600

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet, rounded to Geological Survey standards.

11231500 MONO CREEK BELOW LAKE THOMAS A. EDISON, CA

LOCATION.--Lat 37°21'40", long 118°59'26", in SW¼ sec.35, T.6 S., R.27 E., unsurveyed, Fresno County, Sierra National Forest, on left bank 0.6 mi (1.0 km) upstream from diversion dam, 1 mi (2 km) downstream from Lake Thomas A. Edison Dam, and 1.9 mi (3.1 km) northeast of Mono Hot Springs.

DRAINAGE AREA.--92.5 mi² (239.6 km²).

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1954, published as "near Vermilion Valley."

REVISED RECORDS.--WSP 1011: 1943. WSP 1515: 1956.

GAGE.--Water-stage recorder. Altitude of gage is 7,400 ft (2,256 m), from topographic map.

REMARKS.--Records good. Flow regulated by Lake Thomas A. Edison (station 11231000) 1 mi (2 km) upstream beginning Oct. 12, 1954. No diversion above station. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and nine discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE (adjusted for storage).--55 years, 150 ft³/s (4.248 m³/s), 108,700 acre-ft/yr (134 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,760 ft³/s (49.8 m³/s) June 2, 1938, gage height, 8.62 ft (2.627 m); minimum daily, 0.3 ft³/s (0.008 m³/s) Nov. 11, 12, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 419 ft³/s (11.9 m³/s) Nov. 23, gage height, 6.55 ft (1.996 m); minimum daily, 10 ft³/s (0.28 m³/s) Sept. 10, 13, 14, 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	148	410	132	260	15	15	106	13	308	112	353
2	17	19	415	361	260	15	15	106	13	342	193	353
3	17	82	415	365	260	15	16	108	13	342	197	353
4	16	120	415	373	260	15	16	108	13	342	231	350
5	16	120	415	369	260	16	16	108	13	342	273	350
6	16	120	410	369	260	16	16	108	13	342	280	350
7	16	123	410	369	260	16	16	108	13	342	280	199
8	17	138	410	365	260	16	16	108	94	301	280	11
9	16	285	406	365	260	16	16	108	148	266	280	11
10	16	334	406	361	256	16	16	66	176	266	280	10
11	17	342	398	361	250	16	16	12	196	266	280	11
12	17	369	398	357	250	16	16	12	196	225	276	11
13	17	398	398	357	250	16	16	12	196	219	276	10
14	17	406	406	357	250	16	16	12	196	219	276	10
15	17	402	406	357	250	16	16	12	196	219	276	38
16	17	398	406	308	250	16	79	12	193	219	290	131
17	17	406	218	260	250	16	219	12	158	219	323	11
18	17	410	60	266	250	16	219	12	98	219	373	10
19	17	406	58	263	163	16	219	12	101	210	280	10
20	17	406	56	260	15	16	219	12	13	198	193	17
21	17	406	58	260	15	16	219	13	13	198	193	11
22	107	406	58	260	15	15	219	13	120	174	193	11
23	179	410	58	260	15	15	219	13	219	160	193	159
24	179	415	58	260	15	15	219	13	219	138	276	273
25	179	415	58	263	15	15	193	13	219	135	365	338
26	160	415	58	263	15	15	176	13	216	135	365	346
27	19	415	58	263	15	15	176	14	216	128	361	342
28	141	415	58	260	15	15	174	13	149	121	361	239
29	294	410	58	260	15	15	176	13	85	110	361	106
30	294	410	58	260	---	15	174	13	253	174	361	104
31	294	---	58	260	---	15	---	13	---	155	361	---
TOTAL	2197	9549	7554	9444	4909	482	3138	1298	3761	7034	8639	4528
MEAN	70.9	318	244	305	169	15.5	105	41.9	125	227	279	151
MAX	294	415	415	373	260	16	219	108	253	342	373	353
MIN	16	19	56	132	15	15	15	12	13	110	112	10
AC-FT	4360	18940	14980	18730	9740	956	6220	2570	7460	13950	17140	8980
CAL YR 1975	TOTAL	51870	MEAN 142	MAX 415	MIN 12	AC-FT	102900					
WTR YR 1976	TOTAL	62533	MEAN 171	MAX 415	MIN 10	AC-FT	124000					

11234700 MAMMOTH POOL RESERVOIR NEAR BIG CREEK, CA

LOCATION.--Lat 37°19'45", long 119°19'40", in SW¼ sec.10, T.7 S., R.24 E., Madera County, Sierra National Forest, in gatehouse of power tunnel intake near dam on San Joaquin River, 10 mi (16 km) northwest of town of Big Creek.

DRAINAGE AREA.--995 mi² (2,577 km²).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Southern California Edison Co.).

REMARKS.--Reservoir is formed by an earthfill dam; storage began Oct. 8, 1959. Usable capacity, 119,900 acre-ft (148 hm³) between elevations 3,100.00 ft (944.880 m), invert of power tunnel and 3,330.00 ft (1,014.984 m), crest of spillway, above mean sea level. Additional storage of 2,780 acre-ft (3.43 hm³) is not available for release. Water is diverted through tunnel for power development; water is returned to river 8.5 mi (13.7 km) downstream from dam. See schematic diagram of San Joaquin River basin. Figures given herein represent usable contents.

COOPERATION.--Records furnished by Southern California Edison Co. in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 126,500 acre-ft (156 hm³) June 2, 3, 1969; maximum elevation, 3,335.86 ft (1,016.770 m) June 3, 1969; minimum contents since appreciable storage was attained, 4,580 acre-ft (5.65 hm³) Apr. 5, 1973, elevation, 3,139.87 ft (957.032 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 87,900 acre-ft (108 hm³) June 4, elevation, 3,297.99 ft (1,005.227 m); minimum, 5,100 acre-ft (6.29 hm³) Apr. 5, elevation, 3,142.94 ft (957.968 m).

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

3100	0	3130	3110	3180	14100	3260	56400
3105	417	3140	4600	3190	17400	3280	72100
3110	861	3150	6400	3200	21400	3300	89800
3115	1360	3160	8620	3220	31100	3320	109300
3120	1900	3170	11200	3240	42800	3335	125500

CONTENTS, IN ACRE-Feet, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45981	41219	21273	20128	20851	18300	5346	21495	86968	70429	58063	33389
2	45046	40315	21065	18284	20738	17251	5327	24634	87271	70132	58063	32494
3	44125	39932	21044	18447	20638	16650	5368	27349	87354	70090	57928	31575
4	43181	39524	20734	18723	20613	15938	5345	30079	87225	70140	57742	30686
5	43301	39172	20567	18946	20642	15274	5223	32813	86849	70330	57082	29768
6	42385	38816	20399	18887	20642	15756	5597	34869	86584	69694	56396	28956
7	41716	38641	20308	18482	20809	16005	5849	36588	86091	68857	55478	27919
8	40959	38677	20152	18672	20768	14934	7122	37784	85536	68302	54549	26759
9	40163	37939	20083	18962	20354	13906	8018	40616	84883	67830	53835	25580
10	39591	37570	19938	19255	20622	13676	8715	43339	84566	67764	53098	24198
11	42172	37065	19877	19449	20697	12838	8616	46164	83978	67732	52386	26239
12	43308	36611	19776	19418	20676	11967	8587	49488	83274	67228	51607	26528
13	43009	36204	19712	19430	20680	12046	9162	53225	82537	66686	50833	25613
14	42838	35299	20019	19374	21222	12902	9595	57208	81812	66161	49790	24541
15	42347	34142	20047	19306	21465	12021	10253	60751	81214	65598	48829	23599
16	42222	32560	20047	19180	21396	11242	10799	63530	80538	65190	48312	22607
17	42159	31624	20128	19505	21154	10440	11678	66266	79904	65230	47698	22367
18	41778	30627	20201	19853	20763	9870	12656	68898	79396	65030	47072	22319
19	42065	29699	20043	19853	20317	9041	12955	70719	78602	64487	46386	22143
20	41554	29013	20112	19837	18903	8248	13734	72437	77892	63593	45747	21947
21	40984	28268	19990	19801	19298	8278	14846	73990	77281	62705	44814	21846
22	40462	27481	19845	19865	19780	7770	15423	75139	76500	61771	43748	21842
23	40450	26704	19541	20148	18731	7323	15195	76328	75651	60751	43028	21690
24	40340	25996	19902	20423	17776	6818	15297	77694	74789	60145	42147	21534
25	40254	25184	20259	20701	17614	6437	16218	79134	73948	59548	41244	21430
26	41120	24276	20555	20647	17674	5923	16395	80345	73364	58961	40426	21328
27	42674	23608	20847	20655	17542	5775	15569	81785	72883	58332	39512	21230
28	42467	23115	21137	20534	18069	5571	15944	83157	72026	57839	38173	21192
29	41641	22571	20905	20374	18817	5535	16945	84439	71417	57661	36698	21154
30	41485	21881	20705	20284	---	5435	18751	85546	70794	57690	35623	20951
31	41281	---	20642	20563	---	5435	---	86402	---	57445	34577	---
MAX	45981	41219	21273	20701	21465	18300	18751	86402	87354	70429	58063	33389
MIN	39591	21881	19541	18284	17542	5435	5223	21495	70794	57445	34577	20951
(†)	3237.59	3201.11	3198.20	3198.01	3193.66	3144.85	3193.49	3296.33	3278.42	3261.44	3226.29	3198.94
(‡)	-5450	-19400	-1240	-79	-1750	-13400	+13300	+67700	-15600	-13300	-22900	-13600

CAL YR 1975 † -3370

WTR YR 1976 ‡ -25800

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet, rounded to Geological Survey standards.

11234760 SAN JOAQUIN RIVER ABOVE SHAKEFLAT CREEK, NEAR BIG CREEK, CA

LOCATION.--Lat 37°19'00", long 119°19'37", in NW¼SW¼ sec.14, T.7 S., R.24 E., Madera County, Sierra National Forest, on right bank 1,500 ft (457 m) upstream from Shakeflat Creek, 4,900 ft (1,494 m) downstream from Mammoth Pool Dam, and 10 mi (16 km) northwest of town of Big Creek.

DRAINAGE AREA.--1,003 mi² (2,598 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 2,865.50 ft (873.404 m) above mean sea level (levels by Southern California Edison Co.).

REMARKS.--Records good. Flow regulated by Mammoth Pool Reservoir (station 11234700) 4,900 ft (1,494 m) upstream. Flow partly regulated by Florence Lake (station 11229600), Lake Thomas A Edison (station 11231000) and diversions through Ward tunnel (station 11229500), and through Mono-Bear conduit to Ward tunnel. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and 14 discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft³/s (521 m³/s) June 3, 1969, gage height, 18.38 ft (5.602 m); minimum daily, 0.3 ft³/s (0.008 m³/s) Oct. 14, Dec. 5, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33 ft³/s (0.93 m³/s) Oct. 10, gage height, 2.79 ft (0.850 m); minimum daily, 10 ft³/s (0.28 m³/s) Nov. 13, Feb. 6-8, Mar. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	28	12	12	12	14	12	15	15	17	15	13
2	28	28	12	12	12	13	12	16	15	17	15	13
3	28	28	12	12	12	13	12	16	15	17	15	13
4	28	28	12	12	12	12	12	16	15	17	14	13
5	28	19	12	12	12	12	12	16	15	17	14	13
6	29	12	12	12	10	12	11	15	15	17	14	15
7	29	12	12	12	10	12	11	15	15	17	14	15
8	28	12	12	12	10	11	12	15	15	17	14	15
9	28	12	12	12	12	10	12	16	15	16	14	15
10	30	12	12	12	12	12	12	16	15	16	14	15
11	30	12	12	12	12	14	12	16	15	16	14	18
12	29	11	12	12	12	14	12	16	15	16	13	16
13	28	10	12	12	12	14	12	16	15	16	15	15
14	28	11	12	12	12	14	13	16	15	16	15	15
15	28	12	12	12	12	14	15	16	15	16	15	15
16	28	12	12	12	12	14	15	16	15	16	14	15
17	28	12	12	12	12	13	15	16	15	16	14	15
18	28	12	12	12	12	13	15	15	15	16	14	15
19	28	12	12	12	12	13	15	15	15	15	14	15
20	28	12	12	12	12	13	15	15	15	14	14	15
21	28	12	12	12	12	13	15	15	15	14	14	15
22	28	12	12	12	12	13	15	15	15	14	14	15
23	28	12	12	12	12	13	15	15	15	14	14	15
24	28	12	12	12	12	12	15	15	15	14	14	15
25	28	12	12	12	12	12	15	15	15	14	14	15
26	28	12	12	11	12	12	15	15	15	14	14	15
27	28	12	12	11	12	12	15	15	16	14	14	15
28	28	12	12	11	12	12	15	15	16	14	14	15
29	28	12	12	11	14	12	15	15	16	15	14	15
30	29	12	12	11	---	12	15	15	17	15	13	15
31	28	---	12	11	---	12	---	15	---	15	13	---
TOTAL	876	427	372	366	344	392	407	478	455	482	437	444
MEAN	28.3	14.2	12.0	11.8	11.9	12.6	13.6	15.4	15.2	15.5	14.1	14.8
MAX	30	28	12	12	14	14	15	16	17	17	15	18
MIN	28	10	12	11	10	10	11	15	15	14	13	13
AC-FT	1740	847	738	726	682	778	807	948	902	956	867	881
CAL YR 1975	TOTAL	133683	MEAN	366	MAX	7300	MIN	10	AC-FT	265200		
WTR YR 1976	TOTAL	5480	MEAN	15.0	MAX	30	MIN	10	AC-FT	10870		

11235500 WARD TUNNEL OUTLET AT HUNTINGTON LAKE, CA

LOCATION.--Lat 37°15'25", long 119°09'38", in SE&SW& sec.5, T.8 S., R.26 E., Fresno County, Sierra National Forest, at tunnel outlet at east end of Huntington Lake, 0.9 mi (1.4 km) east of Lakeshore Post Office, and 6 mi (10 km) northeast of Big Creek.

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1960, published as Ward tunnel at outlet.

GAGE.--Pressure-differential recorder to record discharge through penstock. November 1927 to May 23, 1956, water-stage recorder at datum 6,999.00 ft (2,133.295 m) above mean sea level (levels by Southern California Edison Co.). May 24, 1956, to Sept. 30, 1968, no recorder, see REMARKS below.

REMARKS.--Daily discharge for the period May 24, 1956, to Sept. 30, 1968, computed as the sum of Ward tunnel at intake, Mono-Bear conduit, Camp Creek conduit, and corrected for change in contents of Portal Forebay. Tunnel diverts from Florence Lake to Huntington Lake via Portal powerhouse, receives diversions from Bear and Mono Creeks and at times from several other small tributaries of South Fork San Joaquin River. See record for station 11229500 Ward tunnel intake at Florence Lake.

COOPERATION.--Records collected by Southern California Edison Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--49 years, 483 ft³/s (13.68 m³/s), 349,900 acre-ft/yr (431 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,080 ft³/s (58.9 m³/s) June 21, 1935; no flow at times in 1961, 1964-65, 1968, 1971-72, 1974.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	302	513	506	115	288	40	77	638	603	539	507	428
2	450	466	515	411	291	68	75	590	595	532	583	407
3	460	513	519	379	304	28	78	637	570	517	505	430
4	455	512	514	358	291	129	84	662	536	500	539	401
5	455	539	552	412	296	93	67	655	559	490	596	458
6	538	632	469	418	304	86	96	551	546	475	603	440
7	688	618	467	446	294	101	73	490	539	470	596	451
8	618	532	481	389	306	92	101	497	532	484	589	456
9	563	464	484	415	316	88	87	612	529	431	578	516
10	521	457	487	409	294	23	114	670	539	367	574	496
11	545	462	483	412	316	73	91	689	541	340	567	555
12	543	491	486	412	283	70	93	659	581	283	567	280
13	537	508	469	414	434	83	106	601	514	375	589	306
14	533	516	484	417	326	61	123	650	542	298	561	532
15	545	564	488	408	316	73	118	542	549	295	561	641
16	554	480	481	409	307	83	124	553	594	310	560	570
17	561	484	407	336	308	109	339	513	468	362	510	542
18	558	490	192	325	307	102	299	530	400	347	515	533
19	548	469	186	283	218	84	325	602	497	381	559	546
20	573	487	129	293	51	63	358	643	318	360	531	613
21	591	494	83	291	63	74	414	636	392	368	520	581
22	608	488	95	312	95	73	342	569	432	331	510	567
23	627	495	102	298	75	85	442	551	607	302	512	560
24	620	498	72	307	67	86	507	540	570	316	472	558
25	608	499	91	297	89	87	535	544	578	316	451	504
26	628	498	93	306	31	102	477	550	574	343	457	522
27	421	495	96	309	104	84	415	653	576	359	446	510
28	329	489	88	301	47	75	367	610	565	463	446	518
29	556	484	81	280	59	71	472	621	368	418	443	191
30	551	488	88	302	---	80	404	597	567	557	439	160
31	550	---	94	309	---	76	---	583	---	603	438	---
TOTAL	16636	15125	9782	10773	6480	2442	7203	18438	15781	12532	16324	14272
MEAN	537	504	316	348	223	78.8	240	595	526	404	527	476
MAX	688	632	552	446	434	129	535	689	607	603	603	641
MIN	302	457	72	115	31	23	67	490	318	283	438	160
AC-FT	33000	30000	19400	21370	12850	4840	14290	36570	31300	24860	32380	28310
CAL YR 1975	TOTAL	206117	MEAN 565	MAX 1680	MIN 47	AC-FT 408800						
WTR YR 1976	TOTAL	145788	MEAN 398	MAX 689	MIN 23	AC-FT 289200						

11236000 HUNTINGTON LAKE NEAR BIG CREEK, CA

LOCATION.--Lat 37°14'03", long 119°12'41", in SW¼ sec.14, T.8 S., R.25 E., Fresno County, Sierra National Forest, in gate tower of dam 1 on Big Creek, 2 mi (3 km) northeast of town of Big Creek.

DRAINAGE AREA.--80.5 mi² (208.5 km²).

PERIOD OF RECORD.--April 1913 to current year. Prior to October 1926, monthly contents only, published in WSP 1315-A; 1926-31, published in WSP 721.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Southern California Edison Co.). Prior to June 19, 1920, nonrecording gage at same site and datum.

REMARKS.--Lake is formed by four dams; storage began Apr. 11, 1913. Dams were raised in 1914 and again in 1917. Usable capacity, 89,200 acre-ft (110 hm³) between elevations 6,819.9 ft (2,078.71 m), invert of outlet tunnel No. 1 and 6,950 ft (2,118.4 m), spillway crest at dam 1, above mean sea level. Additional storage of 600 acre-ft (740,000 m³) is not available for release. Huntington-Shaver conduit (station 11239000) has diverted water from Huntington Lake to Shaver Lake since Apr. 21, 1928. Water is used for power development in Big Creek powerplants. See schematic diagram of San Joaquin River basin. Figures given herein represent usable contents.

COOPERATION.--Records furnished by Southern California Edison Co. in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 90,500 acre-ft (112 hm³) May 31, 1926, elevation, 6,950.92 ft (2,118.640 m); minimum, 2,100 acre-ft (2.59 hm³) Nov. 6, 1937, elevation, 6,838.53 ft (2,084.384 m).

NOTE.--Prior to 1960, maximum and minimum daily contents were published. Maximum and minimum daily contents (water years 1913-39) were summarized in WSP 881.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 88,500 acre-ft (109 hm³) Oct. 27, elevation, 6,949.55 ft (2,118.223 m); minimum, 39,800 acre-ft (49.1 hm³) Apr. 17, elevation, 6,909.60 ft (2,106.046 m).

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

6819.9	0	6835	1550	6870	11300	6920	50800
6820	8	6840	2350	6880	16400	6930	62600
6822	142	6845	3320	6890	22900	6940	75300
6825	382	6850	4480	6900	30900	6950	89200
6830	899	6860	7430	6910	40200	6951	90610

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87750	87836	85726	72639	70519	65946	48294	46059	73362	85022	87552	87254
2	87410	87693	85655	72339	70571	65394	47771	47187	73848	85472	87608	87211
3	87140	87693	85599	72078	70506	64671	47230	48370	74205	85909	87495	87211
4	87651	87850	85514	71986	70648	64161	46626	49634	74589	86345	87395	87211
5	87367	87836	85529	71986	70868	63578	45739	50812	75053	86757	87395	87282
6	87310	88022	85360	71986	71037	62962	44923	51633	75518	87012	87410	87481
7	87651	88208	85162	71791	71011	62420	44062	52334	75971	87239	87395	87523
8	87722	88194	85022	71660	70972	61723	43333	53749	76359	87509	87367	87466
9	87651	87993	84909	71595	71050	61041	42508	55030	76733	87665	87339	87495
10	87779	87908	84769	71516	71063	60362	42240	56207	77110	87693	87282	87594
11	88022	87708	84615	71438	71076	59698	41924	57372	77554	87793	87310	88279
12	87993	87594	84518	71347	71076	59049	41650	58536	78106	87637	87254	87793
13	87965	87523	84350	71270	71101	58393	41242	59602	78540	87665	87239	87254
14	87908	87466	84224	71179	71127	57702	40840	60726	78906	87594	87140	87154
15	87850	87509	84070	71101	71205	57065	40457	61650	79273	87552	87112	87296
16	87822	87367	83916	71011	71270	56464	40037	62629	79695	87424	87097	87282
17	87793	87211	83581	71011	71321	55880	40007	63369	80078	87566	86984	87211
18	87750	87083	82679	70985	71321	55331	40067	64037	80242	87580	86927	87140
19	87622	86984	81711	70894	71283	54740	40087	64770	80747	87580	87112	87055
20	87651	86870	81077	70817	70739	54208	40216	65520	80981	87580	87197	87140
21	87651	86743	80487	70726	70209	53760	40488	66234	81077	87580	87154	87197
22	87679	86587	79832	70687	69758	53152	40699	66878	81201	87452	87083	87183
23	87736	86587	79164	70584	69270	52572	41222	67509	81711	87495	87154	87154
24	87793	86459	78432	70506	68770	51993	41894	67993	82152	87509	87225	87097
25	87836	86345	77742	70571	68299	51396	42704	68464	82582	87665	87268	86956
26	88394	86204	77002	70571	67725	50846	43270	68975	83137	87594	87197	86842
27	88294	86120	76305	70454	67370	50556	43635	69617	83623	87552	87239	86729
28	87822	86078	75785	70467	66865	50423	43906	70351	84028	87736	87254	86587
29	87822	85923	74827	70441	66499	49878	44470	71140	84112	87708	87268	85838
30	87836	85810	74072	70441	---	49337	44965	71947	84532	87637	87268	85036
31	87865	---	73348	70416	---	48819	---	72757	---	87693	87310	---
MAX	88394	88208	85726	72639	71321	65946	48294	72757	84532	87793	87608	88279
MIN	87140	85810	73348	70416	66499	48819	40007	46059	73362	85022	86927	85036
(†)	6949.09	6947.64	6938.49	6936.24	6933.17	6918.20	6914.62	6938.04	6946.73	6948.97	6948.70	6947.09
(‡)	-486	-2060	-12500	-2930	-3920	-17700	-3850	+27800	+11800	+3160	-383	-2270

CAL YR 1975 ‡ -5060

WTR YR 1976 ‡ -3320

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet, rounded to Geological Survey standards.

11237500 PITMAN CREEK BELOW TAMARACK CREEK, CA

LOCATION.--Lat 37°11'54", long 119°12'48", in NW¼NW¼ sec.35, T.8 S., R.25 E., Fresno County, Sierra National Forest, on right bank 250 ft (76 m) upstream from Huntington-Shaver conduit tunnel, 0.8 mi (1.3 km) downstream from confluence of Tamarack Creek and South Fork Tamarack Creek, 1.4 mi (2.3 km) upstream from mouth, and 1.9 mi (3.1 km) east of town of Big Creek.

DRAINAGE AREA.--22.9 mi² (59.3 km²).

PERIOD OF RECORD.--October 1927 to current year. Records for water year 1928 incomplete, yearly estimate published in WSP 1315-A.

REVISED RECORDS.--WSP 931: 1940. WSP 1315-A: 1944. WSP 1395: 1928-29, 1938. WSP 1515: 1929.

GAGE.--Water-stage recorder, Parshall flume, and concrete control. Altitude of gage is 7,005 ft (2,135 m), from Southern California Edison Co. contour map. Prior to Sept. 29, 1940, at site 10 ft (3 m) downstream at same datum.

REMARKS.--Records fair except those for winter periods, which are poor. No diversion above station; practically all flow diverted below station to Huntington-Shaver conduit. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and 14 discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--49 years, 39.2 ft³/s (1.110 m³/s), 28,400 acre-ft/yr (35.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,670 ft³/s (104 m³/s) Dec. 23, 1955, gage height, 11.20 ft (3.414 m), from rating curve extended above 1,100 ft³/s (31.2 m³/s) on basis of slope-area measurement at gage height 10.77 ft (3.283 m); no flow Oct. 15-18, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 162 ft³/s (4.59 m³/s) May 9, gage height, 5.00 ft (1.524 m), no peak above base of 200 ft³/s (5.7 m³/s); minimum daily, 0.28 ft³/s (0.008 m³/s) Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	12	8.8	5.2	5.3	7.9	26	96	13	3.1	1.3	.28
2	1.3	12	9.7	4.2	5.5	8.1	29	96	12	3.1	1.1	.30
3	1.2	12	9.7	4.6	5.2	8.4	31	96	11	2.9	.87	.30
4	1.2	11	8.8	4.8	4.2	8.5	27	94	11	2.7	.84	.34
5	1.2	9.9	7.7	5.7	4.7	8.4	22	84	11	2.6	.84	.39
6	1.7	8.5	7.5	5.7	5.2	7.9	22	72	11	2.4	.84	.39
7	13	7.9	7.8	4.8	5.9	7.9	27	67	10	2.2	.81	.39
8	6.6	7.9	7.8	5.2	6.4	7.6	30	75	10	2.0	.78	.34
9	3.9	7.5	7.5	5.5	6.7	7.6	33	99	10	1.9	.72	.34
10	11	8.1	7.5	5.5	6.8	7.9	29	109	11	1.7	.64	.45
11	44	7.0	6.8	5.5	6.9	8.2	24	93	10	1.6	.59	.39
12	17	7.1	6.4	5.5	7.0	8.2	22	93	9.7	1.5	.54	.12
13	13	7.4	6.3	5.5	7.0	9.1	20	85	9.1	1.5	.49	6.1
14	11	7.7	6.2	5.5	6.9	9.7	19	76	8.5	1.4	.49	3.9
15	9.6	7.3	6.4	5.5	6.8	10	19	65	7.6	1.3	.87	3.1
16	9.2	7.1	6.8	6.1	6.7	12	20	58	7.3	1.6	1.5	2.7
17	8.0	6.9	6.8	6.4	6.4	14	20	51	6.8	1.9	1.2	2.3
18	7.1	5.2	6.1	6.1	6.8	15	21	44	6.6	1.6	1.0	2.1
19	6.2	5.0	6.1	5.9	6.8	15	29	36	6.6	1.4	1.3	1.9
20	5.8	5.0	5.9	5.3	6.8	14	44	33	6.4	1.2	1.6	1.9
21	5.6	4.5	6.1	5.0	6.8	14	61	30	5.9	1.2	1.2	3.0
22	5.4	5.4	6.6	4.8	6.8	18	67	28	5.7	1.1	.93	2.5
23	5.2	5.9	6.6	4.5	6.4	19	73	26	5.5	1.1	.78	1.9
24	4.6	5.8	6.6	4.8	6.1	20	85	26	5.2	1.1	.70	1.7
25	6.1	5.8	6.6	4.4	6.1	23	84	23	4.8	1.0	.61	1.6
26	28	5.1	6.6	4.2	6.1	22	65	21	4.5	.90	.56	1.5
27	52	5.0	6.6	4.2	6.8	21	55	19	4.2	.90	.49	1.5
28	22	8.6	6.8	4.4	7.3	21	57	18	3.7	.99	.44	1.3
29	15	19	6.8	4.7	7.6	20	65	16	3.3	.93	.42	1.3
30	12	10	6.8	5.0	---	22	84	15	3.1	.81	.39	1.3
31	12	---	6.4	5.2	---	26	---	14	---	.99	.32	---
TOTAL	341.3	237.6	219.1	159.7	184.0	421.4	1210	1758	234.5	50.62	25.16	96.12
MEAN	11.0	7.92	7.07	5.15	6.34	13.6	40.3	56.7	7.82	1.63	.81	3.20
MAX	52	19	9.7	6.4	7.6	26	85	109	13	3.1	1.6	.39
MIN	1.2	4.5	5.9	4.2	4.2	7.6	19	14	3.1	.81	.32	.28
AC-FT	677	471	435	317	365	836	2400	3490	465	100	50	191
CAL YR 1975	TOTAL	18080.40	MEAN 49.5	MAX 587	MIN 1.2	AC-FT 35860						
WTR YR 1976	TOTAL	4937.50	MEAN 13.5	MAX 109	MIN .28	AC-FT 9790						

11239000 HUNTINGTON-SHAVER CONDUIT OUTLET NEAR SHAVER LAKE, CA

LOCATION.--Lat 37°09'18", long 119°13'53", in NW¼NW¼ sec.15, T.9 S., R.25 E., Fresno County, Sierra National Forest, on left bank at tunnel outlet, 2.3 mi (3.7 km) northeast of Shaver Lake, and 3.5 mi (5.6 km) south of town of Big Creek.

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for October 1928, published in WSP 1315-A. Prior to October 1960, published as Huntington-Shaver conduit at outlet.

REVISED RECORDS.--WSP 931: 1940.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,680 ft (2,036 m), from topographic map.

REMARKS.--Records good. Conduit diverts from Huntington Lake to Shaver Lake with additions from Pitman Creek and seepage en route. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and 12 discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--48 years, 220 ft³/s (6.230 m³/s), 159,400 acre-ft/yr (197 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,780 ft³/s (50.4 m³/s) June 3, 4, 1938; minimum daily, 0.86 ft³/s (0.024 m³/s) Aug. 10-23, Sept. 25-30, 1976.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	9.8	4.2	2.1	2.3	3.0	27	103	12	2.0	.94	.94
2	1.6	10	4.9	1.7	2.3	3.4	30	102	10	2.0	1.0	.94
3	1.5	9.8	5.2	1.7	2.5	3.6	31	100	9.8	2.0	1.0	.94
4	1.5	8.6	4.9	1.8	2.1	3.6	27	99	9.4	1.7	1.0	.94
5	1.5	7.9	4.5	2.1	2.0	3.6	21	86	9.0	1.7	1.0	.94
6	1.5	6.6	3.8	2.1	2.3	3.2	21	74	8.6	1.6	1.0	.94
7	6.6	6.0	3.6	2.0	2.6	3.2	26	70	8.2	1.6	1.0	.94
8	2.8	6.0	3.6	2.0	2.8	3.2	30	80	8.2	1.6	1.0	.94
9	1.7	5.7	3.8	2.3	3.0	3.2	26	108	7.9	1.6	.94	.94
10	4.5	6.0	3.8	2.3	3.0	3.6	27	111	9.0	1.5	.86	.94
11	42	6.1	3.6	2.3	3.2	3.8	23	98	9.8	1.5	.86	37
12	13	6.0	3.6	2.3	3.2	3.8	20	96	8.6	1.5	.86	9.0
13	8.6	6.3	3.6	2.3	3.0	4.9	18	90	8.2	1.5	.86	3.4
14	8.2	5.7	3.4	2.3	2.8	5.2	18	81	6.9	1.5	.86	2.1
15	7.9	5.5	3.2	2.3	2.8	6.0	17	68	6.0	1.3	.86	1.7
16	6.9	5.2	3.2	2.3	2.6	7.5	17	58	5.5	1.3	.86	1.6
17	5.7	5.2	3.2	2.5	2.6	9.0	17	52	5.2	1.3	.86	1.5
18	4.7	4.1	3.2	2.5	2.8	11	19	45	4.9	1.3	.86	1.1
19	4.0	4.0	3.0	2.3	2.8	11	25	39	4.2	1.1	.86	1.1
20	3.4	3.8	3.0	2.1	2.8	9.8	44	36	4.0	1.0	.86	.94
21	3.2	3.5	3.0	2.0	2.8	11	61	33	3.8	1.0	.86	1.6
22	3.0	3.4	3.2	1.8	2.8	13	68	30	3.8	1.0	.86	1.5
23	2.8	3.3	3.2	1.8	2.8	15	73	27	3.6	1.0	.86	1.0
24	2.5	3.2	3.2	2.0	2.8	17	89	24	3.4	1.0	.94	.94
25	2.6	3.4	3.2	1.8	2.8	21	89	23	3.2	1.0	.94	.86
26	16	3.4	3.2	1.8	2.8	21	69	20	3.0	1.0	1.0	.86
27	56	3.4	3.0	1.8	3.0	20	56	18	2.5	.94	1.1	.86
28	18	2.0	3.0	1.8	3.4	18	56	17	2.5	.94	1.1	.86
29	11	4.0	3.2	2.0	3.6	17	68	14	2.1	.94	1.1	.86
30	9.4	4.0	3.0	2.3	---	21	88	14	2.0	.94	1.0	.86
31	10	---	2.8	2.3	---	26	---	13	---	.94	1.0	---
TOTAL	263.7	161.9	109.3	64.7	80.3	305.6	1201	1829	185.3	41.30	29.10	79.04
MEAN	8.51	5.40	3.53	2.09	2.77	9.86	40.0	59.0	6.18	1.33	.94	2.63
MAX	56	10	5.2	2.5	3.6	26	89	111	12	2.0	1.1	37
MIN	1.5	2.0	2.8	1.7	2.0	3.0	17	13	2.0	.94	.86	.86
AC-FT	523	321	217	128	159	606	2380	3630	368	82	58	157
CAL YR 1975 TOTAL	92495.80			MEAN 253		MAX 1710	MIN 1.5	AC-FT 183500				
WTR YR 1976 TOTAL	4350.24			MEAN 11.9		MAX 111	MIN .86	AC-FT 8630				

SAN JOAQUIN RIVER BASIN

11239500 SHAVER LAKE NEAR BIG CREEK, CA

LOCATION.--Lat 37°08'40", long 119°18'08", in SE¼ sec.13, T.9 S., R.24 E., Fresno County, Sierra National Forest, near center of dam on Stevenson Creek, 6 mi (10 km) southwest of town of Big Creek.

DRAINAGE AREA.--29.1 mi² (75.4 km²).

PERIOD OF RECORD.--November 1909 to current year. Prior to January 1927, monthly contents only, published in WSP 1315-A, January 1927 to September 1931, published in WSP 721.

REVISED RECORDS.--WSP 1565: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Southern California Edison Co.). Prior to Jan. 11, 1927, gage on rockfilled dam a short distance upstream at different datum.

REMARKS.--Storage began prior to 1905. Original lake formed by rockfilled dam, usable capacity, 5,500 acre-ft (6.78 hm³). Water diverted by Fresno flume and Lumber Co.'s flumes Nos. 1 and 2 beginning prior to 1907 and discontinued July 7, 1920. Present lake formed by concrete-arch dam; dam completed Nov. 18, 1927. Usable capacity of present lake, 135,600 acre-ft (167 hm³) between elevations 5,225 ft (1,592.6 m), trash-rack foundation and 5,370.13 ft (1,636.816 m), crest of spillway, above mean sea level. Additional storage of 92 acre-ft (113,000 m³) is not available for release. Water is received from Pitman Creek (since Feb. 22, 1928) and Huntington Lake (since Apr. 21, 1928) through Huntington-Shaver conduit and released for power development in Big Creek plants. See schematic diagram of San Joaquin River basin. Figures given herein represent usable contents.

COOPERATION.--Records furnished by Southern California Edison Co. in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 135,900 acre-ft (168 hm³) July 5, 1946, elevation, 5,370.25 ft (1,636.852 m); minimum, 652 acre-ft (804,000 m³) Mar. 7, 1942, elevation, 5,249.38 ft (1,600.011 m).

NOTE.--Prior to 1960, maximum and minimum daily contents were published. Maximum and minimum daily contents (water years 1928-39) were summarized in WSP 881.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 86,900 acre-ft (107 hm³) Oct. 1, elevation, 5,345.85 ft (1,629.415 m); minimum, 27,700 acre-ft (34.2 hm³) Sept. 30, elevation, 5,303.75 ft (1,616.583 m).

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

5225	0	5250	700	5280	9190	5330	60900
5230	42	5255	1250	5290	15600	5340	76700
5235	97	5260	2070	5300	24000	5350	94600
5240	191	5265	3210	5310	34500	5360	114200
5245	379	5270	4750	5320	46800	5371	137500

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86428	74166	58816	48930	44291	39595	41173	45930	50125	50248	44576	36508
2	85926	74199	58270	48578	43969	39717	41297	46193	50152	50234	44265	35993
3	85442	73770	57695	48551	43611	39742	41421	46469	50180	50220	43969	35479
4	84892	73277	57094	48551	43432	39778	41546	46705	50180	50207	43662	34996
5	84892	72755	56449	48347	43163	39815	41645	46932	50207	50193	43355	34490
6	84468	72250	55884	47726	42844	39864	41733	47147	50207	50193	43048	34025
7	84026	71761	55319	47242	42516	39852	41834	47322	50234	50152	43035	33697
8	83479	71278	54716	46639	42579	39889	42049	47524	50248	49989	43035	33697
9	82903	71262	54075	46666	42364	39950	42162	47794	50261	49798	42730	33686
10	82693	70795	53465	46679	41923	39999	42276	48063	50302	49785	42440	33776
11	82484	70312	52891	46692	41508	40060	42478	48293	50316	49771	42112	34195
12	82536	69833	52359	46705	41099	40121	42592	48496	50343	49608	41809	34240
13	82082	69341	51780	46718	40689	40195	42718	48713	50370	49391	41508	34251
14	81579	68848	51190	46718	40317	40268	42831	48889	50384	49228	41496	34263
15	81096	68375	50683	46731	40232	40219	42984	49038	50397	49079	41521	34274
16	80614	68390	50207	46744	39803	40256	43086	49174	50397	48916	41235	34240
17	80131	67701	49730	46758	39337	40268	43163	49282	50397	48903	40937	33822
18	79620	67027	49472	46771	38961	40391	43265	49391	50397	48889	40639	33335
19	79568	66285	48984	46784	38840	40502	43381	49472	50411	48713	40256	32833
20	79091	65544	48903	46797	38876	40577	43547	49553	50411	48347	39852	32332
21	78631	64735	48767	46797	38900	40676	43765	49635	50411	47969	39852	31858
22	78106	64064	48794	46810	38936	40564	43969	49703	50411	47578	39852	31386
23	77584	63336	48794	46837	38985	40614	44213	49758	50411	47134	39448	30886
24	77078	62776	48849	46705	39009	40256	44472	49812	50343	46718	39045	30391
25	76507	62143	48862	46718	39045	40391	44732	49866	50316	46364	38634	29899
26	76758	61632	48876	46272	39081	40515	44926	49921	50316	45944	38127	29414
27	76441	61107	48889	45904	39118	40627	45095	49975	50302	45550	37696	28972
28	75974	60599	48916	45510	39252	40726	45264	50016	50288	45225	37684	28517
29	75473	60003	48930	45095	39460	40825	45432	50043	50275	44926	37684	28144
30	75090	59408	48930	44680	---	40937	45655	50071	50261	44563	37231	27694
31	74611	---	48930	44278	---	41049	---	50098	---	44576	36921	---
MAX	86428	74199	58816	48930	44291	41049	45655	50098	50411	50248	44576	36508
MIN	74611	59408	48767	44278	38840	39595	41173	45930	50125	44563	36921	27694
(†)	5338.72	5328.97	5321.58	5318.07	5314.23	5315.52	5319.13	5322.44	5322.56	5318.30	5312.12	5303.75
(‡)	-12300	-15200	-10500	-4650	-4820	+1590	-4610	+4440	+163	-5690	-7660	-9230

CAL YR 1975 † +3280

WTR YR 1976 ‡ -59200

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet, rounded to Geological Survey standards.

11241950 REDINGER LAKE NEAR AUBERRY, CA

LOCATION.--Lat 37°08'42", long 119°26'58", in SW¼ sec.15, T.9 S., R.23 E., Madera County, Sierra National Forest, on upstream face of dam No. 7 on San Joaquin River, 4.2 mi (6.8 km) northeast of Auberry.

DRAINAGE AREA.--1,295 mi² (3,354 km²).

PERIOD OF RECORD.--November 1950 to current year. Prior to October 1965, monthend contents only, published in WSP 1930.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Southern California Edison Co.).

REMARKS.--Lake is formed by a concrete dam; storage began Nov. 19, 1950. Usable capacity, 26,120 acre-ft (32.2 hm³) between elevations 1,320.0 ft (402.34 m), invert of tunnel and 1,403.0 ft (427.63 m), top of radial gates. Additional storage of 8,914 acre-ft (11.0 hm³) is not available for release. Water is used for power development in Big Creek powerhouse No. 4. See schematic diagram of San Joaquin River basin. Figures given herein represent usable contents.

COOPERATION.--Records furnished by Southern California Edison Co. in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 26,100 acre-ft (32.2 hm³) June 15, 1963, Oct. 29, 1964, Oct. 27, 1967, Nov. 4, 1973; maximum elevation, 1,403.00 ft (427.634 m) Nov. 4, 1973; minimum contents since appreciable storage was attained, 6,280 acre-ft (7.74 hm³) Mar. 3, 1956, elevation, 1,347.98 ft (410.864 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 25,900 acre-ft (31.9 hm³) June 10, elevation, 1,402.55 ft (427.497 m); minimum, 10,000 acre-ft (12.3 hm³) Sept. 30, elevation, 1,361.30 ft (414.924 m).

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

1320	0	1330	2010	1355	8200	1380	16500
1322	384	1335	3120	1360	9650	1385	18400
1324	778	1340	4280	1365	11200	1390	20400
1326	1180	1345	5520	1370	12900	1400	24700
1328	1590	1350	6810	1375	14600	1403	26119

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12506	24533	24703	22546	22598	24775	25218	25159	25105	25237	24757	25033
2	13822	24721	24766	22871	22767	25442	25092	25046	25177	25241	24694	25073
3	15554	24712	25046	22905	22840	25360	24947	25186	25351	25424	24654	25064
4	16505	24748	25232	22537	22430	24811	25101	25028	25470	25470	24560	24992
5	16455	24087	24775	22546	22090	24690	24605	25042	25451	25424	24506	24951
6	18516	24238	24703	22944	22035	24282	23552	25177	25397	25470	24457	24965
7	20200	24273	24694	23442	21715	24313	23136	25205	25291	25442	24448	25078
8	21796	24475	24947	22232	21181	24600	22056	25355	25305	25200	24762	24956
9	23434	24748	25110	21774	21604	24884	21617	25241	25492	25110	24649	24915
10	24376	24969	25051	21719	21290	24744	20903	25346	25087	25314	24703	25069
11	24511	24708	24847	21524	21409	24627	20510	25291	25060	25378	24560	24861
12	24470	24875	24820	21613	21553	24988	20303	25019	25096	25323	24511	25010
13	25355	24636	24762	21596	21638	25182	19723	24960	25073	25310	24520	24929
14	25588	24511	24893	21625	21046	24893	19425	24951	25155	25218	24587	24884
15	25773	24600	24834	21536	20481	25060	18900	24856	25205	25159	24551	24506
16	25561	24694	25006	21524	20556	25096	18464	24897	25397	25146	24542	24114
17	25146	24856	24942	21524	20756	25301	17660	25232	25438	25141	24582	23198
18	25006	24924	24838	21528	21004	25082	16971	24884	25474	25087	24537	22116
19	24992	25037	24825	21409	21164	25128	18767	24983	25465	25200	24340	21223
20	24699	24938	24300	21422	22996	25069	20506	25015	25566	25314	24412	20307
21	24690	24843	24591	21490	22374	24974	22537	25259	25470	25301	24466	19413
22	24667	24690	24287	21363	22001	25096	22767	25333	25474	25374	24278	18603
23	23803	24520	23764	21050	23298	24997	24042	25328	25492	25584	24461	17703
24	23040	24140	23228	20928	24439	25227	24609	25392	25287	25534	24475	16786
25	25195	24408	22996	20419	24694	25119	24340	25442	25250	25205	24676	15795
26	24105	24484	22550	20736	24717	25051	24269	25593	25273	25410	24717	14787
27	24136	24748	22073	21329	24789	24929	24609	25360	25346	25474	24667	13689
28	24381	24771	21791	21617	24649	24920	24933	25456	25365	25456	24591	12566
29	24636	24807	21727	22133	24256	24902	25037	25337	25433	25237	24551	11177
30	24816	24744	22181	22520	---	25087	25182	25319	25333	24807	24997	10044
31	24681	---	22512	22641	---	25064	---	25182	---	24820	24816	---
MAX	25773	25037	25232	23442	24789	25442	25218	25593	25566	25584	24997	25078
MIN	12506	24087	21727	20419	20481	24282	16971	24856	25060	24807	24278	10044
(†)	1399.85	1399.99	1394.92	1395.22	1398.90	1400.70	1400.96	1400.96	1401.29	1400.16	1400.15	1361.30
(‡)	+13800	+63	-2230	+129	+1620	+808	+118	0	+151	-513	-4	-14800

CAL YR 1975 ‡ -411
WTR YR 1976 ‡ -790

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet, rounded to Geological Survey standards.

SAN JOAQUIN RIVER BASIN

11242000 SAN JOAQUIN RIVER ABOVE WILLOW CREEK, NEAR AUBERRY, CA

LOCATION.--Lat 37°08'40", long 119°27'13", in SW¼SW¼ sec.15, T.9 S., R.23 E., Madera County, Sierra National Forest, on right bank 1,000 ft (305 m) downstream from Redinger Lake Dam, 0.4 mi (0.6 km) upstream from Willow Creek, and 4.2 mi (6.8 km) northeast of Auberry.

DRAINAGE AREA.--1,295 mi² (3,354 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 1,175.54 ft (358.305 m) above mean sea level (levels by Southern California Edison Co.).

REMARKS.--Records good. Flow regulated by nine powerplants and six reservoirs with combined capacity of about 559,900 acre-ft (690 hm³). Conduit to powerhouse No. 4 diverts 1,000 ft (305 m) above station. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and 15 discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 73,200 ft³/s (2,070 m³/s) Dec. 23, 1955, gage height, 54.2 ft (16.52 m) from floodmarks, from rating curve extended above 7,000 ft³/s (198 m³/s) on basis of computed flow over dam; no flow Sept. 25, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 94 ft³/s (2.66 m³/s) July 15, gage height, 5.10 ft (1.554 m); minimum daily, 6.8 ft³/s (0.19 m³/s) Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	8.2	20	18	18	9.8	9.2	8.0	18	21	26	26
2	24	9.6	19	18	18	9.8	9.2	7.8	19	21	26	26
3	25	13	19	18	18	9.2	9.2	7.6	19	21	26	26
4	26	15	19	18	17	9.2	9.2	7.6	19	21	26	32
5	26	15	19	18	13	9.4	9.2	7.6	19	21	26	26
6	25	15	19	18	15	9.6	9.0	7.6	19	21	26	25
7	24	15	19	18	11	9.6	9.0	7.6	19	21	26	25
8	22	16	19	19	11	9.4	9.0	8.6	19	21	26	25
9	21	17	19	19	10	9.4	8.8	8.6	19	21	26	24
10	21	18	19	19	6.8	9.6	8.8	10	19	21	26	24
11	8.6	18	19	18	7.1	9.6	8.8	11	19	21	26	28
12	7.8	18	19	18	7.6	9.6	8.6	12	19	21	26	24
13	8.4	18	19	18	9.6	9.6	8.6	12	19	21	26	24
14	9.2	18	19	19	12	9.6	8.4	14	19	21	26	24
15	12	18	19	19	12	9.6	9.2	14	19	24	26	24
16	15	18	19	20	12	9.6	8.6	14	19	25	26	24
17	16	18	19	19	13	9.6	9.6	15	19	25	26	25
18	17	18	18	19	13	9.4	9.0	15	19	25	26	24
19	17	18	18	19	13	9.6	9.2	15	19	25	26	24
20	17	18	18	19	13	9.6	9.2	15	20	25	26	24
21	18	18	18	19	14	9.6	9.6	16	20	25	26	27
22	18	18	19	18	14	9.6	9.8	16	20	25	26	26
23	18	18	19	18	14	9.6	9.8	17	21	25	26	26
24	19	18	19	18	14	9.6	10	17	21	25	26	26
25	21	18	19	18	14	9.6	9.8	17	21	25	26	26
26	20	18	19	18	14	9.4	9.8	17	21	25	26	26
27	9.6	18	19	18	14	9.4	9.8	18	21	26	26	26
28	12	17	19	18	14	9.2	9.8	18	21	26	26	25
29	15	17	19	18	13	9.2	9.8	18	21	26	26	25
30	14	19	18	18	---	9.2	8.8	18	21	26	26	25
31	8.0	---	18	18	---	9.2	---	18	---	25	26	---
TOTAL	538.6	500.8	584	570	375.1	294.4	276.8	408.0	588	722	806	762
MEAN	17.4	16.7	18.8	18.4	12.9	9.50	9.23	13.2	19.6	23.3	26.0	25.4
MAX	26	19	20	20	18	9.8	10	18	21	26	26	32
MIN	7.8	8.2	18	18	6.8	9.2	8.4	7.6	18	21	26	24
AC-FT	1070	993	1160	1130	744	584	549	809	1170	1430	1600	1510
CAL YR 1975 TOTAL	134782.9		MEAN 369	MAX 7460	MIN 3.5	AC-FT 267300						
WTR YR 1976 TOTAL	6425.7		MEAN 17.6	MAX 32	MIN 6.8	AC-FT 12750						

11242350 SOQUEL DIVERSION NEAR SUGAR PINE, CA

LOCATION.--Lat 37°25'32", long 119°32'53", in SW¼NE¼ sec.10, T.6 S., R.22 E., Madera County, Sierra National Forest, on left bank 100 ft (30 m) downstream from headgate on North Fork Willow Creek, and 4.8 mi (7.7 km) east of Sugar Pine.

PERIOD OF RECORD.--October 1965 to current year. Monthly discharge only for October 1965 to September 1969, published with records for North Fork Willow Creek near Sugar Pine.

GAGE.--Water-stage recorder. Altitude of gage is 5,400 ft (1,650 m), from topographic map.

REMARKS.--Records good. Ditch diverts water from right bank of North Fork Willow Creek 100 ft (30 m) upstream for irrigation in Madera Irrigation District.

AVERAGE DISCHARGE.--11 years, 12.1 ft³/s (0.343 m³/s), 8,770 acre-ft/yr (10.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 58 ft³/s (1.64 m³/s) June 9-12, 1975; no flow for several days in 1971-73, 1975.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.46	6.3	7.1	5.0	4.4	11	14	19	9.2	3.5	.30	.31
2	.43	6.2	7.7	4.9	4.4	7.5	14	20	8.7	3.2	.28	.38
3	.44	6.2	7.5	5.3	4.3	7.3	15	20	8.3	3.1	.29	.38
4	.43	6.1	7.2	5.0	4.8	6.4	14	20	8.0	3.0	.28	.38
5	.43	6.0	6.8	5.1	4.9	6.5	13	20	7.7	2.6	.28	.36
6	.21	5.8	6.4	4.9	5.0	6.8	13	20	7.5	2.3	.28	.33
7	2.9	5.8	6.1	4.9	5.8	6.8	14	19	7.3	2.2	.28	.33
8	4.1	5.8	6.0	4.9	6.6	6.8	15	19	7.1	2.2	.26	.33
9	3.7	5.7	5.9	5.0	7.0	6.9	14	19	7.1	2.1	.26	.33
10	6.8	5.8	5.8	5.4	6.6	7.3	14	19	7.4	2.1	.25	.33
11	4.3	5.7	5.8	5.0	6.6	7.4	14	19	7.8	2.1	.25	.27
12	7.7	5.7	6.1	4.9	6.5	7.5	13	19	7.3	2.1	.25	.24
13	7.4	5.7	5.7	4.9	6.3	8.3	13	19	6.8	2.0	.25	1.2
14	7.2	5.6	5.5	4.9	6.4	8.9	13	19	6.3	1.9	.26	2.0
15	7.0	5.5	6.0	4.9	5.9	9.2	12	19	5.9	1.9	.27	1.9
16	6.8	5.7	5.9	5.1	5.7	10	13	19	5.9	2.3	.24	1.8
17	6.4	5.7	5.8	5.1	5.8	12	13	19	5.6	2.1	.24	1.7
18	6.1	5.4	5.7	4.9	6.0	13	13	19	5.3	2.0	.24	1.7
19	5.8	5.3	5.5	4.7	6.3	11	14	18	5.3	1.9	.24	1.5
20	5.4	5.3	5.5	4.6	6.4	10	17	17	5.0	1.8	.24	1.4
21	5.2	5.2	5.4	4.5	6.5	11	19	16	5.0	1.8	.24	1.3
22	5.2	5.1	5.8	4.4	6.1	12	19	15	4.8	1.7	.24	1.3
23	5.1	5.0	5.5	4.5	5.9	12	19	15	4.6	1.9	.24	1.3
24	5.1	5.0	5.6	4.5	5.9	14	19	14	4.3	1.8	.24	1.2
25	5.0	5.0	5.6	4.4	5.9	14	20	14	4.1	1.6	.24	1.1
26	6.2	5.5	5.6	4.4	6.1	13	20	13	3.9	1.5	.24	1.3
27	6.6	6.1	5.6	4.4	6.7	13	19	12	3.9	1.5	.24	1.3
28	6.4	5.6	5.6	4.4	7.3	12	19	11	3.7	1.6	.24	1.2
29	6.2	5.2	5.6	4.4	9.2	12	19	11	3.5	.67	.24	1.3
30	6.2	6.4	5.5	4.4	---	13	19	9.9	3.5	.24	.24	1.5
31	6.2	---	5.2	4.4	---	14	---	9.7	---	.26	.24	---
TOTAL	151.40	169.4	185.0	148.1	175.3	310.6	467	522.6	180.8	60.97	7.88	29.97
MEAN	4.88	5.65	5.97	4.78	6.04	10.0	15.6	16.9	6.03	1.97	.25	1.00
MAX	8.3	6.4	7.7	5.4	9.2	14	20	20	9.2	3.5	.30	2.0
MIN	.21	5.0	5.2	4.4	4.3	6.4	12	9.7	3.5	.24	.24	.24
AC-FT	300	336	367	294	348	616	926	1040	359	121	16	59
CAL YR 1975 TOTAL	5138.40			MEAN 14.1	MAX 58	MIN 0	AC-FT 10190					
WTR YR 1976 TOTAL	2409.02			MEAN 6.58	MAX 20	MIN .21	AC-FT 4780					

11242400 NORTH FORK WILLOW CREEK NEAR SUGAR PINE, CA

LOCATION.--Lat 37°23'52", long 119°33'55", in SW¼NE¼ sec.21, T.6 S., R.22 E., Madera County, on right bank at road bridge 0.6 mi (1.0 km) downstream from Sequel Campground, 3.0 mi (4.8 km) upstream from Chilkoot Creek, and 4.7 mi (7.6 km) southeast of Sugar Pine.

DRAINAGE AREA.--16.9 mi² (43.8 km²).

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

REVISED RECORDS.--WDR CA-72-2: 1970-71.

GAGE.--Water-stage recorder. Altitude of gage is 5,200 ft (1,580 m), from topographic map.

REMARKS.--Records good. No storage above station. Madera Irrigation District diverts up to 50 ft³/s (1.42 m³/s) through Sequel ditch (station 11242350) to the Fresno River basin 2.2 mi (3.5 km) upstream.

AVERAGE DISCHARGE.--11 years, 19.4 ft³/s (0.549 m³/s), 14,060 acre-ft/yr (17.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,600 ft³/s (453 m³/s) Dec. 6, 1966, gage height, 5.90 ft (1.798 m), from rating curve extended above 250 ft³/s (7.08 m³/s) on basis of a step-backwater survey; minimum daily, 1.0 ft³/s (0.028 m³/s) Sept. 18, 19, 26-28, 1968, July 26, 27, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 115 ft³/s (3.26 m³/s) Oct. 11 (0100 hrs), gage height, 3.79 ft (1.155 m), no other peak above base of 100 ft³/s (2.83 m³/s); minimum daily, 1.0 ft³/s (0.028 m³/s) July 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	8.4	3.1	2.8	2.4	4.7	5.6	17	2.5	1.4	2.7	1.9
2	4.3	7.7	3.3	2.6	2.4	3.3	5.4	18	2.6	1.6	2.7	1.6
3	4.3	6.9	3.4	2.6	2.4	3.3	5.2	18	2.6	1.5	2.7	1.6
4	4.2	5.7	3.3	2.7	1.8	3.0	4.8	18	2.5	1.5	2.9	1.6
5	4.2	4.9	3.2	2.7	1.7	3.7	4.5	16	2.3	1.7	2.7	1.9
6	5.3	4.5	3.2	2.5	2.2	4.1	4.3	17	2.3	1.7	2.6	2.0
7	11	4.5	3.1	2.5	2.5	4.3	4.6	14	2.3	1.6	2.6	2.0
8	2.9	4.5	3.1	2.6	2.9	4.5	6.0	14	2.3	1.6	2.5	1.8
9	2.7	4.2	3.1	2.5	3.1	4.6	6.3	14	2.3	1.6	2.4	1.7
10	21	5.7	3.1	2.5	3.3	4.8	5.2	14	2.4	1.6	2.3	2.2
11	45	4.8	3.0	2.6	3.7	5.0	6.6	14	2.3	1.5	2.2	2.9
12	12	4.6	3.0	2.6	3.6	5.0	6.3	15	2.2	1.5	2.1	6.0
13	8.2	4.5	3.0	2.6	3.7	5.4	5.4	14	2.1	1.4	2.1	3.4
14	5.8	4.3	2.9	2.6	3.7	5.6	4.9	12	2.0	1.4	2.2	1.6
15	5.0	4.1	3.0	2.6	3.5	5.8	4.8	8.9	2.0	1.3	7.6	1.5
16	4.3	4.2	3.0	2.6	3.3	6.6	5.9	6.8	1.9	1.5	4.5	1.5
17	3.6	4.2	3.0	2.6	3.4	7.6	6.4	5.3	1.8	1.4	3.6	1.5
18	3.2	3.7	3.0	2.6	3.5	6.7	5.1	3.8	1.8	1.3	3.5	1.4
19	3.2	3.7	3.0	2.6	3.4	6.2	5.4	3.2	1.8	1.3	3.7	1.5
20	3.2	3.8	3.0	2.4	2.7	5.7	7.2	3.0	1.6	1.3	3.9	1.4
21	3.2	3.5	2.9	2.4	2.8	6.2	9.6	2.9	1.7	1.2	3.3	1.4
22	3.2	3.5	3.1	2.4	2.9	6.3	10	2.7	1.7	1.2	3.3	1.4
23	3.2	3.5	3.0	2.4	3.1	6.5	11	2.6	1.6	1.3	3.2	1.4
24	3.2	3.4	3.0	2.5	3.0	6.7	15	2.5	1.5	1.2	2.7	1.3
25	3.2	3.3	3.0	2.4	3.1	6.8	14	2.4	1.5	1.2	2.5	1.5
26	23	3.3	3.0	2.4	3.4	6.1	10	2.4	1.5	1.0	2.4	1.3
27	22	3.2	3.2	2.4	3.7	5.6	8.4	2.2	1.5	1.0	2.3	1.3
28	8.2	3.1	3.1	2.5	4.2	5.1	8.0	2.2	1.6	1.2	2.1	1.3
29	5.7	2.9	3.1	2.4	5.0	5.2	9.7	2.2	1.5	1.6	2.0	1.3
30	9.4	2.9	3.1	2.5	---	5.6	14	2.6	1.5	2.5	2.0	1.3
31	9.0	---	3.0	2.4	---	5.7	---	2.5	---	2.6	2.0	---
TOTAL	251.1	131.5	95.3	78.5	90.4	165.7	219.6	273.2	59.2	45.7	89.3	80.6
MEAN	8.10	4.38	3.07	2.53	3.12	5.35	7.32	8.81	1.97	1.47	2.88	2.69
MAX	45	8.4	3.4	2.8	5.0	7.6	15	18	2.6	2.6	7.6	29
MIN	2.7	2.9	2.9	2.4	1.7	3.0	4.3	2.2	1.5	1.0	2.0	1.3
AC-FT	498	261	189	156	179	329	436	542	117	91	177	160
CAL YR 1975 TOTAL	7506.5			20.6	224	2.7	AC-FT	14890				
WTR YR 1976 TOTAL	1580.1			4.32	45	1.0	AC-FT	3130				

11243400 BASS LAKE NEAR BASS LAKE, CA

LOCATION.--Lat 37°17'36", long 119°31'40", in NE¼ sec.26, T.7 S., R.22 E., Madera County, Sierra National Forest, at outlet tower at dam on North Fork Willow Creek, 2.2 mi (3.5 km) southeast of town of Bass Lake, and 5 mi (8 km) north of town of North Fork.

DRAINAGE AREA.--50.4 mi² (130.5 km²).

PERIOD OF RECORD.--January 1911 to current year. Bass Lake was formerly called Crane Valley Reservoir.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Pacific Gas and Electric Co.).

REMARKS.--Reservoir formed by earth- and rockfill dam; completed in 1901 and raised in 1910. Since 1910 usable contents 45,100 acre-ft (55.6 hm³) between elevations, 3,280.22 ft (999.811 m), invert of outlet conduit No. 3 and 3,376.40 ft (1,029.127 m), top of spillway gates, above mean sea level. Additional storage of 300 acre-ft (370,000 m³) not available for release. Water is released through Crane Valley powerhouse below dam for use in three small powerhouses before being discharged into Kerckhoff Reservoir at Wishon powerhouse. Water diverted from South Fork Willow Creek via Browns Creek ditch into Bass Lake near left end of dam. Madera Irrigation District has water rights to divert up to 50 ft³/s (1.42 m³/s) from North Fork Willow Creek through Soquel ditch (station 11242350) into Nelder Creek (Fresno River basin) during October and March to July each year. Chilkoot ditch can divert up to 7 ft³/s (0.20 m³/s) from Chilkoot Creek into North Fork Willow Creek just upstream from diversion dam from Oct. 1 to Aug. 1 each water year if available. See schematic diagram of San Joaquin River basin.

COOPERATION.--Records furnished by Pacific Gas and Electric Co. in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 45,960 acre-ft (56.7 hm³) June 17, 1923, elevation, 3,376.8 ft (1,029.25 m); minimum, 35 acre-ft (43,200 m³) Nov. 19, 1953, elevation, 3,270.2 ft (996.76 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 32,570 acre-ft (40.2 hm³) June 15, elevation, 3,364.64 ft (1,025.542 m); minimum, 16,070 acre-ft (19.8 hm³) Dec. 29, elevation, 3,344.78 ft (1,019.489 m).

MONTHEND CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Date	Contents
Sept. 30.....	26450
Oct. 31.....	22400
Nov. 30.....	21900
Dec. 31.....	16190
Jan. 31.....	17520
Feb. 29.....	20660
Mar. 31.....	25030
Apr. 30.....	29340
May 31.....	32280
June 30.....	32150
July 31.....	31250
Aug. 31.....	29450
Sept. 30.....	23380

11243500 PACIFIC GAS AND ELECTRIC CO. CONDUIT NO. 3 NEAR BASS LAKE, CA

LOCATION.--Lat 37°17'21", long 119°31'44", in SE¼ sec.26, T.7 S., R.22 E., Madera County, Sierra National Forest, on left bank 1,000 ft (305 m) downstream from Crane Valley powerhouse and dam, and 2.5 mi (4.0 km) southeast of town of Bass Lake.

PERIOD OF RECORD.--October 1940 to current year. Prior to October 1954, published as "near Crane Valley Reservoir."

GAGE.--Water-stage recorder and concrete flume. Altitude of gage is 3,300 ft (1,006 m), from topographic map.

REMARKS.--Conduit diverts from Bass Lake in sec.26, T.7 S., R.22 E. Water passes through Crane Valley powerhouse, then to powerhouse No. 3, and is stored temporarily at Manzanita Lake on North Fork Willow Creek; flow then diverts to powerhouses No. 2 and 1A before it enters San Joaquin River at Kerckhoff Reservoir through Wishon powerhouse No. 1. See schematic diagram of San Joaquin River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--36 years, 68.4 ft³/s (1.937 m³/s), 49,560 acre-ft/yr (61.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 167 ft³/s (4.73 m³/s) June 23, 24, 1965; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	120	120	.43	0	1.9	3.8	0	0	0	7.3	120
2	122	120	120	.48	3.4	4.0	0	0	0	0	.08	120
3	55	49	120	.48	0	7.0	0	0	.02	3.8	.09	63
4	0	0	120	.48	2.6	1.4	0	0	.05	.02	4.4	.03
5	0	0	120	.48	7.7	0	0	0	5.3	0	.10	.03
6	64	0	120	.48	30	0	0	0	0	0	.15	2.5
7	120	0	120	.48	6.5	0	0	0	0	0	.17	71
8	121	0	120	.48	2.0	0	0	0	0	.03	4.0	120
9	120	0	120	1.2	2.0	0	0	0	0	.08	.18	120
10	54	5.2	120	2.0	.75	0	0	0	0	.09	71	120
11	1.4	0	120	3.3	0	4.7	0	0	0	4.7	65	120
12	1.4	0	120	.89	0	0	0	0	0	.02	.04	119
13	69	0	120	.89	0	0	0	.04	.02	42	.09	119
14	120	0	120	.36	0	0	0	0	.04	.02	.14	119
15	119	0	120	0	0	0	0	0	27	.05	.21	119
16	119	0	120	0	0	0	0	0	5.3	.12	4.0	120
17	79	0	120	0	3.7	0	0	0	44	.09	.15	121
18	119	0	120	5.0	0	3.7	0	0	0	.15	.21	121
19	119	0	120	0	0	0	0	5.1	0	.16	.23	121
20	120	0	120	0	0	0	0	0	0	39	.12	122
21	120	0	120	0	0	0	0	0	3.9	.03	4.2	123
22	120	0	120	3.7	0	0	0	0	.01	.01	.03	122
23	120	0	120	0	0	0	0	0	0	43	73	123
24	119	.27	120	0	0	0	0	0	48	.02	119	123
25	120	59	120	3.7	3.6	2.9	0	0	38	.01	119	123
26	120	120	120	0	0	0	0	0	.01	48	119	124
27	120	120	120	0	0	0	0	0	0	49	81	95
28	120	120	121	0	0	0	0	0	57	36	.02	123
29	120	120	63	3.5	0	0	0	0	.02	43	0	123
30	120	120	.39	0	---	0	0	0	.01	.02	71	123
31	120	---	.39	0	---	0	---	0	---	.03	120	---
TOTAL	2974.8	953.47	3424.78	28.33	62.25	25.6	3.8	5.14	228.68	309.45	863.91	3139.56
MEAN	96.0	31.8	110	.91	2.15	.83	.13	.17	7.62	9.98	27.9	105
MAX	133	120	121	5.0	30	7.0	3.8	5.1	57	49	120	124
MIN	0	0	.39	0	0	0	0	0	0	0	0	.03
AC-FT	5900	1890	6790	56	123	51	7.5	10	454	614	1710	6230
CAL YR 1975	TOTAL	34226.86	MEAN 93.8	MAX 149	MIN 0	AC-FT 67890						
WTR YR 1976	TOTAL	12019.77	MEAN 32.8	MAX 133	MIN 0	AC-FT 23840						

11244000 NORTH FORK WILLOW CREEK NEAR BASS LAKE, CA

LOCATION.--Lat 37°17'20", long 119°31'45", in SE¼ sec.26, T.7 S., R.22 E., Madera County, Sierra National Forest, on right bank 1,500 ft (457 m) downstream from Bass Lake spillway, and 2.5 mi (4.0 km) southeast of town of Bass Lake.

DRAINAGE AREA.--50.8 mi² (131.6 km²).

PERIOD OF RECORD.--May 1940 to current year. Prior to October 1944, published as Willow Creek below Crane Valley Reservoir. October 1944 to September 1954, published as "below Crane Valley Reservoir."

GAGE.--Water-stage recorder. Broad-crested weir with V-notch Dec. 21, 1961, to Jan. 16, 1969, and since Mar. 26, 1971. Altitude of gage is 3,200 ft (975 m), from topographic map.

REMARKS.--Flow regulated by Bass Lake (station 11243400) 1,500 ft (457 m) upstream and by diversion into Pacific Gas and Electric Co. conduit No. 3 near Bass Lake (station 11243500). Record for Soquel diversion (station 11242350) shows flow diverted from North Fork Willow Creek into Nelder Creek in Fresno River basin. Brown's Creek ditch diverted 10,870 acre-ft (13.4 hm³) from South Fork Willow Creek into Bass Lake during the current year. See schematic diagram of San Joaquin River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--36 years, 12.7 ft³/s (0.360 m³/s), 9,200 acre-ft/yr (11.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,300 ft³/s (36.8 m³/s) Jan. 26, 1969, gage height, unknown; minimum daily, 0.1 ft³/s (0.003 m³/s) Nov. 13-16, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6.7 ft³/s (0.19 m³/s) Apr. 28, gage height, 2.15 ft (0.655 m); minimum daily, 0.20 ft³/s (0.006 m³/s) Sept. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	.35	.33	.25	.21	1.5	.27	.49	.44	.40	.35	.28
2	.28	.34	.33	.25	.21	.57	.27	.49	.44	.40	.34	.27
3	.28	.35	.33	.24	.21	.46	.26	.50	.44	.40	.34	.24
4	.28	.35	.32	.24	.26	.42	.27	.51	.44	.40	.34	.21
5	.28	.35	.32	.24	.28	.42	.31	.52	.44	.40	.34	.20
6	.29	.35	.32	.24	.28	.44	.41	.54	.44	.40	.34	.20
7	.32	.35	.31	.23	.34	.44	.43	.54	.44	.40	.34	.22
8	.30	.35	.30	.23	.43	.41	.58	.55	.44	.40	.34	.25
9	.30	.35	.30	.26	1.3	.37	.47	.55	.45	.40	.33	.25
10	.54	.88	.30	.25	.75	.35	.44	.57	.46	.40	.34	.27
11	.74	.76	.30	.24	.52	.34	.58	.57	.47	.39	.34	.49
12	.42	.76	.37	.24	.45	.33	.51	.57	.46	.40	.31	.29
13	.37	.76	.34	.24	.40	.31	.51	.47	.45	.39	.31	.28
14	.34	.75	.32	.23	.42	.32	.50	.40	.45	.38	1.1	.27
15	.33	.62	.31	.23	.38	.31	.65	.40	.44	.38	1.4	.27
16	.33	.49	.30	.23	.34	.29	.53	.41	.44	.39	.34	.27
17	.32	.49	.29	.23	.33	.28	.49	.41	.44	.38	.33	.27
18	.32	.49	.29	.23	.31	.28	.47	.42	.43	.38	.33	.26
19	.32	.49	.28	.22	.65	.28	.47	.42	.76	.38	.35	.26
20	.31	.48	.28	.22	.39	.33	.46	.43	.89	.38	.34	.25
21	.31	.49	.27	.22	.34	.40	.46	.43	.83	.37	.34	.25
22	.31	.49	.28	.22	.31	.35	.46	.43	.43	.37	.34	.24
23	.31	.49	.27	.22	.30	.28	.45	.43	.43	.37	.34	.24
24	.32	.41	.27	.22	.28	.31	.45	.43	.43	.37	.35	.24
25	.32	.31	.27	.22	.28	.33	.45	.43	.42	.36	.34	.24
26	.37	.31	.26	.22	.27	.33	.45	.43	.41	.36	.33	.23
27	.36	.33	.25	.22	.27	.33	.45	.43	.41	.37	.30	.23
28	.33	.35	.25	.22	.27	.33	.72	.43	.42	.36	.26	.23
29	.33	.33	.25	.22	.80	.30	.48	.44	.40	.35	.25	.24
30	.57	.32	.25	.22	---	.26	.48	.44	.40	.34	.26	.23
31	.39	---	.25	.22	---	.26	---	.45	---	.35	.29	---
TOTAL	10.87	13.94	9.11	7.15	11.58	11.93	13.73	14.53	14.24	11.82	11.95	7.67
MEAN	.35	.46	.29	.23	.40	.38	.46	.47	.47	.38	.39	.26
MAX	.74	.88	.37	.26	1.3	1.5	.72	.57	.89	.40	1.4	.49
MIN	.28	.31	.25	.21	.21	.26	.26	.40	.40	.34	.25	.20
AC-FT	22	28	18	14	23	24	27	29	28	23	24	15
CAL YR 1975	TOTAL	663.99	MEAN	1.82	MAX	61	MIN	.25	AC-FT	1320		
WTR YR 1976	TOTAL	138.52	MEAN	.38	MAX	1.5	MIN	.20	AC-FT	275		

11246500 WILLOW CREEK AT MOUTH, NEAR AUBERRY, CA

LOCATION.--Lat 37°09'03", long 119°27'34", in SE¼NE¼ sec.16, T.9 S., R.23 E., Madera County, Sierra National Forest, on left bank 40 ft (12 m) upstream from bridge, 0.4 mi (0.6 km) upstream from mouth, 1.3 mi (2.1 km) downstream from Whiskey Creek, and 4.3 mi (6.9 km) northeast of Auberry.

DRAINAGE AREA.--130 mi² (337 km²).

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

REVISED RECORDS.--WSP 2130: 1956-58(M).

GAGE.--Water-stage recorder. Concrete control since Oct. 22, 1964. Datum of gage is 1,174.69 ft (358.046 m) above mean sea level (levels by Southern California Edison Co.).

REMARKS.--Records good. Flow regulated by Bass Lake (station 11243400) 10 mi (16 km) upstream and diversion into Pacific Gas and Electric Co. conduit No. 1. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and 11 discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--24 years, 53.7 ft³/s (1.521 m³/s), 38,910 acre-ft/yr (48.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s (445 m³/s) Dec. 23, 1955, gage height, 28.5 ft (8.69 m) from floodmarks, from rating curve extended above 4,700 ft³/s (133 m³/s); no flow at times in 1955, 1959-62, 1964-66, 1968, 1972, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 217 ft³/s (6.15 m³/s) Feb. 9, gage height, 6.95 ft (2.118 m); no flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.85	13	7.1	5.1	4.7	50	20	19	4.0	1.0	.04	.06
2	.85	8.8	8.3	4.9	4.5	30	19	18	3.7	1.3	.04	.04
3	.82	14	8.0	5.5	4.5	23	19	18	3.5	1.3	.04	.04
4	.79	15	8.8	5.5	6.8	21	18	18	3.3	1.2	.06	.04
5	.85	11	7.6	5.9	9.3	19	17	18	3.1	1.1	.04	.04
6	.79	9.0	6.8	5.6	11	19	16	27	3.1	.97	.04	.04
7	3.8	7.9	6.4	5.8	16	19	17	21	3.1	.89	.04	.04
8	3.0	6.6	6.3	5.8	13	19	25	15	3.2	.59	.04	0
9	2.4	6.6	6.2	5.9	74	18	22	13	3.1	.39	.04	0
10	2.8	8.3	6.0	6.0	70	18	22	12	3.3	.34	0	0
11	56	11	6.2	6.2	20	17	22	12	4.2	.39	0	10
12	17	9.7	7.4	5.9	15	16	23	11	4.3	.34	0	7.6
13	11	8.8	7.9	5.6	13	16	22	10	3.9	.20	0	4.0
14	10	8.0	6.4	5.5	13	18	21	9.3	3.4	.20	0	3.6
15	7.9	7.9	6.6	5.5	12	18	25	7.9	5.6	.30	0	3.2
16	6.1	7.7	6.8	5.5	10	18	22	7.7	7.7	.30	.04	2.8
17	4.9	8.3	6.7	5.6	9.8	20	20	7.4	3.5	.18	.44	2.6
18	4.0	8.0	6.4	5.8	9.5	24	19	7.3	4.8	.16	.68	2.4
19	3.8	7.7	6.3	5.3	14	19	20	7.1	2.9	.25	.75	2.3
20	3.6	8.8	6.2	5.1	12	17	22	6.7	2.5	.34	.82	2.1
21	3.4	9.2	6.0	4.9	11	18	27	6.4	2.4	.18	1.1	1.8
22	3.4	6.6	6.4	4.8	9.7	20	28	6.0	2.3	.14	.97	1.7
23	3.4	6.0	6.4	4.8	8.8	20	27	6.0	2.0	.14	.63	1.4
24	3.4	9.5	6.2	4.8	8.5	22	27	5.9	1.8	.14	.49	1.3
25	3.6	9.5	6.3	4.8	8.3	25	28	5.9	1.7	.14	.39	1.1
26	3.8	7.3	6.2	4.7	8.3	21	23	5.8	1.5	.12	.25	.97
27	18	6.4	6.2	4.7	8.7	21	21	5.0	1.4	.10	.18	.89
28	8.2	9.3	6.2	4.7	9.3	18	22	4.8	1.3	.08	.14	.89
29	6.0	6.6	6.4	4.7	12	17	21	4.3	1.2	.04	.12	.89
30	13	6.4	6.3	4.7	---	19	22	4.2	1.0	.04	.10	1.0
31	25	---	6.0	4.7	---	20	---	4.0	---	.04	.08	---
TOTAL	232.45	262.9	207.0	164.3	426.7	640	657	323.7	92.8	12.90	7.56	52.84
MEAN	7.50	8.76	6.68	5.30	14.7	20.6	21.9	10.4	3.09	.42	.24	1.76
MAX	56	15	8.8	6.2	74	50	28	27	7.7	1.3	1.1	10
MIN	.79	6.0	6.0	4.7	4.5	16	16	4.0	1.0	.04	0	0
AC-FT	461	521	411	326	846	1270	1300	642	184	26	15	105
CAL YR 1975 TOTAL	14919.62			MEAN 40.9	MAX 539	MIN .79	AC-FT 29590					
WTR YR 1976 TOTAL	3080.15			MEAN 8.42	MAX 74	MIN 0	AC-FT 6110					

11247000 SAN JOAQUIN RIVER BELOW KERCKHOFF POWERHOUSE, NEAR PRATHER, CA

LOCATION.--Lat 37°04'45", long 119°33'36", in NE¼NW¼ sec.10, T.10 S., R.22 E., Fresno County, on left bank 1.1 mi (1.8 km) downstream from Kerckhoff powerhouse, 1.4 mi (2.3 km) upstream from Big Sandy Creek, and 3.8 mi (6.1 km) southeast of Prather.

DRAINAGE AREA.--1,480 mi² (3,833 km²).

PERIOD OF RECORD.--April 1910 to September 1914, December 1936 to December 1937, December 1942 to current year. Published as "near North Fork" 1910-14 and as "below Kerckhoff powerhouse" 1915-60.

GAGE.--Water-stage recorder. Datum of gage is 563.4 ft (171.72 m) above mean sea level (levels by Bureau of Reclamation). Prior to Oct. 1, 1914, at site 11 mi (18 km) upstream at different datum.

REMARKS.--Records fair to good. Flow regulated by 12 powerplants and eight reservoirs with total usable capacity of 609,300 acre-ft (751 hm³). Earliest storage began in 1901 at Bass Lake (station 11243400). See records for Florence Lake, Lake Thomas A. Edison, Mammoth Pool Reservoir, Huntington, Shaver, and Redinger Lakes given elsewhere in this report. Backwater from Millerton Lake has affected record at times since November 1947, when spillway gates were installed at Friant Dam. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record, telemark readings, and eight discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 92,200 ft³/s (2,610 m³/s) Dec. 23, 1955, gage height, 51.0 ft (15.54 m), from floodmarks, from rating curve extended above 20,000 ft³/s (566 m³/s) on basis of records for San Joaquin River above Willow Creek, near Auberry and Willow Creek at mouth, near Auberry; minimum daily, 24 ft³/s (0.68 m³/s) Sept. 26, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,970 ft³/s (141 m³/s) Aug. 12, gage height, 16.95 ft (5.166 m); minimum daily, 57 ft³/s (1.61 m³/s) Apr. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	853	1690	1620	1180	471	1420	1160	759	882	757	784	1350
2	771	1680	1560	1660	588	1360	1130	722	980	634	995	1400
3	739	1670	1350	891	808	1240	1150	683	973	551	937	1280
4	709	1570	1150	565	868	1260	1280	688	946	300	1110	1330
5	581	1680	1650	618	1040	1300	1470	624	989	314	1250	1250
6	487	1670	1600	713	643	899	1480	742	1060	719	1230	1150
7	597	1210	1380	857	1180	728	1390	636	1070	1070	1250	1170
8	874	1170	1170	1660	661	1230	1030	753	1020	1120	872	1340
9	965	1080	1180	755	949	1400	1280	622	1060	809	1380	1330
10	1160	1320	1390	737	1340	1110	706	638	1000	575	1290	1510
11	931	1670	1300	562	817	1440	1350	734	1010	363	1280	1460
12	812	1230	1480	614	940	1530	1130	837	1080	731	1420	1680
13	1180	1470	1300	683	911	941	1000	390	1040	1050	1030	1680
14	1170	1700	1310	675	887	672	882	669	1070	895	1070	1710
15	1610	1700	1080	734	992	1080	746	689	1240	896	1330	1680
16	1770	1680	1130	853	835	1600	900	568	912	444	1350	1680
17	1530	1670	1160	252	821	1410	1050	656	1110	841	1250	1680
18	1660	1670	1090	581	1010	1680	1100	720	900	636	1280	1700
19	1350	1680	1090	698	763	1680	896	758	1040	904	1280	1680
20	1350	1670	1250	595	662	1340	82	686	1070	1050	1350	1680
21	1540	1680	873	491	800	1220	64	717	1050	1110	1170	1680
22	1610	1670	915	636	606	1190	57	554	1110	1100	1220	1680
23	1800	1670	1070	594	502	1420	1040	708	1140	1230	1290	1680
24	1770	1660	1000	546	628	1400	1570	733	1310	964	1180	1680
25	610	1580	936	619	444	1560	1620	682	1090	930	1360	1680
26	1710	1620	882	610	611	1400	1690	735	892	1130	1270	1680
27	1670	1700	844	562	610	1240	1690	635	892	1170	1330	1680
28	1670	1310	807	560	546	924	1240	742	1020	1010	1330	1680
29	1670	1700	829	548	716	879	483	719	774	1160	1280	1670
30	1660	1620	774	433	---	892	649	425	789	1350	1160	1700
31	1690	---	149	339	---	988	---	605	---	1020	1270	---
TOTAL	38479	47090	35319	21821	22649	38433	31315	20829	30519	26833	37598	46550
MEAN	1241	1570	1139	704	781	1240	1044	672	1017	866	1213	1552
MAX	1800	1700	1650	1660	1340	1680	1690	837	1310	1350	1420	1710
MIN	487	1080	149	252	444	672	57	390	774	300	784	1150
AC-FT	76320	93400	70060	43280	44920	76230	62110	41310	60530	53220	74580	92330
CAL YR 1975 TOTAL	889884			2438	MAX	11200	MIN	149	AC-FT	1765000		
WTR YR 1976 TOTAL	397435			1086	MAX	1800	MIN	57	AC-FT	788300		

SAN JOAQUIN RIVER BASIN

11249500 MADERA CANAL AT FRIANT, CA

LOCATION.--Lat 37°00'10", long 119°42'21", in NW¼SW¼ sec.5, T.11 S., R.21 E., Madera County, at Friant Dam 0.9 mi (1.4 km) northeast of Friant.

PERIOD OF RECORD.--October 1943 to current year. October 1954 to September 1966 published as Friant-Madera Canal at Friant.

REVISED RECORDS.--WSP 1151: 1944-48.

GAGE.--Discharge computed on basis of valve openings in dam and head on valves. Prior to Oct. 1, 1948, water-stage recorder at several sites at various datums. Oct. 1, 1948, to Sept. 30, 1949, water-stage recorder at site 8.8 mi (14.2 km) downstream.

REMARKS.--Canal diverts from Millerton Lake (station 11250100) at right end of Friant Dam for irrigation between San Joaquin and Fresno Rivers.

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by the Geological Survey, rounded to Geological Survey standards.

AVERAGE DISCHARGE.--33 years, 294 ft³/s (8,326 m³/s), 213,000 acre-ft/yr (263 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,330 ft³/s (37.7 m³/s) July 2, 1973; no flow many days in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									0	893	769	
2									0	848	730	
3									0	821	707	
4									0	815	703	
5									0	809	690	
6									0	773	671	
7									0	671	662	
8									0	632	660	
9									0	697	657	
10									0	779	654	
11									0	800	650	
12									0	828	685	
13									0	841	701	
14									0	836	694	
15									0	830	688	
16									0	824	655	
17									0	817	633	
18									159	811	607	
19									253	806	495	
20									302	800	429	
21									358	763	419	
22									396	738	418	
23									425	736	394	
24									465	733	481	
25									506	730	436	
26									522	727	344	
27									668	723	342	
28									884	718	341	
29									922	713	339	
30									900	756	112	
31		---			---		---		---	776	0	---
TOTAL	0	0	0	0	0	0	0	0	6760	24044	16766	0
MEAN	0	0	0	0	0	0	0	0	225	776	541	0
MAX	0	0	0	0	0	0	0	0	922	893	769	0
MIN	0	0	0	0	0	0	0	0	0	632	0	0
AC-FT	0	0	0	0	0	0	0	0	13410	47690	33260	0
CAL YR 1975	TOTAL	161206.00	MEAN 442	MAX 1300	MIN 0	AC-FT 319800						
WTR YR 1976	TOTAL	47570.00	MEAN 130	MAX 922	MIN 0	AC-FT 94360						

11250000 FRIANT-KERN CANAL AT FRIANT, CA
(National stream-quality accounting network station)

LOCATION.--Lat 36°59'53", long 119°42'11", in SE¼SW¼ sec.5, T.11 S., R.21 E., Fresno County, at Friant Dam 0.9 mi (1.4 km) northeast of Friant.

PERIOD OF RECORD.--March 1949 to current year.

WATER-DISCHARGE RECORDS

GAGE.--Discharge computed on basis of valve openings in dam and head on valves. Prior to July 8, 1949, non-recording gages at various sites and datums. July 8 to Sept. 30, 1949, water-stage recorder at site 0.2 mi (0.3 km) downstream.

REMARKS.--Canal diverts from Millerton Lake (station 11250100) at left end of Friant Dam for irrigation in upper San Joaquin Valley.

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by Geological Survey, rounded to Geological Survey standards.

AVERAGE DISCHARGE.--27 years, 1,364 ft³/s (38.63 m³/s), 988,200 acre-ft/yr (1.22 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,564 ft³/s (129 m³/s) Apr. 17, 1962, Aug. 4, 1971; no flow for several months in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1690	316		0	1000	835	1160	707	920	2090	1750	1100
2	1500	258		0	1220	746	1050	775	944	2030	1670	1070
3	1350	314		0	1240	667	949	860	950	1910	1320	944
4	1220	308		0	852	625	926	874	899	1850	1040	837
5	1260	253		0	772	603	877	862	834	1790	939	882
6	1430	237		0	485	592	849	861	842	1590	826	1040
7	1470	213		0	470	621	819	792	861	1410	750	1270
8	1290	202		0	719	640	708	754	861	1430	844	1440
9	1150	229		0	810	641	622	766	877	1470	1230	1480
10	854	251		0	660	664	571	785	864	1390	1340	1380
11	592	274		0	653	721	534	767	703	1350	1520	1050
12	560	318		0	706	709	611	742	612	1420	1750	882
13	518	326		0	724	675	594	728	794	1480	1740	731
14	542	294		0	755	722	449	722	1080	1660	1640	526
15	534	273		0	781	826	364	735	1290	1760	1680	492
16	478	282		0	871	905	312	765	1540	1680	1560	438
17	478	291		0	1310	958	295	802	1890	1490	1230	407
18	527	294		0	1510	983	273	814	1910	1500	1020	385
19	559	316		0	1630	957	281	813	1880	1550	942	482
20	584	345		0	1670	919	352	813	1870	1530	809	597
21	639	363		497	1690	942	404	777	1830	1480	771	709
22	692	367		249	1750	1070	403	720	1590	1260	983	726
23	718	332		0	1810	1160	376	734	1410	980	1190	704
24	705	304		0	1820	1160	355	753	1410	935	1370	672
25	664	205		0	1740	1030	415	776	1370	1090	1540	604
26	678	0		0	1770	1050	472	804	1370	1290	1520	630
27	712	0		172	1810	1050	511	787	1600	1440	1540	679
28	769	0		0	1510	1060	533	752	1830	1680	1480	703
29	809	0		0	886	1110	566	721	1970	1840	1450	507
30	675	0		513	---	1160	707	768	2090	1830	1210	110
31	459	---		1000	---	1190	---	868	---	1730	1030	---
TOTAL	26106	7165	0	2431	33624	26991	17338	24197	38891	47935	39684	23477
MEAN	842	239	0	78.4	1159	871	578	781	1296	1546	1280	783
MAX	1690	367	0	1000	1820	1190	1160	874	2090	2090	1750	1480
MIN	459	0	0	0	470	592	273	707	612	935	750	110
AC-FT	51780	14210	0	4820	66690	53540	34390	47990	77140	95080	78710	46570

CAL YR 1975 TOTAL 702558.00 MEAN 1925 MAX 4440 MIN 0 AC-FT 1394000
WTR YR 1976 TOTAL 287839.00 MEAN 786 MAX 2090 MIN 0 AC-FT 570900

SAN JOAQUIN RIVER BASIN

11250000 FRIANT-KERN CANAL AT FRIANT, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL ANALYSES: Water years 1975 to current year.

SEDIMENT RECORDS: Water years 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	HARDNESS (CA, MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
NOV 03...	1100	350	26	6.3	17.5	1	89	84	8	0	2.6
FEB 02...	1000	999	35	7.2	11.5	1	<1	<1	8	0	2.8
MAR 02...	0930	776	44	7.0	9.0	--	81	82	--	--	--
APR 02...	0930	1130	40	6.7	11.0	--	83	81	--	--	--
MAY 03...	1020	823	37	7.0	12.0	2	<1	<1	11	0	3.4
JUN 01...	1000	920	46	6.0	14.0	--	<1	<1	--	--	--
JUL 06...	1100	1520	41	7.4	19.0	--	<1	<1	--	--	--
AUG 02...	1000	1750	36	6.6	23.0	1	<1	<1	12	0	3.5
SEP 02...	1000	1110	35	6.7	23.0	--	--	--	--	--	--
29...	1100	708	35	6.4	20.5	--	--	--	--	--	--

DATE	DIS-SOLVED MAGNE- SIUM (MG/L)	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- LITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)
NOV 03...	.4	2.0	33	.3	.6	12	0	10	3.6	1.3
FEB 02...	.3	2.6	38	.4	.7	16	0	13	2.3	2.5
MAR 02...	--	--	--	--	--	--	--	--	--	--
APR 02...	--	--	--	--	--	--	--	--	--	--
MAY 03...	.5	4.1	44	.6	.7	20	0	16	1.5	3.3
JUN 01...	--	--	--	--	--	--	--	--	--	--
JUL 06...	--	--	--	--	--	--	--	--	--	--
AUG 02...	.7	3.0	35	.4	.6	16	0	13	5.4	2.1
SEP 02...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED FLUO- RIDE (F) (MG/L)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
NOV 03...	.1	7.0	25	24	.03	23.6	.02	.21	.23	.01
FEB 02...	.1	8.1	24	27	.03	64.7	.10	.38	.48	.00
MAR 02...	--	--	--	--	--	--	.08	.22	.30	.00
APR 02...	--	--	--	--	--	--	.01	.30	.31	.00
MAY 03...	.1	8.8	36	32	.05	80.0	.10	.00	.10	.01
JUN 01...	--	--	--	--	--	--	.02	.09	.11	.01
JUL 06...	--	--	--	--	--	--	.01	.13	.14	.01
AUG 02...	.1	7.6	32	31	.04	151	.00	1.2	1.2	.01
SEP 02...	--	--	--	--	--	--	.00	.08	.08	.01
29...	--	--	--	--	--	--	.01	.36	.37	.01

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

11250000 FRIANT-KERN CANAL AT FRIANT, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L)	SUS- PENDE ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	SUS- PENDE CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	SUS- PENDE CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	SUS- PENDE COBALT (CO) (UG/L)
NOV 03...	1100	1	0	1	0	0	0	0	0	0	<50	<49
FEB 02...	1000	1	1	0	<10	<10	0	0	0	0	<50	<50
MAY 03...	1020	16	15	1	<10	<9	1	0	0	0	<50	<50
AUG 02...	1000	2	0	2	<10	<10	0	0	0	0	<50	<49

DATE	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS- PENDE COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS- PENDE LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	SUS- PENDE MAN- GANESE (MN) (UG/L)
NOV 03...	1	<10	<7	3	40	10	<100	<100	0	10	6
FEB 02...	0	10	8	2	40	10	<100	<99	1	20	10
MAY 03...	0	20	8	12	90	30	<100	<100	0	30	30
AUG 02...	1	30	25	5	120	0	<100	<100	0	10	10

DATE	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS- PENDE MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	SUS- PENDE SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS- PENDE ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
NOV 03...	4	.0	.0	.0	0	0	0	20	10	10	2.3
FEB 02...	10	.0	.0	.0	0	0	0	30	20	10	1.1
MAY 03...	0	.0	.0	.0	0	0	0	50	40	10	3.3
AUG 02...	0	.0	.0	.0	0	0	0	10	10	0	11

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM ..CLASS ..ORDER ...FAMILY ...GENUS....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
NOV 03	1100	CHRYSTOPHYTA ..BACILLARIOPHYCEAE ..CENTRALES ...COSCINODISCACEAE # ...MELOSIRA ..PENNALES ...CYMBELLACEAE ...CYMBELLA ...FRAGILARIACEAE ...ASTERIONELLA ...SYNEDRA ...GOMPHONEMACEAE ...GOMPHONEMA ...NAVICULACEAE ...NAVICULA ...NITZSCHIACEAE ...NITZSCHIA	DIATOMS CENTRIC PENNATE NAVICULOID	 210 23 23 23 46 92 69	 27 3 3 3 6 12 9
		PYRRHOPHYTA ..DINOPHYCEAE ...PERIDINIALES ...PERIDINIACEAE # ...PERIDINIUM	FIRE ALGAE DINOFLAGELLATES	280	36

TOTAL PHYTOPLANKTON

760

See footnotes at end of table.

11250000 FRIANT-KERN CANAL AT FRIANT, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM .CLASS ..ORDER ...FAMILY....GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
FEB 02	1000	CHLOROPHYTA .CHLOROPHYCEAE ..CHLOROCOCCALES ...SCENEDESMACEAE....CRUCIGENIA	GREEN ALGAE	71	14
		CHRYSOPHYTA .BACILLARIOPHYCEAE ..CENTRALES ...COSCINODISCEAE....CYCLOTELLA #MELOSIRA ..PENNALES ...ACHNANTHACEAE ...ACHNANTHES ...FRAGILARIACEAE *FRAGILARIA ...NITZSCHIAEAE....NITZSCHIA	DIATOMS CENTRIC PENNATE	36 340 18 36	7 66 3 7
		.CHRYSOPHYCEAE ..CHRYSONOMADALES ...MALLOMONADACEAE *MALLOMONAS ...OCHROMONADACEAE....DINOBRYON	YELLOW-BROWN ALGAE	18	0 3
		CYANOPHYTA .MYXOPHYCEAE ..OSCILLATORIALES ...NOSTOCACEAE *ANABAENA	BLUE-GREEN ALGAE FILAMENTOUS	520	0
		TOTAL PHYTOPLANKTON			
MAR 02	0930	CHLOROPHYTA .CHLOROPHYCEAE ..CHLOROCOCCALES ...OOCYSTACEAE *OOCYSTIS ...SCENEDESMACEAE *CRUCIGENIA *SCENEDESMUS	GREEN ALGAE		0 0 0
		CHRYSOPHYTA .BACILLARIOPHYCEAE ..CENTRALES ...COSCINODISCEAE *CYCLOTELLA #MELOSIRA ..PENNALES ...ACHNANTHACEAE ...ACHNANTHES ...FRAGILARIACEAE *ASTERIONELLA #FRAGILARIA ...NITZSCHIAEAE #NITZSCHIA ...TABELLARIACEAE....TABELLARIA	DIATOMS CENTRIC PENNATE	160 24 80 100 64	32 5 16 21 13
		.CHRYSOPHYCEAE ..CHRYSONOMADALES ...OCHROMONADACEAE *DINOBRYON	YELLOW-BROWN ALGAE		0
		CYANOPHYTA .MYXOPHYCEAE ..CHROOCOCCALES ...CHROOCOCCACEAE....AGMENELLUM	BLUE-GREEN ALGAE COCCOID	64	13
		TOTAL PHYTOPLANKTON		500	

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM .CLASS ..ORDER ...FAMILY....GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
MAY 31 (continued)		CYANOPHYTA	BLUE-GREEN ALGAE		
		..MYXOPHYCEAE			
		...CHROOCOCCALES	COCCOID		
		...CHROOCOCCACEAE			
	#	....ANACYSTIS		160	29
		...OSCILLATORIALES	FILAMENTOUS		
		...OSCILLATORIA		44	8
		...OSCILLATORIA			
		EUGLENOPHYTA	EUGLENOIDS		
		..EUGLENOPHYCEAE			
		...EUGLENALES			
		...EUGLENACEAE		4	1
		...TRACHELOMONAS			
		TOTAL PHYTOPLANKTON		560	
JUNE 01	1000	CHLOROPHYTA	GREEN ALGAE		
		..CHLOROPHYCEAE			
		...CHLOROCOCCALES			
		...OOCYSTACEAE		10	13
		...CHLORELLA			
		...ZYGNEMATALES			
		...DESMIDIACEAE	PLACODERM DESMIDS	3	3
		...COSMARIUM		5	7
		...STAURASTRUM			
		CHRYSTOPHYTA			
		..BACILLARIOPHYCEAE	DIATOMS		
		...CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
	*	...MELOSIRA			0
		...PENNATES	PENNATE		
		...FRAGILARIACEAE		3	3
		...ASTERIONELLA			0
	*	...FRAGILARIA			
	#	...SYNEDRA		13	17
		..XANTHOPHYCEAE	YELLOW-GREEN ALGAE		
		...HETEROCOCCALES			
		...PLEUROCHLORIDACEAE		3	3
		...BOTRYDIOPSIS			
		CYANOPHYTA	BLUE-GREEN ALGAE		
		..MYXOPHYCEAE			
		...CHROOCOCCALES	COCCOID		
		...CHROOCOCCACEAE			
	#	....ANACYSTIS		40	53
		TOTAL PHYTOPLANKTON		75	

11250000 FRIANT-KERN CANAL AT FRIANT, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM .CLASS ..ORDER ...FAMILY....GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
JULY 06	1100	CHLOROPHYTA ..CHLOROPHYCEAE ...VOLVOCALES....VOLVOCAEAE #EUDORINA ...ZYGNEMATALES ...DESMIDIACEAE ...COSMARIMUM	GREEN ALGAE PLACODERM DESMIDS	 150 5	 80 3
		CHRYSTOPHYTA ..BACILLARIOPHYCEAE ...CENTRALES ...COSCINODISCACEAE ...MELOSIRA ...PENNALES ...FRAGILARIACEAE ...SYNEDRA ...GOMPHONEMACEAE ...GOMPHONEMA ...NAVICULACEAE *DIPLOEIS ...NAVICULA ...NITZSCHACEAE ...NITZSCHIA	DIATOMS CENTRIC PENNATE NAVICULOID	 5 9 5 5 5	 3 5 3 0 3 3
		..CHRYSTOPHYCEAE ...CHRYSONOMADACEAE ...OCHROMONADACEAE ...DINOBYRON	YELLOW-BROWN ALGAE	 5	 3
		TOTAL PHYTOPLANKTON		180	
AUG 02	1000	CHLOROPHYTA ..CHLOROPHYCEAE ...CHLOROCOCCALES ...OOCYSTACEAE ...ANKISTRODESMUS ...SCENEDESMACEAE ...CRUCIGENIA	GREEN ALGAE	 7 56	 1 9
		CHRYSTOPHYTA ..BACILLARIOPHYCEAE ...CENTRALES ...COSCINODISCACEAE ...CYCLOTILLA ...PENNALES ...ACHNANTHACEAE ...ACHNANTHES ...FRAGILARIACEAE ...SYNEDRA	DIATOMS CENTRIC PENNATE	 7 7 21	 1 1 3
		CYANOPHYTA ..MYXOPHYCEAE ...CHROOCOCCALES ...CHROOCOCCACEAE #ANACYSTIS	BLUE-GREEN ALGAE COCCOID	 520	 84
		TOTAL PHYTOPLANKTON		620	

SAN JOAQUIN RIVER BASIN

11250000 FRIANT-KERN CANAL AT FRIANT, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM .CLASS ..ORDER ...FAMILY....GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
SEPT 02	1000	CHLOROPHYTA ..CHLOROPHYCEAE ..CHLOROCOCCALES ...OOCYSTACEAE....ANKISTRODESMUS ...SCENEDESMACEAE #CRUCIGENIA....SCENEDESMUS	GREEN ALGAE	3 11 5	4 17 8
		CHRYSTOPHYTA ..BACILLARIOPHYCEAE ..CENTRALES ...COSCINODISCACEAE....MELOSIRA ..PENNALES ...NAVICULACEAE ...NAVICULA ...NITZSCHIA....NITZSCHIA	DIATOMS CENTRIC PENNATE NAVICULOID	5 8 3	8 12 4
		..CHRYSTOPHYCEAE ..CHRYSONOMADALES ...OCHROMONADACEAE #DINOBRYON	YELLOW-BROWN ALGAE	19	29
		CYANOPHYTA ..MYXOPHYCEAE ...CHROOCOCCALES ...CHROOCOCCACEAE #ANACYSTIS	BLUE-GREEN ALGAE COCCOID	11	17
		TOTAL PHYTOPLANKTON		63	
SEPT 29	1100	CHRYSTOPHYTA ..BACILLARIOPHYCEAE ..CENTRALES ...COSCINODISCACEAE....MELOSIRA ..PENNALES ...NAVICULACEAE ...CALONEIS ...NAVICULA ...NITZSCHIA....NITZSCHIA	DIATOMS CENTRIC PENNATE NAVICULOID	10 5 10 5	13 6 13 6
		CYANOPHYTA ..MYXOPHYCEAE ...OSCILLATORIALES ...NOSTOCACEAE #ANABAENA	BLUE-GREEN ALGAE FILAMENTOUS	48	63
		TOTAL PHYTOPLANKTON		77	

NOTE: # - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 * - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED

11250000 FRIANT-KERN CANAL AT FRIANT, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
NOV 03...	1100	17.5	350	2	1.9	86
FEB 02...	1000	11.5	999	2	5.4	73
MAR 02...	0930	9.0	776	2	4.2	77
APR 02...	0930	11.0	1130	2	6.1	56
MAY 03...	1020	12.0	823	1	2.2	48
JUN 01...	1030	--	920	1	2.5	26
AUG 02...	1000	23.0	1750	1	4.7	68
SEP 02...	0930	--	1110	2	6.0	75
29...	1030	--	708	1	1.9	81

SAN JOAQUIN RIVER BASIN

11250100 MILLERTON LAKE AT FRIANT, CA

LOCATION.--Lat 37°00'00", long 119°42'13", in SW¼SW¼ sec.5, T.11 S., R.21 E., Fresno County, near center of Friant Dam on San Joaquin River just upstream from Cottonwood Creek, 0.9 mi (1.4 km) northeast of Friant.

DRAINAGE AREA.--1,638 mi² (4,242 km²).

PERIOD OF RECORD.--October 1941 to current year. Monthend contents only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to May 29, 1944, nonrecording gage on left bank at same datum.

REMARKS.--Reservoir is formed by gravity-type concrete dam with spillway near center, completed in December 1942. Control valves installed in February 1944 and spillway gates installed in November 1947. Usable capacity, 503,200 acre-ft (620 hm³) between elevations 375.4 ft (114.42 m) invert of river outlet, and 578.0 ft (176.17 m) top of drum-type spillway gates, above mean sea level. Not available for release, 17,400 acre-ft (21.5 hm³). Millerton Lake is one of the storage units in Center Valley Project. Records, including extremes, represent total contents at 2400 hours.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 528,700 acre-ft (652 hm³) June 12, 1973, elevation, 579.66 ft (176.680 m); minimum since lake first filled, 133,600 acre-ft (165 hm³) Apr. 11, 1969, elevation, 467.81 ft (142.588 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 381,900 acre-ft (471 hm³) Apr. 28, elevation, 547.21 ft (166.790 m); minimum, 148,100 acre-ft (183 hm³) Oct. 9, elevation, 474.28 ft (144.561 m).

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

400	36400	500	215600
420	57000	520	279400
440	83300	540	353000
460	117500	560	436500
480	161700	580	530400

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	158400	183100	258100	323400	354800	339000	357600	380700	365100	323600	228100	186100
2	156900	185700	261000	326600	353500	340500	357600	380200	364800	318900	224900	186500
3	155600	188300	263300	328400	352200	341600	357900	379500	364500	314400	222400	186900
4	154600	190600	265400	329400	352400	342900	358200	378800	364200	309700	220800	187600
5	153200	193200	268600	330600	353400	344200	359300	378000	364200	305200	219700	188000
6	151300	195900	271600	331800	354000	344800	360400	377300	364300	301700	218800	187900
7	149600	197800	274200	333500	355500	344900	361400	376700	364300	299400	218100	187500
8	148600	199500	276400	336600	355400	346100	362200	376500	364300	297400	216600	187100
9	148100	201100	278600	338000	356600	347400	363400	376000	364400	294500	215200	186700
10	148600	203000	281300	339300	358400	348200	363500	375500	364500	291200	213600	186800
11	149200	205600	283800	340400	358800	349600	365100	375200	364900	287500	211600	187500
12	149300	207300	286700	341400	359300	351200	366000	375100	365700	284300	209600	188900
13	150500	209500	289300	342600	359700	351600	366700	374700	365900	281500	206500	190500
14	151600	212000	291800	343900	359900	351400	367500	374400	365800	278100	203800	192600
15	153500	214700	293800	345200	360400	351800	368200	374100	365400	274500	201500	194800
16	155800	217300	296000	346800	360300	353100	369200	373400	364100	270200	199500	197000
17	157700	219800	298200	347200	359400	353900	370700	372700	362500	267100	197900	199200
18	159700	222400	300300	348200	358500	355100	372200	372100	360400	263500	196900	201600
19	161100	225000	302400	349400	357300	356400	373400	371600	358000	260300	196300	203800
20	162600	227400	304800	350400	355500	357200	372600	371000	355600	257500	196300	205600
21	164200	229900	306300	350200	353900	357600	371800	370700	353200	255000	196000	207300
22	165900	232300	307900	350800	351700	357700	370900	370100	351200	253000	195300	208900
23	167800	234800	310000	351800	349200	358200	372100	369800	349500	251700	194600	210500
24	169800	237400	312000	352700	346700	358500	374300	369500	348200	250300	193000	212200
25	169600	240000	313600	353800	344300	359300	376500	369200	346200	248300	191500	214100
26	171400	243000	315200	354800	342100	359900	378700	368700	343900	246300	190200	215900
27	173100	246300	316600	355500	339900	360000	380800	368100	340800	244100	188900	217700
28	174700	248700	318100	356500	338000	359600	381900	367800	337200	241000	187700	219300
29	176300	252000	319600	357400	337700	358900	381400	367400	332700	237900	186300	221400
30	178200	255000	321100	357300	---	358300	380900	366400	328100	235100	185700	224200
31	180500	---	321400	355900	---	357800	---	365500	---	231900	185900	---
MAX	180500	255000	321400	357400	360400	360000	381900	380700	365900	323600	228100	224200
MIN	148100	183100	258100	323400	337700	339000	357600	365500	328100	231900	185700	186100
†	487.39	512.71	531.75	540.75	536.06	541.23	546.97	543.17	533.54	505.39	489.42	502.89
‡	-20400	+74500	+66400	+34500	-18200	+20100	+23100	-15400	-37400	-96200	-46000	+38300
††	820	390	250	430	600	1040	1430	2820	3170	3200	1840	1410

CAL YR 1975 ‡ +54200

WTR YR 1976 ‡ +64100

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

†† Evaporation, in acre-feet.

11251000 SAN JOAQUIN RIVER BELOW FRIANT, CA

LOCATION.--Lat 36°59'04", long 119°43'24", in SW¼SW¼ sec.7, T.11 S., R.21 E., Fresno County, on left bank 0.5 mi (0.8 km) west of Friant, 1.5 mi (2.4 km) downstream from Cottonwood Creek, 2 mi (3.2 km) downstream from Friant Dam, and at mile 268.1 (431.4 km).

DRAINAGE AREA.--1,676 mi² (4,341 km²).

PERIOD OF RECORD.--October 1907 to current year. Published as "near Pollasky" October 1907 to December 1908, and as "near Friant" January 1909 to September 1938. Monthly discharge only for October 1907 to November 1908, published in WSP 1315-A.

REVISED RECORDS.--WSP 843: 1914(M).

GAGE.--Water-stage recorder. Datum of gage is 294.00 ft (89.611 m) above mean sea level (levels by Bureau of Reclamation). Oct. 18, 1907, to Nov. 9, 1913, nonrecording gage at site 4.5 mi (7.2 km) upstream at different datum. Nov. 10, 1913, to Sept. 30, 1968, water-stage recorder at site 2.5 mi (4.0 km) upstream at different datum.

REMARKS.--Records good. flow regulated by Millerton Lake (station 11250100) beginning in 1941, and by reservoirs described in REMARKS for San Joaquin River below Kerckhoff powerhouse. Diversion for irrigation through Madera and Friant-Kern Canals (stations 11249500, 11250000) began in 1944 and 1949, respectively. See schematic diagram of San Joaquin River basin.

AVERAGE DISCHARGE (adjusted for change in contents in and evaporation from Millerton Lake and for diversions to Madera and Friant-Kern Canals).--69 years, 2,346 ft³/s (66.44 m³/s), 1,700,000 acre-ft/yr (2.10 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 77,200 ft³/s (2,190 m³/s) Dec. 11, 1937, gage height, 23.8 ft (7.25 m) site and datum then in use; minimum, 38 ft³/s (1.08 m³/s) regulated, July 29, 1940. Maximum discharge since construction of Friant Dam in 1941, 12,400 ft³/s (351 m³/s) June 6, 1969; minimum, 5.5 ft³/s (0.16 m³/s) Oct. 20, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 287 ft³/s (8.13 m³/s) May 1, gage height, 3.00 ft (0.914 m); minimum daily, 32 ft³/s (0.91 m³/s) Dec. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	68	63	41	100	60	140	236	200	172	188	147
2	82	70	63	41	104	73	142	227	200	170	185	147
3	80	71	63	41	112	95	140	202	198	170	182	144
4	80	71	63	41	115	94	142	190	198	168	180	144
5	80	71	63	39	104	92	132	175	198	168	172	144
6	90	65	63	39	90	94	125	175	192	168	165	144
7	104	58	63	39	70	92	110	158	188	163	165	144
8	104	58	54	39	57	90	106	142	172	160	165	144
9	104	58	33	41	62	92	104	142	168	160	165	138
10	104	73	32	50	52	90	104	142	168	160	165	132
11	104	82	33	60	46	90	104	142	158	160	165	127
12	104	82	33	62	46	92	104	142	147	160	165	117
13	99	82	36	62	44	92	95	142	147	165	163	117
14	92	82	36	62	46	90	85	142	147	168	163	108
15	92	83	36	73	46	92	87	142	140	168	163	99
16	92	83	36	85	46	92	90	140	123	168	163	99
17	92	80	36	85	46	95	88	140	123	165	163	99
18	94	70	36	83	46	97	88	142	125	165	156	99
19	88	71	49	85	47	100	87	142	136	165	147	99
20	80	70	63	80	47	113	85	142	147	165	142	104
21	80	62	63	76	46	125	85	134	158	165	136	117
22	82	62	63	76	46	125	85	127	170	165	136	117
23	82	62	63	76	46	132	85	127	170	165	136	117
24	82	62	63	76	46	147	92	127	185	165	136	117
25	82	63	63	75	46	144	102	127	195	165	136	117
26	82	63	63	80	46	132	108	140	195	178	136	119
27	82	63	63	82	52	163	134	156	195	190	134	119
28	83	63	65	83	60	163	156	165	192	190	142	119
29	76	63	65	90	60	163	156	188	190	190	147	115
30	71	63	57	94	---	149	170	188	182	190	147	99
31	68	---	41	100	---	140	---	192	---	190	147	---
TOTAL	2715	2074	1623	2056	1774	3408	3331	4876	5107	5261	4855	3652
MEAN	87.6	69.1	52.4	66.3	61.2	110	111	157	170	170	157	122
MAX	104	83	65	100	115	163	170	236	200	190	188	147
MIN	68	58	32	39	44	60	85	127	123	160	134	99
AC-FT	5390	4110	3220	4080	3520	6760	6610	9670	10130	10440	9630	7240
MEAN ‡	1276	1566	1136	713	914	1324	1101	733	1117	979	1259	1571
AC-FT ‡	78460	93210	69870	43840	52600	81420	65490	45090	66460	60180	77420	93510

CAL YR 1975 TOTAL 28732 MEAN 78.7 MAX 163 MIN 32 AC-FT 56990 MEAN ‡ 2543 AC-FT ‡ 1841000
WTR YR 1976 TOTAL 40732 MEAN 111 MAX 236 MIN 32 AC-FT 80790 MEAN ‡ 1140 AC-FT ‡ 827600

‡ Adjusted for change in contents and evaporation from Millerton Lake and for diversions to Madera and Friant-Kern Canals.

SAN JOAQUIN RIVER BASIN

11253310 CANTUA CREEK NEAR CANTUA CREEK, CA

LOCATION.--Lat 36°24'08", long 120°25'57", in SE¼SE¼ sec.34, T.17 S., R.14 E., Fresno County, on left bank 9.2 mi (14.8 km) southwest of town of Cantua Creek, and 19 mi (31 km) north of Coalinga.

DRAINAGE AREA.--46.4 mi² (120.2 km²).

PERIOD OF RECORD.--Water years 1958-65 (annual maximum), October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 680 ft (207 m), from topographic map. Prior to October 1966, crest-stage gage at datum 2.00 ft (0.610 m) lower.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Some small dams for stock use above station.

AVERAGE DISCHARGE.--10 years, 2.69 ft³/s (0.076 m³/s), 1,950 acre-ft/yr (2.40 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,920 ft³/s (54.3 m³/s) Feb. 24, 1969, gage height, 6.60 ft (2.012 m), from rating curve extended above 170 ft³/s (4.81 m³/s) on basis of slope-area measurements at gage heights 4.57 ft (1.393 m), 6.04 ft (1.841 m), and 6.60 ft (2.012 m); no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 560 ft³/s (15.9 m³/s) Sept. 29 (0430 hrs), gage height, 4.50 ft (1.372 m) from floodmarks, no other peak above base of 50 ft³/s (1.42 m³/s); no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	0					0
2						.02	0					0
3						.02	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	.05					0
14						0	0					0
15						0	0					0
16						0	0					0
17						0	0					0
18						0	0					0
19						0	0					0
20						0	0					0
21						0	0					0
22						0	0					0
23						0	0					0
24						0	0					0
25						0	0					0
26						0	0					0
27						0	0					0
28						0	0					.21
29						0	0					34
30					---	0	0					8.0
31		---			---	0	---		---			---
TOTAL	0	0	0	0	0	.04	.05	0	0	0	0	42.21
MEAN	0	0	0	0	0	.001	.002	0	0	0	0	1.41
MAX	0	0	0	0	0	.02	.05	0	0	0	0	34
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	.08	.10	0	0	0	0	84
CAL YR 1975	TOTAL	641.36	MEAN	1.76	MAX	76	MIN	0	AC-FT	1270		
WTR YR 1976	TOTAL	42.30	MEAN	.12	MAX	34	MIN	0	AC-FT	84		

NOTE.--No gage-height record Sept. 29, 30.

11253500 JAMES BYPASS NEAR SAN JOAQUIN, CA

LOCATION.--Lat 36°39'09", long 120°10'49", in NE¼SW¼ sec.1, T.15 S., R.16 E., Fresno County, on right bank 3.2 mi (5.1 km) north of San Joaquin.

PERIOD OF RECORD.--October 1947 to current year. Published as "Fresno Slough bypass" in WSP 1315-A and 1735. Daily discharge for period October 1954 to September 1972 are in files of Bureau of Reclamation. Monthly totals published in WDR CA-72-2.

GAGE.--Water-stage recorder. Altitude of gage is 160 ft (49 m), from topographic map.

REMARKS.--No flow since June 21, 1974. Diversion above station for irrigation. James Bypass carries overflow from Kings River to San Joaquin River.

COOPERATION.--Records furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--29 years, 143 ft³/s (4.050 m³/s), 103,600 acre-ft/yr (128 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 5,570 ft³/s (158 m³/s) June 7, 1969; no flow for all or most of each year.

SAN JOAQUIN RIVER BASIN

11257100 MIAMI CREEK NEAR OAKHURST, CA

LOCATION.--Lat 37°23'37", long 119°39'12", in NE&SE& sec.22, T.6 S., R.21 E., Madera County, Sierra National Forest, on left bank 200 ft (61 m) downstream from county road bridge, and 4.6 mi (7.4 km) north of Oakhurst.

DRAINAGE AREA.--10.6 mi² (27.5 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 3,500 ft (1,070 m), from topographic map.

REMARKS.--No known diversions above station.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--16 years, 8.03 ft³/s (0.227 m³/s), 5,820 acre-ft/yr (7.18 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 804 ft³/s (22.8 m³/s) Feb. 1, 1963, gage height, 9.08 ft (2.768 m); no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 55 ft³/s (1.56 m³/s) Mar. 1, gage height, 4.00 ft (1.219 m);
minimum daily, 0.10 ft³/s (0.003 m³/s) Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

JAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	4.4	3.0	2.9	2.2	26	5.0	3.7	2.1	.80	.50	.20
2	1.2	3.8	3.1	3.0	2.2	9.6	4.8	4.8	2.0	.80	.40	.20
3	1.2	3.3	3.4	2.6	2.2	8.0	4.6	6.7	2.0	.80	.50	.20
4	1.2	3.0	3.4	2.7	2.5	6.7	4.6	6.6	1.9	.70	.50	.20
5	1.2	2.7	3.2	2.7	3.1	6.1	4.6	4.4	1.9	.70	.40	.20
6	1.3	2.4	3.0	2.8	2.8	5.7	4.4	3.5	1.8	.60	.40	.30
7	2.9	2.4	2.8	2.7	4.2	5.8	4.3	3.9	1.9	.60	.40	.20
8	2.2	2.4	2.7	2.7	4.3	5.9	5.4	3.5	1.8	.60	.40	.20
9	1.8	2.4	2.7	2.8	6.3	5.8	5.5	3.4	1.8	.50	.30	.10
10	5.4	3.0	2.6	2.9	6.0	5.9	5.7	3.2	2.0	.50	.30	.20
11	10	3.2	2.6	2.9	5.4	5.9	7.5	3.1	2.4	.50	.20	3.9
12	4.6	3.1	2.9	2.8	4.9	6.0	7.5	2.9	2.2	.50	.20	1.3
13	4.9	2.9	3.1	2.7	4.7	6.1	6.4	2.7	1.9	.50	.20	1.0
14	3.5	2.8	2.9	2.8	5.7	6.2	5.8	2.6	1.7	.40	.30	.90
15	2.9	2.7	2.8	2.8	5.4	6.3	7.1	2.6	1.5	.40	2.1	.80
16	2.6	2.7	2.8	2.7	4.9	6.4	6.4	2.5	1.4	.50	1.1	.70
17	2.4	3.0	2.8	2.7	4.7	6.9	5.9	2.4	1.3	.60	.80	.70
18	2.3	2.8	2.7	2.7	4.7	7.3	5.9	2.3	1.2	.50	.80	.70
19	2.2	2.7	2.8	2.6	7.4	7.1	5.9	2.3	1.2	.40	.90	.60
20	2.1	2.7	2.8	2.5	5.5	6.3	5.9	2.4	1.2	.40	1.0	.60
21	2.1	2.7	2.8	2.4	4.8	6.2	5.9	2.4	1.2	.40	.70	.60
22	2.0	2.6	2.9	2.4	4.5	6.4	5.6	2.3	1.2	.40	.70	.50
23	1.9	2.6	3.0	2.4	4.4	6.3	5.2	2.3	1.1	.40	.70	.50
24	2.1	2.6	3.0	2.4	4.2	6.3	5.0	2.2	1.0	.40	.60	.50
25	2.3	2.6	2.9	2.4	4.1	6.4	4.8	2.2	.90	.30	.50	.50
26	4.2	2.6	2.8	2.4	4.1	5.9	4.6	2.3	.90	.30	.50	.50
27	7.9	2.8	2.8	2.4	4.4	5.7	4.4	2.2	.90	.20	.40	.60
28	4.0	3.6	2.8	2.3	4.7	5.3	4.2	2.1	.80	.20	.40	.60
29	3.2	3.1	2.8	2.3	12	5.1	4.1	2.1	.70	.20	.30	.60
30	5.8	2.9	2.7	2.3	---	5.2	3.9	2.1	.80	.20	.30	.70
31	5.6	---	2.7	2.3	---	5.1	---	2.1	---	.30	.20	---
TOTAL	98.2	86.5	89.3	81.0	136.3	213.9	160.9	93.8	44.70	14.60	17.00	18.80
MEAN	3.17	2.88	2.88	2.61	4.70	6.90	5.36	3.03	1.49	.47	.55	.63
MAX	10	4.4	3.4	3.0	12	26	7.5	6.7	2.4	.80	2.1	3.9
MIN	1.2	2.4	2.6	2.3	2.2	5.1	3.9	2.1	.70	.20	.20	.10
AC-FT	195	172	177	161	270	424	319	186	89	29	34	37
CAL YR 1975	TOTAL	3490.20		MEAN	9.56	MAX	118	MIN	1.2	AC-FT	6920	
YR 1976	TOTAL	1055.00		MEAN	2.88	MAX	26	MIN	.10	AC-FT	2090	

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	44	24	24	22	230	51	41	20	2.1	.20	.02
2	2.0	28	31	24	22	106	40	41	20	2.5	.19	.10
3	1.8	19	31	20	21	85	43	40	18	2.6	.22	0
4	1.8	18	30	18	23	76	43	47	16	2.6	.20	.10
5	1.8	16	30	20	34	65	45	53	16	2.4	.17	.20
6	2.4	15	28	24	44	58	43	55	16	2.3	.15	.21
7	3.3	14	29	24	50	54	41	58	16	1.3	.12	.22
8	4.1	14	28	24	55	54	51	56	15	1.2	.10	.22
9	3.9	14	27	21	81	51	60	51	14	1.1	.10	.22
10	3.5	16	26	23	131	50	49	49	16	.80	.10	.25
11	5.4	20	25	24	51	49	64	47	14	1.7	.10	.34
12	14	20	25	23	53	47	79	46	14	1.6	.10	15
13	15	19	24	24	46	46	62	43	13	.52	.15	6.4
14	14	18	24	22	47	47	56	43	13	.85	.17	5.0
15	11	17	26	23	49	47	59	40	12	.52	.20	4.7
16	8.0	17	28	23	42	49	71	35	9.6	.52	.22	6.9
17	6.5	17	27	23	38	53	56	35	9.2	.49	.22	12
18	5.7	18	25	23	38	59	54	34	8.8	.58	.16	18
19	5.6	17	24	23	55	60	54	32	8.0	.42	.21	19
20	5.2	17	25	22	60	51	51	31	6.3	.52	.20	18
21	5.0	18	25	21	44	49	54	30	5.2	.28	.19	17
22	4.6	17	25	21	40	52	55	28	4.8	.48	.20	17
23	4.5	17	22	21	37	53	53	28	5.7	.42	.20	16
24	4.4	17	24	21	35	54	51	27	5.3	.28	.19	16
25	4.4	17	24	22	34	56	51	26	3.6	.20	.16	15
26	4.9	17	25	22	33	57	48	25	3.0	.20	.12	15
27	5.9	17	24	21	34	54	45	23	2.1	.20	.11	15
28	15	30	24	22	36	50	44	22	2.1	.20	.10	14
29	18	28	26	22	46	47	43	22	2.1	.20	.07	16
30	22	23	24	22	---	46	42	22	1.9	.20	.05	16
31	49	---	24	22	---	50	---	22	---	.20	.03	---
TOTAL	254.9	579	804	689	1301	1905	1558	1152	310.7	29.48	4.70	263.88
MEAN	8.22	19.3	25.9	22.2	44.9	61.5	51.9	37.2	10.4	.95	.15	8.80
MAX	49	44	31	24	131	230	79	58	20	2.6	.22	19
MIN	1.8	14	22	18	21	46	40	22	1.9	.20	.03	0
AC-FT	506	1150	1590	1370	2580	3780	3090	2280	616	58	9.3	523
CAL YR 1975	TOTAL	33132.00	MEAN	90.8	MAX	754	MIN	1.8	AC-FT	65720		
WTR YR 1976	TOTAL	8851.66	MEAN	24.2	MAX	230	MIN	0	AC-FT	17560		

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July 1971 to current year.

INSTRUMENTATION.--Temperature recorder since July 1971.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 33.0°C Aug. 11, 1971; minimum, 0.0°C Jan. 5, 7, 1973.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 32.5°C July 25, 26; minimum, 1.0°C Jan. 2-4.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	23.0	16.0	13.5	9.0	6.5	3.0	4.0	1.5	---	---	8.0	5.5
2	23.0	16.0	14.5	10.0	7.5	3.5	3.5	1.0	---	---	6.0	3.0
3	23.5	17.5	14.5	10.0	8.5	4.5	3.0	1.0	---	---	4.5	2.5
4	23.0	17.5	15.0	10.5	9.0	5.5	3.5	1.0	---	---	6.5	4.0
5	23.5	17.5	14.0	10.0	8.5	5.5	5.0	2.0	---	---	8.0	4.0
6	21.0	18.0	13.0	10.5	8.5	5.0	6.0	2.5	---	---	9.0	5.0
7	19.5	15.5	13.5	9.5	8.5	4.5	5.5	2.0	---	---	10.5	6.0
8	18.0	13.5	14.0	11.5	8.0	4.5	5.5	2.0	---	---	9.0	6.5
9	17.5	14.0	13.0	9.5	8.5	4.5	4.5	2.5	---	---	11.0	6.0
10	17.0	15.5	12.5	10.5	8.0	5.0	5.5	3.0	---	---	9.0	7.0
11	17.5	15.0	11.5	8.5	8.0	5.0	6.0	4.0	9.5	5.5	10.5	7.5
12	16.0	13.5	11.0	7.5	7.0	6.0	6.0	5.5	10.0	6.5	12.0	7.5
13	16.5	12.0	12.0	7.5	7.0	5.5	6.5	4.5	10.0	6.0	12.5	7.5
14	17.5	12.0	11.5	8.0	6.5	3.5	7.0	3.5	10.5	8.0	13.5	8.0
15	18.0	12.5	12.0	7.5	6.0	2.5	6.0	3.5	9.5	7.0	12.5	8.5
16	18.0	13.0	11.0	9.5	6.0	2.5	6.5	4.5	7.0	5.5	14.5	9.5
17	18.0	12.5	9.5	8.5	6.0	2.0	7.0	4.0	9.0	5.5	15.5	11.0
18	17.5	13.5	9.5	6.5	6.0	2.5	---	---	11.5	7.0	13.5	10.0
19	18.0	12.5	9.0	5.5	6.5	2.5	---	---	10.0	7.0	11.5	7.5
20	18.0	13.0	9.5	6.0	6.0	2.5	---	---	8.5	5.0	12.5	7.5
21	18.0	13.0	9.0	5.5	6.5	3.0	---	---	9.0	4.5	14.0	8.5
22	16.5	14.0	9.0	5.0	7.5	4.0	---	---	9.0	5.5	13.5	9.0
23	14.0	10.0	9.0	5.0	6.0	5.0	---	---	8.0	5.5	15.0	10.0
24	13.0	9.0	9.0	5.0	7.5	5.0	---	---	10.5	5.0	15.0	10.0
25	13.5	8.5	9.0	5.0	7.5	4.0	---	---	11.0	6.0	14.5	10.0
26	13.5	11.5	9.0	5.5	6.5	3.5	---	---	11.5	6.5	13.5	9.5
27	15.0	11.5	8.0	7.0	7.0	4.0	---	---	12.5	7.0	13.5	9.0
28	14.0	10.0	7.5	5.0	8.5	6.0	---	---	13.5	8.0	13.5	8.5
29	14.0	9.0	6.5	3.5	8.5	5.0	---	---	9.5	8.0	14.5	9.0
30	11.0	9.5	6.0	2.5	7.0	4.5	8.5	5.0	---	---	16.0	10.5
31	10.5	8.0	---	---	5.5	2.5	10.0	5.0	---	---	16.0	11.0
MONTH	23.5	8.0	15.0	2.5	9.0	2.0	---	---	---	---	16.0	2.5
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.5	10.0	20.0	14.0	24.0	15.5	27.5	18.0	29.5	20.5	27.0	20.0
2	14.0	8.0	19.5	14.5	23.5	15.5	28.0	18.0	29.5	20.5	30.5	21.0
3	11.5	8.0	20.0	14.0	23.0	14.5	29.0	19.5	27.5	21.0	---	---
4	9.0	7.0	19.5	14.5	23.0	13.5	29.5	20.5	28.5	19.0	27.5	21.0
5	9.0	7.0	19.0	14.5	22.0	13.5	30.5	21.0	29.0	18.5	27.5	21.0
6	13.5	7.5	15.5	12.5	21.5	14.0	30.5	21.5	28.5	18.5	28.5	21.5
7	15.0	8.0	16.5	11.0	22.5	14.0	29.5	21.0	29.0	17.5	27.0	19.5
8	12.5	9.0	19.5	14.0	22.0	14.5	29.5	20.5	29.0	18.0	28.0	20.0
9	12.5	7.0	20.5	15.5	21.0	15.5	30.0	22.0	29.5	18.5	24.5	20.0
10	10.0	7.0	20.0	16.0	17.5	15.0	30.0	23.0	29.0	19.0	23.0	21.5
11	9.5	8.0	21.0	15.0	21.5	13.0	30.0	23.5	29.0	19.0	23.5	20.5
12	9.0	7.0	22.0	16.0	23.5	14.5	29.5	22.0	29.5	19.5	23.5	19.5
13	8.0	7.5	23.0	17.0	24.5	16.0	29.5	22.5	26.0	18.5	25.5	19.5
14	9.5	7.5	23.0	18.0	26.0	16.5	29.5	21.5	21.0	19.5	25.5	20.5
15	9.0	6.0	22.5	16.0	26.5	17.5	29.0	24.0	24.0	18.5	24.5	20.0
16	10.0	4.5	22.5	16.5	26.5	18.0	30.5	24.5	25.0	18.5	23.0	17.5
17	12.0	6.5	22.5	16.0	27.0	18.0	30.5	23.5	22.5	18.5	23.5	18.0
18	14.0	9.0	21.0	15.5	27.0	19.0	29.5	23.5	24.5	20.0	24.0	18.5
19	16.0	10.0	21.0	14.0	27.0	19.0	30.5	22.5	23.0	21.5	23.0	19.0
20	17.5	12.0	20.5	14.5	27.0	19.0	30.0	23.5	26.5	20.5	24.0	19.0
21	18.0	13.0	21.0	15.0	25.5	19.0	30.5	21.5	27.5	21.5	24.0	19.0
22	17.5	12.5	22.0	15.0	25.5	17.5	28.5	21.5	27.5	22.5	23.5	19.0
23	18.0	12.5	22.0	14.5	29.0	18.0	29.5	24.5	27.0	20.0	23.0	18.0
24	18.5	12.0	22.0	13.5	29.5	21.0	31.5	23.5	26.5	20.0	23.5	18.0
25	18.0	13.0	22.5	15.0	28.5	21.5	32.5	23.0	27.0	21.5	23.0	18.5
26	16.5	11.0	24.5	16.5	29.5	20.0	32.5	22.5	26.5	20.0	22.5	18.5
27	16.5	10.5	24.5	17.5	30.5	20.5	31.5	22.5	26.0	19.0	22.5	18.5
28	16.0	10.5	23.5	16.5	30.5	21.0	32.0	23.5	26.5	19.5	22.0	19.0
29	17.0	11.0	22.0	14.5	29.5	21.0	31.0	22.0	27.0	19.5	22.0	19.0
30	19.0	12.5	23.0	14.5	28.0	19.5	30.5	21.5	27.0	19.5	22.0	17.5
31	---	---	23.5	15.0	---	---	28.0	21.0	27.0	20.0	---	---
MONTH	19.0	4.5	24.5	11.0	30.5	13.0	32.5	18.0	29.5	17.5	30.5	17.5

11257950 HENSLEY LAKE NEAR DAULTON, CA

LOCATION.--Lat 37°06'34", long 119°53'05", in NE¼NW¼ sec.34, T.9 S., R.19 E., Madera County, in control tower at center of Hidden Dam on Fresno River, and 5.3 mi (8.5 km) southeast of Daulton.

DRAINAGE AREA.--236 mi² (611 km²).

PERIOD OF RECORD.--October 1975 to September 1976.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Lake is formed by earthfill dam. Storage began Oct. 1, 1975, usable capacity, 85,289 acre-ft (105 hm³), between elevations 448.0 ft (136.55 m) lowest outlet, and 540.0 ft (164.59 m) crest of spillway. Dead storage, 4,970 acre-ft (6.13 hm³). Records, including extremes, represent total contents at 2400 hours. Reservoir is used for flood control, irrigation, recreation, and wildlife enhancement.

COOPERATION.--Records furnished by Corps of Engineers, not rounded to Geological Survey standards.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 14,620 acre-ft (18.0 hm³) June 20, elevation, 470.84 ft (143.512 m); minimum, 21 acre-ft (25,900 m³) Oct. 1, elevation, 405.87 ft (123.709 m).

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

405	14	435	2134
407	33	445	4173
409	62	455	7217
412	131	470	14138
416	277	490	28556
421	561	510	49115
427	1080	540	90259

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	1112	1374	2232	3400	6379	9768	12576	14360	9648	2313	2260
2	29	1144	1374	2265	3444	6646	9857	12644	14378	9236	2308	2260
3	39	1188	1374	2299	3466	6847	9938	12718	14395	8795	2304	2259
4	50	1233	1374	2350	3510	7009	10014	12798	14418	8379	2299	2259
5	63	1244	1374	2385	3600	7152	10096	12894	14429	7977	2296	2257
6	79	1279	1374	2419	3692	7289	10178	12985	14447	7514	2292	2257
7	96	1290	1362	2454	3809	7410	10251	13082	14464	7177	2289	2255
8	116	1326	1362	2490	3904	7522	10347	13168	14481	6868	2287	2254
9	138	1350	1362	2508	4148	7626	10463	13266	14498	6551	2286	2252
10	163	1374	1362	2580	4384	7721	10575	13342	14510	6247	2282	2252
11	227	1374	1362	2617	4512	7820	10697	13430	14527	5959	2281	2252
12	219	1374	1398	2672	4603	7916	10835	13512	14545	5684	2279	2250
13	252	1386	1448	2710	4700	8008	10916	13589	14562	5408	2277	2250
14	287	1386	1499	2747	4798	8098	11017	13656	14574	5138	2275	2249
15	325	1386	1551	2785	4895	8196	11113	13734	14585	4878	2275	2249
16	367	1386	1590	2824	4979	8291	11283	13784	14597	4640	2274	2247
17	410	1386	1644	2882	5050	8391	11381	13834	14602	4415	2274	2247
18	457	1386	1685	2902	5147	8500	11460	13896	14608	4188	2272	2247
19	509	1398	1727	2942	5249	8606	11544	13941	14614	3993	2272	2245
20	562	1398	1770	2981	5372	8704	11639	13986	14620	3825	2269	2245
21	619	1398	1813	3022	5462	8799	11724	14019	14383	3625	2269	2244
22	679	1398	1842	3062	5480	8890	11814	14070	13756	3320	2267	2244
23	695	1398	1886	3103	5625	8986	11910	14110	13271	3068	2267	2244
24	719	1398	1916	3145	5681	9079	12007	14138	12899	2928	2267	2244
25	744	1398	1962	3186	5745	9202	12073	14184	12471	2822	2264	2244
26	777	1398	2008	3228	5811	9296	12160	14223	11987	2693	2264	2245
27	812	1398	2055	3249	5877	9387	12243	14252	11500	2589	2264	2245
28	865	1410	2086	3271	5943	9482	12310	14269	11021	2472	2262	2247
29	893	1398	2134	3313	6029	9561	12388	14292	10570	2374	2262	2249
30	979	1386	2166	3357	---	9644	12461	14320	10087	2330	2262	2249
31	1049	---	2199	3378	---	9732	---	14338	---	2314	2260	---
MAX	1049	1410	2199	3378	6029	9732	12461	14338	14620	9648	2313	2260
MIN	21	1112	1362	2232	3400	6379	9768	12576	10087	2314	2260	2244
†	426.70	429.70	435.40	441.60	451.52	461.26	466.92	470.35	462.05	436.09	435.77	435.70
‡	+1034	+337	+813	+1179	+2651	+3703	+2729	+1877	-4251	-7773	-54	-11
††	15	23	3	23	39	120	186	411	489	303	139	117

WTR YR 1976 MAX 14620 MIN 21 ‡ +2234

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

†† Evaporation, in acre-feet.

11258000 FRESNO RIVER BELOW HIDDEN DAM, NEAR DAULTON, CA
(Formerly published as Fresno River near Daulton)

LOCATION.--Lat 37°06'16", long 119°53'13", in NE¼SW¼ sec.34, T.9 S., R.19 E., Madera County, on left bank 350 ft (107 m) upstream from Willow Creek, 2,000 ft (610 m) downstream of Hidden Dam, and 5.2 mi (8.4 km) southeast of Daulton.

DRAINAGE AREA.--237 mi² (614 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year. Prior to October 1975, published as "near Daulton."

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 385 ft (117 m), from topographic map. See WDR CA-75-3 for history of changes prior to Oct. 1, 1975.

REMARKS.--Records good except those below 0.10 ft³/s (0.003 m³/s), which are poor. Flow completely regulated by Hensley Lake (station 11257950) since October 1975.

AVERAGE DISCHARGE.--35 years, 104 ft³/s (2.945 m³/s) 25,350 acre-ft/yr (92.9 hm³/yr), adjusted for change in contents and evaporation from Hensley Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,500 ft³/s (496 m³/s) Dec. 23, 1955, gage height, 17.64 ft (5.377 m) site and datum then in use, from rating curve extended above 6,400 ft³/s (181 m³/s) on basis of slope-area measurement at gage height 17.60 ft (5.392 m) site and datum then in use; maximum gage height, 17.69 ft (5.392 m) Feb. 24, 1969, site and datum then in use; no flow at times most years. Maximum discharge since construction of Hidden Dam in 1975, 404 ft³/s (11.4 m³/s) June 22, 1976, gage height, 5.66 ft (1.725 m); no flow for several days in 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 3, 1938, reached a discharge of 15,000 ft³/s (425 m³/s), furnished by Bureau of Reclamation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 404 ft³/s (11.4 m³/s) June 22, gage height, 5.66 ft (1.725 m); no flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.04	32	.12	.09	.19	.15	.09	.01	255	1.3	.10
2	0	.04	32	.10	.09	.21	.10	.09	.01	240	.64	.10
3	0	.04	32	.10	.09	.34	.10	.09	.01	229	.24	.10
4	0	.04	32	.10	.10	.17	.12	.08	.01	226	.10	.10
5	0	.04	32	.10	.15	.12	.12	.08	.01	220	.10	.10
6	0	.03	32	.19	.53	.15	.12	.08	.01	229	.10	.10
7	0	.04	32	.17	.58	.19	.13	.08	.01	209	.10	.10
8	0	.04	32	.17	.27	.17	.13	.07	.01	174	.10	.10
9	0	.04	29	.53	.89	.15	.13	.07	.01	170	.10	.10
10	0	4.0	24	.27	.58	.15	.13	.07	.01	161	.10	.10
11	0	15	24	.15	.24	.15	.12	.07	.01	153	.10	.10
12	0	20	19	.12	.19	.13	.12	.06	.01	153	1.1	.10
13	0	12	1.2	.10	.17	.15	.12	.06	.01	153	1.5	.10
14	0	12	.27	.10	.21	.13	.12	.06	.01	147	1.6	.10
15	0	17	.19	.09	.19	.19	.12	.06	.01	142	1.9	.09
16	0	17	.19	.09	.15	.19	.12	.05	.01	134	.20	.09
17	0	17	.30	.09	.15	.19	.12	.05	.01	124	.10	.09
18	0	17	.77	.09	.15	.17	.11	.05	.01	124	.10	.09
19	0	18	.87	.09	.24	.12	.11	.05	.01	93	.10	.09
20	0	18	.87	.09	.21	.13	.11	.04	.01	86	.10	.08
21	0	18	.87	.09	.19	.27	.11	.04	126	116	.10	.08
22	0	18	.92	.09	.19	.19	.11	.04	344	153	.10	.08
23	0	18	.38	.09	.19	.27	.11	.04	252	135	.10	.08
24	0	18	.21	.10	.19	.34	.11	.03	191	110	.10	.07
25	0	18	.19	.10	.19	.27	.11	.03	231	78	.10	.07
26	0	18	.17	.10	.19	.19	.10	.03	276	66	.10	.07
27	0	18	.17	.10	.19	.15	.10	.03	252	61	.10	.07
28	0	18	.17	.10	.19	.17	.10	.02	270	55	.10	.06
29	0	32	.15	.10	.19	.15	.10	.02	268	51	.10	.06
30	.01	32	.15	.10	---	.17	.10	.02	263	38	.10	.06
31	.03	---	.13	.10	---	.19	---	.01	---	17	.10	---
TOTAL	.04	375.35	360.17	3.93	6.98	5.75	3.45	1.66	2473.20	4302	10.78	2.63
MEAN	.001	12.5	11.6	.13	.24	.19	.12	.054	82.4	139	.35	.088
MAX	.03	32	32	.53	.89	.34	.15	.09	344	255	1.9	.10
MIN	0	.03	.13	.09	.09	.12	.10	.01	.01	17	.10	.06
AC-FT	.08	745	714	7.8	14	11	6.8	3.3	4910	8530	21	5.2
CAL YR 1975	TOTAL	39263.00	MEAN 108	MAX 740	MIN 0	AC-FT 77880	MEAN ‡ 111	AC-FT ‡ 80360				
WTR YR 1976	TOTAL	7545.94	MEAN 20.6	MAX 344	MIN 0	AC-FT 14970	MEAN ‡ 26.3	AC-FT ‡ 19090				

‡ Adjusted for change in contents and evaporation from Hensley Lake.

11258000 FRESNO RIVER BELOW HIDDEN DAM, NEAR DAULTON, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1975 to September 1976.

INSTRUMENTATION.--Temperature recorder since Oct. 29, 1975.

REMARKS.--Water temperatures are affected by regulation from Hidden Dam.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 32.0°C June 15; minimum, 3.5°C Jan. 1.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	14.0	10.5	11.0	9.5	5.5	3.5	13.0	10.0	12.5	11.0
2	---	---	15.0	11.0	11.0	9.5	4.5	4.0	12.5	9.0	10.5	7.5
3	---	---	15.0	12.0	11.0	9.5	5.5	4.0	12.0	9.0	8.0	6.0
4	---	---	15.5	12.5	11.0	9.5	5.0	4.0	10.5	9.0	10.5	7.0
5	---	---	15.5	12.0	10.5	9.5	7.5	4.5	9.0	7.0	11.0	7.0
6	---	---	14.5	12.0	11.0	9.0	7.5	4.5	10.0	6.5	12.5	8.5
7	---	---	14.5	10.5	10.5	9.0	8.0	5.5	11.0	8.5	13.5	10.0
8	---	---	16.0	12.5	10.5	9.0	7.5	4.5	11.5	10.5	13.5	10.5
9	---	---	12.5	9.5	10.5	9.0	8.0	6.5	11.5	10.5	14.5	10.5
10	---	---	16.5	12.0	10.0	9.0	7.0	6.0	13.0	9.5	16.0	12.0
11	---	---	16.5	13.0	9.5	9.0	8.0	7.0	14.0	9.5	17.0	13.5
12	---	---	16.0	13.0	9.5	9.0	8.0	7.0	14.0	10.0	17.0	12.5
13	---	---	16.5	13.0	9.5	8.0	8.5	7.0	13.5	10.0	17.5	12.0
14	---	---	15.5	13.0	8.0	5.5	7.5	5.5	15.5	13.0	19.0	13.0
15	---	---	16.0	13.0	7.5	4.5	8.0	5.5	14.0	11.0	18.0	13.0
16	---	---	15.0	13.0	7.5	5.0	9.0	6.5	11.5	9.5	20.0	15.0
17	---	---	14.0	12.0	7.5	5.0	10.0	7.5	13.0	10.0	21.5	17.0
18	---	---	14.0	11.5	8.5	5.5	10.0	7.5	13.5	9.5	19.5	15.5
19	---	---	13.5	11.5	8.5	5.5	10.5	7.5	14.0	11.0	18.0	12.0
20	---	---	13.5	11.5	9.0	6.0	10.0	7.0	12.0	8.5	17.0	10.5
21	---	---	13.0	11.0	10.0	6.5	10.0	7.5	12.5	8.0	19.0	12.0
22	---	---	13.0	10.5	12.5	9.0	10.5	7.5	13.0	8.5	21.0	13.5
23	---	---	13.0	10.5	11.0	10.5	10.5	7.0	12.5	8.5	20.5	14.5
24	---	---	13.0	10.5	11.0	9.5	11.5	9.0	12.5	9.0	20.5	14.0
25	---	---	12.5	10.5	9.5	7.5	11.0	8.0	13.5	10.0	18.5	12.0
26	---	---	12.5	10.5	9.0	7.0	11.0	8.5	14.5	10.5	19.0	12.0
27	---	---	11.5	10.5	9.5	7.5	11.5	8.5	16.5	11.0	18.5	12.5
28	---	---	11.5	10.5	10.5	8.5	12.0	9.0	17.5	12.5	18.5	11.5
29	14.5	11.0	11.5	9.5	9.5	7.5	12.5	9.0	15.5	13.0	19.0	12.0
30	12.0	10.5	11.0	9.5	8.5	6.5	12.0	9.5	---	---	20.5	14.5
31	14.0	11.0	---	---	6.5	4.0	12.5	9.0	---	---	22.0	15.0
MONTH	---	---	16.5	9.5	12.5	4.0	12.5	3.5	17.5	6.5	22.0	6.0
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	19.0	12.0	27.5	19.5	28.0	19.5	18.5	17.5	27.0	21.5	23.5	20.5
2	20.0	13.0	27.0	18.5	28.0	19.5	---	---	25.5	20.5	23.5	21.0
3	19.5	14.0	27.5	19.0	27.0	19.0	---	---	23.5	19.0	23.5	21.0
4	16.0	13.5	27.0	18.5	29.0	17.5	---	---	23.0	19.5	23.5	21.5
5	16.5	13.0	26.5	19.0	28.5	19.5	---	---	23.0	19.5	23.0	21.5
6	19.5	14.0	23.5	18.5	27.5	18.5	---	---	22.0	19.0	23.5	21.5
7	20.5	14.5	26.0	18.0	28.0	19.5	---	---	22.5	18.5	23.5	20.0
8	19.5	15.5	28.0	20.0	27.0	19.0	---	---	22.5	19.0	23.5	20.0
9	20.0	12.0	29.5	21.0	27.0	20.5	---	---	23.0	19.5	22.5	21.0
10	17.0	14.5	29.0	21.5	22.5	19.0	---	---	23.5	20.5	22.0	21.5
11	18.0	14.0	29.0	20.0	27.0	18.0	---	---	23.5	20.0	22.0	20.5
12	20.0	14.0	30.0	21.5	28.5	19.5	---	---	23.5	20.5	21.5	19.5
13	17.5	15.5	31.5	23.0	29.0	20.5	---	---	23.5	20.0	22.0	19.5
14	19.5	15.0	31.0	23.0	30.0	20.5	---	---	22.0	20.0	23.0	19.5
15	17.5	11.5	29.5	20.5	32.0	22.5	24.5	23.0	21.0	19.0	22.0	19.5
16	18.5	9.0	29.5	22.0	31.0	22.5	25.0	23.0	21.0	18.0	20.5	17.0
17	19.0	11.0	28.0	20.0	31.5	22.0	25.0	23.0	21.0	18.5	19.5	17.0
18	23.0	15.5	27.0	19.5	31.5	22.5	25.5	23.5	21.0	19.0	21.0	17.5
19	23.5	16.0	27.5	19.0	31.5	23.0	25.5	23.0	21.0	19.5	21.5	18.0
20	26.5	18.5	27.5	19.5	31.0	22.5	25.5	23.0	23.0	19.0	21.0	18.5
21	26.0	18.5	28.0	21.0	25.5	14.0	26.0	23.5	25.0	20.5	20.5	18.0
22	25.5	17.5	28.5	20.5	15.5	14.0	26.5	24.5	24.5	21.0	20.5	18.0
23	25.5	17.5	27.5	20.0	15.5	14.5	26.0	24.5	24.0	20.0	20.0	17.5
24	27.0	19.0	28.0	19.5	15.5	14.0	26.5	24.5	24.5	19.5	19.5	17.5
25	22.5	16.0	29.0	20.0	16.0	14.5	27.0	24.0	24.5	20.5	20.5	17.5
26	22.5	13.5	30.0	22.0	16.5	15.0	27.0	24.0	24.0	19.0	20.0	17.5
27	23.0	15.0	30.0	23.5	17.0	15.5	27.0	24.0	23.5	18.5	20.5	18.0
28	24.0	15.5	27.0	20.0	17.5	15.5	27.0	24.0	23.5	19.0	20.5	18.0
29	25.0	16.5	27.5	19.0	18.0	16.0	27.0	23.5	23.5	19.5	19.0	18.0
30	26.5	17.5	28.0	20.0	18.5	17.0	27.0	23.5	23.5	20.0	19.5	17.5
31	---	---	28.5	20.0	---	---	25.5	23.0	23.5	20.5	---	---
MONTH	27.0	9.0	31.5	18.0	32.0	14.0	---	---	27.0	18.0	23.5	17.0

SAN JOAQUIN RIVER BASIN

11258900 WEST FORK CHOWCHILLA RIVER NEAR MARIPOSA, CA

LOCATION.--Lat 37°25'14", long 119°52'25", in SW¼SE¼ sec.10, T.6 S., R.19 E., Mariposa County, on left bank 15 ft (5 m) downstream from bridge on Indian Peak Road, 0.5 mi (0.8 km) downstream from Humbug Creek, and 6.7 mi (10.8 km) southeast of Mariposa.

DRAINAGE AREA.--33.6 mi² (87.0 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 1,680 ft (512 m), from topographic map.

REMARKS.--No known diversions above station.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--19 years, 16.9 ft³/s (0.479 m³/s), 12,240 acre-ft/yr (15.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,350 ft³/s (123 m³/s) Jan. 25, 1969, gage height, 8.93 ft (2.722 m) in gage well, 11.1 ft (3.38 m) from floodmarks; no flow many days in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 66 ft³/s (1.87 m³/s) Mar. 1, gage height, 4.08 ft (1.244 m); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	1.5	1.5	1.3	1.4	31	1.8	1.5	.10			
2	0	1.2	1.6	1.3	1.4	10	1.8	1.5	.10			
3	0	1.0	1.6	1.3	1.4	9.1	1.8	1.5	.10			
4	0	.90	1.5	1.4	1.7	8.3	1.9	1.4	.10			
5	0	.90	1.5	1.4	3.4	8.5	2.0	1.4	0			
6	0	.80	1.4	1.4	4.7	7.6	2.0	1.4	0			
7	0	.80	1.4	1.4	5.9	6.9	2.0	1.7	0			
8	0	.90	1.4	1.4	6.4	6.4	2.0	1.5	0			
9	0	.90	1.4	1.5	11	5.7	3.3	1.3	0			
10	0	1.2	1.4	1.6	11	5.2	2.2	1.1	0			
11	0	1.5	1.4	1.5	5.3	4.7	7.3	1.0	.10			
12	0	1.4	1.6	1.5	4.1	4.3	7.1	1.0	0			
13	0	1.2	1.7	1.5	3.6	3.9	6.7	.80	0			
14	0	1.1	1.7	1.5	4.7	3.5	4.6	.70	0			
15	0	1.1	1.6	1.5	4.4	3.3	4.3	.60	0			
16	0	1.2	1.5	1.4	3.3	3.1	4.3	.60	0			
17	0	1.2	1.5	1.4	2.8	3.0	3.3	.50	0			
18	0	1.2	1.5	1.4	2.6	2.8	3.0	.50	0			
19	0	1.2	1.4	1.4	6.9	2.6	2.7	.50	0			
20	0	1.2	1.4	1.4	6.9	2.5	2.6	.40	0			
21	0	1.2	1.4	1.4	6.0	2.4	2.4	.40	0			
22	0	1.2	1.5	1.5	5.0	2.3	2.2	.40	0			
23	0	1.2	1.4	1.5	4.0	2.2	2.1	.40	0			
24	0	1.2	1.4	1.5	3.6	2.1	2.0	.30	0			
25	0	1.3	1.5	1.4	3.3	2.0	1.9	.30	0			
26	.30	1.3	1.5	1.4	3.1	2.0	1.8	.30	0			
27	1.8	1.5	1.5	1.4	2.8	2.0	1.7	.30	0			
28	1.8	2.5	1.5	1.3	3.0	1.9	1.6	.20	0			
29	1.5	1.9	1.4	1.3	3.8	1.9	1.6	.20	0			
30	4.9	1.6	1.4	1.4	---	1.8	1.6	.10	0			
31	3.0	---	1.4	1.3	---	1.8	---	.20	---			---
TOTAL	13.30	37.30	45.9	43.9	127.5	154.8	85.6	24.00	.50	0	0	0
MEAN	.43	1.24	1.48	1.42	4.40	4.99	2.85	.77	.017	0	0	0
MAX	4.9	2.5	1.7	1.6	11	31	7.3	1.7	.10	0	0	0
MIN	0	.80	1.4	1.3	1.4	1.8	1.6	.10	0	0	0	0
AC-FT	26	74	91	87	253	307	170	48	1.0	0	0	0
CAL YR 1975 TOTAL	8833.30											
WTR YR 1976 TOTAL	532.80											
MEAN	24.2											
MAX	551											
MIN	0											
AC-FT	17520											
	1060											

NOTE.--No gage-height record Feb. 20 to Mar. 1, Mar. 5 to Apr. 9.

11258980 CHOWCHILLA RIVER NEAR RAYMOND, CA

LOCATION.--Lat 37°15'36", long 119°56'43", in SE4SE4 sec.1, T.8 S., R.18 E., Madera County, on right bank 20 ft (6 m) downstream from County Road 613 bridge, 2,300 ft (701 m) downstream from Chapman Creek, and 3.8 mi (6.1 km) northwest of Raymond.

DRAINAGE AREA.--201 mi² (521 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1971 to current year. December 1958 to September 1970 in files of California Department of Water Resources.

REVISED RECORDS.--WDR CA-73-2: 1972(M).

GAGE.--Water-stage recorder and concrete improved control. Datum of gage is 565.67 ft (172.416 m) above mean sea level.

REMARKS.--Records good except those for flows below 0.2 ft³/s (0.006 m³/s), which are fair. No large storage or diversions above station.

AVERAGE DISCHARGE.--5 years, 65.5 ft³/s (1.855 m³/s), 47,500 acre-ft/yr (58.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,530 ft³/s (242 m³/s) Feb. 11, 1973, gage height, 14.43 ft (4.398 m); minimum daily, 0.01 ft³/s (<0.001 m³/s) Oct. 19, 20, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 362 ft³/s (10.3 m³/s) Mar. 1, gage height, 3.68 ft (1.122 m), no peaks above base of 660 ft³/s (18.7 m³/s); minimum daily, 0.02 ft³/s (<0.001 m³/s) June 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	22	11	9.8	8.8	178	12	9.9	1.1	.12	.03	.05
2	.05	13	10	9.8	8.8	103	12	9.4	1.0	.15	.03	.05
3	.09	9.8	10	9.8	8.1	87	12	8.8	.93	.15	.03	.05
4	.09	9.1	11	9.8	8.6	69	12	8.3	.84	.12	.04	.05
5	.07	8.0	11	10	14	57	13	7.8	.59	.09	.04	.05
6	.05	7.4	10	10	37	52	14	7.8	.39	.09	.05	.05
7	.07	7.0	10	10	47	47	14	8.1	.39	.09	.05	.04
8	.07	7.0	9.8	10	37	43	16	8.8	.39	.09	.05	.04
9	.07	7.0	9.8	10	49	39	23	8.1	.39	.07	.05	.04
10	.17	7.7	9.8	10	112	35	23	7.2	.39	.05	.04	.04
11	2.5	8.4	9.8	11	54	32	26	6.4	.48	.05	.05	.05
12	7.0	9.4	9.8	11	38	30	49	5.9	.39	.05	.05	.04
13	7.4	9.4	11	11	33	28	42	4.9	.48	.04	.05	.04
14	6.7	9.1	12	10	31	26	38	4.3	.39	.04	.05	.04
15	5.5	8.4	12	9.8	34	25	30	3.7	.39	.03	.07	.03
16	4.0	8.4	12	9.8	30	24	33	3.2	.25	.03	.05	.03
17	3.2	8.4	11	9.8	25	23	30	2.7	.12	.03	.04	.03
18	2.8	8.8	11	9.8	23	22	24	2.6	.05	.03	.04	.03
19	2.8	8.8	10	9.8	24	22	22	2.4	.03	.03	.04	.03
20	2.6	8.8	10	9.8	44	22	20	2.2	.02	.03	.04	.03
21	2.5	8.4	10	9.4	34	22	19	2.2	.03	.03	.04	.03
22	2.3	8.4	10	9.1	28	20	18	2.0	.03	.03	.03	.03
23	2.2	8.4	10	9.1	24	19	17	1.9	.05	.05	.03	.04
24	2.2	8.4	10	9.1	21	18	16	1.8	.05	.05	.03	.04
25	2.2	8.4	10	9.1	20	17	14	1.7	.07	.05	.03	.05
26	2.5	8.4	10	9.1	18	16	12	1.6	.09	.05	.04	.05
27	3.0	8.8	10	9.1	18	15	12	1.5	.07	.04	.04	.05
28	7.5	12	10	9.1	17	14	12	1.4	.07	.04	.04	.05
29	8.4	16	10	9.1	18	14	11	1.3	.09	.04	.05	.07
30	11	13	10	9.1	---	14	10	1.1	.12	.04	.05	.07
31	29	---	10	9.1	---	13	---	1.1	---	.04	.05	---
TOTAL	118.08	286.1	321.0	301.4	864.3	1146	606	140.1	9.68	1.84	1.32	1.29
MEAN	3.81	9.54	10.4	9.72	29.8	37.0	20.2	4.52	.32	.059	.043	.043
MAX	29	22	12	11	112	178	49	9.9	1.1	.15	.07	.07
MIN	.05	7.0	9.8	9.1	8.1	13	10	1.1	.02	.03	.03	.03
AC-FT	234	567	637	598	1710	2270	1200	278	19	3.6	2.6	2.6
CAL YR 1975	TOTAL	34664.21	MEAN	95.0	MAX	1310	MIN	.05	AC-FT	68760		
WTR YR 1976	TOTAL	3797.11	MEAN	10.4	MAX	178	MIN	.02	AC-FT	7530		

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1971 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 34.5°C June 28, 1973; minimum, 1.0°C Dec. 12, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 31.0°C May 13; minimum, 1.5°C Jan. 2-4.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	23.0	19.0	15.0	10.5	9.0	5.0	5.5	2.0	12.0	7.0	11.0	8.5
2	23.0	19.5	16.0	11.0	9.5	5.5	5.0	1.5	12.0	6.5	8.0	6.0
3	23.0	19.5	17.0	11.5	10.0	6.0	4.5	1.5	11.5	6.0	7.0	5.0
4	23.0	19.5	17.5	12.0	10.0	6.5	5.0	1.5	9.5	7.0	9.0	6.0
5	23.0	19.5	17.0	12.0	10.0	6.5	6.5	3.5	7.5	6.0	11.5	5.5
6	22.5	19.5	16.5	12.0	10.0	6.0	7.0	3.0	9.0	6.0	12.0	6.0
7	21.0	18.5	16.5	11.0	9.5	6.0	6.5	3.0	9.0	6.0	13.5	7.5
8	21.0	17.0	17.0	13.5	10.0	6.0	7.0	3.0	9.5	8.5	12.0	8.0
9	20.0	17.5	15.5	10.5	9.5	5.5	5.5	4.0	9.5	9.0	14.0	8.0
10	20.0	18.0	16.0	13.0	9.5	6.0	6.5	4.5	10.5	8.0	14.5	9.0
11	21.0	17.0	14.0	9.5	8.5	7.5	7.0	6.0	12.5	7.0	15.5	10.0
12	20.0	15.5	14.0	9.0	9.0	8.0	7.0	6.5	12.5	7.5	15.5	9.5
13	20.0	14.0	14.0	9.0	8.5	6.5	8.0	6.0	12.5	8.0	16.0	10.0
14	20.0	14.0	14.0	9.5	8.0	4.5	8.5	4.5	13.0	10.5	17.0	10.5
15	21.0	14.5	14.0	9.5	7.5	3.5	8.5	4.0	12.5	9.5	16.5	10.5
16	21.5	15.0	13.5	10.0	7.0	3.5	8.5	4.5	10.0	8.0	19.0	12.0
17	21.5	15.0	11.5	9.0	7.0	3.0	9.0	5.0	11.5	8.0	20.0	14.0
18	21.5	16.0	11.0	7.0	7.0	3.0	9.5	5.0	13.0	8.0	17.5	13.5
19	21.5	15.5	10.5	6.5	7.0	3.0	9.5	5.0	13.0	10.0	17.5	11.0
20	21.5	15.5	12.5	8.0	7.0	3.5	9.5	4.5	12.5	7.5	17.0	10.0
21	21.5	15.5	11.0	7.5	7.5	3.5	9.0	4.5	12.0	6.5	19.0	11.0
22	19.5	14.5	11.0	6.0	9.5	6.0	9.0	4.5	12.0	7.5	19.0	12.0
23	17.0	12.0	10.5	6.5	9.0	7.5	9.0	4.5	10.0	7.5	19.5	12.5
24	17.0	11.0	11.0	6.5	10.5	7.5	10.0	6.0	13.0	7.0	19.5	12.0
25	17.5	11.0	10.5	6.5	9.0	5.5	9.5	5.0	13.0	7.5	18.5	12.0
26	17.0	15.0	10.5	7.0	8.0	5.0	10.0	5.0	14.0	8.0	18.5	11.0
27	18.0	13.5	10.0	8.5	8.5	5.5	10.0	5.5	15.5	8.5	18.5	12.0
28	16.5	11.0	10.5	7.5	10.5	8.0	10.5	5.5	16.0	9.5	18.5	11.0
29	17.0	10.5	8.5	5.0	9.5	6.0	10.5	5.5	12.5	11.0	19.5	11.5
30	13.5	12.0	8.5	4.5	8.5	5.5	10.0	6.0	---	---	21.0	13.0
31	14.5	11.0	---	---	6.5	3.5	11.0	6.0	---	---	20.5	13.5
MONTH	23.0	10.5	17.5	4.5	10.5	3.0	11.0	1.5	16.0	6.0	21.0	5.0
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	20.0	12.5	26.5	18.0	27.5	18.0	24.5	19.0				
2	20.5	12.0	26.0	18.0	27.5	18.5	24.5	18.5				
3	18.0	12.5	27.0	18.0	26.5	17.5	25.0	20.0				
4	14.5	12.0	27.0	18.0	27.0	16.5	25.5	20.0				
5	15.5	12.0	26.5	18.5	27.0	17.0	26.0	20.5				
6	20.0	12.5	21.5	18.0	26.0	17.0	26.0	20.5				
7	21.0	13.0	25.5	16.5	26.5	17.0	26.0	21.0				
8	17.5	14.0	27.5	18.5	26.0	17.5	26.0	20.5				
9	20.0	11.5	28.5	20.0	25.5	19.0	---	---				
10	15.5	13.5	27.5	20.0	21.5	18.5	---	---				
11	16.5	13.0	28.5	19.5	26.0	16.5	---	---				
12	16.5	12.5	30.0	20.0	27.0	18.0	---	---				
13	15.0	12.0	31.0	21.0	28.5	19.5	---	---				
14	15.5	12.5	30.0	21.5	29.5	19.5	---	---				
15	15.0	11.5	29.5	19.5	30.0	21.0	---	---				
16	16.5	9.5	29.0	20.0	30.0	21.0	---	---				
17	18.0	10.5	28.0	19.0	30.5	21.0	---	---				
18	21.0	13.5	26.5	18.0	29.0	21.5	---	---				
19	23.0	14.5	27.0	17.5	27.0	21.5	---	---				
20	24.0	16.0	26.5	18.0	26.5	21.0	---	---				
21	24.5	16.5	27.0	19.5	25.5	21.0	---	---				
22	24.0	16.0	27.5	18.5	25.5	19.5	---	---				
23	24.5	16.0	27.5	18.5	26.0	20.0	---	---				
24	25.5	17.0	27.5	18.0	26.5	20.5	---	---				
25	23.5	16.5	28.5	18.5	26.0	21.0	---	---				
26	23.0	14.5	30.0	19.5	26.0	20.0	---	---				
27	23.5	14.5	29.5	20.5	26.5	20.0	---	---				
28	23.5	15.0	27.5	18.5	26.5	20.5	---	---				
29	24.5	15.0	27.0	17.5	26.0	20.5	---	---				
30	26.0	16.5	27.5	18.0	25.0	20.0	---	---				
31	---	---	28.0	18.5	---	---	---	---				
MONTH	26.0	9.5	31.0	16.5	30.5	16.5	---	---				

SAN JOAQUIN RIVER BASIN

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11258990 H. V. EASTMAN LAKE NEAR RAYMOND, CA

LOCATION.--Lat 37°13'00", long 119°59'04", in SW¼SE¼ sec.22, T.8 S., R.18 E., Madera County, in intake structure at center of dam on Chowchilla River 4.4 mi (7.1 km) west of Raymond.

DRAINAGE AREA.--235 mi² (609 km²).

PERIOD OF RECORD.--January to September 1976.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earth and rockfill dam. Dam was completed in December 1975, capacity, 150,604 acre-ft (186 hm³), between elevations, 410.0 ft (124.96 m) invert elevation to outlet tunnel, and 587.0 ft (178.92 m) crest of ungated spillway. Planned inactive pool, 10,150 acre-ft (12.5 hm³). Reservoir is used for flood control, irrigation, recreation, and fish and wildlife enhancement. Records, including extremes, represent total contents at 2400 hours.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--January to September 1976: Maximum contents, 5,737 acre-ft (7.07 hm³) May 20, elevation, 455.34 ft (138.788 m); minimum, no storage Jan. 1.

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

410.3	0	420	98	442	2197
411	1	422	156	446	3043
412	3	424	233	450	4069
413	7	427	389	455	5620
414	12	430	604	460	7485
415	19	434	993	465	9673
416	29	438	1519	470	12190
418	57				

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	687	2860	4317	5535	5634	4726	3927	2226
2				1.0	703	3066	4349	5552	5627	4692	3905	2222
3				3.0	715	3161	4381	5576	5620	4668	3884	2218
4				6.0	734	3221	4398	5589	5613	4640	3859	2214
5				10	778	3257	4419	5603	5606	4613	3838	2210
6				16	862	3282	4446	5613	5606	4577	3816	2207
7				23	951	3306	4472	5627	5603	4541	3795	2203
8				33	1045	3306	4520	5637	5572	4505	3776	2199
9				44	1208	3356	4568	5654	5508	4481	3755	2193
10				59	1402	3406	4628	5668	5474	4448	3731	2193
11				76	1504	3481	4720	5678	5414	4407	3707	2197
12				96	1549	3532	4806	5688	5354	4384	3683	2199
13				119	1623	3584	4884	5706	5285	4360	3659	2199
14				146	1673	3636	4963	5713	5220	4340	3638	2197
15				188	1738	3688	5026	5716	5155	4311	3618	2197
16				233	1787	3741	5084	5719	5132	4282	3597	2199
17				284	1838	3795	5142	5726	5090	4265	3579	2195
18				342	1889	3835	5200	5726	5068	4247	3471	2191
19				402	1959	3876	5236	5733	5052	4219	3228	2188
20				475	2030	3916	5269	5737	5058	4196	2957	2184
21				548	2085	3958	5308	5726	5020	4173	2696	2180
22				552	2159	4013	5344	5716	4978	4150	2433	2176
23				560	2197	4041	5371	5706	4950	4116	2235	2172
24				569	2245	4083	5398	5695	4925	4094	2235	2169
25				579	2293	4125	5424	5685	4906	4074	2235	2165
26				591	2323	4153	5444	5671	4874	4055	2235	2163
27				629	2392	4181	5461	5661	4840	4041	2235	2161
28				637	2412	4210	5478	5654	4812	4021	2235	2159
29				646	2433	4239	5495	5647	4784	3996	2235	2159
30				659	---	4267	5511	5637	4753	3971	2233	2157
31				673	---	4296	---	5634	---	3949	2231	---
MAX				673	2433	4296	5511	5737	5634	4726	3927	2226
MIN				0	687	2860	4317	5535	4753	3949	2231	2157
†				430.82	443.20	450.80	454.68	455.04	452.33	449.57	442.18	441.79
‡				+673	+1760	+1863	+1215	+123	-881	-804	-1718	-74
††				1	15	62	95	200	234	266	172	104

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

†† Evaporation, in acre-feet.

11259000 CHOWCHILLA RIVER BELOW BUCHANAN DAM, NEAR RAYMOND, CA

LOCATION.--Lat 37°12'56", long 119°59'25", in SE¼SW¼ sec.22, T.8 S., R.18 E., Madera County, on left bank 1,800 ft (550 m) downstream from Buchanan Dam, and 4.6 mi (7.4 km) west of Raymond.

DRAINAGE AREA.--236 mi² (611 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to September 1923, October 1930 to September 1972, October 1975 to current year. Prior to Oct. 1, 1962, published as "at Buchanan damsite."

REMARKS.--Records excellent. Flow completely regulated by H. V. Eastman Lake (station 11258985) 1800 ft (550 m) upstream beginning Jan. 1, 1976.

GAGE.--Water-stage recorder and concrete control since October 1975. Altitude of gage is 420 ft (128 m), from topographic map. October 1921 to September 1923, at site 2.4 mi (3.9 km) upstream at different datum. October 1930 to May 17, 1972, at site 0.3 mi (0.5 km) upstream at datum 407.32 ft (124.151 m) above mean sea level. May 18, 1972, to Sept. 30, 1972, at site 500 ft (150 m) downstream at different datum.

AVERAGE DISCHARGE (adjusted for change in contents and evaporation in H. V. Eastman Lake since 1976).--45 years (water years 1922-23, 1931-72, 1976), 95.9 ft³/s (2.716 m³/s), 69,480 acre-ft/yr (85.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) Dec. 23, 1955, gage height, 16.50 ft (5.029 m) site and datum then in use, from rating curve extended above 6,000 ft³/s (170 m³/s) on basis of slope-area measurement at gage height, 15.06 ft (4.590 m); no flow for part of each year except 1937-38, 1940-43. Maximum discharge since construction of Buchanan Dam in 1975, 253 ft³/s (7.16 m³/s) Aug. 20, 1976, gage height, 4.19 ft (1.277 m); no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 253 ft³/s (7.16 m³/s) Aug. 20, gage height, 4.19 ft (1.277 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	27	12	.99	.03	.10	0	0	0	8.5	8.2	0
2	.03	17	11	.27	.02	.15	0	0	0	10	8.2	0
3	.03	12	11	.04	.02	24	0	0	0	11	8.2	0
4	.03	9.8	12	.03	.09	42	0	0	0	10	8.3	0
5	.03	8.3	11	.02	.23	43	0	0	0	11	7.2	0
6	.05	7.5	11	.02	.20	43	0	0	0	13	6.5	0
7	.07	6.9	10	.02	.22	43	0	0	0	12	6.4	0
8	.07	6.8	9.8	.02	.12	42	.02	0	11	12	6.5	0
9	.09	6.6	9.8	.03	.39	32	0	0	16	12	6.4	0
10	.19	7.1	9.6	.02	.14	.14	.04	0	16	12	7.1	0
11	.23	7.7	9.3	.02	.05	.07	.02	0	24	12	7.8	.02
12	.66	8.5	9.6	.02	.04	.07	.02	0	21	9.1	7.7	.01
13	2.3	8.7	11	.02	.06	.05	.01	0	14	7.5	7.5	0
14	1.6	8.2	12	.02	.05	.05	.01	.06	15	8.0	7.7	0
15	2.0	7.8	12	.02	.02	.04	.01	.10	15	8.7	7.7	0
16	1.3	7.8	12	.22	.02	.04	0	.14	15	8.5	7.5	0
17	1.0	7.8	11	.05	.02	.04	0	.17	15	7.4	7.4	0
18	.91	8.0	11	.04	.02	.04	0	.19	15	7.4	34	0
19	.91	8.0	10	.04	.14	.02	0	.02	15	7.8	120	0
20	.91	7.8	10	.04	.02	.01	0	0	14	8.5	134	0
21	.91	7.7	9.8	.03	.02	0	0	0	14	8.7	126	0
22	.91	7.7	9.6	.79	.01	0	0	0	12	8.7	121	0
23	.91	7.7	9.8	.06	.01	0	0	0	12	8.5	86	0
24	.91	7.7	9.8	.04	.05	0	0	0	12	8.5	.21	0
25	.91	7.7	10	.03	.30	0	0	0	11	8.5	.06	0
26	1.0	7.7	10	.02	.02	0	0	0	9.6	8.5	.02	0
27	1.0	8.0	10	.02	.01	0	0	0	8.0	8.5	.02	0
28	3.1	11	10	.02	.01	0	0	0	8.3	8.3	.01	0
29	7.3	14	10	5.2	.05	0	0	0	8.7	8.3	.01	0
30	11	14	10	.08	---	0	0	0	8.2	8.3	.01	0
31	20	---	9.3	.04	---	0	---	0	---	8.3	.01	---
TOTAL	60.38	282.5	323.4	8.28	2.38	269.82	.13	.68	309.8	289.5	747.65	.03
MEAN	1.95	9.42	10.4	.27	.082	8.70	.004	.022	10.3	9.34	24.1	.001
MAX	20	27	12	5.2	.39	43	.04	.19	24	13	134	.02
MIN	.02	6.6	9.3	.02	.01	0	0	0	0	7.4	.01	0
AC-FT	120	560	641	16	4.7	535	.3	1.3	614	574	1480	.06

CAL YR 1975

WTR YR 1976 TOTAL 2294.55 MEAN 6.27 MAX 134 MIN 0 AC-FT 4550 MEAN ‡ 10.8 AC-FT ‡ 7840

‡ Adjusted for change in contents and evaporation from H. V. Eastman Lake.

11259000 CHOWCHILLA RIVER BELOW BUCHANAN DAM, NEAR RAYMOND, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-65, 1976.

CHEMICAL ANALYSES: Water years 1958-65. Published as "at Buchanan Damsite".

WATER TEMPERATURES: October 1975 to September 1976.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1975 to September 1976.

INSTRUMENTATION.--Temperature recorder since October 1975.

REMARKS.--No record shown for periods of no flow.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 31.5°C Aug. 29; minimum, 0.0°C Jan. 2, 4.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	16.5	11.0	10.5	5.0	9.5	1.0	18.0	6.5	15.0	6.5
2	---	---	17.5	11.5	11.0	5.5	8.0	0.0	18.0	5.0	7.5	4.0
3	---	---	19.0	11.5	15.0	6.0	6.5	0.5	17.0	5.0	10.0	4.0
4	---	---	19.5	12.0	12.0	6.5	9.0	0.0	12.5	5.0	11.0	8.5
5	---	---	18.0	12.0	11.5	6.5	10.0	3.5	8.0	5.0	10.5	8.5
6	---	---	17.5	11.5	11.5	6.0	10.0	1.5	15.0	5.5	10.5	8.0
7	---	---	18.0	11.0	11.5	6.0	11.0	2.0	13.5	6.5	10.5	8.5
8	---	---	17.5	12.0	11.0	5.5	11.5	2.0	12.5	9.0	10.5	8.5
9	---	---	16.5	10.0	11.0	6.0	8.0	3.5	10.5	8.0	11.0	7.0
10	---	---	17.0	11.5	11.5	6.5	7.5	4.0	19.5	6.5	20.5	5.5
11	---	---	15.5	9.0	9.0	7.5	8.0	6.0	20.0	6.0	18.5	8.5
12	---	---	15.5	9.0	9.5	8.0	8.0	6.5	18.5	6.5	20.5	6.5
13	---	---	16.0	9.0	9.5	6.0	9.5	4.5	19.0	6.5	19.5	7.5
14	---	---	15.5	9.5	9.5	4.5	11.5	2.5	18.0	10.5	20.5	5.0
15	---	---	16.0	9.5	8.5	3.5	13.0	2.5	15.0	7.0	19.0	5.0
16	---	---	14.0	10.0	8.5	3.0	13.5	3.5	12.0	5.5	21.0	11.5
17	---	---	12.5	8.5	8.5	3.0	15.0	4.0	14.5	7.0	21.5	13.0
18	---	---	12.5	6.5	8.5	3.0	14.0	4.0	18.0	7.0	15.5	12.0
19	---	---	11.5	6.0	9.0	3.0	15.0	4.0	15.0	7.0	16.5	9.5
20	---	---	13.5	7.5	9.0	3.5	15.5	3.5	16.5	4.0	17.5	8.0
21	---	---	12.0	8.0	9.5	3.5	15.0	3.5	17.5	4.5	---	---
22	---	---	12.5	6.0	11.0	6.5	14.5	3.0	17.0	6.0	---	---
23	---	---	12.0	6.0	11.0	8.0	15.5	3.5	13.5	5.5	---	---
24	---	---	12.5	6.0	12.0	8.0	14.5	6.0	20.5	5.5	---	---
25	---	---	12.0	6.5	10.5	6.0	14.5	4.0	19.0	6.0	---	---
26	---	---	12.0	7.0	9.5	5.0	14.5	5.0	19.0	6.0	---	---
27	---	---	10.5	8.5	9.0	6.0	14.5	4.5	20.0	6.5	---	---
28	---	---	11.5	7.0	11.0	7.5	16.0	5.0	20.0	8.5	---	---
29	---	---	10.0	5.0	11.5	6.0	16.5	5.0	13.0	10.0	---	---
30	13.0	11.5	9.5	4.0	9.0	5.5	15.5	5.0	---	---	---	---
31	16.0	10.5	---	---	8.0	3.0	17.5	5.0	---	---	---	---
MONTH	---	---	19.5	4.0	15.0	3.0	17.5	0.0	20.5	4.0	---	---
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	19.0	15.5	21.0	17.5	---	---
2	---	---	---	---	---	---	19.0	15.0	21.0	17.5	---	---
3	---	---	---	---	---	---	19.5	15.5	20.5	17.5	---	---
4	---	---	---	---	---	---	19.5	15.5	21.0	17.5	---	---
5	---	---	---	---	---	---	19.5	16.0	21.5	17.5	---	---
6	---	---	---	---	---	---	19.5	16.0	21.5	17.5	---	---
7	---	---	---	---	---	---	19.5	15.5	21.5	17.0	---	---
8	15.0	11.5	---	---	17.5	15.5	20.0	16.0	22.0	17.5	---	---
9	---	---	---	---	17.0	15.0	20.0	16.5	22.0	17.5	---	---
10	14.0	11.5	---	---	16.5	14.5	20.0	16.5	21.5	17.5	---	---
11	17.0	11.5	---	---	17.0	14.5	19.5	16.5	22.0	18.0	22.5	20.5
12	20.5	11.0	---	---	17.5	15.0	20.0	16.5	22.0	18.0	23.0	19.5
13	16.0	11.5	---	---	18.0	15.0	20.5	16.5	21.5	18.0	---	---
14	15.5	12.0	28.0	18.0	18.0	15.0	20.5	16.5	19.5	18.0	---	---
15	13.0	9.0	29.0	15.5	18.5	15.5	20.5	16.5	21.0	18.5	---	---
16	---	---	28.5	16.5	18.0	15.5	20.5	16.0	21.5	18.0	---	---
17	---	---	27.0	14.5	18.5	15.5	21.0	16.5	21.0	18.0	---	---
18	---	---	26.5	13.5	18.5	15.0	21.0	16.5	21.5	18.5	---	---
19	---	---	21.5	14.5	18.5	16.0	21.0	15.5	22.0	21.0	---	---
20	---	---	---	---	18.5	16.0	21.0	16.5	24.0	22.0	---	---
21	---	---	---	---	18.0	16.0	21.0	16.5	24.5	22.5	---	---
22	---	---	---	---	18.5	16.0	21.0	16.5	24.5	22.5	---	---
23	---	---	---	---	18.5	16.0	20.5	17.5	24.5	21.0	---	---
24	---	---	---	---	19.5	16.0	21.5	17.0	30.5	18.0	---	---
25	---	---	---	---	19.5	16.5	21.0	17.0	27.5	19.5	---	---
26	---	---	---	---	19.0	16.0	21.5	17.5	28.0	17.0	---	---
27	---	---	---	---	20.0	16.0	21.5	16.5	27.0	17.5	---	---
28	---	---	---	---	20.5	16.5	21.0	17.5	25.5	18.5	---	---
29	---	---	---	---	20.0	15.0	21.0	17.5	31.5	19.0	---	---
30	---	---	---	---	19.5	16.5	21.0	17.5	27.5	19.5	---	---
31	---	---	---	---	---	---	20.0	17.5	25.0	20.0	---	---
MONTH	---	---	---	---	---	---	21.5	15.0	31.5	17.0	---	---

11260480 MARIPOSA CREEK NEAR CATHEYS VALLEY, CA

LOCATION.--Lat 37°23'56", long 120°00'10", in SW¼NE¼ sec.21, T.6 S., R.18 E., Mariposa County, on downstream side of bridge on White Rock Road, 0.3 mi (0.5 km) downstream from China Gulch, and 5.7 mi (9.2 km) southeast of town of Catheys Valley.

DRAINAGE AREA.--65.7 mi² (170 km²).

PERIOD OF RECORD.--October 1958 to current year. Prior to October 1963, published as "near Cathay."

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,230 ft (375 m), from topographic map.

REMARKS.--Probably minor diversions above the station for irrigation.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--18 years, 27.6 ft³/s (0.782 m³/s), 20,000 acre-ft/yr (24.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,460 ft³/s (211 m³/s) Feb. 24, 1969, gage height, 11.63 ft (3.545 m); no flow many days in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 3, 1958, reached a stage of 11.62 ft (3.542 m), discharge, 7,180 ft³/s (203 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 81 ft³/s (2.29 m³/s) Feb. 2, gage height, 4.17 ft (1.271 m); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	4.9	2.9	2.7	2.3	48	3.3	1.8	.10			
2	0	3.4	2.7	2.5	2.3	22	3.1	1.8	.10			
3	0	2.9	2.7	2.5	2.2	27	3.4	1.8	.10			
4	0	2.6	2.7	2.6	3.1	30	3.6	1.7	.10			
5	0	2.4	2.6	2.6	6.1	33	3.8	1.6	.10			
6	0	2.3	2.5	2.6	9.5	23	3.9	1.7	0			
7	0	2.3	2.5	2.6	11	15	3.7	2.1	0			
8	0	2.3	2.5	2.7	15	12	4.9	1.8	0			
9	0	2.5	2.5	2.9	23	9.8	6.1	1.6	0			
10	0	3.9	2.6	3.5	25	8.4	5.1	1.4	0			
11	0	4.6	2.6	3.2	11	7.3	12	1.3	0			
12	0	3.4	3.2	3.0	8.0	6.5	12	1.1	0			
13	0	2.9	4.1	2.9	6.7	6.0	8.7	.90	0			
14	0	2.6	3.9	2.9	8.7	5.5	6.2	.80	0			
15	0	2.5	3.4	2.9	7.7	5.0	5.2	.60	0			
16	0	3.0	3.1	2.9	6.1	5.0	4.8	.50	0			
17	0	3.5	2.9	2.9	4.3	4.7	3.9	.40	0			
18	0	3.2	2.9	2.8	3.1	4.6	3.4	.40	0			
19	0	2.9	2.9	2.7	14	5.1	3.1	.30	0			
20	0	2.9	2.7	2.7	16	4.7	3.1	.30	0			
21	0	2.8	2.7	2.5	9.4	4.2	3.0	.30	0			
22	0	2.9	2.7	2.4	6.7	4.2	2.8	.30	0			
23	0	2.7	2.8	2.4	5.4	4.1	2.8	.20	0			
24	0	2.6	2.8	2.4	4.6	3.8	2.6	.20	0			
25	.90	2.6	2.7	2.4	4.0	3.8	2.5	.20	0			
26	1.7	2.7	2.7	2.3	3.6	3.7	2.6	.20	0			
27	2.5	3.0	2.7	2.3	3.3	3.6	2.5	.20	0			
28	2.7	5.6	2.8	2.4	2.9	3.6	2.3	.10	0			
29	2.4	4.0	2.8	2.3	4.2	3.5	1.9	.10	0			
30	24	3.2	2.8	2.3	---	3.7	1.9	.10	0			
31	13	---	2.8	2.3	---	3.4	---	.10	---			---
TOTAL	47.20	93.1	88.2	82.1	229.2	324.2	128.2	25.90	.50	0	0	0
MEAN	1.52	3.10	2.85	2.65	7.90	10.5	4.27	.84	.017	0	0	0
MAX	24	5.6	4.1	3.5	25	48	12	2.1	.10	0	0	0
MIN	0	2.3	2.5	2.3	2.2	3.4	1.9	.10	0	0	0	0
AC-FT	94	185	175	163	455	643	254	51	1.0	0	0	0
CAL YP 1975	TOTAL	16110.00	MEAN	44.1	MAX	1550	MIN	0	AC-FT	31950		
WTR YR 1976	TOTAL	1018.60	MEAN	2.78	MAX	48	MIN	0	AC-FT	2020		

11264500 MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CA
(Hydrologic bench-mark station)

LOCATION.--Lat 37°43'54", long 119°33'28", unsurveyed, Mariposa County, Yosemite National Park, on right bank 10 ft (3 m) downstream from footbridge at Happy Isles, 0.4 mi (0.6 km) downstream from Illilouette Creek, and 2.0 mi (3.2 km) southeast of Yosemite National Park Headquarters.

DRAINAGE AREA.--181 mi² (469 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1915 to current year.

REVISED RECORDS.--WSP 1215: 1938(M).

GAGE.--Water-stage recorder. Datum of gage is 4,016.58 ft (1,224.254 m) above mean sea level. Prior to Nov. 2, 1916, nonrecording gage at datum 0.55 ft (0.168 m) lower.

REMARKS.--Records good. Up to 5 ft³/s (0.142 m³/s) can be diverted above station for Yosemite Valley water supply.

AVERAGE DISCHARGE.--61 years, 342 ft³/s (9,685 m³/s), 247,800 acre-ft/yr (306 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,860 ft³/s (279 m³/s) Dec. 23, 1955, gage height, 12.73 ft (3.880 m), from rating curve extended above 4,000 ft³/s (113 m³/s) on basis of contracted-opening measurements at gage heights 10.4 ft (3.170 m) and 11.55 ft (3.520 m); minimum, 1.5 ft³/s (0.042 m³/s) Sept. 30, 1926.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,440 ft³/s (40.8 m³/s) May 14, gage height, 5.39 ft (1.643 m), no peak above base of 1,900 ft³/s (53.8 m³/s); minimum daily, 14 ft³/s (0.40 m³/s) Sept. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	162	53	19	19	46	132	689	311	76	110	17
2	17	172	60	18	19	49	130	752	302	68	100	15
3	17	166	61	22	19	50	138	736	270	61	80	14
4	16	156	60	22	19	47	128	755	238	56	60	14
5	15	137	58	26	19	51	113	752	217	56	50	16
6	16	116	54	22	23	48	109	579	204	57	41	19
7	39	104	51	23	26	51	119	452	192	53	36	28
8	32	110	50	23	29	54	154	552	180	50	32	31
9	31	94	49	24	34	56	134	751	163	46	29	31
10	49	95	48	24	33	59	139	766	147	43	27	32
11	216	88	45	26	33	65	127	790	143	41	25	372
12	154	91	46	25	33	64	116	992	133	40	24	565
13	118	92	42	24	35	65	114	1180	124	38	23	243
14	109	91	30	24	40	68	116	1240	146	33	22	150
15	109	82	39	24	40	74	120	1100	186	30	24	109
16	113	82	38	24	37	87	106	969	209	50	32	90
17	119	80	35	24	38	108	100	929	214	110	43	76
18	110	62	34	24	39	121	106	796	206	82	42	65
19	96	58	33	21	40	106	122	625	210	56	40	55
20	86	63	32	20	37	96	195	590	201	50	45	53
21	81	57	32	19	39	100	292	566	176	47	47	49
22	82	53	34	19	39	117	334	468	146	44	42	55
23	80	50	31	18	37	118	369	451	114	40	37	51
24	71	49	35	19	35	122	479	463	98	41	34	44
25	65	49	34	18	35	131	545	493	96	43	30	38
26	415	49	33	18	35	117	430	528	99	42	26	34
27	614	50	33	18	36	111	321	524	96	41	23	32
28	277	50	34	18	41	100	259	489	92	44	21	30
29	180	38	36	19	47	96	281	393	86	150	20	27
30	150	46	34	19	---	106	446	344	82	136	19	24
31	150	---	23	18	---	134	---	321	---	100	17	---
TOTAL	3645	2592	1277	662	956	2617	6274	21035	5081	1824	1201	2379
MEAN	118	86.4	41.2	21.4	33.0	84.4	209	679	169	58.8	38.7	79.3
MAX	614	172	61	26	47	134	545	1240	311	150	110	565
MIN	15	38	23	18	19	46	100	321	82	30	17	14
AC-FT	7230	5140	2530	1310	1900	5190	12440	41720	10080	3620	2380	4720
CAL YR 1975 TOTAL	148554			MEAN 407	MAX 3660	MIN 15	AC-FT 294700					
WTR YR 1976 TOTAL	49543			MEAN 135	MAX 1240	MIN 14	AC-FT 98270					

11264500 MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CA--Continued

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1968 to current year.

WATER TEMPERATURES: Water years 1966 to current year.

SEDIMENT RECORDS: Water years 1970-71, 1973 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 (water years 1967-76), 19.5°C July 25, 1975; minimum, 0.0°C on many days during winter period most years.

EXTREMES FOR CURRENT YEAR.--Water temperatures: Maximum, 18.5°C July 29; minimum, 0.0°C for several days during February to April.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	HARDNESS (CA, MG/L)	NON-CARBONATE HARDNESS (MG/L)
OCT 09...	0800	30	38	6.6	8.0	10.8	B4	B2	20	7	0
NOV 20...	1700	65	31	7.3	1.0	12.5	--	<1	B2	7	1
JAN 19...	1330	22	30	7.3	2.0	12.5	<1	14	B1	9	0
FEB 12...	1400	40	49	6.6	2.0	12.7	B2	B1	B1	11	0
MAR 24...	0900	115	65	7.2	5.0	12.0	B8	B3	<1	9	0
MAY 17...	1200	920	15	7.0	--	12.0	<1	<1	<1	3	0
JUL 08...	0930	52	19	7.0	14.0	9.4	B2	13	24	5	0
AUG 16...	1200	32	21	7.0	10.0	10.0	B3	B3	12	4	0

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT 09...	2.5	.2	2.2	38	.4	.5	11	0	9	1.8	3.0
NOV 20...	2.2	.4	1.8	35	.3	.2	7	0	6	2.8	2.4
JAN 19...	2.8	.4	2.8	40	.4	.5	12	0	10	1.1	2.8
FEB 12...	3.0	.8	2.8	35	.4	.4	13	0	11	1.5	4.0
MAR 24...	2.5	.7	2.5	36	.4	.4	12	0	10	1.1	3.1
MAY 17...	1.0	.0	.7	35	.2	.3	3	0	2	.7	.9
JUL 08...	1.8	.1	1.5	38	.3	.3	10	0	8	.7	2.2
AUG 16...	1.5	.1	1.6	43	.3	.3	8	0	7	1.6	3.0

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SiO2) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRATE PLUS NITRITE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 09...	.1	5.8	19	22	.03	1.54	.01	.00	.01	.01
NOV 20...	.1	6.6	23	20	.03	4.04	--	--	.00	.02
JAN 19...	.1	9.0	37	25	.05	2.20	.13	.00	.13	.00
FEB 12...	.1	8.8	33	28	.04	3.56	.39	.02	.41	.00
MAR 24...	.1	7.4	21	24	.03	6.52	.02	.00	.02	.00
MAY 17...	.1	4.1	12	9	.02	29.8	.02	.00	.02	.01
JUL 08...	.0	3.7	18	15	.02	2.53	.01	.00	.01	.00
AUG 16...	.0	4.4	24	16	.03	2.07	.02	.00	.02	.00

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

11264500 MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
NOV 20...	1700	1	100	<10	15	10	0
DATE	TIME	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV 20...		<100	5	.0	0	<10	6

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
AUG 16...	1200	10.0	32	1	.09	46

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.0	9.0	5.0	4.5			---	---	3.0	2.0	1.0	0.0
2	10.0	9.0	5.5	5.0			---	---	2.5	2.0	0.5	0.0
3	10.5	9.5	6.0	5.5			---	---	2.5	2.0	0.0	0.0
4	10.0	9.0	6.0	6.0			---	---	2.0	0.5	0.0	0.0
5	10.0	9.0	6.0	6.0			---	---	1.0	0.0	0.0	0.0
6	10.0	9.0	6.0	5.5			---	---	0.5	0.5	0.0	0.0
7	---	---	7.0	5.5			---	---	1.0	0.5	0.5	0.0
8	---	---	7.0	6.0			---	---	1.5	1.0	1.0	0.0
9	---	---	6.0	4.5			---	---	2.0	1.0	1.0	0.0
10	7.5	6.0	4.5	4.0			---	---	1.5	1.0	2.0	0.5
11	7.5	6.0	4.0	3.5			---	---	1.5	0.5	3.0	1.5
12	6.0	5.5	3.5	3.5			---	---	1.5	0.5	3.0	0.5
13	5.5	5.0	4.0	3.5			---	---	2.0	1.0	4.0	1.0
14	6.0	5.5	4.5	4.0			---	---	2.5	1.5	3.5	1.0
15	7.5	6.0	4.5	4.5			---	---	1.5	0.5	4.5	1.5
16	7.5	6.5	4.5	4.5			---	---	1.0	0.5	5.5	2.5
17	7.5	6.5	4.5	4.0			---	---	2.0	1.0	5.5	3.0
18	7.5	6.5	4.0	3.5			---	---	2.0	1.0	4.0	2.5
19	7.5	6.0	3.5	3.0			---	---	2.0	0.5	3.0	0.5
20	7.5	6.0	---	---			---	---	1.0	0.0	4.5	1.0
21	7.5	6.0	---	---			---	---	1.0	0.5	5.5	2.5
22	7.5	6.5	---	---			1.0	0.5	1.5	0.5	5.5	2.5
23	6.5	4.5	---	---			1.5	0.5	1.5	0.5	5.5	2.5
24	4.5	3.5	---	---			1.5	1.0	1.5	0.5	6.0	3.0
25	4.0	3.5	---	---			1.0	0.5	1.5	0.5	5.0	2.5
26	6.5	4.5	---	---			1.5	0.5	2.0	1.0	4.5	1.5
27	6.5	6.5	---	---			2.0	1.0	3.0	1.0	4.0	2.0
28	6.5	5.5	---	---			2.0	1.5	4.0	2.5	4.5	1.5
29	5.5	5.5	---	---			2.5	1.5	3.5	0.5	6.0	2.0
30	5.5	5.0	---	---			2.5	2.0	---	---	6.5	2.5
31	5.0	4.5	---	---			2.5	2.0	---	---	6.0	3.0
MONTH	10.5	3.5	---	---			---	---	4.0	0.0	6.5	0.0

SAN JOAQUIN RIVER BASIN

11264500 MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.5	3.0	9.5	5.5	12.5	9.0	13.5	10.0	16.0	13.0	15.5	12.5
2	6.0	2.5	9.0	5.5	12.5	8.5	13.5	10.5	15.0	12.0	16.0	13.0
3	5.0	2.5	9.0	5.5	12.0	8.0	15.0	11.0	14.5	12.5	16.0	13.0
4	3.5	3.0	9.0	5.5	11.5	8.0	16.0	12.5	13.5	10.0	15.5	13.5
5	4.0	3.0	8.0	6.0	11.5	7.5	16.0	12.5	13.5	11.0	15.0	14.0
6	6.0	3.0	7.0	6.0	11.5	8.0	16.5	13.0	13.5	11.0	15.0	13.5
7	7.0	2.5	9.5	5.5	12.0	8.5	15.5	12.0	13.0	10.0	14.5	13.0
8	5.0	2.0	9.5	7.0	11.0	9.0	16.0	12.5	---	---	14.5	13.0
9	5.0	0.5	8.5	6.5	11.0	9.5	16.0	12.0	---	---	14.5	13.0
10	4.5	2.5	9.5	6.0	10.0	8.5	16.5	13.5	---	---	15.0	14.0
11	4.0	3.0	11.0	6.5	11.5	8.0	16.5	13.5	---	---	15.0	13.5
12	3.0	2.0	11.5	7.0	13.0	9.0	16.5	13.0	---	---	15.0	12.0
13	3.0	2.0	11.5	8.0	14.5	10.5	17.0	13.5	---	---	14.5	11.0
14	5.0	2.0	11.0	8.0	15.5	11.0	17.0	14.0	---	---	14.5	12.0
15	4.5	1.0	11.0	6.5	15.5	12.5	17.0	14.5	---	---	13.0	11.0
16	1.5	0.0	11.0	7.5	15.5	12.0	18.0	15.5	---	---	11.5	9.0
17	4.5	0.5	11.5	8.0	16.0	11.5	17.0	14.5	12.0	10.5	12.0	9.5
18	7.0	3.5	10.5	7.0	16.5	13.0	16.0	13.0	12.0	11.0	13.0	10.0
19	8.5	3.0	10.5	6.5	16.5	13.0	17.0	14.0	13.0	11.5	12.5	10.5
20	9.0	4.5	10.5	7.5	16.0	12.5	16.0	13.0	15.0	11.5	12.5	11.0
21	8.0	3.5	11.0	8.5	14.5	12.0	15.5	12.5	16.0	13.0	12.5	10.5
22	7.5	3.5	11.5	7.5	14.5	10.0	15.5	12.5	16.0	13.5	13.0	11.0
23	8.5	3.5	11.0	8.0	15.0	11.0	16.0	14.0	13.5	11.0	12.5	10.0
24	8.5	4.5	12.0	7.5	15.0	11.0	17.0	14.0	14.5	12.0	12.5	10.5
25	7.0	4.5	13.0	8.5	15.5	12.5	18.0	15.0	14.0	12.5	12.5	11.0
26	5.5	3.0	13.0	9.5	15.0	11.5	18.0	15.0	14.0	12.0	12.5	10.5
27	5.5	2.5	13.0	9.5	15.5	12.0	17.0	15.0	14.5	12.0	12.5	11.0
28	7.0	2.5	11.5	8.5	16.5	13.0	18.0	16.0	15.0	13.0	12.0	10.5
29	8.5	3.0	11.5	7.5	15.5	13.0	18.5	16.0	15.5	13.0	11.0	10.5
30	9.5	5.0	12.5	8.0	14.5	11.5	17.5	15.0	15.5	12.5	11.0	10.5
31	---	---	13.0	9.0	---	---	16.0	15.0	16.0	13.0	---	---
MONTH	9.5	0.0	13.0	5.5	16.5	7.5	18.5	10.0	---	---	16.0	9.0

11266500 MERCED RIVER AT POHONO BRIDGE, NEAR YOSEMITE, CA

LOCATION.--Lat 37°43'01", long 119°39'55", Mariposa County, Yosemite National Park, on left bank 150 ft (46 m) upstream from Pohono bridge, 0.4 mi (0.6 km) upstream from Artist Creek, and 4.8 mi (7.7 km) southwest of Yosemite National Park headquarters.

DRAINAGE AREA.--321 mi² (831 km²).

PERIOD OF RECORD.--October 1916 to current year. Monthly discharge only for October and November 1916, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 3,861.66 ft (1,177.034 m) above mean sea level. Prior to Sept. 5, 1918, at datum 1.8 ft (0.549 m) higher. Sept. 5, 1918, to Sept. 30, 1955, at datum 1.0 ft (0.305 m) higher.

REMARKS.--Records excellent except those for periods of no gage-height record, which are fair. No diversions between stations at Happy Isles bridge and Pohono bridge. One ft³/s (0.028 m³/s) sewage effluent returns between stations (see REMARKS for station 11264500).

AVERAGE DISCHARGE.--60 years, 599 ft³/s (16.96 m³/s), 434,000 acre-ft/yr (535 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,400 ft³/s (663 m³/s) Dec. 23, 1955, gage height, 21.52 ft (6.559 m) from floodmarks in well, from rating curve extended above 17,000 ft³/s (481 m³/s) on basis of computation of flow over diversion dam for Yosemite powerhouse, 1 mi (2 km) downstream at gage heights 20.1 ft (6.13 m) and 20.98 ft (6.395 m) present datum; minimum, 3.3 ft³/s (0.093 m³/s) Sept. 29, Oct. 1, 1924.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,060 ft³/s (58.3 m³/s) Oct. 26, gage height, 6.18 ft (1.884 m), no peak above base of 2,900 ft³/s (82.1 m³/s); minimum daily, 24 ft³/s (0.68 m³/s) Sept. 3-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	366	118	54	52	103	328	935	432	102	169	26
2	37	369	144	52	52	110	322	995	418	93	151	25
3	36	348	145	52	52	112	340	975	389	86	114	24
4	35	326	140	54	52	105	315	1000	352	81	91	24
5	34	290	134	58	52	113	280	998	322	79	77	24
6	35	252	120	60	59	108	260	760	301	79	67	26
7	60	217	111	57	65	115	295	580	282	78	57	30
8	58	228	106	61	73	120	382	720	264	75	50	35
9	54	203	101	61	92	126	331	994	242	70	46	36
10	81	203	98	60	88	132	340	1020	221	65	43	36
11	418	189	95	61	83	145	316	1060	229	62	39	207
12	284	203	98	64	78	143	290	1330	215	60	37	622
13	210	200	91	62	83	147	278	1590	192	60	35	290
14	191	196	78	64	90	152	290	1680	201	57	35	172
15	187	178	87	63	91	168	297	1500	240	56	40	125
16	189	172	88	61	83	189	288	1370	269	103	43	102
17	191	178	86	62	85	225	246	1230	276	187	50	90
18	176	136	84	63	87	270	259	1100	267	132	52	77
19	154	120	79	63	90	237	300	889	265	98	50	68
20	139	130	76	61	82	216	383	813	258	80	50	61
21	128	118	76	56	87	222	477	769	230	74	54	62
22	126	111	77	54	87	258	533	668	196	70	51	62
23	128	108	74	54	83	284	598	626	158	64	46	63
24	115	104	78	55	79	310	687	621	134	64	42	51
25	105	101	79	50	78	332	800	636	126	65	39	46
26	613	100	77	49	78	295	585	661	125	63	36	43
27	1130	104	76	49	92	272	446	650	123	61	34	41
28	521	101	79	49	99	247	343	618	117	68	32	38
29	379	86	83	52	106	220	370	531	112	266	30	36
30	345	96	80	52	---	265	572	475	109	237	28	35
31	332	---	65	50	---	330	---	452	---	147	27	---
TOTAL	6529	5533	2923	1763	2278	6071	11551	28246	7065	2882	1715	2577
MEAN	211	184	94.3	56.9	78.6	196	385	911	236	93.0	55.3	85.9
MAX	1130	369	145	64	106	332	800	1680	432	266	169	622
MIN	34	86	65	49	52	103	246	452	109	56	27	24
AC-FT	12950	10970	5800	3500	4520	12040	22910	56030	14010	5720	3400	5110
CAL YR 1975 TOTAL	258812											
WTR YR 1976 TOTAL	79133											
MEAN 709												
MAX 1680												
MIN 34												
AC-FT 513400												
AC-FT 157000												

NOTE.--No gage-height record Jan. 26 to Mar. 22, and Mar. 28 to May 16.

SAN JOAQUIN RIVER BASIN

11267350 BIG CREEK DIVERSION NEAR FISH CAMP, CA

LOCATION.--Lat 37°28'10", long 119°36'51", in SE¼NE¼ sec.25, T.5 S., R.21 E., Mariposa County, Sierra National Forest, on right bank 0.5 mi (0.8 km) downstream from diversion weir, 0.5 mi (0.8 km) upstream from Rainier Creek, and 1.2 mi (1.9 km) southeast of Fish Camp.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,400 ft (1,646 m), from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, which are poor.

AVERAGE DISCHARGE.--7 years, 12.0 ft³/s (0.340 m³/s), 8,690 acre-ft/yr (10.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 66 ft³/s (1.87 m³/s) June 1, 2, 1975; no flow July, 1, 2, 1973.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	.62	9.0	5.6	4.6	8.8	14	9.7	6.7	3.0	.37	.27
2	1.4	.58	8.5	5.4	4.6	7.5	10	9.7	5.6	3.0	.32	.23
3	1.3	.55	8.1	5.7	4.4	7.5	10	16	5.3	3.0	.32	.23
4	1.2	.49	7.3	5.6	4.7	6.2	9.7	24	5.3	3.0	.32	.23
5	1.2	.46	7.1	5.8	4.5	7.1	9.7	23	5.5	2.2	.32	.19
6	1.4	.44	6.4	5.5	4.7	8.0	9.7	23	5.4	1.6	.32	.19
7	1.7	.44	5.9	5.4	4.9	8.9	9.7	23	5.3	1.6	.32	.19
8	.50	.44	6.0	5.5	5.2	8.9	9.7	23	5.0	1.8	.27	.19
9	.46	.44	6.0	5.4	5.8	9.1	9.7	22	5.0	1.8	.27	.19
10	1.2	.44	5.9	5.7	5.5	9.2	9.7	21	5.0	1.6	.27	.19
11	2.2	.41	5.8	5.6	5.4	9.6	9.7	21	4.8	1.6	.27	.16
12	1.0	.37	6.0	5.4	5.4	9.7	9.7	20	4.6	1.8	.27	.08
13	.84	.37	5.6	5.4	5.4	11	9.7	18	4.6	1.8	.27	1.1
14	.72	.31	5.7	5.4	5.6	12	9.7	16	4.6	1.8	.27	2.0
15	.63	.24	6.1	5.5	6.0	13	9.7	13	4.5	1.8	.27	1.8
16	.59	.27	6.0	5.6	6.0	14	8.6	10	4.2	2.1	.23	1.8
17	.56	.27	5.9	5.7	6.0	16	8.3	9.7	4.0	2.0	.23	1.8
18	.54	.27	5.8	5.5	6.6	16	9.7	9.7	3.9	1.8	.23	1.8
19	.52	.22	5.7	5.0	6.6	13	9.7	9.4	3.6	1.8	.23	1.6
20	.50	.27	5.7	4.6	6.1	13	9.7	9.4	3.3	1.6	.23	1.6
21	.50	.28	5.6	4.5	6.2	15	9.7	9.4	3.3	1.6	.23	1.5
22	.49	.30	6.0	4.6	6.8	17	9.7	8.7	3.3	1.3	.23	1.5
23	.49	.28	5.6	4.4	7.0	18	9.7	8.0	3.3	1.1	.23	1.6
24	.48	.27	5.6	4.5	7.2	19	9.7	7.8	3.3	.57	.23	1.6
25	.48	.27	5.6	4.9	7.3	19	9.7	7.8	3.3	.44	.23	1.6
26	14	3.3	5.7	4.6	7.6	16	9.7	7.3	3.2	.44	.23	1.6
27	13	6.4	6.0	4.6	8.7	15	9.7	7.3	3.2	.44	.23	1.6
28	3.0	6.6	5.9	4.6	10	14	9.7	7.1	3.1	.37	.23	1.6
29	.92	18	5.8	4.6	11	14	9.7	7.1	3.1	.37	.23	1.6
30	.72	10	5.7	4.6	---	16	9.7	7.1	3.1	.37	.23	2.0
31	.65	---	5.6	4.6	---	17	---	7.0	---	.37	.32	---
TOTAL	54.59	53.60	191.6	159.8	179.8	388.5	293.4	415.2	128.4	48.07	8.22	32.04
MEAN	1.76	1.79	6.18	5.15	6.20	12.5	9.78	13.4	4.28	1.55	.27	1.07
MAX	14	18	9.0	5.8	11	19	14	24	6.7	3.0	.37	2.0
MIN	.46	.22	5.6	4.4	4.4	6.2	8.3	7.0	3.1	.37	.23	.08
AC-FT	108	106	380	317	357	771	582	824	255	95	16	64
CAL YR 1975	TOTAL	5240.39	MEAN	14.4	MAX	66	MIN	.22	AC-FT	10390		
WTR YR 1976	TOTAL	1953.22	MEAN	5.34	MAX	24	MIN	.08	AC-FT	3870		

NOTE.--No gage-height record Oct. 4 to Nov. 5.

11269300 MAXWELL CREEK AT COULTERVILLE, CA

LOCATION.--Lat 37°42'58", long 120°11'20", in NW¼SE¼ sec.34, T.2 S., R.16 E., Mariposa County, on Dogtown Road bridge, 0.4 mi (0.6 km) downstream from Cuneo Creek, and 0.5 mi (0.8 km) northeast of Coulterville.

DRAINAGE AREA.--17.0 mi² (44.0 km²).

PERIOD OF RECORD.--October 1959 to September 1974, October 1975 to September 1976.

GAGE.--Water-stage recorder. Altitude of gage is 1,740 ft (530 m), from topographic map.

REMARKS.--No diversion or storage above station.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--16 years (water years 1960-74, 1976), 7.41 ft³/s (0.210 m³/s), 5,370 acre-ft/yr (6.62 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,770 ft³/s (50.1 m³/s) Dec. 22, 1964, gage height, 5.71 ft (1.740 m); no flow many days in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25 ft³/s (0.71 m³/s) Mar. 1, gage height, 3.33 ft (1.015 m); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND; WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.80	.70	.80	.50	1.2	.70	.60	.10		0	
2	.10	.60	.70	.70	.50	5.5	.70	.60	.10		0	
3	.10	.50	.70	.70	.50	5.3	.70	.50	.10		0	
4	.10	.50	.70	.70	.80	4.8	.80	.50	.10		0	
5	.10	.40	.70	.80	1.4	5.4	.80	.50	.10		0	
6	.20	.40	.70	.80	2.5	6.8	.70	.50	.10		0	
7	.20	.40	.70	.80	3.0	7.3	.70	.50	.10		0	
8	.20	.40	.70	.80	2.9	5.4	1.2	.40	.10		0	
9	.20	.50	.70	1.0	3.4	3.6	1.0	.40	.10		0	
10	.40	1.3	.70	1.0	3.7	2.7	1.2	.40	.10		0	
11	.50	.90	.70	.90	2.2	2.2	1.8	.30	.10		0	
12	.20	.70	1.3	.90	1.8	1.9	1.5	.30	.10		0	
13	.20	.60	1.5	.90	1.6	1.7	1.4	.20	.10		0	
14	.20	.50	1.3	.90	2.6	1.5	1.1	.20	0		0	
15	.10	.50	1.0	.80	2.1	1.4	1.6	.20	0		.10	
16	.10	.60	.90	.80	1.6	1.3	1.5	.20	0		0	
17	.10	.60	.90	.80	1.4	1.2	1.2	.20	0		0	
18	.20	.60	.80	.80	1.2	1.3	1.0	.10	0		0	
19	.10	.60	.80	.80	5.1	1.4	1.0	.10	0		0	
20	.10	.60	.80	.80	4.3	1.2	1.0	.10	0		0	
21	.10	.60	.70	.80	2.3	1.1	.90	.10	0		0	
22	.10	.60	.70	.70	1.8	1.0	.90	.10	0		0	
23	.20	.60	.70	.80	1.5	.90	.80	.10	0		0	
24	.20	.60	.70	.70	1.3	.90	.80	.10	0		0	
25	.20	.60	.70	.70	1.2	.80	.70	.10	0		0	
26	.60	.60	.70	.70	1.1	.80	.70	.10	0		0	
27	.60	.70	.80	.70	1.0	.80	.70	.10	0		0	
28	.40	.90	.80	.70	1.0	.80	.70	.10	0		0	
29	.30	.70	.80	.70	4.3	.80	.60	.10	0		0	
30	2.4	.60	.80	.70	---	.70	.60	.10	0		0	
31	1.4	---	.80	.60	---	.70	---	.10	---		0	---
TOTAL	10.00	18.50	25.20	24.30	58.60	83.20	29.00	7.90	1.30	0	.10	0
MEAN	.32	.62	.81	.78	2.02	2.68	.97	.25	.043	0	.003	0
MAX	2.4	1.3	1.5	1.0	5.1	12	1.8	.60	.10	0	.10	0
MIN	.10	.40	.70	.60	.50	.70	.60	.10	0	0	0	0
AC-FT	20	37	50	48	116	165	58	16	2.6	0	.2	0

WTR YR 1976 TOTAL 258.10 MEAN .71 MAX 12 MIN 0 AC-FT 512

SAN JOAQUIN RIVER BASIN

11269500 LAKE McCLURE AT EXCHEQUER, CA

LOCATION.--Lat 37°35'02", long 120°16'09", in NW¼SE¼ sec.13, T.4 S., R.15 E., Mariposa County, on left end of New Exchequer Dam on Merced River, 0.9 mi (1.4 km) east of Exchequer, and 5.5 mi (8.8 km) northeast of Merced Falls.

DRAINAGE AREA.--1,037 mi² (2,686 km²).

PERIOD OF RECORD.--April 1926 to September 1930 (daily gage heights; also summary of yearly contents in WSP 881), October 1930 to current year.

REVISED RECORDS.--WSP 881: 1926-32 (yearly summaries only). WSP 1345: 1951(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Merced Irrigation District). Prior to Oct. 1, 1964, indicator in powerhouse at same datum. Oct. 1, 1964, to July 31, 1966, nonrecording gage at center of upstream face of dam at same datum.

REMARKS.--Reservoir is formed by a rockfill dam with a reinforced concrete face completed in March 1967. Dam is downstream from and connected to the original concrete arch and gravity-type dam which was completed in April 1926. Usable capacity, 1,024,000 acre-ft (1,260 hm³) between elevations 440.0 ft (134.11 m) invert entrance to outlet tunnel, and 867.0 ft (264.26 m) top of spillway gates. Dead storage, 300 acre-ft (370,000 m³). Water is released through a series of powerplants down the Merced River to a diversion dam for Merced Irrigation District's main canal. Records, including extremes, represent total contents at 2400 hours.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,026,000 acre-ft (1,270 hm³) July 14, 15, 1969, elevation, 867.2 ft (264.32 m); practically no storage at times in 1926, 1930-31, 1964-65 when reservoir was drained for inspection or construction. Minimum since construction of New Exchequer Dam in 1966, and since lake first filled, 243,400 acre-ft (300 hm³) Sept. 30, 1976, elevation, 692.1 ft (210.95 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 701,000 acre-ft (864 hm³) Oct. 1, elevation, 814.7 ft (248.32 m); minimum, 243,400 acre-ft (300 hm³) Sept. 30, elevation, 692.1 ft (210.95 m).

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

680	215200	820	729600
700	263000	840	845800
720	317800	860	975700
750	415900	870	1046000
780	534500		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	701000	652000	642500	624900	611400	619100	589700	575900	561400	479200	370600	284500
2	696800	652500	641000	623400	611400	619100	588800	575900	559200	475600	367300	282400
3	692500	652000	639500	622900	611900	619500	587400	575900	556500	472500	364000	280000
4	688300	652000	639000	621900	611400	620500	585500	575900	554300	469300	360800	278100
5	684200	651500	639500	621500	611400	621500	584600	576300	552500	466200	357200	275200
6	680000	651500	640000	620500	611400	621900	582300	575900	550300	463400	354000	273700
7	675400	652000	640000	620000	611900	622900	581400	574500	547600	460000	350200	271100
8	671800	651500	639500	619500	612300	623400	580500	574500	545100	456100	346400	268700
9	667100	651000	638000	618600	612800	623400	579100	575400	541900	452300	343000	266400
10	664600	650000	637100	618100	613800	622400	579500	576300	540200	448800	340200	264800
11	661500	650000	636100	617600	613300	621900	580500	576800	537100	445400	337400	262500
12	658000	649500	636100	617100	612800	621500	580900	578200	535400	442000	334000	261800
13	654500	649500	636100	616600	613300	620500	580900	579500	532800	437500	330600	260500
14	651000	649500	636100	616200	614200	620000	580900	580500	529800	434200	327600	260800
15	648000	650000	635100	615700	614700	619100	580900	581800	527600	430800	325200	260000
16	645500	648500	634600	614700	615200	617600	580500	582800	524600	427900	321900	259000
17	644500	648500	634100	614200	615200	617600	580000	582800	522100	425000	319600	257800
18	642000	649500	633100	614700	615700	616200	580000	581800	519100	421300	316900	256500
19	641500	648000	632200	613800	616200	614700	579500	581400	516600	417300	314600	254000
20	642000	647500	631200	613300	616600	613800	578200	580900	514000	413700	312500	253000
21	642000	647000	629700	613300	617100	611400	578200	579100	511100	410200	310200	251800
22	642500	646000	629700	613300	617600	609500	578200	578200	508200	405500	307600	250800
23	642500	646000	630200	613300	617100	608500	577700	576300	504800	401700	306200	249000
24	642500	646000	629200	613800	617100	607100	578200	575400	502400	398900	303400	248000
25	643000	644500	629200	613800	616600	605200	579100	573600	499100	395400	301100	247000
26	643500	643500	628700	613800	617100	602800	579100	572200	495800	391900	299700	245800
27	647500	643000	627800	613800	617600	600900	577300	570900	492900	388500	297200	244600
28	649500	643000	627800	612300	617600	599100	576300	569500	490100	384700	294700	243900
29	650500	643500	627300	610900	618600	596200	575400	568200	486400	381000	292400	243900
30	652000	643000	626300	611400	---	593900	575000	565900	483600	377300	289700	243400
31	652500	---	626300	611400	---	591100	---	564100	---	373600	287200	---
MAX	701000	652500	642500	624900	618600	623400	589700	582800	561400	479200	370600	284500
MIN	641500	643000	626300	610900	611400	591100	575000	564100	483600	373600	287200	243400
†	805.3	803.4	800.0	796.9	798.4	792.6	789.1	786.7	767.8	787.8	709.2	692.1
‡	-52800	-9500	-16700	-14900	+7200	-27500	-16100	-10900	-80500	-110000	-86400	-43800

CAL YR 1975 ‡ -4900

WTR YR 1976 ‡ -461900

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

11270900 MERCED RIVER BELOW MERCED FALLS DAM, NEAR SNELLING, CA

LOCATION.--Lat 37°31'18", long 120°19'53", in SE¼SW¼ sec.4, T.5 S., R.15 E., Merced County, on right bank 0.1 mi (0.2 km) south of Merced Falls, 0.2 mi (0.3 km) downstream from Merced Falls Dam, and 5.8 mi (9.3 km) east of Snelling.

DRAINAGE AREA.--1,061 mi² (2,748 km²).

PERIOD OF RECORD.--April 1901 to current year. Records for water years 1914-16 incomplete, yearly estimates published in WSP 1315-A. Published as "near Merced Falls" 1901-13; as "at Exchequer" 1916-64. Records at present site are about equivalent when adjusted for diversion to North Side Canal and change in contents in Lake McClure.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 310.55 ft (94.656 m) above mean sea level. See WSP 1930 for history of changes prior to Oct. 1, 1964.

REMARKS.--Records excellent. Merced Falls Dam diverts water to North Side Canal to irrigate 4,100 acres (16.6 km²) below station. Flow regulated by Exchequer, McSwain, and Merced Falls powerplants, Lake McClure (station 11269500) since 1926, and McSwain Reservoir since 1966, capacity, 9,200 acre-ft (11.3 km³).

AVERAGE DISCHARGE (adjusted for diversion to North Side Canal and change in contents in Lake McClure since 1965 and change in contents in McSwain Reservoir since 1969).--75 years, 1,326 ft³/s (37.55 m³/s), 960,700 acre-ft/yr (1.18 km³/yr).

EXTREMES FOR PERIOD OF RECORD (water years 1901-13, 1916-76): Maximum discharge observed, 47,700 ft³/s (1,350 m³/s) Jan. 31, 1911, gage height, 23.3 ft (7.10 m) site and datum then in use; no flow for part of Nov. 21, 1901. Maximum discharge since construction of Exchequer Dam in 1926, 46,200 ft³/s (1,310 m³/s) Dec. 4, 1950, gage height, 22.6 ft (6.89 m) from floodmarks, site and datum then in use, from rating curve extended above 16,000 ft³/s (453 m³/s) on basis of computation of peak flow over dam; minimum daily, 3.4 ft³/s (0.096 m³/s) Mar. 5, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,220 ft³/s (62.9 m³/s) Oct. 10, gage height, 7.27 ft (2.216 m); minimum daily, 121 ft³/s (3.43 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	2120	404	490	479	200	203	1330	1610	1520	1710	1760	1140		
2	2140	547	498	488	201	213	1310	1610	1490	1690	1760	1120		
3	2120	529	509	492	199	218	1290	1610	1450	1680	1750	1120		
4	2130	525	514	496	200	212	1300	1610	1460	1680	1740	1120		
5	2130	521	508	498	203	211	1240	1690	1460	1680	1710	1120		
6	2130	515	498	461	205	205	1210	1730	1470	1690	1690	1120		
7	2140	513	487	431	205	206	1150	1650	1500	1690	1690	1120		
8	2150	515	488	418	200	324	1010	1620	1520	1720	1670	1100		
9	2150	511	494	411	201	435	895	1620	1520	1740	1610	1060		
10	2150	518	498	401	196	591	905	1620	1520	1740	1560	1030		
11	2180	518	502	391	200	699	663	1550	1500	1750	1530	953		
12	2160	515	507	392	205	678	512	1510	1470	1750	1480	868		
13	2140	514	496	402	208	706	510	1510	1470	1750	1460	786		
14	2140	513	491	411	206	705	566	1500	1470	1750	1460	715		
15	1840	505	485	410	203	818	606	1520	1450	1750	1430	692		
16	1230	498	490	410	203	977	632	1520	1500	1740	1410	686		
17	1220	490	491	407	199	1090	614	1580	1550	1760	1410	678		
18	1220	492	496	399	198	1110	609	1600	1570	1780	1380	670		
19	520	501	495	394	200	1160	717	1590	1580	1770	1320	651		
20	217	509	503	400	198	1220	909	1560	1570	1780	1230	663		
21	217	511	507	395	200	1290	1120	1570	1580	1790	1190	659		
22	205	512	507	273	195	1370	1200	1500	1580	1770	1150	659		
23	204	508	498	200	195	1430	1200	1470	1570	1750	1110	659		
24	203	497	492	198	200	1430	1260	1460	1610	1740	1080	657		
25	201	497	485	193	200	1420	1350	1470	1650	1730	1070	652		
26	200	510	480	194	202	1460	1390	1470	1640	1740	1100	643		
27	195	518	484	194	199	1510	1480	1480	1630	1760	1120	648		
28	194	512	479	193	199	1500	1590	1530	1660	1770	1130	325		
29	193	500	480	209	198	1490	1600	1570	1700	1760	1120	132		
30	192	495	485	212	---	1430	1610	1540	1720	1760	1120	121		
31	188	---	484	204	---	1390	---	1540	---	1770	1150	---		
TOTAL	38419	15213	15321	11056	5818	27701	31778	48410	46380	53940	43390	23567		
MEAN	1239	507	494	357	201	894	1059	1562	1546	1740	1400	786		
MAX	2180	547	514	498	208	1510	1610	1730	1720	1790	1760	1140		
MIN	188	404	479	193	195	203	510	1460	1450	1680	1070	121		
AC-FT	76200	30170	30390	21930	11540	54940	63030	96020	91990	107000	86060	46750		
MEAN ‡	386	339	221	146	313	513	798	1464	257	53.8	51.8	8.18		
AC-FT ‡	23740	20160	13560	8960	17980	31540	47500	90040	15270	3310	3180	487		
†	1600	91	190	192	389	2200	2581	3860	4260	4860	3870	2960		
GAL YR 1975	TOTAL	566935	MEAN	1553	MAX	6080	MIN	188	AC-FT	1125000	MEAN ‡	1576	AC-FT ‡	1141000
WTR YR 1976	TOTAL	360993	MEAN	986	MAX	2180	MIN	121	AC-FT	716000	MEAN ‡	380	AC-FT ‡	275700

‡ Adjusted for diversion to North Side Canal and change in contents in Lake McClure and McSwain Reservoir.

† Diversion, in acre-feet, to North Side Canal furnished by Merced Irrigation District.

SAN JOAQUIN RIVER BASIN

11271290 MERCED RIVER AT SHAFFER BRIDGE, NEAR CRESSEY, CA

LOCATION.--Lat 37°27'15", long 120°36'28", in NW¼SW¼ sec.36, T.5 S., R.12 E., Merced County, near center of span on downstream side of county road bridge, 0.6 mi (1.0 km) upstream from Dry Creek, and 4.0 mi (6.4 km) north-east of Cressey.

DRAINAGE AREA.--1,117 mi² (2,893 km²).

PERIOD OF RECORD.--October 1965 to current year (low flow only).

GAGE.--Water-stage recorder. Datum of gage is 116.79 ft (35.598 m) above mean sea level.

REMARKS.--Records fair. Most water released from Lake McClure (stations 11269500, 11270900) is diverted upstream into the Main Canal of Merced Irrigation District. Flow past station consists of releases from diversion dam, irrigation return flow, and tributary inflow. No records computed above 200 ft³/s (5.66 m³/s).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	169	---	---	140	162	108	88	118	74	64	51
2	---	---	---	---	143	166	115	98	98	64	66	42
3	---	---	---	---	128	183	120	112	118	63	82	35
4	---	---	---	---	120	180	122	102	125	64	90	28
5	---	---	---	---	128	172	146	94	120	63	100	32
6	---	---	---	---	146	162	152	102	120	70	80	44
7	---	---	---	---	149	155	140	110	112	68	92	54
8	---	---	---	---	155	155	143	112	105	68	112	43
9	---	---	---	---	162	183	155	98	102	63	105	39
10	---	---	---	---	166	176	155	122	98	66	94	40
11	---	---	---	---	152	172	176	108	94	77	88	63
12	---	---	---	---	155	180	180	80	96	94	65	84
13	---	---	---	---	149	162	172	76	100	102	55	108
14	---	---	---	---	158	190	176	78	98	98	76	84
15	---	---	---	---	155	190	169	72	78	88	110	78
16	---	---	---	---	152	176	158	84	57	112	112	74
17	---	---	---	---	152	155	172	84	32	96	94	76
18	---	---	---	---	149	158	172	77	32	92	94	70
19	---	---	---	---	155	166	166	71	34	120	100	94
20	---	---	---	---	158	158	152	86	49	102	112	110
21	---	---	---	---	155	169	137	88	53	98	118	96
22	---	---	---	---	155	166	122	98	42	96	125	108
23	186	---	---	200	149	140	105	108	44	76	105	84
24	172	---	---	166	149	140	82	110	41	64	108	92
25	172	---	---	155	152	146	80	84	42	54	84	92
26	176	---	---	152	149	149	105	70	54	53	77	100
27	180	---	---	140	152	143	86	72	80	59	68	100
28	169	---	---	140	149	152	78	78	65	55	54	84
29	166	---	---	137	149	146	74	94	65	53	68	76
30	180	---	---	140	---	134	86	125	72	48	86	68
31	180	---	---	137	---	115	---	128	---	53	65	---
TOTAL	---	---	---	---	4331	5001	4004	2909	2344	2353	2749	2149
MEAN	---	---	---	---	149	161	133	93.8	78.1	75.9	88.7	71.6
MAX	---	---	---	---	166	190	180	128	125	120	125	110
MIN	---	---	---	---	120	115	74	70	32	48	54	28
AC-FT	---	---	---	---	8590	9920	7940	5770	4650	4670	5450	4260
†	26840	2740	2270	2210	2070	44330	52110	83070	80390	95260	76320	42700

† Diversion, in acre-feet, to Main Canal near diversion dam, near Merced Falls, furnished by Merced Irrigation District.

11271320 DRY CREEK NEAR SNELLING, CA

LOCATION.--Lat 37°33'18", long 120°27'44", in NE¼SE¼ sec.30, T.4 S., R.14 E., Merced County, on left bank 650 ft (198 m) downstream from Fields Road, and 2.8 mi (4.5 km) northwest of Snelling.

DRAINAGE AREA.--67.6 mi² (175 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 230 ft (70 m), from topographic map.

REMARKS.--Records good. Small weir upstream from gage regulates storage for stock pond and irrigation pumping.

AVERAGE DISCHARGE.--10 years, 18.0 ft³/s (0.510 m³/s), 13,040 acre-ft/yr (16.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,710 ft³/s (190 m³/s) Jan. 21, 1969, gage height, 17.01 ft (5.185 m); no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 56 ft³/s (1.59 m³/s) Mar. 3, gage height, 4.92 ft (1.500 m), no peak above base of 1,000 ft³/s (28.3 m³/s); no flow for many months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.16			0	0					
2		0	.12			0	0					
3		0	.09			34	0					
4		0	.07			16	0					
5		0	.06			7.1	0					
6		0	.05			2.2	0					
7		0	.04			1.3	0					
8		0	.04			1.4	0					
9		0	.03			1.1	0					
10		0	.03			.61	0					
11		0	.02			.83	.87					
12		0	.02			.75	1.6					
13		0	.02			.41	.83					
14		.35	.02			.17	.68					
15		.35	.02			.05	.75					
16		.35	.01			0	.68					
17		.23	.01			0	.54					
18		.23	.01			0	.54					
19		.17	.01			0	.47					
20		.17	.01			0	.41					
21		.17	.01			0	.41					
22		.17	0			0	.17					
23		.14	0			0	.05					
24		.11	0			0	0					
25		.09	0			0	0					
26		.07	0			0	0					
27		.05	0			0	0					
28		.34	0			0	0					
29		.34	0			0	0					
30		.23	0			0	0					
31		---	0		---	0	---		---			---
TOTAL	0	3.56	.85	0	0	65.92	8.00	0	0	0	0	0
MEAN	0	.12	.027	0	0	2.13	.27	0	0	0	0	0
MAX	0	.35	.16	0	0	34	1.6	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	7.1	1.7	0	0	131	16	0	0	0	0	0
CAL YR 1975	TOTAL	7651.42	MEAN 21.0	MAX 1140	MIN 0	AC-FT 15180						
WTR YR 1976	TOTAL	78.33	MEAN .21	MAX 34	MIN 0	AC-FT 155						

NOTE.--No gage-height record Nov. 22 to Dec. 22.

SAN JOAQUIN RIVER BASIN

11272500 MERCED RIVER NEAR STEVINSON, CA

LOCATION.--Lat 37°22'15", long 120°55'46", in SW¼NE¼ sec.36, T.6 S., R.9 E., Merced County, on right bank 5 mi (8 km) upstream from mouth, and 6 mi (10 km) northwest of Stevinson.

DRAINAGE AREA.--1,273 mi² (3,297 km²).

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. October 1940 to Aug. 15, 1955, at datum 55.74 ft (16.990 m) higher, Aug. 16, 1955, to Sept. 30, 1959, at datum 54.74 ft (16.685 m) higher.

REMARKS.--Records good. Practically entire flow is diverted above station for irrigation of 120,000 acres (486 km²) during low runoff years. Some return flow enters above station. Flow regulated by three reservoirs, combined capacity, 1,035,000 acre-ft (1.28 km³), the largest of which is Lake McClure (station 11269500).

AVERAGE DISCHARGE.--36 years, 657 ft³/s (18.61 m³/s), 476,000 acre-ft/yr (587 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s (385 m³/s) Dec. 5, 1950, elevation, 73.79 ft (22.491 m) present datum; no flow July 19 to Aug. 21, 1961, result of temporary dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,430 ft³/s (40.5 m³/s) Oct. 16, elevation, 61.42 ft (18.721 m); minimum daily, 60 ft³/s (1.70 m³/s) July 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1140	361	519	473	198	213	188	144	158	84	133	145
2	1180	337	502	477	213	236	164	164	154	91	148	122
3	1200	408	507	474	195	256	195	165	148	99	136	107
4	1210	492	509	477	183	250	200	163	141	110	161	110
5	1220	610	523	479	197	237	224	157	131	126	145	112
6	1250	591	527	482	218	231	231	164	161	122	155	134
7	1260	506	520	477	204	226	249	165	180	87	114	102
8	1250	497	521	448	225	216	263	157	168	63	134	101
9	1270	497	512	432	244	210	268	155	146	60	160	104
10	1300	493	514	422	239	266	280	176	136	68	148	103
11	1300	498	517	418	240	266	324	158	140	69	136	129
12	1330	499	520	404	251	255	318	163	158	95	131	178
13	1340	497	529	397	234	261	300	152	136	94	128	192
14	1350	496	531	398	239	244	279	124	122	72	117	187
15	1390	492	517	401	233	250	299	123	119	70	128	174
16	1430	500	510	400	237	246	291	133	111	92	177	187
17	1360	504	508	385	238	231	244	174	111	94	180	179
18	1260	485	508	385	230	217	265	153	115	102	192	170
19	1230	478	508	382	221	220	268	152	111	101	199	179
20	1130	484	507	385	224	181	231	138	125	88	230	197
21	662	494	506	364	228	201	212	122	146	105	215	193
22	509	501	508	363	230	224	223	134	99	96	199	193
23	463	511	514	359	224	208	191	160	97	92	214	197
24	415	522	513	308	218	184	171	163	95	94	191	184
25	382	508	504	272	213	182	151	175	91	110	176	175
26	379	510	502	248	218	177	149	150	77	113	180	178
27	398	526	497	229	206	192	144	115	86	98	160	191
28	401	525	494	204	217	186	140	121	102	79	163	202
29	382	522	493	198	207	201	141	116	73	98	156	192
30	389	523	482	193	---	215	138	128	82	105	155	208
31	399	---	475	195	---	200	---	156	---	132	130	---
TOTAL	30179	14867	15797	11529	6424	6882	6741	4620	3719	2909	4991	4825
MEAN	974	496	510	372	222	222	225	149	124	93.8	161	161
MAX	1430	610	531	482	251	266	324	176	180	132	230	208
MIN	379	337	475	193	183	177	138	115	73	60	114	101
AC-FT	59860	29490	31330	22870	12740	13650	13370	9160	7380	5770	9900	9570
CAL YR 1975	TOTAL	277360	MEAN 760	MAX	4020	MIN 184	AC-FT	550100				
WTR YR 1976	TOTAL	113483	MEAN 310	MAX	1430	MIN 60	AC-FT	225100				

11274000 SAN JOAQUIN RIVER NEAR NEWMAN, CA

LOCATION.--Lat 37°21'02", long 120°58'34", in NW¼SW¼ sec.3, T.7 S., R.9 E., Stanislaus County, on left bank 600 ft (180 m) downstream from bridge on Hills Ferry Road, 650 ft (198 m) downstream from Merced River, and 3.5 mi (5.6 km) northeast of Newman.

DRAINAGE AREA.--9,520 mi² (24,657 km²).

PERIOD OF RECORD.--April 1912 to current year. Prior to Oct. 1, 1937, and subsequent to Oct. 1, 1943, flow that bypassed station at discharges above 9,000 ft³/s (255 m³/s) not included in records.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. See WSP 1930 for history of changes prior to Aug. 9, 1960.

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs, ground-water withdrawals, diversions for irrigation, and imported water; low flows consist mainly of return water from irrigated areas.

AVERAGE DISCHARGE.--64 years, 1,988 ft³/s (56.30 m³/s), 1,440,000 acre-ft/yr (1,776 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (river only), 28,000 ft³/s (793 m³/s) Feb. 26, 1969, elevation, 65.90 ft (20.086 m) from high-water mark in well; river and Merced River Slough, 34,400 ft³/s (974 m³/s) Feb. 26, 1969, elevation, 65.90 ft (20.086 m) present datum; minimum, 15 ft³/s (0.42 m³/s) Aug. 9, 10, 1924.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 2, 1868, reached a stage of 21.7 ft (6.61 m) from floodmarks; flood of February 1886, reached a stage of 19.8 ft (6.04 m) from floodmarks; and flood of 1911 reached a stage of 19 ft (5.8 m) from floodmarks. All stages referred to datum in use from 1931 to 1959. Discharges unknown.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,900 ft³/s (53.8 m³/s) Oct. 14, elevation, 52.24 ft (5.923 m); minimum daily, 189 ft³/s (5.35 m³/s) July 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1550	756	814	701	648	587	444	283	348	229	219	481
2	1540	746	791	698	670	622	404	302	333	239	258	456
3	1550	761	786	688	638	686	448	338	342	222	260	391
4	1580	803	782	678	605	737	451	331	312	256	305	338
5	1580	876	794	672	621	726	461	309	293	256	305	317
6	1580	894	805	679	691	682	499	337	320	262	334	366
7	1590	846	795	676	728	677	551	349	378	238	302	353
8	1630	846	762	653	763	646	601	349	372	209	293	307
9	1620	890	757	651	758	645	635	342	372	203	337	284
10	1650	945	766	671	755	677	705	385	344	208	361	275
11	1680	924	759	657	748	688	774	397	369	203	375	274
12	1790	901	748	642	731	648	821	371	395	214	364	365
13	1870	893	749	652	684	644	798	381	388	209	333	574
14	1870	887	758	652	681	604	738	360	397	202	295	664
15	1810	867	769	640	661	609	715	321	419	207	283	649
16	1820	859	759	638	677	612	711	321	426	218	354	609
17	1780	858	752	621	686	582	631	342	349	215	418	595
18	1700	853	760	626	661	541	581	358	318	227	490	562
19	1620	858	744	720	624	531	555	335	284	228	522	513
20	1510	859	731	828	616	490	502	327	276	220	596	524
21	1030	847	727	850	630	505	440	315	297	212	625	511
22	848	839	732	843	628	514	431	325	278	210	623	477
23	801	831	744	829	609	481	390	345	266	202	648	482
24	739	840	755	802	618	417	362	364	258	213	644	475
25	685	830	725	784	613	403	339	355	254	242	606	434
26	654	840	720	750	605	400	326	318	239	237	535	424
27	674	854	718	722	581	401	300	258	259	217	498	442
28	684	852	710	669	573	403	296	263	245	191	508	482
29	663	854	700	653	568	407	286	270	217	190	494	555
30	671	839	692	647	---	429	264	274	224	189	504	623
31	741	---	699	647	---	449	---	306	---	213	464	---
TOTAL	41510	25548	23303	21639	19071	17443	15459	10231	9572	6781	13153	13802
MEAN	1339	852	752	698	658	563	515	330	319	219	424	460
MAX	1870	945	814	850	763	737	821	397	426	262	648	664
MIN	654	746	692	621	568	400	264	258	217	189	219	274
AC-FT	82340	50670	46220	42920	37830	34600	30660	20290	18990	13450	26090	27380
CAL YR 1975	TOTAL	469299	MEAN	1286	MAX	4570	MIN	422	AC-FT	930900		
WTR YR 1976	TOTAL	217512	MEAN	594	MAX	1870	MIN	189	AC-FT	431400		

SAN JOAQUIN RIVER BASIN

11274500 ORESTIMBA CREEK NEAR NEWMAN, CA

LOCATION.--Lat 37°18'48", long 121°07'32", in SE¼NE¼ sec.19, T.7 S., R.8 E., Stanislaus County, on right bank 220 ft (67 m) upstream from California aqueduct siphon, 3 mi (5 km) downstream from Oso Creek, and 5 mi (8 km) west of Newman.

DRAINAGE AREA.--134 mi² (347 km²).

PERIOD OF RECORD.--January 1932 to current year.

REVISED RECORDS.--WSP 1445: 1932(M), 1938(P), 1940-41(M), 1945, 1951(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 216.01 ft (65.837 m) above mean sea level. Prior to Oct. 1, 1958, at site 1,320 ft (402 m) downstream at datum 24.14 ft (7.358 m) lower. Oct. 1, 1958, to Aug. 13, 1969, at site 1,200 ft (366 m) downstream at datum 27.14 ft (8.272 m) lower.

REMARKS.--No flow since June 5, 1975. No storage or diversion above station except for minor stock ponds. Calendar year figures are as follows: Total, 3,721.08 ft³/s (105 m³/s); mean, 10.2 ft³/s (0.289 m³/s); maximum, 514 ft³/s (14.6 m³/s); minimum, zero ft³/s (zero m³/s); runoff, 7,380 ft³/s (9.10 hm³/s).

AVERAGE DISCHARGE.--44 years, 14.8 ft³/s (0.419 m³/s), 10,720 acre-ft/yr (13.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft³/s (289 m³/s) Apr. 2, 1958, gage height, 6.57 ft (2.003 m) site and datum then in use, from rating curve extended above 5,000 ft³/s (142 m³/s); no flow for all or parts of each year.

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

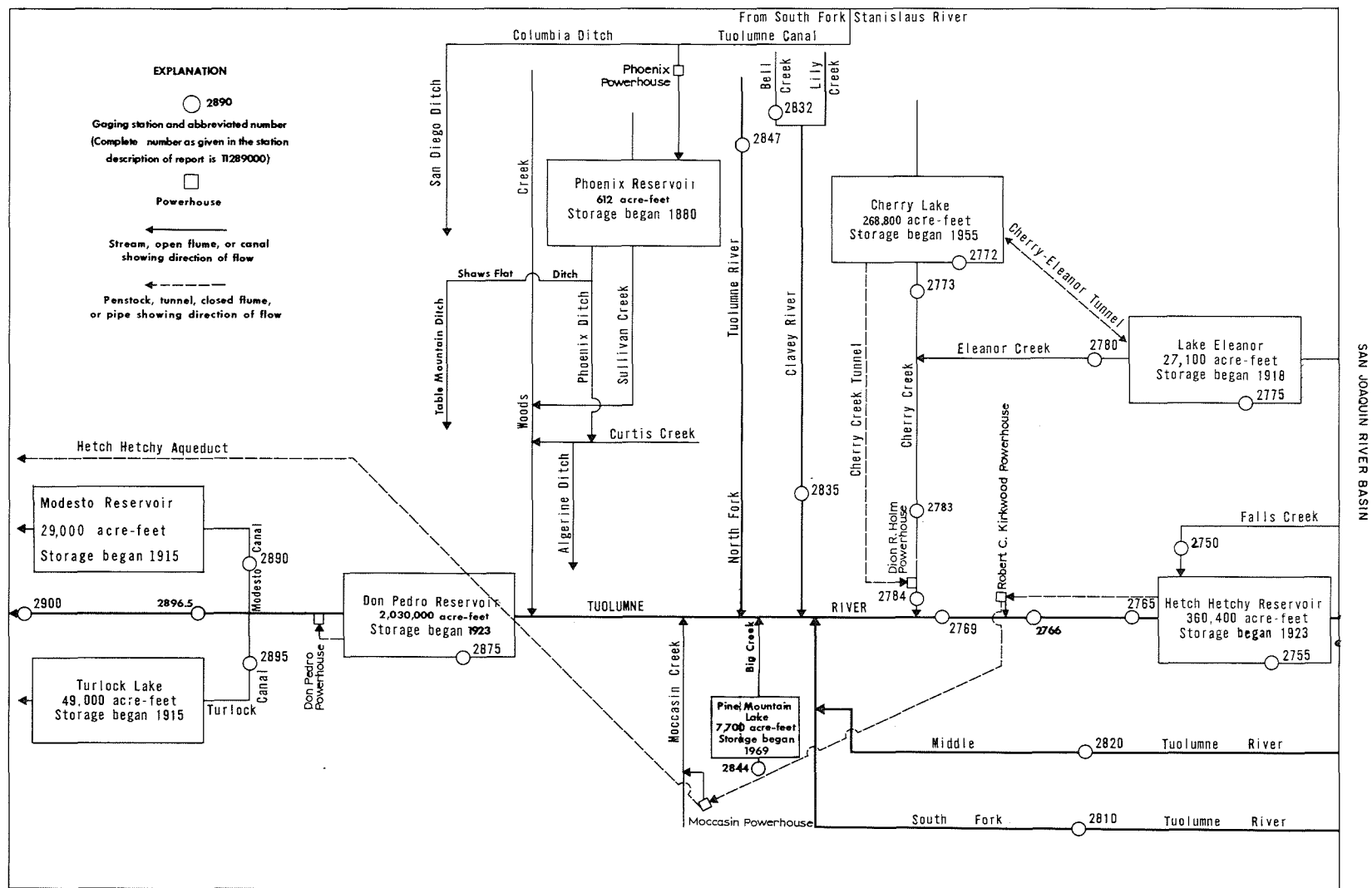


FIGURE 9.—Schematic diagram showing diversions and storage in Tuolumne River basin.

SAN JOAQUIN RIVER BASIN

11274630 DEL PUERTO CREEK NEAR PATTERSON, CA

LOCATION.--Lat 37°29'12", long 121°12'29", in SE¼NW¼ sec.21, T.5 S., R.7 E., Stanislaus County, on left bank 1.0 mi (1.6 km) upstream from Delta-Mendota Canal crossing, and 4.4 mi (7.1 km) west of Patterson.

DRAINAGE AREA.--72.6 mi² (188.0 km²).

PERIOD OF RECORD.--October 1958 to May 1965 (maximums only), June 1965 to current year.

REVISED RECORDS.--WSP 1930: 1959-60(M), drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 200 ft (61 m), from topographic map. Prior to June 1965, crest-stage gage at site 1.0 mi (1.6 km) downstream at different datum.

REMARKS.--Records good. Some stock ponds and small diversions above station.

AVERAGE DISCHARGE.--11 years, 4.70 ft³/s (0.133 m³/s), 3,410 acre-ft/yr (4.20 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,800 ft³/s (51.0 m³/s) Feb. 16, 1959, gage height, 14.68 ft (4.474 m) site and datum then in use, from rating curve extended above 690 ft³/s (19.5 m³/s); no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3.5 ft³/s (0.099 m³/s) Mar. 2, 3, gage height, 1.55 ft (0.472 m), no peak above base of 50 ft³/s (1.42 m³/s); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	.32	.88	.25	.11				
2				0	.32	2.0	.24	.11				
3				0	.32	3.3	.26	.11				
4				0	.36	2.5	.27	.08				
5				0	.49	1.8	.27	.08				
6				0	.59	1.4	.26	.09				
7				0	.63	1.2	.20	.09				
8				0	.69	1.2	.28	.06				
9				0	.88	1.1	.31	.05				
10				0	.86	1.0	.32	.04				
11				0	.72	.93	.31	.02				
12				0	.63	.74	.31	0				
13				0	.65	.63	.28	0				
14				.17	.74	.59	.25	0				
15				.18	.63	.51	.22	0				
16				.20	.51	.51	.25	0				
17				.21	.51	.48	.21	0				
18				.25	.51	.41	.22	0				
19				.28	.49	.38	.21	0				
20				.28	.53	.32	.22	0				
21				.26	.42	.32	.19	0				
22				.30	.41	.30	.18	0				
23				.32	.46	.29	.19	0				
24				.31	.60	.29	.18	0				
25				.29	.51	.28	.15	0				
26				.28	.53	.28	.14	0				
27				.28	.63	.28	.14	0				
28				.28	.63	.27	.14	0				
29				.28	.66	.26	.15	0				
30				.28	---	.24	.11	0				
31		---		.30	---	.23	---	0	---			---
TOTAL	0	0	0	4.75	16.23	24.92	6.71	.84	0	0	0	0
MEAN	0	0	0	.15	.56	.80	.22	.027	0	0	0	0
MAX	0	0	0	.32	.88	3.3	.32	.11	0	0	0	0
MIN	0	0	0	0	.32	.23	.11	0	0	0	0	0
AC-FT	0	0	0	9.4	32	49	13	1.7	0	0	0	0
CAL YR 1975	TOTAL	1524.12	MEAN	4.18	MAX	119	MIN	0	AC-FT	3020		
WTR YR 1976	TOTAL	53.45	MEAN	.15	MAX	3.3	MIN	0	AC-FT	106		

11275000 FALLS CREEK NEAR HETCH HETCHY, CA

LOCATION.--Lat 37°58'15", long 119°45'48", in NW¼SE¼ sec.3, T.1 N., R.20 E., Tuolumne County, Yosemite National Park, on right bank 0.2 mi (0.3 km) upstream from Wampana Falls, 0.6 mi (1.0 km) upstream from mouth, and 2 mi (3 km) northeast of Hetch Hetchy.

DRAINAGE AREA.--46.0 mi² (119.1 km²).

PERIOD OF RECORD.--October 1915 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1918, published as "near Sequoia."

REVISED RECORDS.--WSP 531: 1917(M). WSP 931: 1938. WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,350 ft (1,631 m), from topographic map.

REMARKS.--Records good. No regulation or diversion above station. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--61 years, 142 ft³/s (4.021 m³/s), 102,900 acre-ft/yr (127 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,660 ft³/s (189 m³/s) Nov. 19, 1950, Dec. 23, 1955, gage height, 9.0 ft (2.74 m) from floodmarks, from rating curve extended above 2,500 ft³/s (70.8 m³/s) on basis of velocity-area studies; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,200 ft³/s (34.6 m³/s) Oct. 26 (2400 hrs), gage height, 6.05 ft (1.844 m), no other peak above base of 900 ft³/s (25.5 m³/s); minimum daily, 0.55 ft³/s (0.016 m³/s) Aug. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	137	38	14	13	52	77	311	98	11	2.7	2.9
2	1.2	129	48	15	14	51	74	402	89	10	2.6	2.4
3	1.0	122	48	15	14	50	87	359	81	9.2	2.5	2.0
4	.90	117	43	15	16	46	90	374	70	8.3	2.7	1.7
5	.80	107	41	14	19	49	76	351	61	7.6	2.4	1.6
6	.90	93	35	17	20	52	64	365	54	7.0	2.1	1.6
7	3.9	79	30	16	21	55	69	212	50	6.5	1.8	1.5
8	2.9	142	28	14	30	58	115	210	47	6.3	1.5	2.0
9	3.9	115	26	15	48	63	110	232	43	5.9	1.3	2.4
10	54	98	25	14	43	66	97	266	40	5.5	1.1	2.8
11	177	86	22	13	38	74	95	328	41	5.0	.87	8.7
12	95	89	26	14	34	71	88	381	37	4.6	.70	34
13	63	84	25	16	35	73	84	438	32	4.3	.55	32
14	58	81	18	16	52	75	84	476	31	4.1	.61	21
15	60	67	21	16	54	76	89	368	30	3.9	21	15
16	62	68	27	16	45	86	84	291	32	5.6	42	12
17	67	68	25	18	43	101	70	214	34	7.5	27	11
18	65	45	22	18	43	112	75	187	34	8.8	26	9.5
19	55	40	20	16	46	101	88	169	32	8.9	21	7.8
20	48	37	19	15	42	87	135	162	32	7.8	25	6.8
21	46	34	17	14	42	84	177	156	30	6.4	25	5.9
22	52	29	19	14	43	92	192	154	27	5.3	20	5.7
23	59	26	20	13	35	95	198	153	23	4.6	16	5.6
24	42	25	22	13	30	96	233	152	19	4.3	14	5.2
25	32	23	22	13	28	99	288	163	17	3.9	12	4.8
26	402	22	20	12	28	81	214	171	15	3.6	9.9	4.4
27	704	26	19	12	31	68	155	173	15	3.3	7.5	4.1
28	260	28	21	12	38	57	122	171	14	3.0	6.2	3.8
29	153	23	23	12	48	52	130	135	13	2.7	5.1	3.5
30	135	30	22	13	---	55	189	111	12	2.7	4.2	3.3
31	140	---	20	13	---	75	---	103	---	2.8	3.5	---
TOTAL	2845.90	2070	812	448	993	2252	3649	7738	1153	180.4	308.83	225.0
MEAN	91.8	69.0	26.2	14.5	34.2	72.6	122	250	38.4	5.82	9.96	7.50
MAX	704	142	48	18	54	112	288	476	98	11	42	34
MIN	.80	22	17	12	13	46	64	103	12	2.7	.55	1.5
AC-FT	5640	4110	1610	889	1970	4470	7240	15350	2290	358	613	446

CAL YR 1975 TOTAL 60025.50 MEAN 164 MAX 1270 MIN .80 AC-FT 119100
WTR YR 1976 TOTAL 22675.13 MEAN 62.0 MAX 704 MIN .55 AC-FT 44980

SAN JOAQUIN RIVER BASIN

11275500 HETCH HETCHY RESERVOIR AT HETCH HETCHY, CA

LOCATION.--Lat 37°56'52", long 119°47'13", in NW¼NW¼ sec.16, T.1 N., R.20 E., Tuolumne County, Yosemite National Park, near center of O'Shaughnessy Dam on Tuolumne River at Hetch Hetchy, 1.5 mi (2.4 km) downstream from Falls Creek.

DRAINAGE AREA.--455 mi² (1,178 km²).

PERIOD OF RECORD.--May 1923 to current year. Prior to October 1930 monthend contents, published in WSP 1315-A.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is 1.84 ft (0.561 m) above mean sea level. Prior to Oct. 1, 1927, nonrecording gage at same site and datum. Oct. 1, 1927, to July 9, 1972, water-stage recorder at same site and datum. Prior to October 1974, datum published as at mean sea level.

REMARKS.--Reservoir is formed by concrete gravity-type dam, completed to crest gage height 3,726.5 ft (1,135.84 m) in 1923 and raised to 3,812.0 ft (1,161.90 m) in 1937. Storage began Apr. 6, 1923. Ten-foot (3-m) drum gates were installed on spillway in 1949. Capacity, 360,400 acre-ft (444 hm³) between gage heights 3,512.0 ft (1,070.46 m) somewhat above bottom outlet, and 3,806.0 ft (1,160.07 m) top of drum-type spillway gates. Water is diverted from reservoir through tunnel to Robert C. Kirkwood powerplant 15 mi (24 km) downstream where flow is diverted from powerplant tailrace in a closed conduit through Hetch Hetchy aqueduct to Moccasin Creek powerplant with flow in excess of aqueduct capacity being spilled to river. At Moccasin Creek diversion dam, water re-enters Hetch Hetchy aqueduct and flows into Crystal Springs Reservoir, which supplies city of San Francisco. Surplus water is spilled into Don Pedro Reservoir (station 11287500) at Red Mountain Bar. Flow down river is for State Department of Fish and Game and Raker Act requirements. Hetch Hetchy Reservoir is main storage unit of Hetch Hetchy water-supply system for San Francisco. See schematic diagram of Tuolumne River basin. Records, including extremes, represent contents at 0800 hours.

COOPERATION.--Record of gage heights furnished by city and county of San Francisco.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 369,100 acre-ft (455 hm³) Dec. 3, 1950, gage height, 3,810.4 ft (1,161.41 m); no contents at times in 1929-31.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 261,700 acre-ft (323 hm³) Oct. 1, gage height, 3,753.2 ft (1,143.98 m); minimum, 91,300 acre-ft (113 hm³) Apr. 3, gage height, 3,634.6 ft (1,107.83 m).

Capacity table (gage height, in feet, and contents, in acre-feet)

3512	0	3540	8700	3640	97000	3740	238900
3513	51	3560	22900	3660	119900	3760	273700
3515	154	3580	39500	3680	146200	2780	310400
3520	410	3600	57400	3700	175000	3800	348600
3530	3300	3620	76500	3720	206000	3810.4	369100

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	261700	239900	208200	165700	124300	103600	92000	125700	210500	201600	175300	147500
2	260100	238900	206800	164500	123400	103300	91600	129600	211000	200800	174700	146500
3	258500	238900	205800	163200	122500	102700	91300	133500	211500	199800	174000	145700
4	256800	238200	204600	161700	121600	102000	91900	137600	211900	199000	173100	144300
5	255200	237700	203500	160500	120700	101500	92600	142000	212100	198300	172000	143200
6	254000	237000	201900	159100	119800	100900	93200	145700	212100	197500	171200	142400
7	252800	235900	200600	157500	118800	100400	93800	148900	212100	196500	170300	141600
8	251400	235200	199400	156300	118100	99800	94700	151800	212100	195700	169400	140700
9	249900	234500	198100	155000	117400	99400	95500	155400	211900	194800	168300	139600
10	248300	233800	196700	153800	116900	98800	96500	158500	211800	193800	167500	138600
11	248300	232800	195400	152400	116200	98300	97200	161400	211500	192900	166400	137700
12	247600	232000	193800	151100	115400	98000	98100	165100	211100	192100	165400	137300
13	246900	230800	192600	149700	114600	97600	98900	169700	210800	191100	164300	136900
14	246100	230200	191100	148300	114000	96900	99700	174900	210300	190200	163600	136200
15	244900	229300	189700	146900	113300	96600	100500	180000	210000	189300	162600	135300
16	244000	227800	188400	145500	112800	96400	101300	184700	209700	188400	161800	134300
17	243000	227200	187000	144300	112200	96000	101900	188800	209400	187600	161100	133500
18	242300	225800	185500	143000	111600	96000	102600	192600	209200	186900	160200	132400
19	241100	224700	184100	141700	110900	95800	103400	195300	208900	186100	159500	131700
20	240300	223200	182600	140300	110300	95600	104400	197500	208600	185200	158700	131000
21	239200	222000	181400	138900	109400	95200	105800	199400	208200	184300	157800	129900
22	238200	220900	180000	137600	108900	95100	107600	200800	207800	183400	157000	129100
23	236900	219100	178500	136200	108300	94900	109500	201900	207100	182400	156100	128200
24	236200	217900	177100	134900	107600	94700	111500	203000	206600	181500	155200	127200
25	235200	216500	175800	133400	106400	94500	114000	204300	206000	180600	154300	126200
26	233800	215000	174400	132200	106200	94300	116500	205500	205500	179600	153300	125300
27	238900	213700	172900	130800	105400	93800	118400	207000	204600	178800	152400	124500
28	240400	212300	171400	129500	104700	93500	119700	208200	203900	178000	151200	123500
29	240600	211100	170300	128200	104100	93000	121100	209200	203200	177300	150500	122500
30	240400	209500	168800	126800	---	92600	122800	209500	202400	176700	149400	121400
31	240300	---	166900	125400	---	92200	---	210000	---	176100	148400	---
MAX	261700	239900	208200	165700	124300	103600	122800	210000	212100	201600	175300	147500
MIN	233800	209500	166900	125400	104100	92200	91300	125700	202400	176100	148400	121400
†	3740.8	3722.2	3694.5	3664.3	3646.3	3635.4	3662.3	3722.5	3717.7	3700.7	3681.6	3661.2
‡	-22800	-30800	-42600	-41500	-21300	-11900	-30600	+87200	-7600	-26300	-27700	-27000

CAL YR 1975 † +31800
WTR YR 1976 ‡ -141700

† Gage height, in feet, at end of month.

‡ Change in contents, in acre-feet.

11276500 TUOLUMNE RIVER NEAR HETCH HETCHY, CA

LOCATION.--Lat 37°56'15", long 119°47'50", in SW¼SE¼ sec.17, T.1 N., R.20 E., Tuolumne County, Yosemite National Park, on left bank 1 mi (2 km) downstream from O'Shaughnessy Dam at Hetch Hetchy, and 2.5 mi (4.0 km) downstream from Falls Creek.

DRAINAGE AREA.--457 mi² (1,184 km²).

PERIOD OF RECORD.--October 1910 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as "at Hetch Hetchy damsite, near Sequoia" 1910-14 and as "below Hetch Hetchy damsite, near Sequoia" 1915-18.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder with concrete control since May 5, 1970. Altitude of gage is 3,480 ft (1,061 m), from topographic map. Prior to Jan. 1, 1915, water-stage recorder at site 1 mi (2 km) upstream, at damsite, at different datum. Jan. 1, 1915, to Sept. 30, 1968, water-stage recorder, at same site and datum. Oct. 1, 1968, to May 4, 1970, nonrecording gage at site 0.5 mi (0.8 km) upstream at different datum.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Flow regulated by Hetch Hetchy Reservoir (station 11275500) 1 mi (2 km) upstream beginning in April 1923. Flow diverted above station through tunnel to Robert C. Kirkwood powerplant and Hetch Hetchy aqueduct beginning Apr. 26, 1967. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE (prior to diversion to Robert C. Kirkwood powerplant and Hetch Hetchy aqueduct).--57 years (water years 1911-67), 999 ft³/s (28.29 m³/s), 723,800 acre-ft/yr (892 hm³/yr); 9 years (water years 1968-76), 318 ft³/s (9.01 m³/s), 230,400 acre-ft/yr (284 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,900 ft³/s (365 m³/s) June 1, 1943, gage height, 13.90 ft (4.237 m); no flow Oct. 3, 4, 1968, Dec. 16, 1969, Feb. 20-26, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 450 ft³/s (12.7 m³/s) Apr. 3; minimum daily, 33 ft³/s (0.93 m³/s) Nov. 28-30, Dec. 1, 4, Feb. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	37	33	36	34	38	35	78	80	78	78	78
2	36	37	34	36	35	36	200	78	80	78	78	78
3	36	36	34	36	34	36	450	79	80	78	78	79
4	36	36	33	36	34	36	61	79	80	78	78	78
5	36	36	34	36	34	36	40	80	82	78	78	78
6	36	36	37	35	34	36	37	80	81	78	78	78
7	36	36	38	35	34	35	47	79	81	78	79	78
8	35	36	37	35	34	35	56	78	80	78	79	80
9	36	36	37	35	34	35	58	78	80	78	78	80
10	37	36	37	35	35	35	58	76	80	78	78	80
11	36	36	37	35	34	35	58	79	80	78	79	80
12	36	36	37	34	34	35	58	80	80	78	78	79
13	36	36	37	34	34	35	58	81	80	78	78	79
14	35	36	36	34	34	35	58	80	80	79	78	78
15	35	36	36	34	34	35	58	77	80	80	80	78
16	35	36	36	36	34	35	58	77	80	79	79	58
17	35	36	36	37	34	34	59	78	80	80	79	38
18	35	34	36	36	34	36	59	79	80	80	79	38
19	35	34	36	36	34	37	59	79	80	80	79	38
20	34	34	36	36	34	36	59	79	80	80	79	37
21	34	34	37	36	34	36	59	80	80	80	78	37
22	35	34	37	36	34	36	70	80	80	80	79	38
23	36	34	36	36	34	36	94	80	80	80	78	38
24	36	34	36	36	33	36	87	80	80	80	78	38
25	36	34	36	36	34	36	88	79	80	79	79	38
26	38	34	36	36	34	36	81	79	80	79	79	38
27	37	34	36	36	34	36	76	79	79	79	79	37
28	36	33	36	36	34	36	77	79	78	79	79	37
29	36	33	36	36	37	36	77	79	78	79	79	37
30	40	33	36	36	---	36	77	80	78	78	79	37
31	37	---	36	35	---	35	---	80	---	78	79	---
TOTAL	1113	1053	1115	1102	990	1106	2412	2449	2397	2443	2436	1765
MEAN	35.9	35.1	36.0	35.5	34.1	35.7	80.4	79.0	79.9	78.8	78.6	58.8
MAX	40	37	38	37	37	38	450	81	82	80	80	80
MIN	34	33	33	34	33	34	35	76	78	78	78	37
AC-FT	2210	2090	2210	2190	1960	2190	4780	4860	4750	4850	4830	3500
CAL YR 1975 TOTAL	113767											
WTR YR 1976 TOTAL	20381											
MEAN	312											
MAX	4810											
MIN	31											
AC-FT	225700											
AC-FT	40430											

NOTE.--No gage-height record Apr. 1-7.

SAN JOAQUIN RIVER BASIN

11276600 TUOLUMNE RIVER ABOVE EARLY INTAKE, NEAR MATHER, CA

LOCATION.--Lat 37°52'46", long 119°56'46", in SE¼SW¼ sec.1, T.1 S., R.18 E., Tuolumne County, Stanislaus National Forest, on left bank 0.5 mi (0.8 km) upstream from Early Intake, 2.4 mi (3.9 km) upstream from Cherry Creek, and 5.0 mi (8.0 km) west of Mather.

DRAINAGE AREA.--484 mi² (1,254 km²).

PERIOD OF RECORD.--October 1970 to current year. Records for the period October 1939 to September 1970 in the files of the California district office of the Geological Survey.

GAGE.--Water-stage recorder. Altitude of gage is 2,420 ft (738 m), from topographic map.

REMARKS.--Records good. Flow regulated by Hetch Hetchy Reservoir (station 11275500) 12 mi (19 km) upstream.

AVERAGE DISCHARGE.--6 years, 270 ft³/s (7.646 m³/s), 195,600 acre-ft/yr (241 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,520 ft³/s (270 m³/s) June 12, 1974, gage height, 20.94 ft (6.383 m); minimum daily, 36 ft³/s (1.02 m³/s) Sept. 19, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1943, reached a stage of 22.1 ft (6.74 m), discharge, 12,900 ft³/s (365 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 412 ft³/s (11.7 m³/s) Apr. 3, gage height, 13.92 ft (4.243 m); minimum daily, 38 ft³/s (1.08 m³/s) Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	54	45	44	42	114	46	80	82	79	79	78
2	44	51	45	44	42	80	142	81	82	79	78	78
3	44	49	45	44	42	72	412	82	82	79	78	78
4	44	49	45	44	45	67	113	82	82	79	78	78
5	44	49	45	44	49	66	54	82	82	79	78	78
6	46	49	45	44	47	65	49	84	82	79	78	78
7	48	49	47	44	46	64	65	83	82	79	78	78
8	45	48	48	44	47	63	76	83	82	79	79	79
9	45	47	46	45	57	62	75	82	83	78	79	79
10	51	53	46	45	59	59	74	82	82	78	79	80
11	57	51	46	44	51	59	82	82	82	78	79	84
12	48	49	48	44	49	57	83	84	82	78	79	81
13	47	48	48	43	48	56	80	84	82	78	79	80
14	46	48	47	42	53	54	79	85	82	80	81	80
15	45	48	46	42	55	53	82	83	82	80	88	79
16	44	49	46	42	51	52	87	82	81	80	81	79
17	44	49	46	44	50	52	78	82	80	80	79	50
18	44	46	46	45	49	52	78	82	80	80	79	40
19	44	46	46	44	55	56	74	82	80	79	81	40
20	44	47	45	44	57	54	74	82	80	79	80	40
21	44	47	45	44	52	53	74	82	80	79	79	39
22	45	47	47	44	50	52	80	83	80	79	79	38
23	45	46	46	44	49	51	104	83	80	79	78	39
24	46	46	46	44	48	51	99	83	80	79	78	39
25	46	46	46	44	47	50	98	82	80	79	78	39
26	58	46	46	42	47	49	93	82	80	79	79	40
27	70	46	45	42	47	46	86	81	80	78	79	40
28	51	50	45	42	47	48	87	81	79	79	79	40
29	49	46	45	42	59	48	87	81	79	78	79	40
30	66	45	45	42	---	48	86	81	79	79	79	40
31	66	---	44	42	---	47	---	82	---	79	79	---
TOTAL	1504	1444	1421	1348	1440	1802	2797	2550	2429	2447	2456	1831
MEAN	48.5	48.1	45.8	43.5	49.7	58.1	93.2	82.3	81.0	78.9	79.2	61.0
MAX	70	54	48	45	59	114	412	85	83	80	88	84
MIN	44	45	44	42	42	47	46	80	79	78	78	38
AC-FT	2980	2860	2820	2670	2860	3570	5550	5060	4820	4850	4870	3630
CAL YR 1975	TOTAL	125918	MEAN	345	MAX	4840	MIN	38	AC-FT	249800		
WTR YR 1976	TOTAL	23469	MEAN	64.1	MAX	412	MIN	38	AC-FT	46550		

11276900 TUOLUMNE RIVER BELOW EARLY INTAKE, NEAR MATHER, CA

LOCATION.--Lat 37°52'54", long 119°58'09", in NW¼SW¼ sec.2, T.1 S., R.18 E., Tuolumne County, Stanislaus National Forest, on left bank 0.6 mi (1.0 km) upstream from Cherry Creek, 0.7 mi (1.1 km) downstream from Robert C. Kirkwood powerplant and Hetch Hetchy aqueduct, and 6.3 mi (10.1 km) west of Mather.

DRAINAGE AREA.--487 mi² (1,261 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 2,200 ft (671 m), from topographic map.

REMARKS.--Records good. Flow regulated by Hetch Hetchy Reservoir (station 11275500) 13 mi (21 km) upstream and Robert C. Kirkwood powerplant beginning Apr. 26, 1967. Water is diverted to Hetch Hetchy aqueduct from the tailrace of the powerplant through a closed conduit. Flow in excess of aqueduct capacity is diverted to river. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--10 years, 460 ft³/s (13.03 m³/s), 333,300 acre-ft/yr (411 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,300 ft³/s (320 m³/s) June 4, 1969, gage height, 9.82 ft (2.993 m); minimum daily, 13 ft³/s (0.37 m³/s) Nov. 18, 19, 25-27, 1966, Feb. 1, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 371 ft³/s (10.5 m³/s) Apr. 2, gage height, 4.14 ft (1.262 m); minimum daily, 19 ft³/s (0.54 m³/s) Apr. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	175	182	67	44	99	32	34	71	30	30	30
2	89	120	176	112	42	65	68	34	60	30	30	29
3	85	185	175	58	42	58	58	34	47	30	31	30
4	69	184	172	65	44	54	59	34	41	30	30	30
5	69	184	173	123	48	51	19	34	41	30	30	29
6	81	183	157	118	46	51	23	38	41	30	30	29
7	77	182	150	119	46	50	24	39	37	30	30	29
8	75	173	195	118	47	49	35	47	35	30	30	30
9	74	178	190	115	57	47	39	76	35	30	31	31
10	79	200	182	68	60	46	43	130	36	30	30	32
11	77	189	179	72	51	44	50	125	36	29	30	36
12	72	186	179	129	47	42	43	122	35	29	30	32
13	81	184	159	126	47	41	37	108	35	30	30	31
14	73	181	145	123	52	41	32	100	34	31	33	30
15	73	169	207	122	53	39	31	81	33	32	41	31
16	73	133	203	118	51	38	34	87	33	32	34	41
17	74	198	200	76	50	38	31	108	33	32	32	28
18	64	191	194	81	37	38	33	107	33	32	32	22
19	61	191	159	133	31	41	33	103	33	31	33	26
20	75	189	148	131	33	40	32	98	34	31	33	26
21	73	190	87	92	29	39	32	93	34	23	32	25
22	75	173	185	91	27	38	30	79	34	23	31	25
23	74	180	182	89	28	37	26	80	33	30	31	25
24	75	203	169	76	30	36	31	110	32	30	31	26
25	65	198	80	83	30	35	39	103	32	30	30	27
26	81	193	166	104	30	35	46	97	32	30	30	26
27	105	176	167	101	34	35	34	93	32	30	30	27
28	85	194	89	98	37	34	43	89	32	30	30	26
29	81	175	191	94	46	34	50	76	31	30	30	26
30	99	136	192	91	---	33	43	80	31	31	30	26
31	100	---	186	80	---	33	---	98	---	30	30	---
TOTAL	2430	5393	5219	3073	1219	1361	1130	2537	1106	926	965	861
MEAN	78.4	180	168	99.1	42.0	43.9	37.7	81.8	36.9	29.9	31.1	28.7
MAX	105	203	207	133	60	99	68	130	71	32	41	41
MIN	61	120	80	58	27	33	19	34	31	23	30	22
AC-FT	4820	10700	10350	6100	2420	2700	2240	5030	2190	1840	1910	1710
CAL YR 1975	TOTAL	165378	MEAN 453	MAX 4840	MIN 61	AC-FT 328000						
WTR YR 1976	TOTAL	26220	MEAN 71.6	MAX 207	MIN 19	AC-FT 52010						

SAN JOAQUIN RIVER BASIN

11277200 CHERRY LAKE NEAR HETCH HETCHY, CA

LOCATION.--Lat 37°58'33" long 119°54'47", in SE¼NW¼ sec.5, T.1 N., R.19 E., Tuolumne County, Stanislaus National Forest, on upstream face of Cherry Valley Dam on Cherry Creek, 4.2 mi (6.8 km) upstream from Eleanor Creek, 7 mi (11 km) north of Early Intake, and 7.3 mi (11.7 km) northwest of Hetch Hetchy.

DRAINAGE AREA.--117 mi² (303 km²).

PERIOD OF RECORD.--August 1956 to current year. Prior to October 1959, published as Lake Lloyd near Hetch Hetchy.

GAGE.--Water-stage recorder. Datum of gage is 2.42 ft (0.738 m) above mean sea level. Prior to October 1974, datum published as at mean sea level.

REMARKS.--Reservoir is formed by a rockfill dam completed in 1956. Storage began in December 1955. Capacity, 268,800 acre-ft (331 hm³) between gage heights 4,430 ft (1,350.3 m) bottom of sluice gates, and 4,700 ft (1,432.6 m) top of spillway gates. No dead storage. Water is released down Cherry Creek for power development and domestic supply as part of Hetch Hetchy system of city and county of San Francisco. Unmeasured diversion from Lake Eleanor into Cherry Lake began Mar. 6, 1960. Diversion from Cherry Lake through tunnel to Cherry powerhouse near mouth of Cherry Creek began Aug. 1, 1960. See schematic diagram of Tuolumne River basin. Records, including extremes, represent contents at 2400 hours.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 269,900 acre-ft (333 hm³) July 1-3, 1957, gage height, 4,700.6 ft (1,432.74 m), from capacity table currently in use; normal minimum since reservoir first filled, 7,660 acre-ft (9.44 hm³) Jan. 24, 1960, gage height, 4,502.1 ft (1,372.24 m). Reservoir drained for inspection in 1961 and 1964.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 178,100 acre-ft (220 hm³) Oct. 1, gage height, 4,645.4 ft (1,415.91 m); minimum, 90,800 acre-ft (112 hm³) Apr. 1, gage height, 4,584.4 ft (1,397.33 m).

Capacity table (gage height, in feet, and usable contents, in acre-feet)

4440	0	4490	3020	4560	60800	4660	201100
4450	75	4500	6030	4580	85100	4680	234100
4460	250	4510	11700	4600	111800	4700	268800
4470	675	4520	19700	4620	139900	4705	277900
4480	1530	4540	38900	4640	169700		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	178100	175600	161100	135800	108200	95000	90800	125300	160300	154100	141200	130500
2	177300	176000	160500	134700	107600	94700	91400	127700	160200	153700	140800	130100
3	176200	175600	159900	133700	106900	94500	92000	130100	160200	153600	140200	129500
4	175600	175100	159100	133200	106300	94200	92700	132400	160000	153400	139600	129100
5	175600	174700	158200	132200	105600	94000	93300	134700	160000	153100	139100	129000
6	174700	174000	157600	131100	105000	93700	94000	137200	160000	152700	138500	128700
7	174000	173700	157500	130100	104400	93300	94500	139200	159900	152200	138200	128200
8	173300	173600	156600	129000	104000	93000	95400	141000	159600	151800	137900	127700
9	172300	173900	155800	128000	103600	92800	96400	143700	159400	151400	137500	127100
10	174300	173600	154900	126800	103200	92700	97200	145800	159100	151100	136900	126700
11	175300	172900	154000	126500	102600	92500	98200	147500	159100	150800	136400	127200
12	175900	172500	153300	125400	102100	92400	99200	149500	159300	150300	135900	127200
13	175600	171900	152500	124400	101700	92300	100200	151400	159300	149900	135400	126800
14	175100	171400	152200	123300	101400	92100	101100	153100	159000	149500	135200	126500
15	174700	170800	151400	122400	101000	91900	101900	154400	158800	149000	137100	126000
16	174300	170900	150500	121200	100600	91900	102900	156400	158500	148400	136800	125500
17	173900	170200	149600	120300	100200	91900	103600	157300	158200	148100	136500	125000
18	173400	169400	148700	120000	99800	91900	104600	158100	157900	148000	136100	124800
19	173700	168600	147500	119000	99500	91900	105600	158500	157900	147400	135600	124600
20	173100	167900	146700	117900	99100	91900	107200	158800	157800	146800	135400	124000
21	172300	167000	146100	116800	98700	92400	108800	159100	157500	146400	135100	123600
22	171600	166200	145000	115700	98200	92400	110400	159100	157200	145800	134900	123200
23	170900	166100	143900	114600	97700	92300	112500	159900	156700	145200	134500	122600
24	170300	165300	142900	113600	97300	92300	114400	159700	156400	145100	134100	122100
25	169500	164600	142300	113200	96800	92100	116400	159700	156100	144800	133700	121800
26	174000	163600	141100	112600	96300	92000	118100	159900	155900	144200	133100	121500
27	176000	163500	140100	112000	95800	91800	119300	159900	155800	143600	132700	121000
28	176000	162700	139600	111100	95400	92000	120300	159700	155500	143000	132400	120400
29	175600	162000	138500	110400	95300	91500	121500	159600	154900	142400	132100	119900
30	175600	161800	137400	109800	---	91200	123000	159900	154400	141800	131700	119400
31	175700	---	136200	108900	---	91000	---	160200	---	141500	131100	---
MAX	178100	176000	161100	135800	108200	95000	123000	160200	160300	154100	141200	130500
MIN	169500	161800	136200	108900	95300	91000	90800	125300	154400	141500	131100	119400
†	4643.9	4634.8	4617.4	4597.9	4587.8	4584.5	4608.1	4633.7	4629.9	4621.1	4613.8	4605.5
‡	-3300	-13900	-25600	-27300	-13600	-4300	+32000	+37200	-5800	-12900	-10400	-11700

CAL YR 1975 † +4800

WTR YR 1976 ‡ -59600

† Gage height, in feet, at end of month.

‡ Change in contents, in acre-feet.

11277300 CHERRY CREEK BELOW CHERRY VALLEY DAM, NEAR HETCH HETCHY, CA

LOCATION.--Lat 37°58'04", long 119°54'59", in SE¼SW¼ sec.5, T.1 N., R.19 E., Tuolumne County, Stanislaus National Forest, on right bank 0.7 mi (1.1 km) downstream from Cherry Valley Dam, 3.5 mi (5.6 km) upstream from Eleanor Creek, 6.7 mi (10.8 km) north of Early Intake, and 7.2 mi (11.6 km) west of Hetch Hetchy.

DRAINAGE AREA.--118 mi² (306 km²).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,337.08 ft (1,321.942 m) above mean sea level (levels by city and county of San Francisco).

REMARKS.--Records good except those for period of no gage-height record, which are poor. Flow regulated by Cherry Lake (station 11277200) 0.7 mi (1.1 km) upstream. Diversion between Lake Eleanor (station 11277500) and Cherry Lake began Mar. 6, 1960. Diversion from Cherry Lake to Cherry powerplant began Aug. 1, 1960. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE (since diversion to Cherry Creek powerplant).--16 years (water years 1961-76), 19.7 ft³/s (0.558 m³/s), 14,270 acre-ft/yr (17.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,210 ft³/s (119 m³/s) July 10, 1974, gage height, 10.53 ft (3.210 m); minimum daily, 1.6 ft³/s (0.045 m³/s) Apr. 10, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28 ft³/s (0.79 m³/s) Aug. 14, gage height, 3.15 ft (0.960 m); minimum daily, 3.4 ft³/s (0.096 m³/s) Feb. 3, May 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	5.1	5.0	5.2	5.0	5.8	5.0	7.0	6.1	7.4	15	14
2	5.7	5.0	5.0	5.2	4.0	5.4	5.0	6.9	6.4	9.5	15	14
3	5.5	5.0	5.2	5.2	3.4	5.4	5.0	6.9	6.4	9.5	15	14
4	5.5	5.0	5.0	5.2	4.8	5.4	5.0	6.8	6.6	9.5	15	14
5	5.7	5.0	5.2	5.2	4.8	5.3	5.0	6.8	6.6	9.5	15	15
6	5.1	5.0	5.4	5.2	4.8	5.4	5.0	7.5	6.9	9.5	15	14
7	5.4	5.0	5.4	5.2	4.8	5.4	5.0	7.3	6.6	9.4	15	14
8	5.4	5.0	4.8	5.2	4.9	5.3	5.2	6.7	6.6	9.4	15	15
9	5.4	5.0	5.2	5.2	4.9	5.3	5.0	6.4	6.9	9.4	15	14
10	6.2	5.2	5.2	5.2	5.0	5.2	5.0	5.9	6.9	9.4	15	14
11	5.8	5.0	5.2	5.2	5.4	5.2	5.4	5.7	6.8	9.4	15	10
12	5.6	5.0	5.5	5.2	5.4	5.2	5.2	5.8	6.7	9.4	15	10
13	5.5	5.0	5.4	4.4	5.5	5.2	5.2	6.4	6.3	9.3	15	10
14	5.4	5.0	5.4	4.2	5.5	5.2	5.1	7.8	5.7	9.3	15	10
15	5.4	5.0	5.0	4.0	5.5	5.2	5.3	8.0	5.6	9.3	16	8.0
16	5.4	5.0	4.4	4.2	5.6	5.2	5.2	8.0	5.6	10	15	7.0
17	5.4	5.0	4.4	4.8	5.6	5.2	5.2	7.9	5.6	13	15	7.0
18	5.8	5.0	4.4	4.8	5.6	5.3	5.2	7.9	5.7	14	15	5.0
19	6.5	5.0	4.4	4.4	5.9	5.2	5.1	5.6	5.7	13	15	5.0
20	6.6	5.0	4.4	4.4	5.4	5.2	5.1	3.6	5.8	14	15	5.0
21	6.6	5.0	4.4	5.3	5.2	5.2	5.1	3.5	6.1	14	14	4.0
22	6.6	5.0	4.4	6.0	5.2	5.2	5.1	3.5	6.5	14	15	7.0
23	6.6	5.0	4.4	5.4	5.2	5.2	5.1	3.6	6.5	15	14	10
24	5.6	5.0	4.4	5.1	5.2	5.2	5.8	3.5	6.6	15	14	10
25	4.8	5.0	4.4	5.0	5.1	5.1	6.5	3.5	6.5	15	15	12
26	5.6	5.0	4.9	5.3	5.0	5.0	6.9	3.4	6.4	14	15	12
27	5.2	5.0	5.2	5.3	5.1	5.0	6.9	3.4	6.4	15	14	12
28	5.0	5.0	5.2	5.0	5.1	5.0	6.9	6.1	6.4	14	14	9.0
29	5.0	5.0	5.2	4.8	5.9	5.0	6.9	9.1	6.4	15	15	11
30	5.8	5.0	5.2	5.5	---	5.0	6.9	6.3	6.4	15	15	13
31	5.2	---	5.2	5.5	---	5.0	---	6.1	---	15	15	---
TOTAL	175.0	150.3	152.8	155.8	148.8	161.9	164.3	186.9	189.7	364.2	461	319.0
MEAN	5.65	5.01	4.93	5.03	5.13	5.22	5.48	6.03	6.32	11.7	14.9	10.6
MAX	6.6	5.2	5.5	6.0	5.9	5.8	6.9	9.1	6.9	15	16	15
MIN	4.8	5.0	4.4	4.0	3.4	5.0	5.0	3.4	5.6	7.4	14	4.0
AC-FT	347	298	303	309	295	321	326	371	376	722	914	633

CAL YR 1975 TOTAL 2969.3 MEAN 8.14 MAX 24 MIN 4.4 AC-FT 5890
WTR YR 1976 TOTAL 2629.7 MEAN 7.19 MAX 16 MIN 3.4 AC-FT 5220

NOTE.--No gage-height record Aug. 18 to Sept. 30.

11277500 LAKE ELEANOR NEAR HETCH HETCHY, CA

LOCATION.--Lat 37°58'27", long 119°52'48", in SE¼NW¼ sec.3, T.1 N., R.19 E., Tuolumne County, Yosemite National Park, 720 ft (219 m) from left bank on downstream side of dam on Eleanor Creek, 1.7 mi (2.7 km) upstream from Miguel Creek, and 5.5 mi (8.8 km) northwest of Hetch Hetchy.

DRAINAGE AREA.--78.1 mi² (202.3 km²).

PERIOD OF RECORD.--June 1918 to current year. Prior to October 1930, published in WSP 1315-A. Published as "near Sequoia" 1919-20.

REVISED RECORDS.--WSP 1445: 1938(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2.46 ft (0.750 m) above mean sea level. Prior to Oct. 1, 1927, nonrecording gage on upstream side of dam at same site and datum.

REMARKS.--Reservoir is formed by multiple-arch dam completed in 1918; storage began June 23, 1918. Usable capacity, 25,510 acre-ft (31.4 hm³) between gage heights, 4,620.9 ft (1,408.45 m), natural outlet of old lake and 4,660.0 ft (1,420.37 m), top of 5-ft (1.5-m) flashboards. Records, including extremes, represent usable contents at 2400 hours. See schematic diagram of Tuolumne River basin.

COOPERATION.--Periodic observations of gage height furnished by city and county of San Francisco.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 31,000 acre-ft (38.2 hm³) Dec. 11, 1937, from capacity table then in use, gage height, 4,663.4 ft (1,421.40 m); no usable contents at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 15,000 acre-ft (18.5 hm³) Oct. 1, gage height, 4,647.7 ft (1,416.62 m); minimum, no usable contents Aug. 12-14.

Capacity table (gage height, in feet, and contents, in acre-feet)

4608	0	4620	36	4628	1480	4646	13500
4610	6	4622	49	4630	2450	4650	17000
4612	12	4624	92	4632	3580	4655	21500
4614	18	4625	211	4635	5270	4660	26100
4616	24	4626	550	4638	7350	4663	29100
4618	27	4627	996	4642	10300		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15000	13600	6230	1190	950	1770	2060	2620	4760	2450	166	460
2	14700	13700	5960	1140	950	1870	2060	2790	4760	2350	116	460
3	14200	13600	5680	1090	906	1870	2060	2900	4700	2210	92	416
4	13800	13500	5410	1090	906	1870	2060	2900	4700	2110	74	371
5	13400	13300	5100	1090	950	1870	2010	2900	4650	2060	58	371
6	12900	13100	4820	1090	996	1870	1960	3010	4650	1960	45	327
7	12600	12900	4540	1040	996	1870	1960	3070	4590	1820	37	282
8	12200	12700	4250	1040	1090	1870	2060	3070	4540	1720	32	264
9	11900	12500	3970	1040	1240	1920	2160	3300	4480	1580	24	246
10	12100	12400	3630	1040	1330	1960	2210	3690	4370	1480	12	246
11	12900	12200	3300	1040	1380	2010	2260	3800	4310	1380	2.0	246
12	13000	12100	3010	1040	1430	2060	2300	3860	4310	1290	0	371
13	13100	11900	2730	1040	1480	2110	2300	3970	4250	1190	0	416
14	13000	11600	2450	1040	1580	2110	2300	4140	4250	1090	0	460
15	12900	11400	2260	1040	1620	2160	2350	4250	4140	996	14	460
16	12700	11200	2060	1090	1670	2210	2300	4370	4080	950	54	460
17	12400	10900	1920	1090	1670	2300	2260	4540	3970	861	505	460
18	12200	10600	1770	1090	1670	2400	2260	4650	3920	817	639	460
19	12000	10400	1670	1090	1720	2400	2350	4700	3800	728	639	460
20	11800	9980	1580	1090	1720	2350	2510	4760	3750	683	683	416
21	11500	9660	1480	1090	1720	2300	2730	4760	3690	639	683	416
22	11300	9260	1430	1040	1670	2300	2840	4820	3580	594	683	371
23	10900	8870	1380	1040	1670	2350	2840	4820	3460	550	683	371
24	10600	8500	1380	1040	1620	2350	2900	4870	3350	505	683	371
25	10300	8160	1330	996	1580	2350	2960	4870	3240	460	683	327
26	11600	7810	1290	996	1530	2300	2840	4870	3130	416	639	282
27	13000	7470	1290	996	1530	2210	2680	4930	3010	371	639	264
28	13400	7130	1290	996	1530	2110	2510	4930	2900	327	594	246
29	13500	6780	1290	950	1670	2060	2450	4870	2790	282	550	229
30	13500	6510	1240	950	---	2060	2510	4820	2620	246	550	211
31	13600	---	1190	950	---	2060	---	4760	---	211	505	---
MAX	15000	13700	6230	1190	1720	2400	2960	4930	4760	2450	683	460
MIN	10300	6510	1190	950	906	1770	1960	2620	2620	211	0	211
†	4646.1	4636.8	4627.4	4626.9	4628.4	4629.2	4630.1	4634.1	4630.3	4625.0	4625.9	4625.0
‡	-1800	-7090	-5820	-240	+720	+390	+450	+2250	-2140	-2409	+294	-294

CAL YR 1975 ‡ +100
WTR YR 1976 ‡ -15190

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

11278000 ELEANOR CREEK NEAR HETCH HETCHY, CA

LOCATION.--Lat 37°58'09", long 119°52'52", in NW¼SW¼ sec.3, T.1 N., R.19 E., Tuolumne County, Yosemite National Park, on right bank 0.5 mi (0.8 km) downstream from Lake Eleanor Dam, 1.1 mi (1.8 km) upstream from Miguel Creek, and 5.5 mi (8.8 km) northwest of Hetch Hetchy.

DRAINAGE AREA.--78.4 mi² (203.1 km²).

PERIOD OF RECORD.--October 1909 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as "near Sequoia" 1910-18.

REVISED RECORDS.--WSP 1315-A: 1923(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,500 ft (1,370 m), from topographic map. November 1909 to November 1915, nonrecording gage and water-stage recorder at site 1 mi (2 km) upstream at different datum.

REMARKS.--Records fair. Flow regulated by Lake Eleanor (station 11277500) 0.5 mi (0.8 km) upstream beginning in 1918. Diversion from Lake Eleanor to Cherry Lake began in March 1960. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE (prior to diversion to Cherry Lake).--50 years (water years 1910-59), 223 ft³/s (6.315 m³/s), 161,400 acre-ft/yr (199 hm³/yr); 17 years (water years 1960-76), 62.0 ft³/s (1.756 m³/s), 44,920 acre-ft/yr (55.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft³/s (331 m³/s) Nov. 19, 1950, gage height, 14.95 ft (4.557 m), from rating curve extended above 1,500 ft³/s (42.5 m³/s) on basis of slope-area measurements at gage heights 9.94 ft (3.030 m) and 12.24 ft (3.731 m); no flow at times in 1910, 1930-31, 1933, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20 ft³/s (0.57 m³/s) Aug. 21, gage height, 1.99 ft (0.607 m); minimum daily, 1.5 ft³/s (0.042 m³/s) Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	7.0	4.5	4.8	4.8	7.0	6.0	6.0	6.1	7.4	13	13
2	1.5	7.9	4.5	4.8	4.8	6.6	6.0	6.0	6.1	10	12	13
3	3.2	6.6	4.4	4.8	4.8	6.6	6.0	6.0	6.1	11	12	13
4	4.3	4.4	4.8	4.8	4.8	6.4	6.0	6.0	6.1	12	12	13
5	4.3	4.4	5.5	4.8	4.8	6.2	6.0	6.0	6.1	13	12	13
6	4.5	4.5	6.0	4.8	4.8	6.1	5.8	6.0	6.6	14	12	13
7	4.3	5.0	6.0	4.8	4.8	6.0	5.6	6.0	6.6	14	12	13
8	4.1	5.2	6.0	4.8	4.8	6.0	6.1	6.0	6.1	14	11	13
9	4.1	5.2	5.8	4.8	5.0	6.0	6.0	6.0	6.1	13	11	13
10	4.9	5.6	5.6	5.7	6.6	6.0	6.2	6.0	6.1	13	9.3	13
11	4.7	5.6	5.4	6.0	6.2	6.0	8.9	6.0	6.6	14	7.5	13
12	4.7	5.6	5.5	5.2	5.7	6.0	7.7	6.4	6.6	13	4.4	13
13	4.6	5.4	5.6	4.9	5.7	6.0	7.1	6.5	6.1	13	3.6	13
14	4.4	5.5	5.6	4.8	6.2	6.0	6.7	6.7	6.2	13	3.8	13
15	4.4	5.3	5.6	4.8	6.5	6.0	7.3	6.9	6.0	13	6.2	13
16	4.4	5.4	5.2	4.8	6.3	6.0	6.7	6.9	6.0	13	10	13
17	4.4	5.2	5.6	4.8	6.2	6.0	6.4	6.7	6.0	13	12	13
18	4.4	5.2	5.6	4.8	6.1	6.0	6.2	6.3	6.0	13	13	13
19	4.3	5.2	5.6	4.8	8.0	6.4	6.1	6.0	6.0	13	13	13
20	4.1	5.2	5.4	4.8	6.3	6.0	6.0	6.0	6.1	13	11	13
21	4.1	5.2	5.4	4.8	6.6	6.0	6.0	6.0	6.1	13	14	13
22	4.1	5.0	5.2	4.8	6.6	6.0	6.0	6.0	6.0	13	17	13
23	4.1	5.3	5.1	4.8	5.8	6.0	6.0	6.3	6.0	13	13	13
24	4.5	5.6	5.2	4.8	5.8	6.0	6.0	6.5	6.0	13	14	13
25	4.8	5.6	5.3	4.8	5.6	6.0	6.0	6.5	6.1	13	13	13
26	7.0	5.4	5.2	4.8	5.6	6.0	6.0	6.5	6.1	13	13	13
27	6.5	5.4	5.2	4.8	5.6	6.0	6.0	6.2	5.9	13	13	13
28	7.2	5.6	5.4	4.8	6.1	6.0	6.0	6.0	5.8	13	13	13
29	7.4	4.9	5.8	4.8	7.0	6.0	6.0	6.1	5.8	13	13	13
30	8.9	4.5	4.8	4.8	---	6.0	6.0	6.6	5.6	13	13	13
31	7.0	---	4.8	4.8	---	6.0	---	6.6	---	13	13	---
TOTAL	146.8	161.9	165.6	151.4	167.9	189.3	188.8	193.7	183.0	395.4	349.8	390
MEAN	4.74	5.40	5.34	4.88	5.79	6.11	6.29	6.25	6.10	12.8	11.3	13.0
MAX	8.9	7.9	6.0	6.0	8.0	7.0	8.9	6.9	6.6	14	17	13
MIN	1.5	4.4	4.4	4.8	4.8	6.0	5.6	6.0	5.6	7.4	3.6	13
AC-FT	291	321	328	300	333	375	374	384	363	784	694	774

CAL YR 1975 TOTAL 25401.7 MEAN 69.6 MAX 1200 MIN 1.5 AC-FT 50380
WTR YR 1976 TOTAL 2683.6 MEAN 7.33 MAX 17 MIN 1.5 AC-FT 5320

NOTE.--No gage-height record Jan. 12 to Feb. 20, Mar. 4 to Apr. 10, Apr. 12 to May 10.

SAN JOAQUIN RIVER BASIN

11278300 CHERRY CREEK NEAR EARLY INTAKE, CA

LOCATION.--Lat 37°53'40", long 119°57'42", in NW¼SE¼ sec.35, T.1 N., R.18 E., Tuolumne County, Stanislaus National Forest, on right bank 1.2 mi (1.9 km) upstream from mouth, 1.3 mi (2.1 km) north of Early Intake, and 10.3 mi (16.6 km) southwest of Hetch Hetchy.

DRAINAGE AREA, --226 mi² (585 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 2,272.00 ft (692.506 m) above mean sea level (levels by city and county of San Francisco).

REMARKS.--Records good. Flow regulated by Cherry Lake (station 11277200) 10 mi (16 km) upstream and Lake Eleanor (station 11277500) 9.8 mi (15.8 km) upstream. Diversion from Cherry Lake to Dion R. Holm powerplant began Aug. 1, 1960. Water is returned to creek 1.2 mi (1.9 km) below station. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE (since diversion to Dion R. Holm powerplant).--16 years (water years 1961-76), 99.4 ft³/s (2.815 m³/s), 72,020 acre-ft/yr (88.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft³/s (467 m³/s) Feb. 1, 1963, gage height, 14.50 ft (4.420 m), from rating curve extended above 4,600 ft³/s (130 m³/s); minimum daily, 0.30 ft³/s (0.008 m³/s) Apr. 5, 6, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 66 ft³/s (1.87 m³/s) Mar. 1, gage height, 3.64 ft (1.109 m); minimum daily, 7.3 ft³/s (0.21 m³/s) Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	17	13	13	13	49	18	18	16	13	27	26
2	7.7	15	13	12	12	28	18	18	15	21	26	26
3	7.3	15	13	14	11	25	17	18	15	21	26	26
4	8.8	13	13	13	12	24	17	18	15	22	26	26
5	10	12	13	13	15	23	18	17	15	22	27	26
6	10	12	13	13	14	24	17	19	15	23	27	26
7	12	11	14	13	14	25	17	21	15	23	27	26
8	10	12	13	13	15	26	20	19	15	23	26	26
9	10	12	13	14	21	27	20	20	15	23	25	26
10	16	16	13	14	21	28	19	19	16	23	25	27
11	26	14	13	13	16	29	28	19	16	23	23	26
12	13	13	15	14	16	29	29	18	15	23	21	23
13	13	13	15	13	16	28	27	18	15	22	18	23
14	12	12	14	12	20	27	26	18	14	22	20	22
15	12	12	13	12	20	26	28	19	14	22	36	20
16	11	13	12	12	18	25	30	19	14	23	26	18
17	11	13	12	12	18	25	27	18	13	25	28	17
18	11	12	12	12	17	25	26	18	13	27	29	17
19	11	12	12	12	26	28	25	18	13	27	31	17
20	11	12	12	12	22	25	24	15	13	26	30	17
21	10	12	11	12	19	24	23	14	13	26	25	16
22	11	12	13	13	17	23	22	14	14	26	34	18
23	10	12	13	13	17	22	21	14	13	27	27	22
24	10	12	12	13	16	22	21	14	13	27	27	22
25	11	12	12	12	16	21	20	14	13	26	27	24
26	22	12	12	12	16	20	20	14	13	26	27	24
27	30	13	12	13	16	20	20	13	13	26	27	24
28	15	16	13	13	15	19	20	13	13	26	27	19
29	14	13	13	12	26	19	19	13	13	27	27	25
30	25	12	13	12	---	18	19	17	13	27	26	26
31	24	---	13	13	---	18	---	16	---	27	26	---
TOTAL	418.8	387	398	394	495	772	656	526	423	745	824	681
MEAN	13.5	12.9	12.8	12.7	17.1	24.9	21.9	17.0	14.1	24.0	26.6	22.7
MAX	30	17	15	14	26	49	30	21	16	27	36	27
MIN	7.3	11	11	12	11	18	17	13	13	13	18	16
AC-FT	831	768	789	781	982	1530	1300	1040	839	1480	1630	1350
CAL YR 1975	TOTAL	40790.8	MEAN	112	MAX	1240	MIN	7.3	AC-FT	80910		
WTR YR 1976	TOTAL	6719.8	MEAN	18.4	MAX	49	MIN	7.3	AC-FT	13330		

11278400 CHERRY CREEK BELOW DION R. HOLM POWERHOUSE, NEAR MATHER, CA

LOCATION.--Lat 37°53'24", long 119°58'08", in NE¼NW¼ sec.2, T.1 S., R.18 E., Tuolumne County, Stanislaus National Forest, on left bank 600 ft (183 m) upstream from mouth, 0.5 mi (0.8 km) downstream from powerhouse, 0.8 mi (1.3 km) northwest of Early Intake, and 6.2 mi (10.0 km) west of Mather.

DRAINAGE AREA.--234 mi² (606 km²).

PERIOD OF RECORD.--March 1963 to current year. Prior to October 1965, published as "below Cherry powerhouse, near Mather."

GAGE.--Water-stage recorder. Altitude of gage is 2,150 ft (655 m), from topographic map.

REMARKS.--Records fair. Flow regulated by Cherry Lake (station 11277200) 11 mi (18 km) upstream and Lake Eleanor (station 11277500) 10 mi (16 km) upstream. Prior to May 1971, Cherry Creek Canal diverted 2 mi (3 km) upstream from station. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--13 years, 647 ft³/s (18.32 m³/s), 468,800 acre-ft/yr (578 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,530 ft³/s (242 m³/s) Dec. 24, 1964, gage height, 13.55 ft (4.130 m), from rating curve extended above 3,300 ft³/s (93.5 m³/s); minimum daily, 3.6 ft³/s (0.102 m³/s) Oct. 26, 27, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 938 ft³/s (26.6 m³/s) Dec. 31, gage height, 8.39 ft (2.557 m); minimum daily, 16 ft³/s (0.45 m³/s) May 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	569	645	677	274	428	471	456	18	258	273	147	290
2	609	359	680	623	429	452	90	18	260	279	270	279
3	612	691	678	652	429	449	19	17	261	153	270	268
4	565	694	684	360	431	449	19	16	263	146	270	269
5	181	697	675	591	420	448	19	16	143	145	271	132
6	613	696	633	616	413	448	19	19	138	289	271	150
7	616	696	371	596	432	448	18	23	264	283	177	282
8	615	646	678	601	378	450	23	328	264	282	153	277
9	614	362	679	606	442	449	23	149	269	279	261	277
10	626	703	681	590	439	451	22	477	264	152	267	277
11	584	700	680	360	437	452	35	470	264	139	267	278
12	191	705	689	600	434	453	35	475	147	283	262	140
13	591	699	638	600	432	449	32	496	137	282	265	271
14	620	678	378	600	440	455	30	500	271	290	166	269
15	615	652	687	600	438	450	34	500	263	291	164	268
16	618	369	685	606	437	465	35	147	259	281	299	263
17	622	703	687	578	438	461	30	472	259	152	269	262
18	565	657	683	146	437	461	28	474	279	154	271	167
19	176	712	687	578	446	460	27	474	143	284	271	134
20	617	707	639	582	443	455	25	480	131	285	272	267
21	620	712	370	582	436	213	23	478	259	283	175	266
22	628	654	688	580	434	470	22	477	262	284	148	268
23	631	363	691	579	437	460	21	144	260	283	273	272
24	633	714	690	555	436	464	20	477	262	157	273	272
25	576	710	374	255	437	464	20	471	260	144	269	166
26	202	714	688	317	437	464	20	475	142	280	269	146
27	211	370	644	442	435	463	19	482	136	281	270	276
28	636	718	368	444	436	209	19	484	262	283	169	275
29	634	662	688	442	447	461	19	476	265	283	147	276
30	658	373	693	440	---	458	18	145	263	284	270	274
31	649	---	694	442	---	452	---	146	---	158	269	---
TOTAL	16897	18761	19477	15837	12558	13654	1220	9824	6908	7442	7395	7311
MEAN	545	625	628	511	433	440	40.7	317	230	240	239	244
MAX	658	718	694	652	447	471	456	500	279	291	299	290
MIN	176	359	368	146	378	209	18	16	131	139	147	132
AC-FT	33520	37210	38630	31410	24910	27080	2420	19490	13700	14760	14670	14500
CAL YR 1975	TOTAL	265510	MEAN 727	MAX 1920	MIN 149	AC-FT 526600						
WTR YR 1976	TOTAL	137284	MEAN 375	MAX 718	MIN 16	AC-FT 272300						

NOTE.--No gage-height record Aug. 17 to Sept. 30.

SAN JOAQUIN RIVER BASIN

11281000 SOUTH FORK TUOLUMNE RIVER NEAR OAKLAND RECREATION CAMP, CA

LOCATION.--Lat 37°49'18", long 120°00'43", in SE₄SE₄ sec.29, T.1 S., R.18 E., Tuolumne County, Stanislaus National Forest, on right bank 75 ft (23 m) downstream from highway bridge on Big Oak Flat Road, 0.5 mi (0.8 km) southwest of Oakland Recreation Camp, and 0.6 mi (1.0 km) upstream from Middle Tuolumne River.

DRAINAGE AREA, --87.0 mi² (225.3 km²).

PERIOD OF RECORD.--March 1923 to current year.

REVISED RECORDS.--WSP 1445: 1923, 1925(M), 1926-28, 1929-30(M), 1932(M), 1935-36(M), 1937-38, 1943(M), 1945(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,800 ft (853 m), from topographic map. Prior to Nov. 22, 1931, at site 50 ft (15 m) upstream at same datum.

REMARKS.--Records good. No diversion above station. One small recreation reservoir (capacity unknown) is located approximately 3.5 mi (5.6 km) upstream. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--53 years, 92.3 ft³/s (2.614 m³/s), 66,870 acre-ft/yr (82.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,900 ft³/s (337 m³/s) Dec. 23, 1955, gage height, 10.9 ft (3.32 m) from floodmarks, from rating curve extended above 3,300 ft³/s (93.5 m³/s) on basis of slope-area measurements at gage heights 8.08 ft (2.463 m) and 10.9 ft (3.32 m); minimum, 0.3 ft³/s (0.008 m³/s) Aug. 23, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 274 ft³/s (7.76 m³/s) Feb. 29, gage height, 3.55 ft (1.082 m); no peak above base of 900 ft³/s (25.5 m³/s); minimum daily, 2.9 ft³/s (0.082 m³/s) Aug. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	40	21	11	15	148	44	85	20	7.1	4.9	5.6
2	9.7	37	23	12	15	61	43	95	18	6.8	4.8	5.5
3	9.6	35	25	17	15	47	45	83	17	6.8	4.7	5.4
4	9.5	31	26	19	17	41	43	86	17	6.5	4.7	5.2
5	9.4	28	24	20	17	36	40	84	16	6.6	4.8	5.1
6	9.9	25	23	18	18	35	38	88	15	6.5	4.7	5.0
7	14	23	21	17	20	38	38	81	15	6.4	4.6	4.9
8	14	23	21	17	23	38	50	81	15	6.0	4.5	4.8
9	12	23	20	18	35	36	44	99	15	5.9	4.5	4.7
10	32	29	20	18	34	36	50	108	16	5.7	4.4	4.9
11	64	25	20	18	27	38	63	91	17	5.6	4.4	6.1
12	34	23	22	18	26	37	56	90	18	5.5	7.9	5.2
13	27	23	21	17	27	37	48	89	16	5.4	4.9	5.4
14	21	23	14	17	37	38	44	82	14	5.3	2.9	5.5
15	20	22	16	17	35	38	55	70	14	5.3	6.5	5.5
16	19	23	19	17	28	40	48	60	12	5.4	5.5	5.5
17	18	23	20	18	28	46	47	55	12	5.3	5.8	5.7
18	17	21	19	18	27	52	47	49	11	5.3	5.9	5.7
19	16	17	18	17	45	49	49	44	10	5.3	6.3	5.6
20	15	21	18	16	32	44	60	40	10	5.1	6.2	5.6
21	15	20	18	16	34	41	74	37	10	5.1	7.0	5.6
22	14	18	20	16	33	45	74	35	9.8	5.0	6.5	5.5
23	14	19	18	16	30	48	71	31	8.6	5.1	6.2	5.5
24	15	19	19	16	29	48	79	29	9.1	5.0	6.1	5.4
25	15	18	18	15	28	49	86	29	8.7	4.9	6.0	5.3
26	23	18	18	16	28	46	72	28	8.3	4.9	6.0	5.3
27	96	20	18	16	28	44	62	25	8.0	4.8	6.0	5.2
28	43	23	19	16	30	40	56	23	7.6	4.8	6.0	5.2
29	30	17	19	15	96	38	59	22	7.2	4.7	5.9	5.2
30	55	19	19	16	---	38	69	21	7.0	4.7	5.8	5.2
31	46	---	14	15	---	44	---	20	---	4.8	5.7	---
TOTAL	747.0	706	611	513	857	1416	1654	1860	382.3	171.6	170.1	160.3
MEAN	24.1	23.5	19.7	16.5	29.6	45.7	55.1	60.0	12.7	5.54	5.49	5.34
MAX	96	40	26	20	96	148	86	108	20	7.1	7.9	6.1
MIN	9.4	17	14	11	15	35	38	20	7.0	4.7	2.9	4.7
AC-FT	1480	1400	1210	1020	1700	2810	3780	3690	758	340	337	318
CAL YR 1975	TOTAL	44249.0	MEAN	121	MAX	710	MIN	9.4	AC-FT	87770		
ATR YR 1976	TOTAL	9242.3	MEAN	25.3	MAX	148	MIN	2.9	AC-FT	18340		

LOCATION.--Lat 37°49'42", long 120°00'38", in SW¼NW¼ sec.28, T.1 S., R.18 E., Tuolumne County, Stanislaus National Forest, on left bank 1,000 ft (305 m) downstream from Oakland Recreation Camp, 0.8 mi (1.3 km) upstream from South Fork Tuolumne River, and 2.7 mi (4.3 km) east of Buck Meadows Post Office.

PERIOD OF RECORD.--October 1916 to current year. Monthly discharge only for October and November 1916, published in WSP 1315-A. Published as Middle Fork of Tuolumne River near Buck Meadows 1917-32 and as "near Buck Meadows" 1933-40.

REMARKS.--Records good. No regulation but small diversion above station for irrigation. See schematic diagram of Tuolumne River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,920 ft³/s (139 m³/s) Dec. 23, 1955, gage height, 11.75 ft (3.581 m) from flood profile, 11.05 ft (3.368 m) from floodmarks inside gage well, from rating curve extended above 2,300 ft³/s (65.1 m³/s) on basis of slope-area measurement of maximum flow; no flow Sept. 4-14, 1924, Aug. 12 to Oct. 5, 1931, Sept. 11-17, 1934, Sept. 7-14, 1961.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	28	20	7.8	12	53	35	110	27	4.7	1.1	.84
2	4.0	27	20	9.2	12	27	35	124	25	4.5	1.2	.78
3	3.8	27	20	13	12	24	37	116	23	4.3	1.1	.76
4	3.6	27	20	15	13	23	36	121	22	4.1	1.2	.70
5	3.6	26	19	17	11	22	34	121	21	4.0	1.1	.70
6	3.7	25	18	14	13	22	31	113	20	3.8	1.1	1.7
7	4.8	23	17	13	14	23	32	101	20	3.3	1.1	.88
8	7.0	25	17	13	16	23	43	115	19	3.2	1.1	1.9
9	6.8	25	16	14	22	22	37	121	19	3.0	.97	1.7
10	10	25	16	13	21	22	43	135	19	2.9	.94	1.4
11	50	20	16	14	18	24	46	127	21	2.5	.80	2.5
12	37	22	18	13	18	23	41	134	24	2.5	.88	4.1
13	26	21	17	13	18	23	37	140	21	2.2	.71	5.8
14	21	22	11	13	25	23	34	134	18	1.9	.73	3.7
15	19	21	12	13	22	24	41	115	15	1.8	3.2	2.8
16	18	21	14	13	19	25	33	98	13	1.9	4.4	2.3
17	17	23	16	14	19	28	35	87	12	1.8	4.2	2.0
18	16	18	15	14	19	32	39	76	11	1.8	3.2	1.9
19	14	15	14	13	25	29	38	66	10	1.4	3.2	1.8
20	13	20	14	12	18	29	46	60	9.5	1.9	3.1	1.6
21	11	19	14	12	21	29	58	55	9.3	1.7	2.5	1.6
22	11	17	16	12	19	30	68	50	9.1	1.5	2.1	1.5
23	11	17	14	12	18	32	71	48	8.8	1.4	2.0	1.4
24	11	17	15	12	17	34	80	44	7.9	1.5	1.9	1.3
25	10	17	14	11	17	36	94	40	7.4	1.3	1.9	1.3
26	20	16	14	12	16	35	81	38	6.7	1.2	1.5	1.3
27	144	19	14	12	16	34	68	35	6.4	1.2	1.4	1.3
28	46	19	15	12	17	30	60	32	6.0	1.2	2.1	1.4
29	31	13	15	12	45	29	65	30	5.5	1.1	1.4	1.3
30	36	15	15	12	---	30	82	29	5.0	1.1	1.1	1.4
31	28	---	11	12	---	34	---	28	---	1.1	.98	---
TOTAL	641.3	630	487	392.0	533	874	1480	2643	441.6	71.8	54.21	53.66
MEAN	20.7	21.0	15.7	12.6	18.4	28.2	49.3	85.3	14.7	2.32	1.75	1.79
MAX	144	28	20	17	45	53	94	140	27	4.7	4.4	5.8
MIN	3.6	13	11	7.8	11	22	31	28	5.0	1.1	.71	.70
AC-FT	1270	1250	966	778	1060	1730	2940	5240	876	142	108	106
CAL YR 1975	TOTAL	36618.20	MEAN	100	MAX	838	MIN	3.6	AC-FT	72630		
WTR YR 1976	TOTAL	8301.57	MEAN	22.7	MAX	144	MIN	.70	AC-FT	16470		

SAN JOAQUIN RIVER BASIN

11283200 BELL CREEK NEAR PINECREST, CA

LOCATION.--Lat 38°09'46", long 119°56'32", in NE¼NE¼ sec.36, T.4 N., R.18 E., Tuolumne County, on right bank 1,400 ft (426 m) downstream from Bell Meadows, and 3 mi (5 km) southeast of Pinecrest.

DRAINAGE AREA.--9.11 mi² (23.59 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 6,450 ft (1,966 m), from topographic map.

REMARKS.--Records fair. No storage or diversion above station. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--13 years, 26.4 ft³/s (0.748 m³/s), 19,130 acre-ft/yr (23.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 934 ft³/s (26.5 m³/s) Dec. 23, 1964, gage height, 7.54 ft (2.298 m), from rating curve extended above 160 ft³/s (4.53 m³/s) on basis of slope-area measurement at gage height 8.79 ft (2.679 m); no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 1, 1963, reached a stage of 8.79 ft (2.679 m) from floodmarks, discharge, 1,410 ft³/s (39.9 m³/s), from slope-area measurement of maximum flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 125 ft³/s (3.54 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)
Oct. 26	1530	178	5.04	4.45 1.356
May 9	1730	*281	7.96	5.07 1.545

Minimum, no flow Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.48	16	4.6	3.7	2.9	7.6	18	60	10	1.4	.33	.27
2	.47	17	8.9	3.1	2.8	8.5	20	57	9.1	1.4	.30	.20
3	.51	16	9.0	3.0	2.9	8.7	21	56	8.3	1.3	.29	.16
4	.51	15	7.8	3.1	2.9	8.2	19	56	7.7	1.2	.27	.11
5	.50	13	6.7	3.2	2.6	7.8	16	52	7.1	1.1	.26	.07
6	.76	11	6.3	3.3	2.9	7.8	15	51	6.5	1.1	.25	.11
7	2.5	20	5.7	3.1	3.5	8.0	18	50	6.1	.96	.25	.11
8	1.4	22	5.6	2.9	4.3	8.1	22	68	5.8	.91	.23	.07
9	1.0	13	5.5	3.1	5.2	8.6	20	111	6.9	.87	.20	.04
10	16	10	5.6	3.4	4.8	9.4	20	96	9.0	.83	.17	.02
11	17	11	5.3	3.0	4.9	11	18	75	13	.80	.15	.03
12	8.6	10	5.3	3.1	5.5	11	16	70	9.6	.76	.14	11
13	8.2	11	5.2	2.9	5.4	12	15	69	7.4	.72	.13	3.1
14	9.2	10	3.9	2.8	4.7	13	17	61	5.8	.69	.35	1.2
15	9.9	8.8	4.5	3.0	4.6	14	18	49	5.1	.74	22	.75
16	8.8	10	4.7	3.2	4.3	17	17	46	4.7	1.4	8.9	.49
17	7.5	9.0	4.9	3.6	4.2	20	15	41	4.2	.99	2.7	.34
18	5.5	7.6	5.2	3.3	5.7	20	21	35	3.8	.82	1.8	.27
19	3.9	6.0	5.2	3.2	5.4	17	36	29	3.5	.74	1.7	.19
20	3.1	6.4	5.0	3.1	6.3	15	49	26	3.2	.68	2.1	.14
21	3.0	5.8	4.9	3.0	5.6	18	50	24	3.2	.61	1.6	.10
22	3.7	5.6	5.2	2.9	6.0	21	46	22	3.0	.53	1.4	1.2
23	3.1	5.3	4.7	2.8	5.7	21	46	20	2.6	.65	1.5	.91
24	2.4	5.1	4.6	2.7	5.3	22	52	19	2.4	.65	1.5	.38
25	2.1	5.1	4.8	2.8	4.8	20	48	19	2.2	.51	1.3	.19
26	82	5.1	4.6	2.7	4.8	17	37	18	2.0	.40	1.0	.08
27	32	5.1	5.1	2.4	4.8	16	31	17	1.9	.34	.86	.03
28	15	4.5	5.6	2.4	5.0	15	28	15	1.7	.30	.75	.01
29	11	3.1	6.2	2.7	5.3	15	33	12	1.6	.27	.62	.01
30	9.0	3.9	5.3	2.7	---	19	47	11	1.5	.27	.48	0
31	13	---	4.5	2.8	---	21	---	11	---	.29	.36	---
TOTAL	282.13	291.4	170.4	93.0	133.1	437.7	829	1346	158.9	24.23	53.89	21.58
MEAN	9.10	9.71	5.50	3.00	4.59	14.1	27.6	43.4	5.30	.78	1.74	.72
MAX	82	22	9.0	3.7	6.3	22	52	111	13	1.4	22	11
MIN	.47	3.1	3.9	2.4	2.6	7.6	15	11	1.5	.27	.13	0
AC-FT	560	578	338	184	264	868	1640	2670	315	48	107	43
CAL YR 1975	TOTAL	11050.75	MEAN	30.3	MAX	259	MIN	.47	AC-FT	21920		
WTR YR 1976	TOTAL	3841.33	MEAN	10.5	MAX	111	MIN	0	AC-FT	7620		

SAN JOAQUIN RIVER BASIN

259

11283500 CLAVEY RIVER NEAR BUCK MEADOWS, CA

LOCATION.--Lat 37°54'02", long 120°04'15", in SE¼NE¼ sec.35, T.1 N., R.17 E., Tuolumne County, Stanislaus National Forest, on right bank 300 ft (91 m) upstream from Forest Service road bridge, 1.7 mi (2.7 km) downstream from Quilty Creek, and 6 mi (10 km) north of Buck Meadows Post Office.

DRAINAGE AREA.--144 mi² (373 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 2,374.08 ft (723.620 m) above mean sea level.

REMARKS.--Records good except those for period of no gage-height record, which are fair. No storage or diversion above station. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--17 years, 246 ft³/s (6.967 m³/s), 178,200 acre-ft/yr (220 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,200 ft³/s (544 m³/s) Feb. 1, 1963, gage height, 21.40 ft (6.523 m), from rating curve extended above 2,000 ft³/s (56.6 m³/s) on basis of slope-area measurement of peak flow; minimum, 3.4 ft³/s (0.096 m³/s) Sept. 7, 8, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,040 ft³/s (29.5 m³/s) Oct. 26, gage height, 8.09 ft (2.466 m), no peak above base of 1,400 ft³/s (39.6 m³/s); minimum daily, 5.6 ft³/s (0.159 m³/s) Aug. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	126	55	29	37	175	138	294	52	16	7.4	7.8
2	21	143	59	30	37	115	132	328	49	15	7.5	7.4
3	21	127	64	43	37	106	141	273	46	15	7.3	7.2
4	21	113	66	48	40	101	136	282	44	15	7.4	7.0
5	21	104	62	51	38	94	123	263	42	14	7.4	7.2
6	22	91	59	47	43	91	113	262	39	13	7.1	7.4
7	35	81	54	44	47	96	112	249	38	13	7.0	7.2
8	34	125	54	44	53	102	155	280	37	12	6.9	6.9
9	30	100	52	47	79	106	142	344	37	11	6.8	6.6
10	69	97	52	46	73	113	160	489	44	11	6.5	6.6
11	278	81	54	46	69	128	161	318	49	11	6.1	22
12	135	84	58	47	69	129	150	288	61	10	5.8	46
13	96	84	55	44	73	131	134	270	53	9.9	5.6	34
14	83	82	36	44	91	133	135	255	44	9.6	6.1	24
15	78	78	42	43	85	135	183	212	38	9.3	4.9	18
16	73	83	48	44	74	148	147	175	34	9.5	10.8	15
17	66	92	52	45	78	167	139	167	31	9.7	4.5	14
18	59	76	49	45	74	198	151	146	30	9.7	3.1	13
19	52	63	46	43	103	159	209	130	28	9.7	3.6	12
20	47	69	46	39	80	147	303	118	27	8.9	3.1	11
21	43	60	47	40	88	149	342	110	26	8.3	2.4	10
22	42	56	53	39	82	163	305	103	26	8.0	1.9	9.7
23	43	56	46	40	77	167	284	96	25	7.9	1.7	9.8
24	43	56	49	41	71	163	301	89	23	9.9	1.5	9.5
25	40	51	46	35	71	169	323	85	21	9.4	1.4	8.8
26	222	50	46	37	69	149	244	81	20	8.2	1.3	8.4
27	494	54	46	39	70	136	195	76	19	7.4	1.2	8.3
28	163	58	49	38	75	124	163	71	18	6.8	1.1	8.5
29	102	44	49	37	147	117	172	64	17	6.5	9.7	8.6
30	126	50	49	37	---	125	224	58	16	6.3	8.9	9.0
31	115	---	37	37	---	150	---	55	---	6.6	8.3	---
TOTAL	2695	2434	1580	1289	2030	4186	5617	6031	1034	317.6	546.8	370.9
MEAN	86.9	81.1	51.0	41.6	70.0	135	187	195	34.5	10.2	17.6	12.4
MAX	494	143	66	51	147	198	342	489	61	16	10.8	46
MIN	21	44	36	29	37	91	112	55	16	6.3	5.6	6.6
AC-FT	5350	4830	3130	2560	4030	8300	11140	11960	2050	630	1080	736

CAL YR 1975 TOTAL 118073.0 MEAN 323 MAX 2200 MIN 21 AC-FT 234200
WTR YR 1976 TOTAL 28131.3 MEAN 76.9 MAX 494 MIN 5.6 AC-FT 55800

NOTE.--No gage-height record Nov. 24 to Jan. 12.

SAN JOAQUIN RIVER BASIN

11284400 BIG CREEK ABOVE WHITES GULCH, NEAR GROVELAND, CA

LOCATION.--Lat 37°50'31", long 120°11'02", in SW¼NE¼ sec.23, T.1 S., R.16 E., Tuolumne County, on right bank 500 ft (152 m) upstream from Whites Gulch, and 2.5 mi (4.0 km) east of Groveland.

DRAINAGE AREA.--16.4 mi² (42.5 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 2,561.79 ft (780.834 m) above mean sea level (levels by Boise-Cascade Corp.).

REMARKS.--Records good. No storage or diversion above station. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--7 years, 6.33 ft³/s (0.179 m³/s), 4,590 acre-ft/yr (5.66 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft³/s (34.8 m³/s) Jan. 16, 1970, gage height, 5.80 ft (1.768 m); no flow many days in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1964 reached a stage of 6.4 ft (1.95 m) from floodmarks, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10 ft³/s (0.28 m³/s) Feb. 9, gage height, 2.28 ft (0.695 m), no peak above base of 150 ft³/s (4.25 m³/s); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.22	.26	.29	.31	7.1	.50	.35	.02			
2	0	.18	.26	.28	.31	6.0	.50	.34	.01			
3	0	.15	.26	.30	.31	5.8	.50	.33	.01			
4	0	.13	.26	.32	.42	5.7	.50	.31	.01			
5	0	.12	.26	.34	.69	5.1	.53	.30	.01			
6	0	.11	.25	.34	.90	4.5	.55	.34	.01			
7	0	.10	.23	.33	1.2	3.9	.52	.40	0			
8	0	.11	.23	.33	2.0	3.2	.92	.34	0			
9	0	.11	.24	.51	5.0	2.8	1.1	.30	0			
10	0	.38	.24	.63	4.9	2.2	.83	.28	0			
11	.42	.42	.25	.47	2.4	1.9	2.0	.26	0			
12	.26	.32	.55	.43	1.9	1.6	2.0	.23	0			
13	.17	.25	.72	.39	1.7	1.4	1.8	.15	0			
14	.14	.22	.60	.37	3.5	1.3	1.2	.12	0			
15	.13	.20	.42	.36	2.3	1.2	1.4	.10	0			
16	.12	.31	.36	.36	1.6	1.1	2.0	.08	0			
17	.11	.34	.35	.36	1.4	.98	1.2	.07	0			
18	.10	.29	.34	.36	1.2	.96	.96	.06	0			
19	.10	.24	.32	.35	4.4	1.2	.83	.05	0			
20	.09	.22	.32	.33	3.8	1.0	.68	.05	0			
21	.09	.22	.32	.33	2.0	.88	.56	.04	0			
22	.09	.21	.35	.33	1.4	.81	.51	.04	0			
23	.09	.20	.34	.33	1.3	.77	.47	.04	0			
24	.08	.20	.34	.33	1.2	.71	.45	.03	0			
25	.08	.21	.34	.32	1.2	.66	.43	.03	0			
26	.14	.21	.32	.32	1.2	.66	.42	.03	0			
27	1.2	.31	.32	.32	1.2	.65	.40	.03	0			
28	.43	.38	.32	.32	1.3	.60	.39	.02	0			
29	.27	.32	.32	.33	3.0	.60	.37	.02	0			
30	.52	.27	.32	.32	---	.55	.36	.02	0			
31	.30	---	.31	.31	---	.54	---	.02	---			---
TOTAL	4.93	6.95	10.32	11.01	54.04	66.37	24.88	4.78	.07	0	0	0
MEAN	.16	.23	.33	.36	1.86	2.14	.83	.15	.002	0	0	0
MAX	1.2	.42	.72	.63	5.0	7.1	2.0	.40	.02	0	0	0
MIN	0	.10	.23	.28	.31	.54	.36	.02	0	0	0	0
AC-FT	9.8	14	20	22	107	132	49	9.5	.1	0	0	0
CAL YR 1975	TOTAL	3811.51	MEAN	10.4	MAX	353	MIN	0	AC-FT	7560		
WTR YR 1976	TOTAL	183.35	MEAN	.50	MAX	7.1	MIN	0	AC-FT	364		

11284700 NORTH FORK TUOLUMNE RIVER NEAR LONG BARN, CA

LOCATION.--Lat 38°05'56", long 120°05'55", in NW¼SW¼ sec.22, T.3 N., R.17 E., Tuolumne County, Stanislaus National Forest, on right bank 0.6 mi (1.0 km) upstream from small tributary, 1.5 mi (2.4 km) east of Long Barn, and 3.8 mi (6.1 km) upstream from Wrights Creek.

DRAINAGE AREA.--23.1 mi² (59.8 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 4,650 ft (1,417 m), from topographic map.

REMARKS.--Records good. No storage or diversion above station. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--14 years, 27.4 ft³/s (0.776 m³/s), 19,850 acre-ft/yr (24.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,670 ft³/s (47.3 m³/s) Jan. 21, 1969, gage height, 7.61 ft (2.320 m), from rating curve extended above 650 ft³/s (18.4 m³/s) on basis of slope-area measurement at gage height 9.8 ft (2.99 m); minimum daily, 0.07 ft³/s (0.002 m³/s) July 29, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 9.8 ft (2.99 m) from floodmarks, discharge, 2,560 ft³/s (72.5 m³/s) by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51 ft³/s (1.44 m³/s) Oct. 30, gage height, 3.31 ft (1.009 m), no peak above base of 150 ft³/s (4.25 m³/s); minimum daily, 0.07 ft³/s (0.002 m³/s) July 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	8.4	4.6	2.6	3.4	18	10	15	3.8	.61	.23	.33
2	1.1	6.8	4.7	2.7	3.4	13	10	16	3.2	.61	.17	.31
3	1.1	6.2	4.7	2.9	3.4	11	10	16	3.2	.61	.22	.31
4	1.1	5.7	4.6	3.0	3.6	9.1	9.8	15	3.0	.51	.22	.32
5	1.1	5.3	4.6	3.5	3.4	9.3	9.6	15	2.8	.51	.21	.37
6	1.5	5.0	4.5	3.4	3.9	10	9.5	18	2.6	.46	.20	.39
7	2.2	4.8	4.7	3.2	4.3	11	9.2	16	2.6	.32	.24	.56
8	1.8	4.7	4.2	3.4	5.0	12	11	15	2.2	.42	.25	.50
9	1.7	4.5	4.2	3.7	6.1	13	11	16	2.6	.38	.24	.39
10	11	5.8	4.1	3.5	8.5	13	12	19	3.5	.34	.21	.43
11	15	5.2	4.0	3.5	5.2	14	14	16	3.2	.24	.15	2.6
12	6.3	4.9	4.4	3.5	5.4	13	13	15	3.0	.25	.11	1.9
13	5.3	4.8	4.3	3.4	5.7	12	13	13	2.6	.23	.10	1.1
14	4.4	4.6	3.0	3.4	8.2	12	13	12	2.2	.22	.44	.83
15	3.9	4.7	3.2	3.8	6.9	12	16	11	2.0	.20	6.3	.72
16	3.4	6.4	3.4	3.9	6.5	12	14	9.9	1.8	.27	3.0	.66
17	3.1	6.0	3.8	4.1	7.1	13	13	9.1	1.6	.31	1.4	.65
18	2.9	5.1	3.9	4.0	7.0	15	14	8.3	1.5	.33	1.2	.65
19	2.8	6.2	3.8	3.9	7.2	14	14	7.9	1.4	.25	2.8	.63
20	2.8	4.8	3.8	3.8	5.6	13	15	7.3	1.4	.19	2.1	.58
21	2.8	4.5	3.7	3.6	5.7	12	17	6.9	1.2	.13	1.2	.54
22	2.9	4.4	4.0	3.5	6.2	13	17	6.5	1.4	.11	1.0	.52
23	2.8	4.3	3.6	3.7	6.4	13	17	6.2	1.2	.26	.87	.51
24	2.8	4.3	3.7	3.8	6.4	13	17	5.7	1.1	.42	.78	.49
25	2.8	4.3	3.7	3.7	6.8	13	18	5.4	1.0	.40	.71	.48
26	11	4.2	3.8	3.5	7.1	12	17	5.1	.90	.26	.55	.48
27	15	4.5	3.9	3.5	7.4	12	15	4.6	.90	.15	.52	.51
28	7.2	4.6	3.9	3.6	7.4	11	14	4.3	.81	.09	.51	.58
29	5.4	3.7	4.0	3.5	17	10	14	4.0	.73	.07	.45	.74
30	25	4.0	3.7	3.5	---	10	14	4.0	.73	.08	.40	.87
31	12	---	3.0	3.5	---	11	---	3.8	---	.15	.35	---
TOTAL	163.3	152.7	123.5	108.6	180.2	379.4	401.1	327.0	60.17	9.38	27.13	19.95
MEAN	5.27	5.09	3.98	3.50	6.21	12.2	13.4	10.5	2.01	.30	.88	.67
MAX	25	8.4	4.7	4.1	17	18	18	19	3.8	.61	6.3	2.6
MIN	1.1	3.7	3.0	2.6	3.4	9.1	9.2	3.8	.73	.07	.10	.31
AC-FT	324	303	245	215	357	753	796	649	119	19	54	40
CAL YR 1975 TOTAL	13042.00			MEAN 35.7	MAX 325	MIN 1.1	AC-FT 25870					
WTR YR 1976 TOTAL	1952.43			MEAN 5.33	MAX 25	MIN .07	AC-FT 3870					

SAN JOAQUIN RIVER BASIN

11287500 DON PEDRO RESERVOIR NEAR LA GRANGE, CA

LOCATION.--Lat 37°42'06", long 120°25'16", in NE¼SW¼ sec.3, T.3 S., R.14 E., Tuolumne County, on left end of New Don Pedro Dam on Tuolumne River, 500 ft (152 m) downstream from Mexican Gulch, and 3.4 mi (5.5 km) northeast of La Grange.

DRAINAGE AREA.--1,533 mi² (3,970 km²).

PERIOD OF RECORD.--September 1923 to current year. 1923-24 (year-end contents only) and October 1924 to September 1930 monthend contents, published in WSP 1315-A.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Turlock Irrigation District). Prior to Feb. 1, 1941, nonrecording gage at site 1.5 mi (2.4 km) upstream at same datum. Feb. 2, 1941, to Nov. 3, 1970, water-stage recorder at site 1.5 mi (2.4 km) upstream at same datum. Nov. 4, 1970, to Apr. 26, 1972, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam completed June 23, 1971. Storage began Nov. 3, 1970. Total capacity, 2,030,000 acre-ft (2.50 km³) at elevation 830.0 ft (252.98 m) top of uncontrolled spillway, of which 309,000 acre-ft (381 hm³) below elevation 600.0 ft (182.88 m), mutually agreed-upon minimum, is not available for release. Water passes through powerplant at dam and down Tuolumne River to La Grange Dam, 2.5 mi (4.0 km) downstream, where it is diverted into Turlock and Modesto Canals (stations 11289500 and 11289000) for irrigation. This reservoir is operated jointly by Turlock and Modesto Irrigation Districts. Prior to June 1971 reservoir was formed by a concrete gravity-type dam completed Jan. 1, 1923, capacity, 290,400 acre-ft (358 hm³). Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Tuolumne River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,852,000 acre-ft (2.28 km³) June 27, 28, 1975, elevation, 815.8 ft (248.66 m); minimum, 29,200 acre-ft (36.0 hm³) Sept. 1-3, 5, 1934; minimum elevation, 475.0 ft (144.78 m) Sept. 1, 2, 1934. Minimum since construction of New Don Pedro Dam in 1970 under normal operations, 340,400 acre-ft (420 hm³) Oct. 28, 29, 1971, elevation, 608.7 ft (185.53 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,594,000 acre-ft (1.97 km³) Oct. 1, elevation, 793.2 ft (241.77 m); minimum, 686,600 acre-ft (847 hm³) Sept. 28-30, elevation, 681.3 ft (207.66 m).

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

550	158700	650	517400	770	1359000
570	212900	680	679000	800	1669000
590	274800	710	869700	830	2030000
620	384100	740	1095000		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1594000	1537000	1503000	1447000	1384000	1335000	1272000	1160000	1113000	980700	840300	724900
2	1592000	1535000	1501000	1444000	1380000	1333000	1266000	1160000	1110000	976200	834900	721900
3	1590000	1533000	1498000	1442000	1376000	1332000	1261000	1155000	1106000	972500	830200	720000
4	1588000	1532000	1496000	1443000	1373000	1331000	1256000	1151000	1101000	969500	824900	719400
5	1585000	1530000	1494000	1440000	1369000	1330000	1250000	1148000	1097000	966500	820300	719400
6	1583000	1528000	1492000	1437000	1365000	1329000	1245000	1144000	1092000	962000	815000	718800
7	1581000	1527000	1490000	1434000	1364000	1330000	1239000	1140000	1088000	957600	810400	717000
8	1578000	1525000	1486000	1431000	1364000	1329000	1234000	1138000	1084000	953200	805800	715200
9	1576000	1524000	1483000	1429000	1362000	1328000	1231000	1138000	1079000	948800	800000	712800
10	1574000	1523000	1481000	1427000	1359000	1326000	1229000	1137000	1075000	944400	794800	711600
11	1574000	1520000	1478000	1428000	1357000	1325000	1228000	1135000	1072000	943600	789600	711600
12	1572000	1519000	1475000	1425000	1354000	1324000	1224000	1134000	1068000	939200	784400	711000
13	1571000	1518000	1474000	1422000	1353000	1324000	1222000	1131000	1064000	934800	779300	709800
14	1569000	1518000	1474000	1420000	1352000	1325000	1218000	1131000	1059000	929700	774800	708600
15	1567000	1518000	1471000	1418000	1353000	1324000	1214000	1131000	1054000	924700	770400	708000
16	1566000	1519000	1469000	1415000	1353000	1323000	1210000	1131000	1050000	920400	765900	707400
17	1563000	1518000	1467000	1414000	1351000	1322000	1209000	1130000	1045000	915300	761500	706800
18	1561000	1517000	1465000	1415000	1348000	1321000	1208000	1130000	1041000	911000	757700	705600
19	1559000	1516000	1462000	1412000	1347000	1320000	1203000	1130000	1036000	906100	754600	705000
20	1556000	1515000	1461000	1410000	1344000	1317000	1200000	1130000	1032000	901100	751500	703200
21	1555000	1514000	1461000	1407000	1343000	1315000	1196000	1129000	1027000	896100	748400	700800
22	1552000	1513000	1458000	1405000	1344000	1310000	1192000	1129000	1023000	891200	747100	698400
23	1550000	1514000	1457000	1402000	1341000	1307000	1188000	1129000	1018000	886300	744600	696000
24	1548000	1513000	1455000	1401000	1339000	1303000	1185000	1127000	1013000	880700	742800	693700
25	1546000	1512000	1455000	1401000	1338000	1299000	1185000	1125000	1008000	877300	740300	691300
26	1546000	1510000	1453000	1398000	1337000	1295000	1181000	1123000	1003000	871700	739000	689500
27	1544000	1510000	1453000	1395000	1336000	1292000	1177000	1120000	998900	865500	736600	687700
28	1542000	1508000	1453000	1392000	1336000	1289000	1172000	1119000	993600	860700	734700	686600
29	1541000	1506000	1450000	1389000	1336000	1285000	1169000	1118000	989000	855200	734700	686600
30	1540000	1505000	1448000	1386000	---	1281000	1165000	1117000	984500	850500	731000	686600
31	1538000	---	1446000	1385000	---	1276000	---	1115000	---	845000	728000	---
MAX	1594000	1537000	1503000	1447000	1384000	1335000	1272000	1160000	1113000	980700	840300	724900
MIN	1538000	1505000	1446000	1385000	1336000	1276000	1165000	1115000	984500	845000	728000	686600
†	787.9	784.7	778.9	772.7	767.6	761.1	748.4	742.5	725.9	706.4	688.2	681.3
‡	-60000	-33000	-59000	-61000	-49000	-60000	-111000	-50000	-130500	-139500	-117000	-41400

CAL YR 1975 † +134000

WTR YR 1976 ‡ -911400

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

11289000 MODESTO CANAL NEAR LA GRANGE, CA

LOCATION.--Lat 37°40'04", long 120°27'26", in SE¼SW¼ sec.17, T.3 S., R.14 E., Stanislaus County, on left bank 0.5 mi (0.8 km) northeast of La Grange, and 1.4 mi (2.2 km) downstream from intake at La Grange Dam.

PERIOD OF RECORD.--April 1903 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1315-A: 1904-9 (monthly figures only).

GAGE.--Water-stage recorder. V-notch sharp-crested weir since Mar. 19, 1963. Datum of gage is 272.4 ft (83.03 m) above mean sea level (levels by Modesto Irrigation District). See WSP 1930 for history of changes prior to March 1932. March 1932 to Aug. 14, 1975, on right bank at same datum.

REMARKS.--Records excellent. Canal diverts from right bank of Tuolumne River at La Grange Dam for irrigation in Modesto and Waterford Irrigation Districts. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--73 years, 406 ft³/s (11.50 m³/s), 294,100 acre-ft/yr (363 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,820 ft³/s (51.5 m³/s) July 1, 1935; no flow at times most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	410	0	767	23	118	1000	1190	1180	632	574	628	762
2	451	0	719	62	1050	1050	1180	302	617	597	633	652
3	449	12	742	122	1070	973	882	1130	556	576	628	392
4	449	26	727	95	1040	855	448	795	840	582	613	187
5	448	329	647	100	1060	746	1170	757	851	582	602	161
6	448	389	271	333	749	231	1170	651	902	885	592	165
7	449	329	174	814	169	80	1150	819	1020	831	568	315
8	496	68	836	1010	31	817	1040	488	628	953	555	419
9	448	24	897	400	549	751	797	158	571	900	795	587
10	451	341	867	121	345	730	513	663	569	801	879	261
11	457	421	836	118	332	724	158	666	728	193	787	434
12	456	483	830	553	300	588	598	782	754	845	747	449
13	372	568	244	666	265	152	537	747	745	1050	567	440
14	304	465	34	635	42	49	523	280	1080	1170	571	396
15	250	353	782	631	36	640	649	181	911	1050	552	320
16	205	154	797	614	64	653	509	159	767	967	553	286
17	20	648	768	216	307	644	174	293	768	819	596	301
18	16	519	758	32	274	665	154	401	686	820	496	330
19	16	564	749	606	443	715	804	401	747	944	459	330
20	7.6	450	30	803	436	331	893	559	745	977	468	412
21	.01	439	24	941	133	199	897	657	711	896	458	460
22	.01	312	27	782	76	847	887	661	762	1050	459	432
23	.01	131	27	687	591	1020	868	598	1020	1100	548	387
24	0	415	26	238	506	1040	455	654	1090	1040	666	369
25	0	434	24	119	503	1110	159	658	1100	811	550	370
26	0	441	26	748	485	1030	972	841	1010	1190	329	370
27	0	132	26	587	418	538	1020	685	752	1180	525	292
28	0	410	24	716	290	156	952	655	1160	1050	536	146
29	0	364	27	902	110	1000	982	660	860	1030	201	133
30	0	133	27	679	---	1000	1040	669	580	712	808	137
31	0	---	27	174	---	1020	---	653	---	631	808	---
TOTAL	6602.63	9354	12760	14427	11792	21354	22771	18803	24162	26806	18177	10695
MEAN	213	312	412	465	407	689	759	607	805	865	586	357
MAX	496	648	897	1010	1070	1110	1190	1180	1160	1190	879	762
MIN	0	0	24	23	31	49	154	158	556	193	201	133
AC-FT	13100	18550	25310	28620	23390	42360	45170	37300	47930	53170	36050	21210
CAL YR 1975	TOTAL	198647.63	MEAN 544	MAX 1390	MIN 0	AC-FT 994000						
WTR YR 1976	TOTAL	197703.63	MEAN 540	MAX 1190	MIN 0	AC-FT 392100						

SAN JOAQUIN RIVER BASIN

11289500 TURLOCK CANAL NEAR LA GRANGE, CA

LOCATION.--Lat 37°39'57", long 120°26'24", in NW¼NW¼ sec.21, T.3 S., R.14 E., Stanislaus County, on right bank 2,400 ft (730 m) downstream from intake at La Grange Dam, and 1.2 mi (1.9 km) east of La Grange.

PERIOD OF RECORD.--October 1898 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1315-A: 1899-1908 (monthly figures only). WSP 1445: 1917-20, 1922.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 277.70 ft (84.643 m) above mean sea level (levels by Turlock Irrigation District). See WSP 1930 for history of changes prior to Apr. 17, 1924.

REMARKS.--Records excellent. Canal diverts from left bank of Tuolumne River at La Grange Dam for irrigation in Turlock Irrigation District and to supply town of La Grange. During fall and winter some unmeasured flow is diverted from canal at tunnel 0.3 mi (0.5 km) upstream from gage, passed through La Grange powerplant and returned to river. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--78 years, 621 ft³/s (17.59 m³/s), 449,900 acre-ft/yr (555 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,280 ft³/s (64.6 m³/s) June 12, 1949, July 26, 1973; no diversion for irrigation during some periods in some years. Prior to 1939, unmeasured small discharge during winter called zero.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1400	18	1050	15	27	1010	2090	1660	1160	1860	2080	1130
2	1370	18	1060	17	1250	967	2170	515	1580	1880	2140	1130
3	1400	17	1240	19	1210	443	2170	1680	1850	1840	2210	938
4	1280	17	1230	19	1250	312	2170	1710	1890	1150	2210	585
5	1070	1620	1180	19	1240	304	2110	1720	1990	1140	2220	183
6	1240	1590	1200	19	1280	246	2140	1720	1390	1880	2220	169
7	701	1620	1110	19	1220	179	2040	1750	1970	1860	2220	895
8	247	1550	1300	19	271	260	1410	1700	2100	1880	2160	922
9	253	1460	1290	19	1200	230	1360	697	2110	1870	2170	1020
10	251	1600	1320	18	1220	286	1260	1680	1970	1880	2210	625
11	245	1570	1340	18	1210	283	588	1740	1730	244	2210	229
12	250	1490	1300	18	1210	353	1500	1800	1640	1880	2220	192
13	252	779	1110	19	1230	244	1590	1710	1540	1600	2220	477
14	253	892	178	15	944	54	1560	1460	1980	1560	2210	545
15	254	633	1110	13	296	420	1580	1130	2020	1840	2080	413
16	252	55	1100	13	252	440	1550	774	2000	1840	2080	461
17	277	887	1110	9.7	1210	414	1460	969	2010	1910	2000	478
18	341	1170	1060	6.5	1210	490	559	849	2040	1360	1960	378
19	349	1110	1060	4.0	1210	739	1600	882	1900	1930	1560	337
20	555	1220	58	2.1	1050	1630	1580	858	1740	1910	1600	863
21	723	1220	56	2.2	876	1280	1580	852	1910	1940	1630	1160
22	830	1190	32	168	169	1490	1580	578	1950	1930	389	1160
23	872	57	17	473	1070	1440	1530	410	1970	1930	1020	1170
24	873	1170	17	1010	615	1470	1390	1010	1990	1930	944	1180
25	873	1190	16	52	469	1530	580	1390	1980	1400	864	1180
26	514	1220	17	427	496	1600	1480	1540	1670	1620	844	344
27	866	1040	16	108	520	1520	1460	1470	1650	1940	952	1210
28	872	1440	16	271	359	1420	1490	1170	1870	1980	834	602
29	871	1470	17	529	233	1540	1460	918	1960	2060	143	281
30	409	919	17	501	---	1570	1520	618	1860	2110	1150	252
31	47	---	16	640	---	1540	---	724	---	2220	1240	---
TOTAL	19990	30232	21643	4482.5	24797	25704	46557	37684	55420	54374	51990	20509
MEAN	645	1008	698	145	855	829	1552	1216	1847	1754	1677	684
MAX	1400	1620	1340	1010	1280	1630	2170	1800	2110	2220	2220	1210
MIN	47	17	16	2.1	27	54	559	410	1160	244	143	169
AC-FT	39650	59970	42930	8890	49180	50980	92350	74750	109900	107900	103100	40680
CAL YR 1975	TOTAL	355092.7	MEAN	973	MAX	2110	MIN	5.5	AC-FT	704300		
WTR YR 1976	TOTAL	393382.5	MEAN	1075	MAX	2220	MIN	2.1	AC-FT	780300		

11289650 TUOLUMNE RIVER BELOW LA GRANGE DAM, NEAR LA GRANGE, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF TUOLUMNE RIVER, MODESTO CANAL NEAR LA GRANGE, AND TURLOCK CANAL NEAR LA GRANGE, CA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2400	2400	2660	807	623	2510	3420	2860	1800	2440	2720	1930
2	2400	2280	2640	2410	2790	2520	3450	828	2210	2490	2780	1820
3	2430	2630	2830	2320	2790	1920	3150	2820	2420	2430	2850	1340
4	2310	2670	2810	790	2800	1670	2720	2520	2740	1740	2830	780
5	2040	2540	2700	2850	2810	1550	3380	2490	2850	1730	2830	352
6	2210	2500	2340	2770	2530	978	3410	2380	2300	2780	2820	342
7	2080	2470	2150	2740	1890	760	3290	2580	3000	2700	2800	1220
8	2100	2150	3020	2690	803	1580	2550	2200	2740	2840	2730	1350
9	2120	2010	3080	2730	2250	1480	2260	867	2690	2780	2980	1620
10	2080	2470	3070	2220	2070	1520	1870	2350	2550	2690	3100	895
11	2020	2520	3050	810	2040	1510	847	2420	2470	442	3010	671
12	1870	2500	2980	2740	2010	1440	2200	2590	2400	2740	2980	650
13	2020	1850	2250	2590	2000	897	2230	2470	2300	2660	2800	926
14	2070	1840	1070	2590	1490	604	2180	1750	3070	2740	2790	950
15	2070	1470	2780	2560	830	1560	2330	1320	2940	2900	2640	740
16	2120	697	2710	2500	810	1590	2160	945	2780	2820	2640	756
17	2210	2020	2740	1870	2010	1560	1730	1270	2790	2740	2610	788
18	2230	2180	2730	674	1980	1660	814	1260	2740	2190	2470	717
19	2060	2180	2690	2440	2150	1950	2500	1290	2660	2880	2030	676
20	2220	2150	2150	2460	1990	2460	2570	1430	2500	2900	2080	1290
21	2270	2130	1060	2460	1510	1980	2580	1520	2630	2850	2100	1630
22	2290	1970	2710	1610	737	2840	2570	1250	2720	2990	856	1610
23	2470	678	2520	1710	2150	2960	2500	1020	3000	3040	1580	1590
24	2300	2110	2170	1810	1620	3010	1950	1670	3090	2980	1620	1580
25	2230	2170	1060	740	1470	3140	840	2060	3090	2220	1420	1570
26	1030	2210	2150	1740	1480	3120	2550	2390	2690	3170	1180	734
27	2270	1740	2010	1350	1440	2560	2580	2170	2410	3130	1490	1530
28	2390	2410	1060	1470	1150	2080	2540	1840	3040	3040	1380	786
29	2410	2380	2550	1810	841	3040	2540	1590	2830	3100	352	450
30	2400	1650	2590	1640	---	3080	2660	1300	2450	2830	2000	429
31	2450	---	2550	1280	---	3060	---	1390	---	2860	2090	---
TOTAL	67570	62975	74880	61181	51064	62589	72371	56840	79900	81842	70558	31722
MEAN	2180	2099	2415	1974	1761	2019	2412	1834	2663	2640	2276	1057
MAX	2470	2670	3080	2850	2810	3140	3450	2860	3090	3170	3100	1930
MIN	1030	678	1060	674	623	604	814	828	1800	442	352	342
AC-FT	134000	124900	148500	121400	101300	124100	143500	112700	158500	162300	140000	62920
CAL YR 1975	TOTAL	845021	MEAN	2315	MAX	3630	MIN	586	AC-FT	1676000		
WTR YR 1976	TOTAL	773492	MEAN	2113	MAX	3450	MIN	342	AC-FT	1534000		

SAN JOAQUIN RIVER BASIN

11289650 TUOLUMNE RIVER BELOW LA GRANGE DAM, NEAR LA GRANGE, CA

LOCATION.--Lat 37°39'59", long 120°26'28", in NW¼NW¼ sec.21, T.3 S., R.14 E., Stanislaus County, on left bank 0.5 mi (0.8 km) downstream from La Grange Dam, and 1.1 mi (1.8 km) east of La Grange.

DRAINAGE AREA.--1,538 mi² (3,983 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 170.19 ft (51.874 m) above mean sea level (levels by Turlock Irrigation District).

REMARKS.--Records good except those for May to September, which are fair. Flow diverted into Modesto Canal (station 11289000) and Turlock Canal (station 11289500) at La Grange Dam. Flow regulated by Don Pedro power-plant, Don Pedro Reservoir (station 11287500), 4.5 mi (7.2 km) upstream, Hetch Hetchy Reservoir (station 11275500), Cherry Lake (station 11277200), and Lake Eleanor (station 11277500). Tuolumne Canal (station 11297500) diverts water from the Stanislaus River basin into the Tuolumne River basin for power, irrigation, and domestic supply in the vicinity of Sonora upstream from station. Diversion through Hetch Hetchy aqueduct to San Francisco began Oct. 19, 1934; an average of 514 ft³/s (8.89 m³/s) was diverted during the current year. See schematic diagram of Tuolumne River basin. For records of combined discharge of river and Modesto and Turlock canals, see following page.

AVERAGE DISCHARGE (River only).--6 years, 454 ft³/s (12.86 m³/s), 328,900 acre-ft/yr (406 hm³/yr).
(Combined river and canals).--6 years, 1,815 ft³/s (51.40 m³/s), 1,315,000 acre-ft/yr (1.62 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 4,800 ft³/s (136 m³/s) Jan. 30, 1975, gage height, 10.82 ft (3.298 m); minimum daily, 0.10 ft³/s (0.003 m³/s) Oct. 29 to Nov. 3, 1970.
Combined flow, maximum daily discharge, 3,880 ft³/s (110 m³/s) June 26, 1973; minimum daily, 0.45 ft³/s (0.01 m³/s) Nov. 2, 1970.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 4,480 ft³/s (127 m³/s) Dec. 22, gage height, 10.55 ft (3.216 m); minimum daily, 4.7 ft³/s (0.13 m³/s) July 11.
Combined flow, maximum daily discharge, 3,450 ft³/s (97.7 m³/s) Apr. 2; minimum daily, 342 ft³/s (9.69 m³/s) Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	585	2380	840	769	478	498	141	17	12	7.9	7.3	36
2	578	2260	860	2330	491	495	102	11	12	7.9	7.3	35
3	581	2600	845	2180	506	495	99	10	12	7.9	7.3	8.6
4	578	2630	853	676	505	501	99	11	12	7.9	7.3	7.6
5	524	587	871	2730	510	501	98	11	12	7.9	7.3	7.5
6	521	523	865	2420	502	501	101	12	9.6	7.9	7.4	7.5
7	928	519	871	1910	501	501	104	12	7.5	7.9	7.5	7.4
8	1360	528	882	1660	501	501	102	12	7.3	7.9	7.4	7.3
9	1420	532	885	2310	501	501	100	12	7.5	7.9	7.5	12
10	1380	526	877	2080	501	501	100	12	7.5	7.9	7.6	9.1
11	1320	530	874	674	500	501	101	12	7.5	4.7	7.5	8.4
12	1160	525	848	2170	502	501	100	12	7.5	6.0	7.6	8.5
13	1400	498	895	1900	498	501	100	12	7.5	7.9	7.5	8.8
14	1510	477	860	1940	499	501	100	12	7.5	7.9	7.5	8.7
15	1570	485	890	1920	498	501	99	12	7.8	7.9	7.5	7.2
16	1660	488	805	1870	494	501	99	12	7.5	7.9	7.3	9.2
17	1910	479	860	1640	494	501	100	12	7.5	7.9	7.1	8.8
18	1870	486	910	635	496	498	101	12	7.5	7.9	7.6	9.0
19	1690	506	880	1830	496	495	100	12	7.5	7.9	7.5	8.6
20	1660	475	2060	1650	498	501	100	12	7.5	7.9	7.1	8.4
21	1550	472	976	1520	499	495	100	12	7.5	7.9	7.0	8.5
22	1460	471	2650	663	492	495	100	12	7.5	7.9	7.5	16
23	1600	490	2480	549	492	498	100	12	7.5	7.9	7.4	26
24	1430	515	2130	559	501	498	100	12	7.8	7.9	8.1	25
25	1360	551	1020	569	501	498	101	12	7.8	7.9	7.6	21
26	513	549	2110	557	501	492	99	12	8.0	358	7.9	20
27	1400	570	1970	656	501	498	100	12	8.0	7.3	7.8	31
28	1520	556	1020	478	501	498	100	12	8.0	7.3	8.0	38
29	1540	553	2510	479	498	498	100	12	8.0	7.3	8.1	36
30	1990	601	2550	462	---	507	99	12	8.0	7.3	40	40
31	2400	---	2510	470	---	498	---	12	---	7.3	35	---
TOTAL	40968	23362	40457	42256	14457	15471	3045	372	252.8	586.9	292.5	485.1
MEAN	1322	779	1305	1363	499	499	102	12.0	8.43	18.9	9.44	16.2
MAX	2400	2630	2650	2730	510	507	141	17	12	358	40	40
MIN	513	471	805	462	478	492	98	10	7.3	4.7	7.0	7.2
AC-FT	81260	46340	80250	83810	28680	30690	6040	738	501	1160	580	962
CAL YR 1975	TOTAL	291087.0	MEAN	797	MAX	3080	MIN	14	AC-FT	577400		
WTR YR 1976	TOTAL	182005.3	MEAN	497	MAX	2730	MIN	4.7	AC-FT	361000		

11289650 TUOLUMNE RIVER BELOW LA GRANGE DAM, NEAR LA GRANGE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1970 to current year.

INSTRUMENTATION.--Temperature recorder since November 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1973-76), 21.0°C July 24, 1976; minimum, 6.0°C Feb. 6-8, 10, 1971.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 21.0°C July 24; minimum, 10.0°C on many days during October to April.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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

SAN JOAQUIN RIVER BASIN

11290000 TUOLUMNE RIVER AT MODESTO, CA

LOCATION.--Lat 37°37'38", long 120°59'11", in SE¼SW¼ sec.33, T.3 S., R.9 E., Stanislaus County, on left bank at bridge on Ninth Street in Modesto, and 0.2 mi (0.3 km) downstream from Dry Creek.

DRAINAGE AREA.--1,884 mi² (4,880 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--1878-84, 1891-94, 1897 (gage heights only), January 1895 to December 1896, April 1940 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level, unadjusted (levels by Modesto Irrigation District). Prior to July 11, 1947, at site 1,700 ft (518 m) downstream at same datum, July 11, 1947, to Nov. 16, 1953, at site 1,000 ft (305 m) downstream at same datum.

REMARKS.--Records good. Flow regulated by reservoirs and powerplants above station. In addition to diversions into Modesto and Turlock Canals (stations 11289000, 11289500), there are diversions for irrigation of about 1,300 acres (526 hm²) between station above La Grange Dam and at Modesto. See REMARKS for station 11289650 for Tuolumne River below La Grange Dam. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--37 years (water years 1896, 1941-76), 1,363 ft³/s (38.60 m³/s), 987,500 acre-ft/yr (1.22 km³/yr).

EXTREMES FOR PERIOD OF RECORD (water years 1895-96, 1941-76).--Maximum discharge observed, 57,000 ft³/s (1,610 m³/s) Dec. 9, 1950, elevation, 69.19 ft (21.089 m); minimum, 85 ft³/s (2.41 m³/s) Oct. 25, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,940 ft³/s (112 m³/s) Jan. 1, elevation, 45.76 ft (13.948 m); minimum daily, 140 ft³/s (3.96 m³/s) July 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	923	3170	1720	3600	718	753	722	286	191	144	203	180
2	926	3010	1920	2050	702	794	498	319	186	152	190	198
3	898	2820	1970	3040	684	824	391	249	186	158	170	201
4	884	3110	1970	3210	685	758	401	223	183	161	151	205
5	883	3300	1980	1970	790	768	404	205	182	161	151	181
6	857	1920	2030	3250	1060	836	364	211	177	166	158	182
7	843	1700	2040	3450	880	847	365	212	185	163	152	189
8	1130	1700	2050	2920	744	846	414	210	183	163	175	178
9	1610	1690	2050	2250	753	850	453	210	178	157	171	184
10	1840	1690	2040	2790	700	771	408	210	179	158	164	193
11	1890	1760	2040	3070	770	856	379	205	180	169	159	234
12	1910	1790	2040	1770	727	848	360	212	183	165	166	280
13	1780	1780	2000	2180	710	835	322	218	181	164	158	259
14	1920	1750	2020	2030	732	821	305	212	180	149	166	227
15	2110	1730	1990	2020	710	775	303	199	181	157	224	217
16	2530	1730	1970	2030	694	712	306	199	172	153	210	201
17	2660	1660	1970	1990	696	720	281	210	167	158	190	191
18	2890	1420	1950	1810	708	724	314	190	165	161	178	198
19	2860	1480	2030	1060	711	731	344	189	163	167	188	200
20	2580	1510	2040	1720	710	724	308	190	184	142	224	215
21	2510	1530	2670	1790	710	751	297	191	174	140	217	217
22	2390	1590	2060	1650	715	733	294	189	177	146	214	202
23	2330	1590	1130	1010	710	741	316	188	163	150	190	183
24	2440	1600	3590	812	713	743	298	191	156	145	159	178
25	2330	1630	3250	785	708	752	312	189	169	154	152	191
26	2210	1670	2150	788	712	733	286	185	155	170	159	194
27	1550	1690	2810	775	717	767	292	179	158	200	171	202
28	2100	1700	2950	829	717	771	269	184	175	260	163	203
29	2350	1680	2090	690	732	768	271	188	159	182	175	266
30	2550	1680	3110	699	---	735	280	187	145	164	171	245
31	3060	---	3560	801	---	733	---	200	---	151	173	---
TOTAL	59744	57080	71190	58839	21318	24020	10557	6430	5217	5030	5492	6194
MEAN	1927	1903	2296	1898	735	775	352	207	174	162	177	206
MAX	3060	3300	3590	3600	1060	856	722	319	191	260	224	280
MIN	843	1420	1720	690	684	712	269	179	145	140	151	178
AC-FT	118500	113200	141200	116700	42280	47640	20940	12750	10350	9980	10890	12290
CAL YR 1975	TOTAL	471546	MEAN	1292	MAX	3590	MIN	235	AC-FT	935300		
WTR YR 1976	TOTAL	331111	MEAN	905	MAX	3600	MIN	140	AC-FT	656800		

WATER-QUALITY RECORDS

WATER TEMPERATURES: July 1965 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1966-67, 1969-72, 1974-75), 31.5°C July 15, 1972; minimum, 6.5°C on several days in 1972.

WATER TEMPERATURES: Minimum, 9.5°C Jan. 2-4.

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	18.0	16.5	13.5	12.5	11.0	10.5	10.5	10.0	13.5	12.5	14.5	13.5
2	18.0	16.5	13.5	13.0	11.5	10.5	10.0	9.5	14.0	12.5	13.5	10.5
3	18.0	16.5	13.5	13.0	11.5	11.0	10.0	9.5	14.0	12.5	12.5	11.5
4	18.0	16.5	13.5	13.0	12.0	11.0	10.5	9.5	13.5	13.0	12.5	10.5
5	18.0	16.5	14.0	13.0	12.5	11.5	10.5	10.0	13.0	10.0	13.0	11.0
6	17.5	17.0	14.5	14.0	12.5	11.5	11.0	10.0	11.5	11.0	14.0	11.5
7	17.0	16.0	14.5	14.0	12.0	11.5	11.0	10.0	12.0	11.0	14.5	12.5
8	16.5	15.0	14.5	13.5	11.5	11.5	11.0	10.0	13.0	12.0	14.5	13.0
9	15.0	14.0	14.5	13.5	11.5	11.5	11.0	10.5	13.5	12.5	15.0	13.0
10	14.5	14.0	14.0	13.0	11.5	11.5	11.0	10.5	14.0	12.5	15.5	13.5
11	14.5	14.0	13.5	12.0	11.5	11.5	11.0	10.5	14.0	12.5	15.5	14.0
12	15.0	14.0	13.0	12.0	11.5	11.0	11.0	10.5	14.0	12.5	15.5	13.5
13	15.0	14.0	13.0	12.5	11.0	10.5	11.5	11.0	14.5	13.0	16.0	14.0
14	15.0	14.0	13.5	12.5	10.5	10.0	12.0	11.5	14.5	13.5	16.0	14.0
15	15.0	14.0	13.5	13.0	10.5	10.0	12.0	11.5	14.5	13.5	16.5	14.5
16	15.0	14.0	13.5	12.0	10.5	10.0	12.0	11.5	14.0	13.0	17.0	15.0
17	15.0	14.0	12.5	11.5	11.0	10.0	12.5	11.5	14.5	13.5	17.0	15.5
18	15.0	14.5	12.0	10.5	11.0	10.0	12.5	12.0	14.5	13.0	16.5	15.5
19	15.0	14.5	12.0	11.0	11.0	10.0	13.0	11.5	14.5	13.5	16.0	14.5
20	15.0	14.5	12.0	11.0	11.0	10.0	12.5	12.0	14.5	13.0	15.5	13.5
21	15.5	14.5	12.0	11.0	11.5	10.5	12.0	11.5	14.5	12.5	16.0	13.5
22	15.0	14.0	11.5	11.0	11.5	11.0	12.0	11.5	14.0	12.5	16.0	14.0
23	14.0	13.5	11.5	10.5	12.0	11.5	13.0	11.5	13.5	13.0	16.5	14.5
24	13.5	12.5	11.5	11.0	12.0	11.5	13.0	12.0	14.0	12.5	17.0	14.5
25	13.5	13.0	11.5	11.0	11.5	11.0	13.0	11.5	14.0	12.5	15.5	14.0
26	14.0	13.0	12.0	11.0	11.0	11.0	13.0	11.5	14.5	13.0	15.5	13.5
27	14.0	13.0	12.0	11.5	11.5	11.0	13.0	11.5	15.5	13.5	15.0	13.0
28	13.5	12.5	11.5	11.0	11.5	11.0	13.0	11.5	16.0	14.0	15.5	13.5
29	13.5	13.0	11.0	10.5	11.5	11.0	13.0	12.0	15.5	14.5	15.5	13.5
30	13.5	13.0	11.0	10.5	11.5	11.0	13.0	12.0	---	---	17.0	14.0
31	13.5	12.5	---	---	11.0	10.0	13.0	12.0	---	---	16.0	14.5
MONTH	18.0	12.5	14.5	10.5	12.5	10.0	13.0	9.5	16.0	10.0	17.0	10.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.5	14.0	22.0	18.5							27.0	23.0
2</												

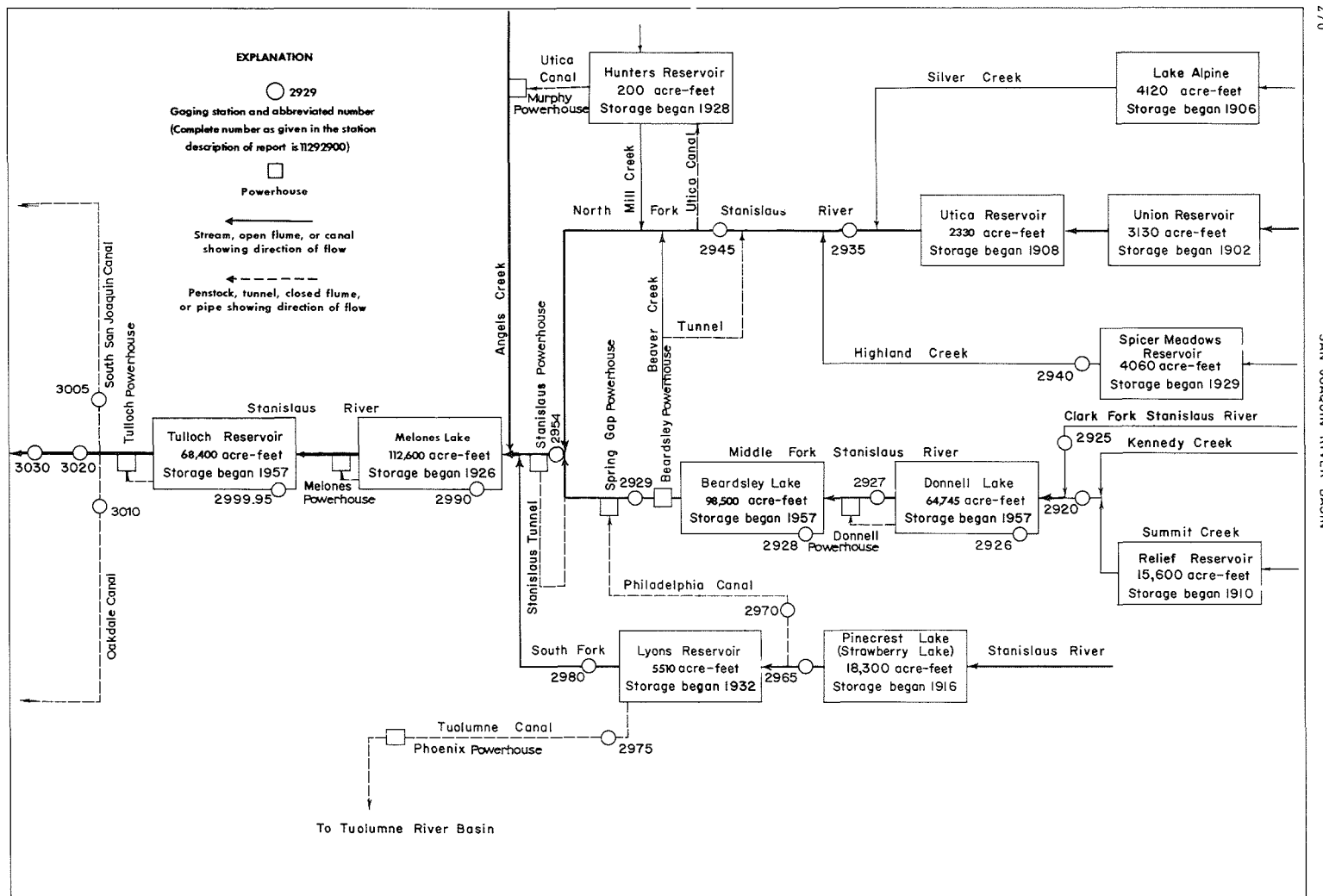


FIGURE 10.—Schematic diagram showing diversions and storage in Stanislaus River basin.

11292000 MIDDLE FORK STANISLAUS RIVER AT KENNEDY MEADOWS, NEAR DARDANELLE, CA

LOCATION.--Lat 38°17'51", long 119°44'25", in SW¼NE¼ sec.11, T.5 N., R.20 E., Tuolumne County, Stanislaus National Forest, on right bank at upper end of Kennedy Meadows, 1.3 mi (2.1 km) upstream from Deadman Creek, 1.6 mi (2.6 km) downstream from Relief Reservoir, and 5.8 mi (9.3 km) southwest of Dardanelle.

DRAINAGE AREA.--47.5 mi² (123.0 km²).

PERIOD OF RECORD.--October 1938 to current year. Records for water year 1946 incomplete, yearly estimate published in WSP 1315-A. Prior to October 1960, published as "at Kennedy Meadows."

REVISED RECORDS.--WSP 1315-A: 1939(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,320.1 ft (1,926.37 m) above mean sea level (river-profile survey).

REMARKS.--Flow regulated by Relief Reservoir 1.6 mi (2.6 km) upstream, capacity, 15,600 acre-ft (19.2 hm³). Contents of Relief Reservoir were 1,100 acre-ft (1.36 hm³) Sept. 30, 1975, and no contents Sept. 30, 1976. No diversion above station. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE (unadjusted).--38 years, 134 ft³/s (3.795 m³/s), 97,080 acre-ft/yr (120 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 1,700 ft³/s (48.1 m³/s) Nov. 20, 1950, gage height, 6.66 ft (2.030 m); minimum daily recorded, 7.2 ft³/s (0.20 m³/s) Feb. 11, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 350 ft³/s (9.91 m³/s) June 23, gage height, 4.07 ft (1.241 m); minimum daily, 13 ft³/s (0.37 m³/s) Jan. 12, Feb. 4, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	70	21	15	14	16	28	64	220	75	20	19
2	55	34	20	18	14	16	29	73	217	73	18	18
3	55	34	20	18	14	16	30	70	264	71	18	18
4	54	34	19	17	13	17	29	75	305	71	17	18
5	54	33	20	16	14	16	29	76	304	69	17	44
6	88	31	19	14	13	16	29	72	301	84	16	37
7	120	32	19	15	15	16	30	63	298	105	16	23
8	111	36	19	15	14	16	31	67	292	102	15	21
9	98	31	18	15	15	16	30	86	286	98	15	20
10	111	31	18	14	14	17	30	96	281	94	15	20
11	111	29	18	15	14	17	30	105	272	90	15	93
12	92	29	19	13	15	17	30	111	267	82	14	42
13	76	29	19	15	15	18	31	129	267	52	14	31
14	76	29	16	14	15	19	32	131	267	25	37	29
15	77	27	20	14	15	20	31	117	271	27	143	26
16	77	28	19	15	14	22	29	118	276	43	138	24
17	77	25	18	15	14	24	29	115	275	40	96	22
18	76	20	18	15	14	23	31	103	273	30	58	21
19	74	28	18	14	14	22	32	93	271	26	70	20
20	72	23	18	14	17	21	37	89	263	24	56	19
21	72	22	18	15	17	22	43	83	255	22	45	18
22	73	21	17	14	16	22	45	80	244	21	44	18
23	71	21	17	15	15	23	47	82	294	22	42	17
24	68	20	17	15	14	23	54	83	340	22	33	16
25	76	20	16	14	14	22	58	132	332	21	29	16
26	123	20	16	15	15	22	50	189	321	20	26	16
27	121	20	16	14	15	21	44	236	309	20	24	15
28	106	20	17	14	15	21	42	241	297	21	22	15
29	100	19	16	14	14	21	43	226	286	20	21	15
30	99	19	16	14	---	26	49	222	197	19	20	15
31	96	---	14	14	---	29	---	221	---	21	20	---
TOTAL	2614	835	556	459	422	617	1082	3648	8345	1510	1134	726
MEAN	84.3	27.8	17.9	14.8	14.6	19.9	36.1	118	278	48.7	36.6	24.2
MAX	123	70	21	18	17	29	58	241	340	105	143	93
MIN	54	19	14	13	13	16	28	63	197	19	14	15
AC-FT	5180	1660	1100	910	837	1220	2150	7240	16550	3000	2250	1440
CAL YR 1975	TOTAL	54566	MEAN 149	MAX 1100	MIN 10	AC-FT 108200						
WTR YR 1976	TOTAL	21948	MEAN 60.0	MAX 340	MIN 13	AC-FT 43530						

11292500 CLARK FORK STANISLAUS RIVER NEAR DARDANELLE, CA

LOCATION.--Lat 38°21'50", long 119°52'13", in NE¼NE¼ sec.22, T.6 N., R.19 E., Tuolumne County, Stanislaus National Forest, on right bank 0.5 mi (0.8 km) upstream from mouth, and 2.6 mi (4.2 km) northwest of Dardanelle.

DRAINAGE AREA.--67.5 mi² (175 km²).

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

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,507.3 ft (1,678.62 m) above mean sea level (river-profile survey).

REMARKS.--Records good except those for period of no gage-height record, which are fair. No storage or diversion above station. See schematic diagram of Stanislaus River basin.

AVERAGE DISCHARGE.--26 years, 150 ft³/s (4,248 m³/s), 108,700 acre-ft/yr (134 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,350 ft³/s (123 m³/s) Nov. 20, 1950, gage height, 11.88 ft (3.621 m), from rating curve extended above 1,300 ft³/s (36.8 m³/s) on basis of slope-area measurement of maximum flow; minimum, 11 ft³/s (0.31 m³/s) Apr. 3, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 552 ft³/s (15.6 m³/s) May 13, gage height, 5.13 ft (1.564 m), no peak above base of 600 ft³/s (17.0 m³/s); minimum daily, 20 ft³/s (0.57 m³/s) Aug. 31 to Sept. 4, Sept. 24-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	68	44	29	36	33	64	205	162	40	28	20
2	32	71	52	30	36	33	66	207	150	39	27	20
3	32	72	58	37	36	32	71	214	137	38	25	20
4	32	72	57	37	36	31	70	228	126	37	25	20
5	32	71	56	36	32	34	64	218	117	36	24	24
6	36	67	51	41	33	37	64	189	112	35	23	29
7	54	91	46	38	36	40	69	169	108	33	23	23
8	38	99	47	37	37	42	76	208	102	33	23	22
9	37	74	45	40	38	42	68	260	97	32	22	21
10	60	69	45	40	36	45	69	279	96	31	21	22
11	67	72	45	40	36	48	70	304	90	30	22	33
12	51	72	50	40	37	47	66	327	83	30	21	28
13	47	72	48	38	37	49	67	388	85	29	21	24
14	50	70	31	38	39	50	68	413	81	28	28	23
15	53	67	35	38	37	53	67	368	78	28	84	23
16	53	70	40	39	36	59	61	366	80	34	43	23
17	54	64	45	39	37	64	63	324	77	36	35	23
18	51	55	43	38	37	67	67	310	74	36	30	22
19	47	54	40	37	37	58	75	293	71	30	30	22
20	47	53	40	37	32	57	94	280	68	29	28	21
21	46	51	41	40	34	60	103	266	65	27	25	22
22	52	48	42	39	34	65	105	250	61	27	26	21
23	45	49	44	37	35	66	115	239	56	27	27	21
24	42	50	45	37	36	67	141	228	53	28	24	20
25	43	50	40	37	37	64	147	215	52	26	23	20
26	181	50	40	35	37	61	123	203	50	25	23	20
27	120	47	40	36	38	60	109	193	47	27	22	20
28	80	44	42	36	39	58	105	183	45	29	22	20
29	71	30	42	36	39	59	119	175	43	25	22	21
30	67	35	42	36	---	63	158	171	41	24	21	22
31	67	---	34	36	---	69	---	167	---	26	20	---
TOTAL	1719	1857	1370	1154	1050	1613	2604	7840	2507	955	838	670
MEAN	55.5	61.9	44.2	37.2	36.2	52.0	86.8	253	83.6	30.8	27.0	22.3
MAX	181	99	58	41	39	69	158	413	162	40	84	33
MIN	32	30	31	29	32	31	61	167	41	24	20	20
AC-FT	3410	3680	2720	2290	2080	3200	5170	15550	4970	1890	1660	1330
CAL YR 1975	TOTAL	62246	MEAN 171	MAX 1250	MIN 25	AC-FT 123500						
WTR YR 1976	TOTAL	24177	MEAN 66.1	MAX 413	MIN 20	AC-FT 47960						

NOTE.--No gage-height record Nov. 20 to Jan. 12.

11292600 DONNELL LAKE NEAR DARDANELLE, CA

LOCATION.--Lat 38°19'46", long 119°57'37" unsurveyed, T.6 N., R.18 E., Tuolumne County, Stanislaus National Forest, on left bank in hoist house of Donnell Dam on Middle Fork Stanislaus River, 1.2 mi (1.9 km) downstream from Niagara Creek, and 6.9 mi (11.1 km) west of Dardanelle.

DRAINAGE AREA.--230 mi² (596 km²).

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1960, published as Donnell's Reservoir near Dardanelle.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4.84 ft (1.475 m) above mean sea level (levels by Oakdale and South San Joaquin Irrigation Districts).

REMARKS.--Lake is formed by concrete arch-type dam complete in 1957. Usable capacity, 64,745 acre-ft (79.8 hm³), between gage heights 4,720.0 ft (1,438.66 m), minimum operating head and 4,917.0 ft (1,498.70 m), top of spillway gates. Lake is for power and conservation storage. Water passes through a 7.2-mi (11.6-km) tunnel to a powerplant and down the Middle Fork Stanislaus River to Beardsley Lake (station 11292800). Records, including extremes, represent total contents at 2400 hours of which 2,150 acre-ft (2.65 hm³) is below minimum operating head. See schematic diagram of Stanislaus River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 64,900 acre-ft (80.0 hm³) May 8, 1963, gage height, 4,917.3 ft (1,498.79 m); minimum since reservoir first filled, 4,780 acre-ft (5.89 hm³) Aug. 31, 1976, gage height, 4,735.2 ft (1,443.29 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 47,400 acre-ft (58.4 hm³) June 6, 7, gage height, 4,873.6 ft (1,485.47 m); minimum, 4,780 acre-ft (5.89 hm³) Aug. 31, gage height, 4,735.2 ft (1,443.29 m).

Capacity table (gage height, in feet, and contents, in acre-feet)

4735	4730	4790	19100
4740	5830	4800	22100
4750	8220	4820	28400
4760	10800	4850	38700
4770	13400	4880	49800
4780	16200	4917.3	64900

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36200	40300	35100	13200	6520	8570	9590	16000	45200	40200	8620	4840
2	35700	40700	34400	12600	6240	7900	9410	17300	45400	39100	8170	4900
3	35200	41000	33700	12800	6060	8120	9900	18500	45700	38000	7680	4950
4	35300	41400	32900	12700	6150	8320	10400	19600	46100	36900	7210	5010
5	35500	41800	32200	12100	6060	8520	10200	20700	46700	35700	6660	5080
6	35200	42200	31500	11500	6200	8720	9920	21700	47400	34500	6130	5270
7	35100	42500	30800	10900	6360	8950	9720	22600	47400	33400	6200	5360
8	34900	43100	30000	10300	6550	8850	9640	23700	47300	32300	6240	5360
9	34800	43400	29300	9690	6730	8770	9460	25300	47200	31100	6040	5400
10	34800	43800	28600	9820	6880	8720	9840	26700	47200	30000	5780	5490
11	35400	44100	27900	9950	7040	8570	10300	28000	47000	28800	5540	5780
12	35700	43800	27100	9360	7210	8220	10100	29300	47100	27600	5320	5970
13	35600	43400	26400	9100	7410	8540	9840	30700	47300	26400	5050	6100
14	35500	42900	25600	8850	7580	8870	9660	32300	47100	25100	5140	6200
15	35400	42400	24900	8600	7770	8900	9540	34100	46900	23800	5760	6290
16	35200	42100	24100	8370	7920	8970	9300	35800	46700	22400	5920	6380
17	35100	41600	23300	8540	8120	9130	9720	36800	46500	21200	5990	6450
18	35400	41100	22500	8700	8320	9300	10200	37600	46300	19900	5900	6550
19	35600	41400	21700	8440	8390	9380	10100	38300	46300	18600	5830	6620
20	35700	39800	20900	8170	8570	9770	9950	38900	46300	17200	5720	6690
21	35700	39200	20300	7900	8770	10200	10200	39400	46100	15800	5900	6780
22	35800	38500	19500	7630	8950	10000	10500	40100	45800	14400	6040	6850
23	35800	37800	18800	7360	8670	9820	10800	40800	45400	13100	5940	6920
24	35700	37100	18000	7500	8850	9740	11900	41000	45200	12300	5830	6970
25	36000	36400	17200	7630	8290	9510	12900	41300	44700	11600	5650	7020
26	37300	35700	16400	7360	8470	9460	13200	41700	44100	10600	5520	6810
27	38000	35900	15600	7070	8640	9790	13300	42200	43600	10100	5290	5580
28	38500	35400	14800	6780	8850	10200	13400	42800	42900	9560	5380	5120
29	39000	35500	14300	6500	9150	9920	13900	43500	42200	9050	5450	5180
30	39500	35700	13700	6220	---	9660	14700	44200	41400	8420	4990	5250
31	39900	---	13100	6360	---	9770	---	44900	---	8520	4780	---
MAX	39900	44100	35100	13200	9150	10200	14700	44900	47400	40200	8620	7020
MIN	34800	35400	13100	6220	6060	7900	9300	16000	41400	8420	4780	4840
†	4853.4	4841.6	4768.7	4742.3	4753.7	4756.1	4774.6	4867.0	4857.4	4751.2	4735.2	4737.4
‡	+3300	-4200	-22600	-6740	+2790	+620	+4930	+30200	-3500	-32880	-3740	+470

CAL YR 1975 † -31900

WTR YR 1976 † -31350

† Gage height, in feet, at end of month.

‡ Change in contents, in acre-feet.

SAN JOAQUIN RIVER BASIN

11292700 MIDDLE FORK STANISLAUS RIVER AT HELLS HALF ACRE BRIDGE, NEAR PINECREST, CA

LOCATION.--Lat 38°14'49", long 120°01'51", in SW¼NE¼ sec.31, T.5 N., R.18 E., Tuolumne County, on left bank 200 ft (61 m) upstream from Donnell powerhouse, 800 ft (244 m) downstream from Hells Half Acre bridge, 1.1 mi (1.8 km) upstream from Cow Creek, and 4.7 mi (7.6 km) northwest of Pinecrest.

DRAINAGE AREA.--287 mi² (743 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1956 to current year. Prior to October 1965, published as Middle Fork Stanislaus River at Hells Half Acre bridge.

GAGE.--Water-stage recorder. Datum of gage is 3,418.31 ft (1,041.901 m) above mean sea level (river-profile survey). Prior to Aug. 9, 1961, at site 1,600 ft (488 m) upstream at different datum.

REMARKS.--Records fair. Flow regulated by Relief Reservoir since 1909, capacity, 15,600 acre-ft (19.2 hm³), by Donnell Lake (station 11292600), and by diversion around station through Donnell powerplant. See schematic diagram of Stanislaus River basin.

AVERAGE DISCHARGE.--20 years, 247 ft³/s (6.995 m³/s), 179,000 acre-ft/yr (221 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft³/s (289 m³/s) Dec. 24, 1964, gage height, 13.64 ft (4.158 m) in gage well, 14.2 ft (4.33 m) outside, from floodmarks, from rating curve extended above 5,200 ft³/s (147 m³/s) on basis of slope-area measurement at gage height 12.20 ft (3.719 m); minimum daily, 3.3 ft³/s (0.094 m³/s) Nov. 9, 10, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1905, 23 ft (7.0 m) Dec. 23, 1955, from floodmarks, at present site, discharge, 26,600 ft³/s (753 m³/s) by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 324 ft³/s (9.18 m³/s) Oct. 26, gage height, 4.98 ft (1.518 m); minimum daily, 20 ft³/s (0.57 m³/s) Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	81	48	36	30	91	74	116	28	28	23	25
2	47	84	51	37	29	72	73	119	27	27	23	25
3	47	81	53	40	29	66	76	115	26	27	23	25
4	47	76	52	41	31	63	72	110	25	26	23	25
5	47	54	50	38	31	62	68	106	24	26	22	26
6	49	51	50	36	31	60	66	106	24	27	22	26
7	51	51	48	32	31	65	66	97	24	24	22	26
8	49	61	48	32	30	66	81	102	28	24	22	26
9	49	52	46	34	38	63	74	114	29	24	22	26
10	68	58	46	33	35	63	81	115	32	24	25	27
11	96	53	46	33	33	66	83	101	38	23	25	34
12	67	53	47	33	34	64	78	92	32	23	25	29
13	65	55	46	33	36	64	77	89	30	23	25	28
14	61	56	43	33	41	66	78	79	28	22	27	26
15	56	53	43	33	40	66	90	71	27	22	44	26
16	54	72	43	33	38	68	79	66	26	22	33	25
17	53	76	44	33	39	70	76	60	26	22	29	26
18	52	60	42	33	38	76	84	57	25	21	29	24
19	51	57	42	32	44	73	95	53	25	21	29	24
20	51	55	42	32	39	70	103	47	25	27	29	24
21	51	50	41	32	40	67	115	45	24	26	28	21
22	51	49	40	31	39	69	118	43	24	26	28	20
23	51	47	40	31	37	72	120	41	24	27	28	23
24	51	46	41	31	36	73	123	40	22	27	27	24
25	52	46	40	30	35	75	129	36	30	25	27	24
26	137	46	41	30	35	74	109	34	29	25	27	24
27	156	48	40	30	35	72	96	32	28	25	26	24
28	89	50	40	29	38	69	91	31	29	24	26	24
29	75	45	42	29	50	66	94	30	29	23	26	23
30	91	47	40	29	---	66	106	30	28	23	25	23
31	84	---	36	30	---	71	---	29	---	23	25	---
TOTAL	1996	1713	1371	1019	1042	2128	2675	2206	816	757	815	753
MEAN	64.4	57.1	44.2	32.9	35.9	68.6	89.2	71.2	27.2	24.4	26.3	25.1
MAX	156	84	53	41	50	91	129	119	38	28	44	34
MIN	47	45	36	29	29	60	66	29	22	21	22	20
AC-FT	3960	3400	2720	2020	2070	4220	5310	4380	1620	1500	1620	1490

CAL YR 1975 TOTAL 121813 MEAN 334 MAX 4990 MIN 29 AC-FT 241600
WTR YR 1976 TOTAL 17291 MEAN 47.2 MAX 156 MIN 20 AC-FT 34300

NOTE.--No gage-height record Feb. 20 to Apr. 7.

11292700 MIDDLE FORK STANISLAUS RIVER AT HELLS HALF ACRE BRIDGE, NEAR PINECREST, CA--Continued

WATER-QUALITY RECORDS

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 (water years 1967-75), 22.5°C Aug. 10, 1972; minimum, 0.0°C on many days during winter period most years.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Minimum, 0.0°C Feb. 5, 6.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.0	13.0	9.5	8.0	4.5	2.5	2.5	1.5	8.5	3.0	3.5	1.5
2	16.0	13.0	9.5	8.0	5.5	3.5	2.0	1.0	8.5	2.0	2.0	0.5
3	16.0	13.0	9.5	8.0	6.0	4.5	2.0	1.0	8.5	2.5	3.0	0.5
4	16.0	13.0	10.0	8.5	6.5	5.0	2.5	1.0	3.0	0.5	3.5	1.0
5	16.0	13.0	10.0	8.5	7.0	5.5	3.0	2.0	1.5	0.0	4.0	1.0
6	14.5	13.0	10.0	8.5	6.0	5.0	4.0	2.0	3.5	0.0	4.5	1.0
7	14.5	12.5	9.5	8.5	6.0	4.5	3.5	1.5	4.5	0.5	5.0	1.5
8	14.0	11.5	10.5	9.0	6.0	4.5	4.0	2.0	5.0	2.5	5.5	2.0
9	13.5	11.5	8.5	7.5	6.5	5.0	2.5	2.5	3.5	2.5	5.5	2.5
10	13.0	12.0	8.0	6.5	6.5	5.0	4.5	2.0	5.0	2.0	6.0	3.0
11	12.5	11.0	7.0	5.0	6.0	4.5	3.0	2.0	6.0	2.0	6.5	3.5
12	11.5	10.5	7.0	5.5	6.0	4.5	4.0	2.0	5.0	2.5	6.0	3.0
13	12.0	10.0	7.5	6.0	4.5	3.5	4.0	2.0	5.5	3.0	6.5	3.5
14	12.5	10.0	7.5	6.5	4.0	2.5	5.0	2.5	4.5	3.5	6.5	3.5
15	13.0	10.5	8.0	6.5	4.0	2.0	4.5	2.5	4.0	2.5	6.5	4.0
16	13.5	11.0	8.0	7.0	4.5	2.5	5.0	3.0	3.0	2.0	7.5	5.0
17	14.0	11.0	7.5	5.0	4.5	2.5	5.0	3.5	5.0	2.0	8.0	5.5
18	13.5	11.5	5.0	3.5	4.5	2.5	5.0	3.0	5.5	3.0	6.0	4.5
19	13.5	11.0	5.0	3.0	4.5	2.5	5.5	3.0	4.0	2.5	6.5	3.5
20	14.0	11.5	6.0	4.0	4.5	2.5	5.5	2.5	4.5	1.5	6.5	3.5
21	14.0	11.0	6.0	4.5	4.0	3.0	5.5	2.5	4.5	1.5	7.5	4.0
22	13.5	11.5	5.5	4.5	5.0	3.5	5.5	2.0	4.5	2.0	7.5	5.0
23	11.5	9.5	6.0	4.5	4.5	3.0	4.5	2.5	3.5	2.0	7.5	5.0
24	10.5	8.5	6.5	5.0	4.5	3.0	6.0	3.0	5.0	2.0	7.0	5.0
25	9.5	8.5	6.5	5.0	5.0	3.5	7.5	2.0	5.0	2.5	7.0	4.5
26	10.5	9.5	6.5	5.5	5.0	3.5	7.5	2.5	6.0	3.0	6.0	4.0
27	9.0	7.5	6.0	5.0	5.5	4.0	5.0	2.5	6.0	3.0	7.0	4.5
28	9.5	7.5	4.5	3.5	5.5	4.0	7.0	2.5	6.0	4.0	7.5	4.0
29	9.5	7.5	4.0	2.5	6.0	4.5	7.0	2.5	5.0	3.5	7.5	4.5
30	8.5	8.0	4.0	2.0	5.5	4.0	7.5	2.5	---	---	8.5	5.0
31	9.0	7.0	---	---	3.5	2.0	8.0	2.5	---	---	7.0	5.5
MONTH	16.0	7.0	10.5	2.0	7.0	2.0	8.0	1.0	8.5	0.0	8.5	0.5
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.0	5.0	11.5	8.0								
2	8.0	4.5	10.5	8.0								
3	6.5	5.0	11.5	8.0								
4	5.5	4.5	11.5	8.0								
5	5.0	4.5	11.0	8.5								
6	8.0	4.5	9.5	7.5								
7	9.0	5.0	10.5	7.0								
8	7.0	5.0	11.5	9.0								
9	7.5	4.0	11.5	9.0								
10	6.5	5.0	11.5	8.5								
11	6.5	5.0	13.0	9.0								
12	6.0	4.5	13.5	9.5								
13	6.0	4.5	15.0	11.0								
14	7.5	4.5	15.0	11.5								
15	6.0	3.5	14.5	10.5								
16	6.0	2.5	15.0	11.0								
17	6.5	2.5	15.5	11.0								
18	8.0	4.5	14.5	10.5								
19	9.0	5.5	14.5	10.5								
20	10.0	6.5	13.5	10.5								
21	9.5	6.5	14.5	11.0								
22	9.5	6.5	15.5	11.0								
23	9.5	6.0	15.0	11.0								
24	10.0	7.0	15.5	10.5								
25	9.0	7.0	16.0	10.5								
26	8.0	5.0	17.0	11.0								
27	8.0	4.5	17.5	11.5								
28	9.0	5.0	16.0	10.5								
29	9.5	5.5	---	---								
30	11.0	7.0	---	---								
31	---	---	---	---								
MONTH	11.0	2.5	17.5	7.0								

SAN JOAQUIN RIVER BASIN

11292800 BEARDSLEY LAKE NEAR STRAWBERRY, CA

LOCATION.--Lat 38°12'17", long 120°04'31", in SE¼NW¼ sec.14, T.4 N., R.17 E., Tuolumne County, Stanislaus National Forest, in hoist house of Beardsley Dam on Middle Fork Stanislaus River, 2.4 mi (3.9 km) upstream from Spring Gap powerhouse, 3.9 mi (6.3 km) west of Strawberry, and 4.7 mi (7.6 km) west of Pinecrest.

DRAINAGE AREA.--309 mi² (800 km²).

PERIOD OF RECORD.--June 1957 to current year. Prior to October 1960, published as Lake Hartley near Strawberry.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7.84 ft (2.390 m) above mean sea level (levels by Oakdale and South San Joaquin Irrigation Districts).

REMARKS.--Reservoir is formed by rockfill, earth-core dam completed in 1957. Capacity, 98,500 acre-ft (121 hm³) between gage heights 3,145.0 ft (958.60 m), tunnel invert and 3,398.0 ft (1,035.71 m), top of spillway gates. No dead storage. Reservoir is used for power and conservation storage. Water passes through Beardsley power-plant and down Middle Fork Stanislaus River to Melones Reservoir (station 11299000). Records, including extremes, represent contents at 2400 hours. See schematic diagram of Stanislaus River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 98,700 acre-ft (122 hm³) June 27, 1957, gage height, 3,398.2 ft (1,035.77 m); minimum since reservoir first filled, 3 acre-ft (3,700 m³) Sept. 23, 1976, gage height, 3,154.4 ft (961.46 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 92,700 acre-ft (144 hm³) Oct. 1, gage height, 3,389.8 ft (1,033.21 m); minimum, 3 acre-ft (3,700 m³) Sept. 23, gage height, 3,154.4 ft (961.46 m).

Capacity table (gage height, in feet, and contents, in acre-feet)

3154	2	3240	11600
3160	41	3260	19500
3170	267	3290	33100
3180	693	3320	48800
3190	1370	3350	66400
3200	2373	3370	79200
3210	3790	3398	98500
3220	5720		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92700	74400	72800	74000	55300	31500	23400	23800	20700	31500	37900	16000
2	91800	73700	72900	73700	54800	31500	23300	23200	21000	31900	37500	15100
3	91500	73600	73000	72800	54100	31200	22500	22900	21100	32300	37000	14100
4	90600	73700	73300	72100	53200	31400	21700	22600	21200	32700	36600	13200
5	89800	73900	73400	71900	52500	31400	21700	22300	21100	33100	36100	12300
6	89500	74000	73400	71700	51500	31500	21600	22100	20800	33600	35700	11400
7	89000	74100	73600	71500	50500	31600	21500	21900	21200	34100	34700	10400
8	88600	74100	73700	71300	49600	32100	21500	21400	21700	34500	33700	9610
9	88300	74200	73800	71100	48700	32300	21400	21000	22200	35000	33000	8780
10	88000	74400	73800	70100	47700	32300	20800	20900	22600	35500	32300	7920
11	87200	74500	73900	69200	46700	31900	20100	20900	23100	35900	31600	7100
12	86500	75200	74100	69100	45800	31600	20100	20800	23200	36400	30900	6300
13	86100	75500	74200	68500	44800	30800	20100	20800	23500	36800	30200	5360
14	85700	75400	74300	67900	44000	30000	20100	20800	23800	37200	29300	1020
15	85300	75300	74400	67400	43000	29400	20300	20300	24300	37700	28400	3360
16	84900	75300	74600	66800	42100	28900	20500	20000	24800	38200	27800	2780
17	84600	75200	74700	65800	41200	28400	20100	20300	25200	38700	27100	2270
18	83600	75200	74800	65000	40300	28000	20000	20200	26100	39100	26500	1720
19	82800	75300	75000	64300	39600	27500	20800	20200	26800	39600	25900	1050
20	82200	75100	75000	63700	38700	26700	21900	20200	27400	40100	25200	242
21	81500	75200	75000	63100	37700	25900	22800	20300	28000	40600	24400	4.0
22	80900	75200	75000	62600	36800	25800	23600	20200	28200	41100	23500	4.0
23	80300	75400	75000	62100	36300	25700	24400	20200	28300	41700	22800	3.0
24	79700	75400	75100	61000	35400	25700	24700	20300	28600	41600	22100	228
25	78800	75400	75200	60100	35200	26000	24800	20400	29000	41300	21400	418
26	78300	75400	75200	59500	34200	25700	24800	20700	29400	41400	20800	944
27	78000	74600	75300	59000	33300	24900	24900	20900	29800	41000	20200	2370
28	77200	74600	75400	58400	32400	24200	25000	21100	30200	40700	19300	2490
29	76500	73700	75200	57800	31600	24000	24700	21000	30600	40200	18400	2470
30	75900	72800	75000	57200	---	23900	24400	20800	31100	39900	17600	2320
31	75200	---	74800	56300	---	23500	---	20600	---	39000	17000	---
MAX	92700	75500	75400	74000	55300	32300	25000	23800	31100	41700	37900	16000
MIN	75200	72800	72800	56300	31600	23500	20000	20000	20700	31500	17000	3.0
†	3363.9	3360.3	3363.4	3333.2	3286.8	3269.4	3271.3	3262.7	3285.7	3301.6	3254.0	3199.5
‡	-17100	-2400	+2000	-18500	-24700	-8100	+900	-3800	+10500	+7900	-22000	-14680

CAL YR 1975 † +48800

WTR YR 1976 ‡ -89980

† Gage height, in feet, at end of month.

‡ Change in contents, in acre-feet.

11292900 MIDDLE FORK STANISLAUS RIVER BELOW BEARDSLEY DAM, CA

LOCATION.--Lat 38°11'36", long 120°05'53", in NW¼NW¼ sec.22, T.4 N., R.17 E., Tuolumne County, Stanislaus National Forest, on right bank 0.5 mi (0.8 km) downstream from Beardsley afterbay dam, 1.5 mi (2.4 km) downstream from Beardsley Dam, and 5.7 mi (9.2 km) west of Pinecrest.

DRAINAGE AREA.--316 mi² (818 km²).

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

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,044.7 ft (928.02 m) above mean sea level (river-profile survey).

REMARKS.--Records excellent. No diversion above station. Flow regulated by Relief Reservoir, capacity, 15,600 acre-ft (19.2 hm³), Donnell Lake since April 1957 (station 11292600), and by Beardsley Lake since January 1957 (station 11292800). See schematic diagram of Stanislaus River basin.

AVERAGE DISCHARGE.--19 years (water years 1958-76), 623 ft³/s (17.64 m³/s), 451,400 acre-ft/yr (557 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,630 ft³/s (188 m³/s) May 24, 1969, gage height, 11.07 ft (3.374 m); minimum daily, 3.0 ft³/s (0.085 m³/s) Oct. 10, 11, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 544 ft³/s (15.41 m³/s) Jan. 23, gage height, 5.31 ft (1.618 m); minimum daily, 14 ft³/s (0.40 m³/s) Nov. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	460	466	486	490	511	508	451	404	323	498	503	518
2	463	462	474	501	515	505	451	404	321	491	505	516
3	459	148	471	520	517	224	451	402	324	483	514	517
4	458	38	472	521	518	28	448	404	323	481	515	519
5	459	29	468	519	519	27	437	344	320	488	508	517
6	457	24	463	517	519	26	437	332	324	478	506	517
7	460	14	466	518	515	26	437	332	324	487	511	517
8	458	21	465	520	515	25	440	332	323	500	511	516
9	457	21	468	512	515	27	440	334	320	501	509	511
10	466	24	465	521	515	229	437	336	320	502	507	503
11	469	27	465	522	515	508	437	336	318	500	505	503
12	461	25	465	514	513	512	437	335	322	503	503	502
13	465	299	466	515	514	516	437	335	322	507	501	492
14	464	483	468	520	508	516	433	335	321	508	503	471
15	462	489	468	517	508	516	341	335	322	496	500	462
16	463	491	471	519	508	516	291	334	324	503	490	447
17	412	487	467	516	506	479	287	233	345	502	489	434
18	459	482	465	512	504	465	167	341	182	502	479	415
19	464	478	477	513	503	472	39	320	36	502	469	391
20	465	483	478	521	504	508	32	320	29	499	466	342
21	456	485	485	524	505	512	31	320	268	513	466	258
22	460	485	488	527	507	482	33	292	465	472	464	252
23	464	480	489	525	513	476	37	206	489	503	463	251
24	463	486	488	523	508	339	38	290	488	504	464	250
25	462	483	491	520	504	284	39	329	495	506	463	51
26	464	492	491	524	505	465	370	323	496	506	454	26
27	465	492	490	525	504	462	394	323	497	506	453	24
28	465	489	492	515	504	458	404	323	501	500	454	21
29	461	487	489	512	503	458	404	323	502	501	448	20
30	466	486	492	510	---	458	404	323	503	500	487	22
31	464	---	492	509	---	454	---	323	---	500	517	---
TOTAL	14271	9856	14775	16022	14795	11481	9484	10223	10447	15442	15127	10785
MEAN	460	329	477	517	510	370	316	330	348	498	488	360
MAX	469	492	492	527	519	516	451	404	503	513	517	519
MIN	412	14	463	490	503	25	31	206	29	472	448	20
AC-FT	28310	19550	29310	31780	29350	22770	18810	20280	20720	30630	30000	21390
CAL YR 1975	TOTAL	252125	MEAN 691	MAX 5490	MIN 14	AC-FT 500100						
WTR YR 1976	TOTAL	152708	MEAN 417	MAX 527	MIN 14	AC-FT 302900						

11293500 NORTH FORK STANISLAUS RIVER BELOW SILVER CREEK, CA

LOCATION.--Lat 38°26'22", long 120°00'53", in SE¼ sec.20, T.7 N., R.18 E., Alpine County, Stanislaus National Forest, on right bank 100 ft (30 m) downstream from Silver Creek, and 5.6 mi (9.0 km) northeast of Big Meadows.

DRAINAGE AREA.--27.8 mi² (72.0 km²).

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

REVISED RECORDS.--WSP 1930: 1954(N), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,677.3 ft (2,035.24 m) above mean sea level (river-profile survey).

REMARKS.--Flow regulated by Lake Alpine, Union, and Utica Reservoirs, combined capacity, 9,580 acre-ft (11.8 hm³). No diversion above station. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--24 years, 77.6 ft³/s (2.198 m³/s), 56,220 acre-ft/yr (69.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,780 ft³/s (78.7 m³/s) Dec. 24, 1964, gage height, 11.16 ft (3.402 m) from floodmarks, from rating curve extended above 500 ft³/s (14.2 m³/s); minimum daily, 0.3 ft³/s (0.008 m³/s) Oct. 10, 1958.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 20, 1950, reached a stage of 11.17 ft (3.405 m), from Pacific Gas and Electric Co. recorder chart, discharge, 2,790 ft³/s (79.0 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 287 ft³/s (8.13 m³/s) Oct. 26, gage height, 5.91 ft (1.801 m), no peak above base of 300 ft³/s (8.5 m³/s); minimum daily, 4.0 ft³/s (0.11 m³/s) Sept. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	30	35	5.6	7.3	36	63	199	14	5.0	31	34
2	51	27	39	5.6	7.5	32	65	195	13	5.0	31	31
3	51	22	37	5.6	7.3	26	76	164	12	4.9	30	24
4	51	18	35	5.6	7.0	20	74	173	10	4.9	30	13
5	51	16	35	6.0	6.9	17	61	162	9.1	4.9	31	7.1
6	50	14	17	5.8	6.8	16	53	165	8.3	4.9	30	6.5
7	47	24	12	5.8	6.7	17	59	102	7.6	5.8	30	5.9
8	46	27	10	5.6	7.2	19	94	140	7.0	5.7	30	5.8
9	46	16	8.6	5.8	9.2	20	79	175	7.6	5.7	30	5.7
10	72	17	8.1	6.0	9.6	25	72	163	7.9	5.7	30	6.2
11	54	25	7.8	6.0	9.9	28	82	149	8.7	5.7	30	11
12	24	38	8.2	6.0	12	27	69	137	8.3	5.7	30	7.4
13	22	39	7.6	6.0	14	28	60	137	7.8	5.6	30	5.7
14	21	36	7.5	6.4	18	30	63	132	8.1	5.6	31	5.3
15	20	33	7.7	6.7	17	34	75	102	6.2	5.9	34	5.1
16	19	49	7.9	7.5	15	43	63	78	5.9	5.6	34	5.1
17	19	43	7.6	8.4	15	53	53	73	5.4	5.3	41	5.0
18	19	32	7.2	8.0	17	52	67	59	5.4	5.1	41	4.9
19	19	29	6.9	7.1	19	49	89	48	5.2	5.1	40	4.0
20	20	29	6.6	6.6	19	49	143	41	5.4	5.1	40	4.1
21	22	28	6.5	6.5	16	59	170	38	5.5	5.1	40	5.1
22	22	28	6.7	6.4	16	75	172	35	5.3	5.0	40	4.8
23	22	28	6.6	6.2	14	85	178	31	5.1	5.4	39	4.8
24	31	30	6.9	6.4	12	80	195	28	5.0	5.3	39	9.8
25	52	32	6.9	6.0	12	69	195	26	4.9	5.2	38	22
26	168	32	6.6	5.8	12	55	138	26	4.8	5.2	38	23
27	91	32	6.7	6.0	15	49	102	23	4.8	11	37	23
28	46	32	8.3	6.4	19	45	87	21	4.8	24	37	23
29	16	32	8.5	6.7	25	45	103	19	5.2	31	36	23
30	16	32	7.5	6.9	---	55	155	17	5.0	31	36	23
31	22	---	6.2	7.1	---	71	---	15	---	31	35	---
TOTAL	1261	870	389.1	196.5	372.4	1309	2955	2873	213.3	266.4	1069	358.3
MEAN	40.7	29.0	12.6	6.34	12.8	42.2	98.5	92.7	7.11	8.59	34.5	11.9
MAX	168	49	39	8.4	25	85	195	199	14	31	41	34
MIN	16	14	6.2	5.6	6.7	16	53	15	4.8	4.9	30	4.0
AC-FT	2500	1730	772	390	739	2600	5860	5700	423	528	2120	711
CAL YR 1975	TOTAL	34641.1	MEAN	94.9	MAX	1060	MIN	3.9	AC-FT	68710		
WTR YR 1976	TOTAL	12133.0	MEAN	33.2	MAX	199	MIN	4.0	AC-FT	24070		

11294000 HIGHLAND CREEK BELOW SPICER MEADOWS RESERVOIR, CA

LOCATION.--Lat 38°23'34", long 119°59'50", in SW¼ sec.3, T.6 N., R.18 E., Tuolumne County, Stanislaus National Forest, on right bank 500 ft (152 m) downstream from Spicer Meadows Reservoir dam, 5.8 mi (9.3 km) upstream from mouth, and 7 mi (11 km) east of Big Meadow.

DRAINAGE AREA.--42.4 mi² (109.8 km²).

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

REVISED RECORDS.--WSP 1930: 1953.

GAGE.--Water-stage recorder. Datum of gage is 6,374.8 ft (1,943.04 m) above mean sea level (river-profile survey).

REMARKS.--Flow regulated by Spicer Meadows Reservoir 500 ft (152 m) upstream, capacity, 4,060 acre-ft (5.01 hm³). See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--24 years, 122 ft³/s (3.455 m³/s), 88,390 acre-ft/yr (109 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,860 ft³/s (279 m³/s) Jan. 31, 1963, gage height, 11.88 ft (3.621 m), from rating curve extended above 1,200 ft³/s (34.0 m³/s); no flow Sept. 28 to Dec. 1, Dec. 4-6, 1964, Sept. 17, Oct. 4, 21-24, 1972.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 20, 1950, reached a stage of 11.50 ft (3.505 m) from Pacific Gas and Electric Co. recorder chart, discharge, 8,800 ft³/s (249 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 347 ft³/s (9.83 m³/s) May 13, gage height, 4.61 ft (1.405 m), no peak above base of 500 ft³/s (14 m³/s); minimum daily, 0.50 ft³/s (0.014 m³/s) Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	103	3.3	41	36	3.4	74	244	65	30	3.3	23
2	6.0	100	3.6	47	24	3.5	77	242	61	34	3.2	23
3	6.1	69	3.8	53	16	3.5	89	223	55	38	3.2	22
4	6.1	48	4.1	53	17	3.6	85	242	51	38	3.2	28
5	6.0	68	4.3	53	17	3.6	70	237	47	38	3.3	32
6	6.0	92	4.7	52	17	3.8	65	205	44	37	3.2	31
7	6.1	90	5.7	52	17	3.5	77	173	41	37	2.3	31
8	6.2	93	25	52	17	3.4	105	216	40	37	.50	31
9	6.2	91	30	51	17	3.5	84	252	42	37	.93	31
10	6.8	90	29	51	17	2.6	87	266	45	36	1.5	30
11	30	39	27	51	18	1.8	90	253	42	21	2.3	30
12	47	2.4	31	50	18	2.1	79	258	36	9.1	3.0	30
13	46	2.6	27	50	8.2	2.7	74	278	36	8.9	3.0	30
14	45	2.8	24	49	1.2	3.5	79	279	28	8.7	3.0	30
15	45	2.9	31	49	1.3	45	89	244	28	27	3.2	29
16	45	3.0	29	48	1.3	78	74	224	29	40	3.1	29
17	44	3.1	27	48	1.3	96	67	216	36	39	3.1	28
18	44	3.0	37	48	1.3	102	79	192	37	39	3.1	28
19	43	3.0	43	45	1.2	74	102	169	38	38	3.1	27
20	43	3.1	43	46	1.0	66	140	142	38	38	3.1	26
21	41	3.1	43	46	.98	75	159	145	37	38	3.1	26
22	41	3.1	42	45	.94	89	162	123	37	37	3.2	25
23	40	3.1	42	45	.94	91	175	113	37	37	3.2	24
24	24	3.1	42	44	.89	89	201	104	36	37	3.2	14
25	4.2	3.2	42	43	.89	79	203	114	36	36	3.3	3.5
26	4.8	3.2	41	43	.87	69	155	113	36	36	3.3	3.4
27	5.4	3.2	41	42	2.1	64	132	103	36	17	3.3	3.3
28	37	3.3	41	40	3.3	60	119	95	34	3.0	3.3	2.8
29	89	3.3	41	39	3.4	62	143	78	31	2.0	3.3	2.1
30	108	3.2	41	38	---	72	192	72	30	3.2	3.3	.99
31	105	---	40	37	---	90	---	68	---	3.3	14	---
TOTAL	992.7	940.7	888.5	1451	262.11	1345.5	3327	5683	1189	880.2	101.13	674.09
MEAN	32.0	31.4	28.7	46.8	9.04	43.4	111	183	39.6	28.4	3.26	22.5
MAX	108	103	43	53	36	102	203	279	65	40	14	32
MIN	4.2	2.4	3.3	37	.87	1.8	65	68	28	2.0	.50	.99
AC-FT	1970	1870	1760	2880	520	2670	6600	11270	2360	1750	201	1340

CAL YR 1975 TOTAL 49271.23 MEAN 135 MAX 1370 MIN .83 AC-FT 97730
WTR YR 1976 TOTAL 17734.93 MEAN 48.5 MAX 279 MIN .50 AC-FT 35180

11294500 NORTH FORK STANISLAUS RIVER NEAR AVERY, CA

LOCATION.--Lat 38°14'45", long 120°17'20", in SW¼NE¼ sec.35, T.5 N., R.15 E., Calaveras County, Stanislaus National Forest, on right bank 700 ft (213 m) upstream from intake of Utica Canal, 3.3 mi (5.3 km) upstream from Beaver Creek, and 5.1 mi (8.2 km) northeast of Avery.

DRAINAGE AREA.--163 mi² (422 km²).

PERIOD OF RECORD.--July 1914 to September 1925, November 1928 to current year. Yearly discharge only for some years, published in WSP 1315-A.

REVISED RECORDS.--WSP 1215: 1938(M). WSP 1515: 1915(M), 1932(M), 1936(M), 1938, 1940(M).

GAGE.--Water-stage recorder. Datum of gage is 3,388.3 ft (1,032.75 m) above mean sea level (river-profile survey). Prior to September 1922, nonrecording gage at same site at datum 0.05 ft (0.015 m) lower.

REMARKS.--Flow regulated at low and medium stages of Lake Alpine, Spicer Meadows, Union and Utica Reservoirs, combined capacity, 13,600 acre-ft (16.8 hm³). Diversion of a maximum of 10 ft³/s (0.28 m³/s) during summer from Beaver Creek into river above station. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--59 years, 417 ft³/s (11.81 m³/s), 302,100 acre-ft/yr (372 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 ft³/s (1,020 m³/s) Jan. 31, 1963, gage height, 15.00 ft (4.572 m) from floodmarks, from rating curve extended above 14,000 ft³/s (396 m³/s) on basis of slope-area measurement at gage height 13.8 ft (4.21 m); minimum daily, 5.5 ft³/s (0.16 m³/s) Dec. 6, 7, 1929.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,200 ft³/s (34.0 m³/s) Oct. 26, gage height, 5.05 ft (1.539 m), no peak above base of 2,000 ft³/s (57 m³/s); minimum daily, 15 ft³/s (0.42 m³/s) July 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	237	91	77	80	138	302	732	110	35	34	40
2	66	247	108	85	79	130	290	804	103	34	34	53
3	66	225	113	91	68	121	330	664	95	36	34	50
4	66	153	109	94	60	107	329	699	88	41	34	43
5	66	135	104	92	59	99	293	675	81	41	34	40
6	70	165	104	92	56	100	261	618	75	40	34	37
7	90	173	98	90	59	108	263	545	70	39	33	36
8	70	242	94	89	61	118	368	550	66	39	33	35
9	69	196	100	92	77	128	342	682	64	39	33	34
10	127	204	95	90	77	138	349	795	73	38	32	34
11	285	186	92	91	73	167	344	658	80	38	31	55
12	164	124	94	89	77	153	336	601	74	34	31	52
13	131	116	97	88	84	156	300	593	64	19	31	41
14	114	113	79	88	96	160	303	602	57	16	37	36
15	105	105	84	88	89	165	336	526	50	15	104	35
16	100	167	89	88	75	273	317	437	44	19	73	34
17	96	223	79	90	78	328	265	416	42	43	46	34
18	93	130	74	90	80	391	297	367	47	41	49	33
19	89	103	84	88	102	312	358	324	49	40	58	33
20	86	103	89	84	86	273	500	280	49	39	53	32
21	84	104	88	83	91	284	550	246	48	38	49	30
22	86	95	92	85	86	331	570	238	48	38	46	30
23	85	88	88	85	78	365	610	215	46	39	45	30
24	85	85	89	87	73	357	650	193	44	42	44	29
25	83	87	88	81	72	344	700	179	43	39	43	27
26	383	93	88	85	69	292	560	184	42	37	42	27
27	499	94	87	85	72	265	453	175	41	36	41	27
28	197	95	86	84	81	244	421	159	40	33	40	27
29	160	82	92	83	133	237	438	140	39	25	39	27
30	228	89	91	82	---	251	544	126	35	33	38	28
31	236	---	82	81	---	329	---	117	---	33	37	---
TOTAL	4146	4259	2848	2697	2271	6864	11979	13540	1807	1079	1312	1069
MEAN	134	142	91.9	87.0	78.3	221	399	437	60.2	34.8	42.3	35.6
MAX	499	247	113	94	133	391	700	804	110	43	104	55
MIN	66	82	74	77	56	99	261	117	35	15	31	27
AC-FT	8220	8450	5650	5350	4500	13610	23760	26860	3580	2140	2600	2120
CAL YR 1975 TOTAL	175703		MEAN 481	MAX 4120	MIN 38	AC-FT 348500						
WTR YR 1976 TOTAL	53871		MEAN 147	MAX 804	MIN 15	AC-FT 106900						

11295400 STANISLAUS RIVER NEAR HATHAWAY PINES, CA

LOCATION.--Lat 38°08'29", long 120°22'19", in NW¼SW¼ sec.6, T.3 N., R.15 E., Calaveras County, on right bank 1,000 ft (300 m) upstream from Stanislaus powerplant, and 3.6 mi (5.8 km) south of Hathaway Pines.

DRAINAGE AREA.--629 mi² (1,629 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,030.00 ft (313.944 m) above mean sea level (levels by Pacific Gas and Electric Co.).

REMARKS.--Records excellent. Many diversions above station for hydroelectric powerplants. Small diversions for domestic water supply. Stanislaus tunnel diverts from left bank of Middle Fork Stanislaus River 13.7 mi (22.0 km) upstream from station in SE¼ sec.24, T.4 N., R.16 E., to Stanislaus powerplant 1,000 ft (300 m) downstream from station. See schematic diagram of Stanislaus River basin. For records of combined discharge of river and tunnel, see following page.

COOPERATION.--Records of diversion to Stanislaus powerplant furnished by Pacific Gas and Electric Co.

AVERAGE DISCHARGE.--River only: 9 years, 805 ft³/s (22.80 m³/s), 583,200 acre-ft/yr (719 hm³/yr).
Combined river and powerplant: 9 years, 1,309 ft³/s (37.07 m³/s), 948,400 acre-ft/yr (1.17 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 17,300 ft³/s (490 m³/s) Jan. 21, 1970, gage height, 17.98 ft (5.480 m) recorded, 18.6 ft (5.67 m) from floodmarks; minimum daily, 15 ft³/s (0.42 m³/s) July 24, 1976.
Combined flow, maximum discharge, 17,900 ft³/s (507 m³/s) Jan. 21, 1970; minimum daily, 33 ft³/s (0.93 m³/s) Sept. 23, 1976.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 1,340 ft³/s (37.9 m³/s) Oct. 26, gage height, 9.94 ft (3.030 m); minimum daily, 15 ft³/s (0.42 m³/s) July 24.
Combined flow, maximum discharge, 1,880 ft³/s (53.2 m³/s) Oct. 26; minimum daily, 33 ft³/s (0.93 m³/s) Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	218	83	68	38	252	360	666	57	32	21	24
2	52	218	87	67	38	162	335	746	50	28	22	20
3	40	212	88	69	37	309	329	625	43	30	23	22
4	42	201	87	74	38	130	373	639	37	25	22	22
5	46	175	85	79	43	121	351	622	33	25	25	23
6	47	166	80	78	42	112	314	590	30	28	26	23
7	58	181	75	69	42	120	303	545	28	23	18	23
8	62	230	69	68	42	143	404	491	26	20	16	24
9	51	218	70	73	51	166	411	597	26	21	17	25
10	83	232	68	77	69	170	407	737	32	23	19	24
11	327	218	67	80	51	193	407	604	34	23	19	28
12	161	169	79	75	48	173	407	546	31	23	20	35
13	112	172	78	56	46	145	369	527	30	37	18	28
14	96	88	68	60	68	158	361	534	27	29	19	23
15	83	88	62	58	74	160	334	480	26	24	63	20
16	73	128	65	58	58	242	317	378	25	23	86	20
17	69	262	73	59	64	332	263	345	33	19	34	19
18	94	149	76	59	80	386	282	306	24	21	24	19
19	54	101	61	56	94	329	342	259	24	22	30	18
20	52	92	62	52	79	273	472	217	23	22	33	20
21	50	87	69	58	72	268	606	185	23	20	26	20
22	51	82	79	53	65	309	628	179	24	28	23	19
23	52	76	82	53	77	348	639	149	24	21	22	18
24	52	72	77	48	92	341	688	131	23	15	22	26
25	52	72	78	49	66	329	744	116	20	17	22	21
26	209	73	76	48	63	289	594	119	21	17	21	19
27	711	88	78	47	97	255	479	111	22	26	20	19
28	247	94	80	46	55	228	416	96	24	46	19	19
29	201	84	89	42	123	252	409	88	29	35	19	19
30	197	79	112	41	---	300	501	73	31	20	19	24
31	247	---	79	39	---	367	---	65	---	21	21	---
TOTAL	3679	4325	2382	1859	1812	7362	12845	11766	880	764	789	664
MEAN	119	144	76.8	60.0	62.5	237	428	380	29.3	24.6	25.5	22.1
MAX	711	262	112	80	123	386	744	746	57	46	86	35
MIN	40	72	61	39	37	112	263	65	20	15	16	18
AC-FT	7300	8580	4720	3690	3590	14600	25480	23340	1750	1520	1560	1320
CAL YR 1975 TOTAL	314000		MEAN 860	MAX 9170	MIN 33	AC-FT 622800						
WTR YR 1976 TOTAL	49127		MEAN 134	MAX 746	MIN 15	AC-FT 97440						

SAN JOAQUIN RIVER BASIN

11295400 STANISLAUS RIVER NEAR HATHAWAY PINES, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF STANISLAUS RIVER AND STANISLAUS
POWERPLANT AT STANISLAUS, NEAR HATHAWAY PINES, CA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	582	753	616	602	572	791	859	1140	457	578	571	565
2	585	753	620	601	572	693	823	1170	451	574	571	566
3	573	531	621	603	572	707	814	1050	439	577	572	566
4	576	384	620	608	573	303	856	1090	426	573	571	565
5	580	355	618	613	578	296	826	1060	412	575	573	565
6	581	343	613	612	577	286	778	1000	406	581	573	565
7	592	353	608	602	577	295	769	957	398	578	564	564
8	596	403	602	602	577	318	873	906	396	580	561	564
9	585	392	604	607	586	340	877	1010	396	585	561	565
10	617	408	602	611	604	387	872	1150	398	589	563	563
11	861	391	601	614	586	714	872	1020	402	591	562	567
12	695	340	613	609	583	710	868	959	400	592	562	573
13	646	481	612	590	580	680	830	939	396	606	559	565
14	630	632	602	594	602	692	820	946	392	598	559	546
15	617	632	596	592	608	693	723	892	391	592	604	519
16	607	670	599	592	591	776	630	789	391	589	625	505
17	576	802	606	593	598	845	568	638	417	586	566	486
18	595	688	608	592	614	884	520	746	313	587	547	466
19	596	638	593	589	629	832	405	661	70	587	538	437
20	592	629	597	586	613	811	521	619	63	585	531	397
21	585	623	604	592	606	811	650	588	226	582	526	211
22	586	618	613	588	599	841	670	574	520	583	521	34
23	587	612	616	588	612	861	689	425	573	584	517	33
24	586	607	611	582	626	705	739	474	571	574	516	41
25	586	607	612	583	600	640	796	533	569	576	516	36
26	745	607	610	582	597	798	900	524	569	576	509	34
27	1250	623	612	581	630	771	876	516	569	583	496	34
28	782	628	614	580	585	740	832	501	571	601	503	34
29	735	618	623	576	653	761	845	491	575	589	500	93
30	732	612	646	575	---	807	972	478	577	573	515	189
31	782	---	613	573	---	873	---	471	---	572	560	---
TOTAL	20238	16733	18925	18412	17300	20661	23073	24317	12734	18096	17012	11448
MEAN	653	558	610	594	597	666	769	784	424	584	549	382
MAX	1250	802	646	614	653	884	972	1170	577	606	625	573
MIN	573	340	593	573	572	286	405	425	63	572	496	33
AC-FT	40140	33190	37540	36520	34310	40980	45770	48230	25260	35890	33740	22710
CAL YR 1975 TOTAL	505657			1385	MAX 9710	MIN 128	AC-FT 1003000					
WTR YR 1976 TOTAL	218949			MEAN 598	MAX 1250	MIN 33	AC-FT 434300					

11295400 STANISLAUS RIVER NEAR HATHAWAY PINES, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: February 1970 to current year.

INSTRUMENTATION.--Temperature recorder since February 1970.

REMARKS.--Water temperatures are affected by the powerplant operation.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1970-74, 1976), 26.0°C June 19, 20, 1976; minimum, 1.5°C Jan. 3, 1975.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 26.0°C June 19, 20; minimum, 3.0°C Mar. 3.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.5	12.0	11.5	10.5	9.5	7.0	7.0	5.5	7.0	6.5	7.5	6.0
2	13.5	12.5	12.0	11.0	9.5	7.0	6.5	5.0	7.0	6.0	6.0	4.5
3	14.5	12.5	12.0	10.0	9.5	7.5	7.0	5.0	7.0	6.0	6.0	3.0
4	14.5	12.5	11.0	9.5	9.5	8.0	7.0	6.0	6.5	6.0	5.0	3.5
5	15.0	12.0	11.0	10.0	10.0	8.5	7.5	5.0	6.0	5.5	5.5	3.5
6	14.0	12.5	11.0	10.0	10.0	9.0	7.5	6.0	6.5	6.0	6.5	4.5
7	13.0	12.0	10.5	9.5	9.5	9.0	7.5	6.0	6.5	6.0	7.0	5.0
8	13.0	12.0	11.5	10.5	9.5	8.0	7.5	6.0	7.0	6.5	7.5	5.5
9	12.5	12.0	10.5	8.5	9.5	7.0	7.5	6.5	7.0	6.5	7.5	6.0
10	12.5	12.0	9.5	8.5	9.5	8.5	7.0	6.0	7.0	6.0	8.5	6.5
11	13.0	12.0	9.0	6.5	9.0	8.5	7.0	6.5	7.0	6.5	8.0	7.0
12	12.0	11.5	7.0	6.0	9.0	8.5	7.0	6.5	7.0	6.0	7.5	6.5
13	12.0	11.5	8.5	6.5	8.5	8.0	7.0	6.5	7.0	6.5	7.5	7.0
14	12.0	11.0	11.0	8.5	8.0	7.5	7.0	6.0	7.0	6.5	7.5	7.0
15	12.5	11.5	11.0	10.0	8.0	7.5	7.0	6.5	7.0	6.5	7.5	7.0
16	13.0	12.0	11.5	10.5	8.0	7.5	7.0	6.5	7.0	6.5	8.5	7.5
17	13.0	12.5	11.0	9.0	8.0	6.5	7.0	6.5	7.5	6.5	10.0	8.0
18	13.0	12.5	9.5	8.5	7.5	7.0	7.5	6.5	7.5	7.0	9.0	7.0
19	13.0	12.5	9.5	7.5	8.0	7.5	7.5	6.5	7.0	6.5	7.0	6.5
20	13.0	12.5	10.5	8.5	8.5	6.5	7.0	6.5	7.0	5.5	7.5	6.0
21	13.5	12.5	10.5	9.0	8.5	6.5	7.0	6.5	7.0	6.0	8.5	7.0
22	13.5	12.5	10.5	9.0	8.5	7.5	7.0	6.5	7.0	6.0	9.0	8.0
23	12.5	12.0	10.5	9.5	8.5	7.5	7.0	5.0	7.0	6.5	9.0	8.0
24	12.5	11.5	10.5	9.5	8.0	7.5	7.5	7.0	7.0	6.0	9.0	7.5
25	12.5	12.0	10.5	9.5	8.0	7.5	7.0	6.5	7.0	6.5	8.5	7.5
26	13.0	12.0	10.0	9.0	8.0	7.0	7.0	6.0	7.5	6.5	8.0	7.0
27	12.0	10.5	10.0	9.5	8.5	6.5	7.0	6.5	7.5	6.5	8.5	7.5
28	11.5	10.5	10.0	9.0	8.0	7.0	6.5	6.0	8.0	7.0	8.0	7.0
29	11.0	9.0	9.0	8.5	8.0	7.0	6.5	6.0	7.5	7.0	8.5	7.5
30	11.5	10.5	9.5	7.5	7.5	7.0	6.5	6.0	---	---	9.0	8.0
31	11.0	9.5	---	---	7.0	6.5	7.0	6.0	---	---	9.5	8.5
MONTH	15.0	9.0	12.0	6.0	10.0	6.5	7.5	5.0	8.0	5.5	10.0	3.0
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.5	7.5	13.0	11.0	16.5	14.5	22.5	14.0	16.5	15.0	20.0	19.0
2	8.5	7.5	12.5	11.0	15.5	14.5	17.5	14.0	16.5	15.5	20.0	19.0
3	8.5	8.0	13.5	11.0	15.5	14.5	15.5	14.5	16.5	15.5	20.0	19.0
4	8.0	7.5	14.5	12.0	20.0	15.0	15.5	14.5	16.5	15.5	20.0	19.0
5	7.5	7.5	14.5	12.0	15.5	15.0	15.5	14.0	16.5	15.5	19.5	18.5
6	9.0	7.5	13.0	11.5	16.0	15.0	16.5	14.5	17.5	16.0	19.0	18.0
7	10.0	8.5	13.5	10.5	18.5	14.5	15.5	14.5	16.5	15.5	19.0	18.0
8	9.5	8.0	15.0	12.5	15.5	14.5	15.5	14.5	16.5	16.0	20.5	19.0
9	9.0	7.0	15.0	12.5	15.0	14.5	22.5	14.5	17.0	16.0	20.0	19.0
10	---	---	14.5	12.5	15.0	14.0	17.0	15.0	17.5	16.5	20.0	19.5
11	---	---	15.5	12.5	17.5	13.5	17.5	15.0	17.0	16.5	19.5	19.5
12	---	---	16.0	13.5	16.5	14.5	17.0	15.0	17.5	17.0	20.0	19.0
13	8.0	7.0	17.5	14.0	17.0	14.5	16.5	15.5	18.0	16.5	20.5	19.5
14	9.0	7.0	17.0	14.0	17.5	15.0	17.5	15.5	17.0	16.0	20.5	20.0
15	9.0	7.5	16.5	13.5	19.5	15.5	17.0	15.5	16.5	16.0	20.5	20.0
16	8.0	6.0	17.0	13.5	20.0	15.5	17.0	15.5	16.5	16.0	20.0	19.5
17	8.5	6.5	16.0	14.0	18.5	15.5	17.0	15.0	17.0	16.0	20.0	19.5
18	10.0	8.0	15.5	14.0	22.0	15.5	17.5	15.0	16.5	16.0	20.0	19.0
19	11.5	9.0	15.0	14.0	26.0	22.0	17.0	15.5	17.0	16.5	19.5	19.0
20	12.5	10.5	16.0	13.0	26.0	22.5	17.5	15.5	18.0	16.5	20.5	19.0
21	12.5	10.0	15.5	13.5	23.5	17.0	16.0	15.5	19.0	17.5	20.5	18.5
22	12.5	10.0	17.0	13.5	18.5	15.5	16.5	15.5	18.0	17.5	22.0	18.0
23	12.5	9.5	16.0	14.0	16.5	15.0	17.5	15.5	18.0	17.0	22.5	18.5
24	13.0	10.0	16.0	14.0	16.0	15.0	16.5	15.0	18.5	17.5	22.0	18.5
25	12.0	9.5	15.5	14.0	16.5	15.0	17.0	15.0	18.5	18.0	22.0	18.5
26	11.5	9.0	16.5	15.0	17.0	14.5	17.5	15.5	18.5	18.0	21.5	18.5
27	10.5	9.0	16.0	14.5	17.5	15.0	17.0	15.5	19.0	18.0	21.0	18.5
28	10.5	9.0	16.0	14.5	17.0	14.5	17.5	16.0	19.0	18.0	20.5	18.5
29	12.0	10.0	15.5	14.0	19.0	15.0	17.5	16.0	19.0	18.0	---	---
30	13.0	10.5	16.5	14.0	23.0	14.5	16.0	15.5	20.0	18.5	---	---
31	---	---	16.0	14.5	---	---	16.5	15.0	20.0	19.0	---	---
MONTH	13.0	6.0	17.5	10.5	26.0	13.5	22.5	14.0	20.0	15.0	22.5	18.0

11296500 SOUTH FORK STANISLAUS RIVER AT STRAWBERRY, CA

LOCATION.--Lat 38°11'51", long 120°00'27", in SW¼ sec.16, T.4 N., R.18 E., Tuolumne County, Stanislaus National Forest, on right bank 0.3 mi (0.5 km) downstream from bridge on State Highway 108 at Strawberry, 0.6 mi (1.0 km) downstream from Herring Creek, and 1.2 mi (1.9 km) downstream from Pinecrest Lake.

DRAINAGE AREA.--44.8 mi² (116.0 km²).

PERIOD OF RECORD.--October 1911 to January 1917, August 1938 to current year. Monthly discharge only for October 1913 and yearly estimates for 1912-13, published in WSP 1315-A. Published as "near Confidence" 1911-13.

REVISED RECORDS.--WSP 1215: 1945(M). WSP 1515: 1916, 1943(M).

GAGE.--Water-stage recorder. Datum of gage is 5,235.1 ft (1,595.66 m) above mean sea level (river-profile survey). October 1911 to January 1917, nonrecording gage at site 1 mi (2 km) downstream at different datum.

REMARKS.--Flow regulated at low and medium stages by Pinecrest Lake 1.2 mi (1.9 km) upstream beginning in 1916, capacity, 18,300 acre-ft (22.6 hm³). No diversion above station. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--43 years, (water years 1912-16, 1939-76), 127 ft³/s (3.597 m³/s), 92,010 acre-ft/yr (113 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,900 ft³/s (110 m³/s) Nov. 21, 1950, gage height, 9.25 ft (2.819 m), from rating curve extended above 1,100 ft³/s (31.2 m³/s) on basis of contracted-opening measurement of maximum flow at bridge 0.3 mi (0.5 km) below station; minimum, 1.3 ft³/s (0.037 m³/s) Nov. 22, 23, 1946.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 398 ft³/s (11.3 m³/s) Oct. 26, gage height, 3.73 ft (1.137 m); minimum daily, 12 ft³/s (0.34 m³/s) Mar. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	250	66	47	22	25	25	111	66	36	54	31
2	112	249	67	29	22	25	27	110	59	36	54	31
3	112	247	67	13	22	25	30	107	51	36	54	31
4	111	171	67	13	22	25	27	115	45	38	53	31
5	110	70	67	13	22	25	23	106	40	38	53	31
6	111	60	66	13	22	23	22	91	36	33	53	31
7	112	64	65	13	22	24	26	73	33	28	53	31
8	111	78	63	13	21	25	33	93	34	28	53	31
9	110	65	65	14	22	24	26	115	41	27	54	31
10	116	63	65	14	21	16	27	137	42	27	53	32
11	127	64	63	14	21	16	24	129	57	27	53	35
12	117	63	63	15	22	17	21	143	60	22	53	35
13	114	63	66	16	22	15	20	156	46	19	53	33
14	114	63	63	16	22	12	20	152	38	19	54	32
15	115	62	65	22	22	13	21	133	35	19	68	31
16	115	65	62	26	22	15	21	125	35	19	61	31
17	115	64	64	28	22	20	19	157	35	19	57	31
18	114	59	58	28	23	24	21	206	34	19	56	31
19	113	60	50	29	23	19	30	187	33	19	56	31
20	112	59	50	29	23	18	49	166	32	19	39	31
21	85	61	47	30	24	20	60	176	34	19	33	31
22	70	63	47	29	24	24	61	166	34	19	33	31
23	69	63	49	29	25	26	66	151	35	29	32	31
24	67	62	47	28	22	26	77	138	35	35	32	31
25	66	62	46	23	22	26	80	142	35	35	32	31
26	184	62	48	21	22	23	63	150	36	35	32	32
27	135	62	46	22	22	21	53	145	36	35	32	32
28	88	63	46	22	22	20	48	124	36	47	31	32
29	77	63	47	22	23	20	60	91	35	54	31	32
30	86	67	47	22	---	24	87	78	36	53	31	32
31	180	---	46	22	---	31	---	72	---	52	31	---
TOTAL	3367	2567	1778	675	646	667	1167	4045	1204	941	1434	947
MEAN	109	85.6	57.4	21.8	22.3	21.5	38.9	130	40.1	30.4	46.3	31.6
MAX	184	250	67	47	25	31	87	206	66	54	68	35
MIN	66	59	46	13	21	12	19	72	32	19	31	31
AC-FT	6680	5090	3530	1340	1280	1320	2310	8020	2390	1870	2840	1880
CAL YR 1975	TOTAL	54363	MEAN	149	MAX	1260	MIN	13	AC-FT	107800		
WTR YR 1976	TOTAL	19438	MEAN	53.1	MAX	250	MIN	12	AC-FT	38560		

11297000 PHILADELPHIA CANAL NEAR STRAWBERRY, CA

LOCATION.--Lat 38°10'39", long 120°02'46", in NW¼NW¼ sec.30, T.4 N., R.18 E., Tuolumne County, Stanislaus National Forest, on right bank 250 ft (76 m) downstream from diversion dam on South Fork Stanislaus River, and 2.8 mi (4.5 km) southwest of Strawberry.

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,960 ft (1,511.8 m) above mean sea level (river-profile survey).

REMARKS.--Canal diverts from right bank of South Fork Stanislaus River for power development in Spring Gap powerplant of Pacific Gas and Electric Co.; tailrace empties into Middle Fork Stanislaus River at powerplant above Sand Bar Flat. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--37 years, 42.9 ft³/s (1.215 m³/s), 31,080 acre-ft/yr (38.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 64 ft³/s (1.81 m³/s) in 1941, 1961-63, 1965, 1971-72, 1974-75; no flow at times in some years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	61	61	45	2.6	1.6	8.1	32	60	27	10	1.6
2	45	61	61	32	2.6	1.6	1.4	1.4	59	31	8.4	1.6
3	59	61	61	2.2	2.6	1.6	1.3	1.4	53	31	3.3	1.6
4	61	60	61	2.6	2.6	1.5	1.3	41	45	31	3.3	1.6
5	60	60	61	3.0	2.7	1.5	1.3	60	38	31	3.3	1.6
6	60	59	61	2.9	2.6	1.5	1.2	59	33	27	3.3	1.6
7	61	60	61	6.1	2.6	1.5	1.2	59	29	20	3.3	1.6
8	61	62	61	2.8	2.6	1.5	1.2	62	28	20	3.2	1.6
9	61	61	61	2.8	2.6	1.5	1.1	62	31	20	3.2	1.6
10	61	60	61	5.0	2.6	1.5	1.1	62	28	20	3.2	2.9
11	62	60	61	2.8	2.6	1.5	1.1	61	33	20	3.1	1.9
12	61	60	61	2.8	2.6	1.5	1.1	61	32	16	3.1	1.9
13	61	54	61	3.1	2.6	1.5	1.1	61	31	12	3.0	1.9
14	61	61	61	2.8	2.6	1.5	1.1	60	30	12	3.0	1.8
15	61	60	61	2.8	2.6	1.5	1.1	59	30	11	3.1	1.8
16	61	61	61	2.8	2.5	1.5	1.1	60	30	11	3.1	1.7
17	61	61	61	2.8	2.5	1.5	1.1	62	30	11	3.0	1.7
18	61	59	43	2.8	2.5	1.5	1.1	61	13	11	3.0	1.7
19	61	60	46	2.8	2.5	1.8	1.1	60	.86	11	3.0	1.7
20	61	60	46	2.5	2.6	1.6	1.1	59	.95	11	3.0	1.7
21	60	59	47	2.6	2.5	1.8	1.1	60	20	11	3.0	1.7
22	60	61	46	2.6	2.5	2.0	1.1	60	31	11	3.0	1.7
23	60	60	47	2.6	2.0	1.7	1.1	59	31	11	2.2	1.7
24	60	60	46	2.6	1.6	1.6	1.1	60	30	10	1.7	1.7
25	60	60	46	2.6	1.6	1.9	.99	60	30	10	1.7	1.7
26	61	60	47	2.6	1.6	2.1	.99	60	30	10	1.7	1.7
27	56	60	46	2.6	1.6	2.0	.99	60	30	10	1.6	1.7
28	59	61	45	2.6	1.6	2.0	.99	59	30	10	1.6	1.7
29	58	60	45	2.6	1.6	1.9	26	59	30	10	1.6	1.7
30	59	61	45	2.6	---	1.7	52	60	30	10	1.6	1.7
31	62	---	45	2.6	---	1.8	---	60	---	10	1.6	---
TOTAL	1856	1803	1677	161.0	68.3	279.8	116.56	1700.8	926.81	497	96.2	52.1
MEAN	59.9	60.1	54.1	5.19	2.36	9.03	3.89	54.9	30.9	16.0	3.10	1.74
MAX	62	62	61	45	2.7	2.1	52	62	60	31	10	2.9
MIN	45	54	43	2.2	1.6	1.5	.99	1.4	.86	10	1.6	1.6
AC-FT	3680	3580	3330	319	135	555	231	3370	1840	986	191	103
CAL YR 1975 TOTAL	18943.45			MEAN 51.9	MAX 64	MIN .11	AC-FT 37570					
WTR YR 1976 TOTAL	9234.57			MEAN 25.2	MAX 62	MIN .86	AC-FT 18320					

11297500 TUOLUMNE CANAL NEAR LONG BARN, CA

LOCATION.--Lat 38°05'35", long 120°10'03", in SW¼ sec.24, T.3 N., R.16 E., Tuolumne County, Stanislaus National Forest, on left bank 300 ft (91 m) downstream from intake, 350 ft (107 m) downstream from Lyons Reservoir on South Fork Stanislaus River, 2 mi (3 km) west of Long Barn, and 15 mi (24 km) northeast of Sonora.

PERIOD OF RECORD.--October 1937 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,110.0 ft (1,252.73 m) above mean sea level (river-profile survey). Prior to June 1938, at site 200 ft (61 m) downstream at different datum.

REMARKS.--Canal diverts from left bank of South Fork Stanislaus River into Tuolumne River basin for power and domestic supply in vicinity of Sonora. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--39 years, 27.3 ft³/s (0.773 m³/s), 19,780 acre-ft/yr (24.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 59 ft³/s (1.67 m³/s) May 11, 1975; no flow at times in some years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	31	18	25	18	16	15	19	37	45	50	39
2	46	32	17	22	18	16	15	20	34	45	49	42
3	46	32	19	20	18	16	15	21	36	45	49	44
4	46	32	20	20	18	16	15	32	36	45	48	45
5	46	30	23	20	18	15	15	50	35	44	47	45
6	46	29	40	20	18	15	15	50	35	45	47	45
7	46	30	40	20	18	15	15	44	35	47	47	45
8	45	31	24	20	18	15	15	40	35	47	47	44
9	44	30	20	20	18	15	15	38	35	48	46	44
10	42	31	21	20	18	15	15	38	35	48	46	44
11	42	31	21	19	18	15	15	41	35	48	45	45
12	42	31	30	20	17	15	15	49	35	47	44	45
13	41	31	30	20	17	14	15	52	35	48	43	42
14	40	31	30	17	17	14	15	51	36	49	43	39
15	37	31	30	18	17	15	15	51	37	49	42	34
16	12	31	30	18	17	15	15	52	37	49	39	32
17	0	31	29	18	17	15	15	51	39	48	38	30
18	0	31	27	18	17	16	15	52	40	48	35	28
19	11	31	25	18	18	17	15	53	40	49	30	28
20	36	29	24	17	16	17	15	52	40	50	28	28
21	36	26	24	15	15	17	15	52	41	50	28	28
22	35	26	25	14	15	16	15	51	42	50	28	28
23	35	26	25	14	15	15	15	50	42	50	29	28
24	33	26	25	14	15	14	15	52	44	49	29	28
25	31	26	25	14	15	14	16	52	45	49	28	28
26	30	26	25	14	15	14	15	51	45	49	29	28
27	31	26	24	14	15	14	15	51	45	49	31	28
28	32	26	24	14	15	14	15	51	45	50	32	28
29	32	26	25	15	15	15	16	51	45	46	32	29
30	32	26	25	15	---	15	18	48	45	45	33	30
31	31	---	25	16	---	16	---	42	---	50	35	---
TOTAL	1071	876	790	549	486	471	455	1407	1166	1481	1197	1071
MEAN	34.5	29.2	25.5	17.7	16.8	15.2	15.2	45.4	38.9	47.8	38.6	35.7
MAX	46	32	40	25	18	17	18	53	45	50	50	45
MIN	0	26	17	14	15	14	15	19	34	44	28	28
AC-FT	2120	1740	1570	1090	964	934	902	2790	2310	2940	2370	2120
CAL YR 1975	TOTAL	14096	MEAN 38.6	MAX 59	MIN 0	AC-FT	27960					
WTR YR 1976	TOTAL	11020	MEAN 30.1	MAX 53	MIN 0	AC-FT	21860					

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.2	2.4	2.2	1.4	2.4	2.2	2.0	1.6	2.2	2.0	2.2
2	2.1	2.2	2.5	2.2	1.4	2.2	2.2	1.9	1.9	2.2	2.0	2.3
3	2.2	2.2	2.6	2.4	1.4	2.2	2.3	1.8	2.2	2.0	2.0	2.2
4	2.2	2.2	2.2	2.4	1.6	2.2	2.8	2.1	2.2	2.0	2.1	2.2
5	2.2	2.2	2.3	2.4	1.8	2.2	2.5	2.0	2.2	2.0	2.2	2.2
6	2.2	2.2	2.4	2.4	1.8	2.2	2.2	1.9	2.2	2.0	2.2	2.2
7	2.2	2.2	2.4	2.4	1.8	2.2	2.2	2.1	2.2	2.0	2.2	2.2
8	2.3	2.2	2.4	2.2	1.9	2.2	2.4	2.1	2.0	2.0	2.2	2.2
9	2.4	2.2	2.0	2.3	2.0	2.1	2.2	2.1	2.1	2.1	2.2	2.3
10	2.4	2.2	2.1	2.2	1.9	2.1	2.1	2.0	2.2	2.1	2.2	2.4
11	2.3	2.1	2.1	2.2	1.9	2.2	2.2	2.0	2.1	2.0	2.1	2.3
12	2.2	2.0	1.9	2.2	2.0	2.2	2.0	2.4	2.1	2.0	2.0	2.2
13	2.2	2.1	1.8	2.2	2.0	2.2	2.0	2.3	2.0	2.2	2.0	2.2
14	2.1	2.8	1.8	2.2	2.0	2.2	2.0	2.6	2.2	2.4	2.2	2.3
15	2.0	3.3	1.8	2.2	2.0	2.2	2.1	2.7	2.2	2.4	2.3	2.2
16	2.4	3.4	1.8	2.2	2.0	2.2	2.0	2.7	2.2	2.4	2.0	2.2
17	2.6	3.3	2.2	2.2	2.0	2.2	2.0	2.8	2.1	2.3	2.1	2.2
18	2.6	2.8	2.2	2.2	2.0	2.2	2.0	2.8	2.0	2.3	2.2	2.2
19	2.5	2.0	2.2	2.2	2.0	2.2	2.1	2.6	2.0	2.1	2.3	2.2
20	2.0	2.1	2.2	2.2	2.1	2.2	2.1	3.4	2.0	2.0	2.2	2.2
21	2.4	2.2	2.1	2.2	2.2	2.1	2.0	3.3	2.0	2.4	2.2	2.2
22	2.4	2.2	2.2	2.2	2.2	2.0	2.1	44	2.0	1.8	2.2	2.2
23	2.5	2.2	2.2	2.1	2.2	2.0	2.1	59	2.0	1.9	2.0	2.2
24	2.4	2.2	2.2	2.0	2.2	1.9	2.1	54	2.0	1.9	2.0	2.2
25	2.3	2.2	2.1	1.9	2.2	1.8	2.2	42	2.0	1.8	2.1	2.2
26	2.4	2.2	2.0	1.8	2.2	1.8	2.2	21	2.0	1.9	2.3	2.2
27	2.4	2.2	2.0	1.8	2.2	1.7	2.1	3.3	2.0	2.0	2.3	2.2
28	2.2	2.2	2.1	1.7	2.2	1.7	2.0	2.8	2.0	2.1	2.3	2.2
29	2.2	2.2	2.1	1.5	2.4	1.9	2.0	2.8	2.1	5.2	2.2	2.2
30	2.4	2.2	2.2	1.4	---	2.2	2.0	2.6	2.2	6.2	2.2	2.1
31	2.3	---	2.2	1.4	---	2.2	---	2.3	---	2.2	2.2	---
TOTAL	71.1	69.9	66.7	65.1	57.0	65.3	64.4	283.4	62.0	72.1	66.7	66.5
MEAN	2.29	2.33	2.15	2.10	1.97	2.11	2.15	9.14	2.07	2.33	2.15	2.22
MAX	2.6	3.4	2.6	2.4	2.4	2.4	2.8	59	2.2	6.2	2.3	2.4
MIN	2.0	2.0	1.8	1.4	1.4	1.7	2.0	1.8	1.6	1.8	2.0	2.1
AC-FT	141	139	132	129	113	130	128	562	123	143	132	132
CAL YR 1975	TOTAL	28386.7	MEAN	77.8	MAX	1220	MIN	1.8	AC-FT	56310		
WTR YR 1976	TOTAL	1010.2	MEAN	2.76	MAX	59	MIN	1.4	AC-FT	2000		

SAN JOAQUIN RIVER BASIN

11299000 MELONES LAKE NEAR SONORA, CA

LOCATION.--Lat 37°57'12", long 120°30'49", in NW¼SE¼ sec.11, T.1 N., R.13 E., Tuolumne County, at gate tower near left bank at Melones Dam on Stanislaus River, 0.1 mi (0.2 km) downstream from Bear Creek, and 7.5 mi (12.1 km) southwest of Sonora.

DRAINAGE AREA.--904 mi² (2,341 km²).

PERIOD OF RECORD.--1926 (year-end content only, published in WSP 1315-A), June 1927 to current year. Prior to October 1970, published as Melones Reservoir at Melones Dam.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Pacific Gas and Electric Co.). Prior to Feb. 28, 1961, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by concrete overflow dam; storage began Aug. 21, 1926. Dam completed in December 1926. Capacity for power development 1 mi (2 km) below dam is 106,140 acre-ft (131 hm³) between elevations 628.0 ft (191.41 m) minimum operating level, and 735.0 ft (224.03 m) top of drum-type spillway gates, above mean sea level; usable capacity for irrigation, 109,980 acre-ft (136 hm³) between elevations 610.0 ft (185.93 m) floor of outlet tunnel, and 735.0 ft (224.03 m) above mean sea level. Dead storage, 2,630 acre-ft (3.24 hm³). Released water flows down Stanislaus River to Tulloch Reservoir (station 11299995). Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records furnished by Pacific Gas and Electric Co. in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 115,800 acre-ft (143 hm³) May 27, 1951, elevation, 736.7 ft (224.55 m); minimum, 3,187 acre-ft (3.93 hm³) Nov. 4, 1973, elevation, 613.3 ft (186.93 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 66,200 acre-ft (81.6 hm³) Apr. 18, elevation, 705.6 ft (215.07 m); minimum, 3,460 acre-ft (4.27 hm³) Sept. 24-30, elevation, 614.8 ft (187.39 m).

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

610	2630	635	8750	660	21500	700	59140
615	3495	640	10680	665	25025	710	72200
620	4480	645	12905	670	28900	720	86930
625	5650	650	15450	680	37580	730	103460
630	7070	655	18340	690	47620	736.7	115800

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11800	11700	12800	12000	17600	39600	58200	55900	40900	9910	5250	4590
2	11900	11400	12900	11800	16900	41400	56900	56200	39900	9760	5280	4590
3	12000	10500	12900	11800	15200	42900	55500	56300	38900	9530	4790	4590
4	12100	7200	12900	11900	13800	43600	54200	56400	38000	9450	4550	4590
5	12200	5250	13000	11700	12800	44100	53000	56400	36900	9450	4550	4590
6	12200	5620	13000	11700	12200	44600	52100	56300	35700	9300	4810	4590
7	12300	5470	13000	11600	12400	45200	51300	56400	34700	9340	4810	4590
8	12400	5570	13000	11600	12700	45600	51000	56100	33600	8120	4810	4590
9	12600	6080	12900	11600	13000	46100	52000	55900	32400	5300	4550	4590
10	12800	6330	12900	11600	13400	46800	53800	56100	31200	4700	4480	4590
11	13600	6890	12800	11600	13700	48300	55600	56200	30200	4520	4400	4590
12	14200	9600	12800	11500	14000	49800	57400	56100	29100	4520	4400	4590
13	14500	10300	12800	11500	15000	51400	59000	55800	28000	5250	4500	4590
14	14400	11600	12700	11400	16500	52900	60600	55600	26900	5250	4500	4590
15	14500	11600	12600	11400	18000	54500	62300	55200	25800	5250	4500	4590
16	14400	11800	12500	11400	19400	56200	63700	54800	24600	5250	4500	4590
17	14300	12300	12500	11400	20800	57000	64900	53900	23300	5250	4810	4590
18	14300	12500	12400	11400	22200	57400	66200	53400	22300	5250	4810	4590
19	14100	12700	12400	11300	23700	58200	65800	52700	20500	5250	4810	4590
20	13800	12700	12300	11300	25200	59900	64200	52000	18600	5250	4590	4590
21	12900	12700	12300	13700	26600	61700	62500	51200	16700	5250	4590	4590
22	12100	12800	12200	15200	27900	62500	60800	50300	15200	5250	4590	4590
23	11500	12700	12100	16700	29400	62700	59600	49300	14200	5250	4590	3820
24	11500	12800	12100	18000	30700	62800	58700	48300	13000	5250	4590	3460
25	11400	12700	12100	19400	32000	63000	58000	47400	11800	5250	4590	3460
26	11500	12700	12200	20700	33400	62800	57500	46800	10900	5250	4590	3460
27	13200	12800	12100	21200	34600	63000	57000	45800	10600	5250	4590	3460
28	13300	12900	12100	20300	35900	63000	56500	44900	10400	5250	4590	3460
29	12600	12800	12000	18800	37400	62300	56100	43900	10200	5250	4590	3460
30	12200	12800	12100	17900	---	60800	55900	42900	9830	5250	4590	3460
31	12000	---	12100	17800	---	59600	---	41900	---	5250	4590	---
MAX	14500	12900	13000	21200	37400	63000	66200	56400	40900	9910	5280	4590
MIN	11400	5250	12000	11300	12200	39600	51000	41900	9830	4520	4400	3460
†	643.1	644.8	643.2	654.1	679.8	700.4	697.3	684.5	637.9	623.4	620.5	614.8
‡	+245	+800	-700	+5700	+19600	+22200	-3700	-14000	-32070	-4580	-660	-1130

CAL YR 1975 † -3190
WTR YR 1976 † -8295

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

11299995 TULLOCH RESERVOIR NEAR KNIGHTS FERRY, CA

LOCATION.--Lat 37°52'34", long 120°36'12", in Rancheria Del Rio Estanislao Grant, T.1 S., R.12 E., Tuolumne County, in center of dam on Stanislaus River, 1.9 mi (3.1 km) upstream from Goodwin Dam, and 5.3 mi (8.5 km) northeast of Knights Ferry.

DRAINAGE AREA.--980 mi² (2,538 km²).

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

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Oakdale and South San Joaquin Irrigation Districts).

REMARKS.--Reservoir is formed by gravity-type concrete dam completed in October 1957. Usable capacity, 56,840 acre-ft (70.1 hm³) between elevations 431.0 ft (131.37 m) normal minimum water surface, and 511.0 ft (155.75 m) top of radial gates. Dead storage, 11,560 acre-ft (14.3 hm³). Reservoir is used for irrigation and power. Water passes down Stanislaus River, some first passing through Tulloch powerplant at dam. Part of flow is diverted at Goodwin Dam to Oakdale Canal (station 11301000) and South San Joaquin Canal (station 11300500). Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Stanislaus River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 69,500 acre-ft (85.7 hm³) Jan. 7, 1965, elevation, 512.0 ft (156.06 m); minimum, 4,580 acre-ft (5.65 hm³) Oct. 3, 1960, elevation, 404.0 ft (123.14 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 66,800 acre-ft (82.4 hm³) May 2, 3, 25, 26, elevation, 509.9 ft (155.42 m); minimum, 5,130 acre-ft (6.33 hm³) Aug. 31, elevation, 406.8 ft (123.99 m).

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

404	4580	460	23600
411	6020	475	33100
420	8200	490	45300
430	11100	512	69500
445	16400		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38700	16400	28500	54000	59200	58200	60800	66700	66700	61800	28800	5150
2	37600	15900	29500	54000	59000	58200	61700	66800	66700	60900	27600	5150
3	36600	15500	30500	54100	59400	58300	62600	66800	66700	60000	26500	5170
4	35500	16300	31700	54100	59900	58300	63400	66600	66600	59100	25100	5170
5	34500	15500	32700	54300	60200	58300	64100	66600	66600	57900	23800	5190
6	33500	13900	33800	54700	61000	58300	64500	66600	66600	56600	22400	5210
7	32600	12300	34800	55600	60900	58300	64600	66500	66500	55400	21300	5210
8	31600	11200	35800	56600	60700	58300	65000	66500	66500	55100	20100	5210
9	30700	11200	36800	57600	60600	58300	65100	66500	66300	56200	19100	5190
10	30300	11200	37800	58600	60600	58300	64900	66500	66300	55600	18100	5190
11	31500	11200	38800	59600	60600	58000	64900	66300	66200	54800	17200	5210
12	32700	11200	39800	60400	60600	58000	65000	66300	66200	54000	16300	5300
13	33400	11100	40800	61000	60300	58000	65000	66200	66100	53200	15500	5340
14	33800	11200	42000	61500	59400	58000	65000	66200	66000	51900	14800	5400
15	32100	12100	43000	62000	58700	58000	64600	66300	65800	50600	14800	5400
16	31400	13100	44000	62400	58700	57400	64500	66500	65800	49200	14900	5380
17	30800	14100	45200	62900	58700	57200	64100	66600	65800	47800	14600	5320
18	30200	15100	46000	63400	58600	57800	63500	66600	65700	46800	14100	5270
19	29500	16200	47000	63900	58500	58000	62300	66700	65700	45500	13500	5230
20	28400	16900	48200	63600	58500	56900	62900	66700	65600	44300	12900	5570
21	27400	18000	49100	62700	58500	55800	63900	66700	65600	43100	12400	6610
22	26400	19000	50100	61800	58600	55400	64900	66700	65500	42000	11800	7280
23	25300	20100	51200	60900	58400	56000	65600	66700	65600	40800	11000	7680
24	23700	21200	52100	60000	58300	56400	65800	66700	65700	39700	10100	7860
25	22200	22000	53300	59100	58300	56900	66100	66800	65700	38400	9290	7940
26	20800	23100	53900	58200	58300	57500	66300	66800	65600	37100	8410	8020
27	19400	24300	53900	57900	58300	57900	66600	66700	64900	35700	7530	8070
28	18400	25400	53900	59200	58300	58200	66600	66700	64100	34200	6630	8170
29	18000	26400	53900	60200	58000	58000	66700	66700	63300	32900	5720	8280
30	17600	27500	54000	60400	---	59000	66700	66700	62700	31600	5250	8330
31	17000	---	54000	59900	---	59900	---	66700	---	30200	5130	---
MAX	38700	27500	54000	63900	61000	59900	66700	66800	66700	61800	28800	8330
MIN	17000	11100	28500	54000	58000	55400	60800	62700	60200	5130		5150
†	446.4	466.7	498.8	504.1	502.5	504.1	509.8	509.8	506.5	470.8	406.8	420.5
‡	-22700	+10500	+26500	+5900	-1900	+1900	+6800	0	-4000	-32500	-25070	+3200

CAL YR 1975 ‡ +16300

WTR YR 1976 ‡ -31370

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

SAN JOAQUIN RIVER BASIN

11299997 STANISLAUS RIVER BELOW TULLOCH POWERPLANT, NEAR KNIGHTS FERRY, CA--Continued

LOCATION.--Lat 37°52'34", long 120°36'15", in Rancheria del Rio Estanislao Grant, T.1 S., R.12 E., on Calaveras-Tuolumne County line, in south corner of Tulloch powerplant at downstream side of Tulloch Dam, 5.2 mi (8.4 km) northeast of Knights Ferry.

DRAINAGE AREA.--980 mi² (2,538 km²).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1972 to current year.

INSTRUMENTATION.--Temperature recorder since June 1972.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 23.5°C Sept. 23, 1976; minimum recorded, 5.0°C Jan. 13, 1973.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 23.5°C Sept. 23; minimum, 6.5°C on several days during January.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	20.0	19.5	14.5	14.0	10.5	10.0	8.5	7.5	7.5	7.0	9.0	7.5
2	19.5	19.5	14.5	14.0	10.5	10.0	8.0	8.0	7.5	7.0	8.5	8.0
3	19.5	19.5	14.0	14.0	10.0	10.0	8.0	8.0	7.5	7.0	8.5	7.5
4	19.5	19.5	14.0	13.5	11.0	9.5	8.0	7.5	7.5	7.0	8.5	7.5
5	19.5	19.5	13.5	13.5	10.5	9.5	8.0	7.5	7.5	7.5	9.5	8.0
6	19.5	19.0	13.5	13.5	10.5	9.5	8.0	7.5	7.5	7.0	10.0	8.5
7	19.5	19.0	14.0	13.5	11.0	9.5	8.0	7.5	7.5	7.0	10.5	8.5
8	19.5	19.0	14.0	13.5	10.5	9.5	7.5	7.5	7.5	7.0	9.5	8.0
9	19.5	19.0	14.0	13.5	10.0	9.5	7.5	7.0	7.5	7.0	10.0	8.0
10	19.0	19.0	14.0	13.5	9.5	9.5	7.5	7.0	7.5	7.5	10.5	8.5
11	19.5	18.5	14.5	13.5	9.5	9.5	7.0	7.0	7.5	7.5	9.5	8.0
12	19.5	18.5	13.5	12.5	9.5	9.5	7.0	6.5	7.5	7.5	10.0	8.5
13	18.5	17.5	13.5	13.0	9.5	9.5	7.0	6.5	8.0	7.5	11.5	10.0
14	18.0	17.5	13.5	13.0	10.0	9.0	7.0	6.5	8.0	7.0	12.0	10.5
15	18.0	17.5	13.5	13.0	10.0	9.0	7.0	6.5	8.0	7.5	11.5	10.0
16	17.5	17.5	13.5	13.0	10.0	9.0	7.0	6.5	8.0	7.0	11.0	8.0
17	17.5	17.0	13.0	13.0	10.0	9.0	6.5	6.5	9.0	7.5	8.5	8.0
18	17.0	17.0	13.5	12.5	10.0	9.0	7.0	6.5	10.0	7.5	8.0	8.0
19	17.0	17.0	12.5	12.0	9.5	9.0	7.0	6.5	8.5	7.5	8.5	8.0
20	17.0	17.0	12.0	12.0	9.0	9.0	7.0	6.5	8.5	7.5	8.5	8.0
21	17.0	17.0	12.0	11.5	9.0	8.5	7.0	6.5	9.0	7.5	8.5	8.0
22	17.0	17.0	12.0	11.0	9.0	8.5	7.0	6.5	9.0	8.0	8.5	8.0
23	17.0	16.5	12.0	11.0	9.0	8.5	7.0	6.5	8.5	7.5	8.5	8.0
24	17.0	16.5	12.0	11.0	8.5	8.0	7.0	6.5	8.5	7.5	8.5	8.0
25	17.0	16.5	11.5	11.0	9.0	8.0	7.0	7.0	8.5	8.0	9.0	8.0
26	16.5	16.5	11.5	10.5	8.5	8.0	7.0	7.0	10.0	8.5	9.0	8.5
27	16.5	16.0	11.0	10.5	8.0	8.0	7.0	7.0	10.0	8.5	9.0	8.5
28	16.0	16.0	11.0	10.5	8.0	8.0	7.0	7.0	11.0	9.0	9.0	8.5
29	16.0	15.5	11.5	10.5	8.0	8.0	7.0	7.0	10.0	7.5	9.0	8.5
30	15.5	15.0	11.5	10.5	8.0	7.5	7.0	7.0	---	---	9.0	9.0
31	15.0	14.5	---	---	8.5	7.5	7.5	7.0	---	---	9.0	9.0
MONTH	20.0	14.5	14.5	10.5	11.0	7.5	8.5	6.5	11.0	7.0	12.0	7.5

11299997 STANISLAUS RIVER BELOW TULLOCH POWERPLANT, NEAR KNIGHTS FERRY, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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

SAN JOAQUIN RIVER BASIN

11300500 SOUTH SAN JOAQUIN CANAL NEAR KNIGHTS FERRY, CA

LOCATION.--Lat 37°51'16", long 120°38'14", in Rancheria Del Rio Estanislao Grant, Tuolumne County, on left bank 0.8 mi (1.3 km) downstream from headgate at Goodwin Dam, and 3.0 mi (4.8 km) northeast of Knights Ferry.

PERIOD OF RECORD.--May 1914 to current year. Monthly and yearly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 334.18 ft (101.858 m) above mean sea level (levels by Oakdale Irrigation District). Prior to Mar. 12, 1915, nonrecording gage 100 ft (30 m) downstream. Mar. 12, 1915, to July 1, 1921, nonrecording gage at present site and datum.

REMARKS.--Records good. Canal diverts from right bank of Stanislaus River at Goodwin Dam for irrigation in Oakdale and South San Joaquin Irrigation Districts. See schematic diagram of Stanislaus River basin.

AVERAGE DISCHARGE.--62 years, 429 ft³/s (12.15 m³/s), 310,800 acre-ft/yr (383 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,310 ft³/s (37.1 m³/s) July 16, 1967; no flow at times in each year except 1951, 1969, 1973-76.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	655	10	2.0	7.1	683	10	741	762	690	690	879	240
2	657	7.1	1.8	7.1	703	5.9	741	763	689	689	878	244
3	657	6.2	1.8	7.1	706	5.3	739	781	687	689	883	241
4	657	4.2	1.8	7.1	708	4.6	741	799	687	687	881	241
5	657	3.4	1.8	7.1	657	4.4	739	795	686	788	879	244
6	645	3.2	1.8	7.1	554	3.8	738	792	686	886	868	252
7	638	3.0	1.8	7.1	552	3.6	739	792	686	837	833	259
8	640	3.0	1.8	4.8	552	3.2	640	791	685	745	781	267
9	641	2.8	1.8	2.6	524	3.0	402	792	685	602	753	268
10	489	2.6	1.8	2.4	484	2.6	146	791	685	602	738	267
11	38	2.2	1.8	2.4	484	3.8	3.2	792	683	602	675	272
12	20	1.2	3.2	161	475	4.6	8.0	794	682	602	658	288
13	8.8	.90	6.8	324	454	3.8	11	794	682	645	641	293
14	6.5	.90	7.1	423	454	14	23	753	682	806	622	294
15	5.0	1.4	7.1	434	188	29	69	717	683	860	465	296
16	4.6	2.0	7.1	444	2.8	139	108	718	686	876	580	293
17	4.4	2.2	7.1	442	3.2	215	144	720	690	876	818	275
18	4.4	2.4	7.1	444	6.2	214	425	720	690	696	819	257
19	4.4	2.4	7.1	440	11	214	776	720	692	818	819	257
20	3.6	2.2	7.1	424	7.7	215	752	720	692	818	820	143
21	1.4	2.0	7.1	403	6.2	215	757	721	692	790	822	4.6
22	.70	2.0	7.1	405	4.4	215	760	720	692	770	825	.90
23	.80	2.0	7.1	412	3.6	216	763	720	692	773	659	.90
24	5.6	2.0	7.1	424	7.4	216	764	703	692	773	665	9.2
25	11	2.0	7.1	426	4.6	211	763	696	692	829	675	4.0
26	15	2.0	7.1	430	8.8	202	760	696	692	878	678	4.0
27	16	2.0	6.8	428	14	206	753	696	690	878	679	7.7
28	16	2.0	6.8	431	11	430	760	694	690	878	682	17
29	16	2.0	7.1	619	15	742	763	693	690	879	685	7.1
30	16	2.0	7.1	651	---	742	763	692	690	879	532	4.0
31	15	---	7.1	675	---	742	---	690	---	876	289	---
TOTAL	6549.20	83.30	157.2	8901.9	8283.9	5235.6	16291.2	23027	20640	24017	22481	5250.40
MEAN	211	2.78	5.07	287	286	169	543	743	688	775	725	175
MAX	657	10	7.1	675	708	742	776	799	692	886	883	296
MIN	.70	.90	1.8	2.4	2.8	2.6	3.2	690	682	602	289	.90
AC-FT	12990	165	312	17660	16430	10380	32310	45670	40940	47640	44590	10410
CAL YR 1975	TOTAL	218442.70	MEAN	598	MAX	1290	MIN	.70	AC-FT	433300		
WTR YR 1976	TOTAL	140917.70	MEAN	385	MAX	886	MIN	.70	AC-FT	279500		

11301000 OAKDALE CANAL NEAR KNIGHTS FERRY, CA

LOCATION.--Lat 37°51'32", long 120°37'56", in SW¼SE¼ sec.10, T.1 S., R.12 E., Tuolumne County, on left bank 0.3 mi (0.5 km) downstream from headgate at Goodwin Dam, and 3.4 mi (5.5 km) northeast of Knights Ferry.

PERIOD OF RECORD.--May 1914 to current year. Records for water years 1933-36 incomplete, monthly and yearly estimates published in WSP 1315-A.

GAGE.--Water-stage recorder. Altitude of gage is 350 ft (107 m), from topographic map. Prior to Apr. 29, 1916, nonrecording gage at site 1,000 ft (300 m) upstream at different datum. Apr. 29, 1916, to July 3, 1925, nonrecording gage and July 4, 1925, to Apr. 3, 1949, water-stage recorder at present site at datum 0.18 ft (0.055 m) higher.

REMARKS.--Records excellent. Canal diverts water from left bank of Stanislaus River at Goodwin Dam 0.3 mi (0.5 km) upstream for irrigation in Oakdale Irrigation District. See schematic diagram of Stanislaus River basin.

AVERAGE DISCHARGE.--62 years, 164 ft³/s (4.644 m³/s), 118,800 acre-ft/yr (146 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 556 ft³/s (15.7 m³/s) July 8-11, 1967; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	410	5.5	5.0	16	361	0	346	334	318	322	340	320
2	410	6.0	7.0	6.0	363	0	347	335	329	323	339	318
3	411	6.0	7.0	0	369	0	346	334	329	324	339	319
4	410	6.0	3.4	0	370	0	348	334	329	332	339	329
5	411	6.0	2.6	0	230	0	346	335	323	334	338	329
6	405	6.0	2.6	0	66	0	347	336	320	334	339	327
7	401	6.0	2.6	0	80	0	347	331	320	334	339	329
8	401	5.5	3.0	0	80	0	221	331	320	334	338	335
9	385	5.0	14	0	75	0	0	332	320	334	339	336
10	236	3.8	20	0	66	0	0	336	320	335	339	335
11	.10	2.6	16	0	50	4.6	0	337	320	335	338	329
12	.03	1.5	16	0	19	14	0	338	320	335	339	322
13	0	1.3	16	0	12	13	0	337	320	335	340	320
14	0	1.5	15	0	17	12	0	336	321	335	341	322
15	4.7	1.9	15	0	18	12	0	336	321	336	154	323
16	10	2.1	15	8.0	18	119	0	337	321	336	26	323
17	5.5	2.1	15	24	16	256	0	328	321	336	26	322
18	5.0	1.7	15	18	16	257	24	327	321	336	26	322
19	5.0	1.9	15	0	5.8	257	270	327	322	337	26	320
20	5.5	1.7	15	0	0	358	324	328	322	337	24	183
21	5.5	1.7	15	0	0	359	324	328	322	337	23	0
22	5.5	1.7	15	0	0	360	322	327	322	338	54	0
23	5.5	1.7	15	6.8	0	359	324	327	322	338	333	0
24	5.5	1.5	15	18	0	359	324	325	322	338	329	0
25	5.5	1.7	14	12	0	359	324	326	322	339	323	0
26	5.5	1.9	15	0	0	359	327	325	322	339	323	0
27	5.5	1.5	16	0	5.4	359	335	324	322	339	324	0
28	6.0	1.1	16	0	14	359	335	317	322	340	324	0
29	6.0	.98	16	249	7.9	358	335	317	322	340	323	0
30	6.0	.98	16	313	---	347	334	317	322	341	322	0
31	5.5	---	16	350	---	347	---	317	---	341	322	---
TOTAL	3977.83	88.86	389.2	1020.8	2259.1	5227.6	6550	10219	9657	10394	8029	6363
MEAN	128	2.96	12.6	32.9	77.9	169	218	330	322	335	259	212
MAX	411	6.0	20	350	370	360	348	338	329	341	341	336
MIN	0	.98	2.6	0	0	0	0	317	318	322	23	0
AC-FT	7890	176	772	2020	4480	10370	12990	20270	19150	20620	15930	12620

CAL YR 1975 TOTAL 88525.75 MEAN 243 MAX 523 MIN 0 AC-FT 175600
 YR 1976 TOTAL 64175.39 MEAN 175 MAX 411 MIN 0 AC-FT 127300

11302000 STANISLAUS RIVER BELOW GOODWIN DAM, NEAR KNIGHTS FERRY, CA

LOCATION.--Lat 37°51'06", long 120°38'13", in Rancheria Del Rio Estanislao Grant, Calaveras County, on right bank 250 ft (76 m) upstream from Owl Creek, 0.9 mi (1.4 km) downstream from Goodwin Dam, and 2.9 mi (4.7 km) north-east of Knights Ferry.

DRAINAGE AREA.--986 mi² (2,554 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1957 to current year. Records equivalent to those published as Stanislaus River at Knights Ferry, 1903-14, and as Stanislaus River near Knights Ferry, 1915-32, if adjusted for diversions in Stanislaus and San Joaquin Water Company's canal and Oakdale and South San Joaquin canals.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 252.83 ft (77.063 m) above mean sea level.

REMARKS.--Records good. Flow regulated by reservoirs and powerplants at Donnell, Beardsley, and Melones Lakes, Tulloch Reservoir, and several smaller reservoirs above station. South San Joaquin Canal (station 11300500) and Oakdale Canal (station 11301000) divert at Goodwin Dam 1.0 mi (1.6 km) upstream. See schematic diagram of Stanislaus River basin.

AVERAGE DISCHARGE.--19 years, 740 ft³/s (20.96 m³/s), 536,100 acre-ft/yr (661 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,200 ft³/s (1,140 m³/s) Dec. 24, 1964, gage height, 28.85 ft (8.793 m) in gage well, 31.2 ft (9.51 m) outside, from floodmarks, from rating curve extended above 27,000 ft³/s (765 m³/s); minimum daily, 0.15 ft³/s (0.004 m³/s) Sept. 28-30, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 37.7 ft (11.49 m), from floodmarks, discharge, 62,900 ft³/s (1.780 m³/s), by computation of flow over Goodwin Dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,590 ft³/s (45.0 m³/s) Oct. 20, gage height, 10.45 ft (3.185 m); minimum daily, 0.15 ft³/s (0.004 m³/s) Sept. 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	1280	195	701	5.8	14	15	4.0	2.6	2.2	2.8	2.6
2	2.8	1260	182	708	5.5	14	15	4.2	2.6	2.2	2.8	2.4
3	2.6	1240	198	708	5.5	14	15	4.0	2.6	2.2	2.8	2.3
4	2.6	1260	185	708	5.5	13	15	4.0	2.4	2.2	2.8	2.3
5	2.6	1260	185	604	4.7	13	13	4.0	2.4	2.3	2.8	2.3
6	2.6	1230	185	538	2.6	13	11	4.4	2.3	2.6	2.8	2.3
7	2.4	1190	182	340	2.6	13	11	4.0	2.3	2.6	2.6	2.2
8	2.4	888	188	188	2.6	13	9.9	3.8	2.4	2.6	2.6	2.2
9	2.3	69	192	192	2.6	13	7.5	3.8	2.4	2.6	2.6	2.2
10	20	65	195	198	2.4	13	13	3.8	2.4	2.6	2.6	2.2
11	51	58	190	202	2.6	13	31	3.8	2.4	2.6	2.6	2.8
12	48	52	192	202	8.9	14	24	3.4	2.3	2.6	2.6	2.2
13	323	51	188	144	34	14	22	3.4	2.2	2.6	2.6	2.2
14	1000	52	182	30	34	14	22	3.4	2.2	2.8	2.6	2.2
15	996	58	185	17	36	13	24	3.4	2.0	3.0	2.4	2.2
16	1000	115	182	7.9	36	11	22	3.4	2.0	3.2	1.4	2.3
17	1000	285	185	7.5	32	11	20	3.2	1.9	3.2	1.7	2.3
18	1010	172	185	7.1	29	11	17	2.8	1.9	3.0	1.7	2.3
19	1000	192	188	10	27	7.9	11	3.0	1.9	2.8	1.8	2.4
20	1460	190	192	26	26	6.3	7.0	2.8	2.0	2.8	1.8	2.3
21	1530	198	185	53	26	6.6	4.7	2.8	2.0	2.8	1.8	.76
22	1520	200	182	53	26	6.3	4.4	2.8	2.0	2.6	1.8	3.1
23	1480	192	182	45	26	6.3	4.4	2.8	1.9	2.6	3.8	8.3
24	1440	188	182	27	24	6.3	4.4	2.8	1.9	2.6	3.6	1.3
25	1400	202	180	26	23	9.1	4.2	2.8	1.9	2.6	3.4	.32
26	1380	200	299	25	20	13	4.2	2.8	1.9	2.6	3.2	.22
27	1340	190	708	24	15	13	4.2	2.8	1.9	2.6	3.0	.16
28	1320	182	708	23	15	14	4.2	2.8	2.0	2.6	3.0	.15
29	1300	185	708	20	15	15	4.2	2.8	2.0	2.6	3.2	.15
30	1290	182	687	15	---	15	4.2	2.8	2.2	2.8	3.2	.15
31	1280	---	708	8.7	---	15	---	2.8	---	2.8	2.8	---
TOTAL	23211.1	12886	8485	5858.2	495.3	367.8	369.4	103.4	64.9	81.9	81.2	60.81
MEAN	749	430	274	189	17.1	11.9	12.3	3.34	2.16	2.64	2.62	2.03
MAX	1530	1280	708	708	36	15	31	4.4	2.6	3.2	3.8	8.3
MIN	2.3	51	180	7.1	2.4	6.3	4.2	2.8	1.9	2.2	1.4	.15
AC-FT	46040	25560	16830	11620	982	730	733	205	129	162	161	121
CAL YR 1975	TOTAL	303046.20	MEAN 830	MAX 6990	MIN 2.3	AC-FT 601100						
WTR YR 1976	TOTAL	52065.01	MEAN 142	MAX 1530	MIN .15	AC-FT 103300						

11302000 STANISLAUS RIVER BELOW GOODWIN DAM, NEAR KNIGHTS FERRY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: February 1966 to current year.

INSTRUMENTATION.--Temperature recorder since February 1966.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 30.5°C July 25, 1974; minimum (water years 1967-68, 1970-76), 5.5°C Feb. 3, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.5°C July 27; minimum, 6.5°C several days in January.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	22.0	19.5	14.5	14.0	10.5	10.0	7.5	7.5	10.5	7.5	10.5	9.5
2	22.0	19.5	14.5	13.5	10.5	9.5	7.5	7.5	11.0	8.0	9.5	8.5
3	22.0	20.0	14.0	13.5	10.5	10.0	7.5	7.5	10.5	7.5	10.0	8.5
4	22.5	20.0	14.0	13.5	10.5	9.5	7.5	7.5	10.0	8.5	10.0	8.0
5	22.5	20.0	13.5	13.0	10.0	9.5	8.0	7.5	8.5	7.5	11.0	8.0
6	21.0	19.5	13.5	13.0	10.0	9.5	8.0	7.5	9.5	7.5	11.0	8.0
7	20.5	18.0	14.0	13.0	---	---	8.0	7.5	9.5	8.0	11.5	8.5
8	20.0	17.0	13.5	13.0	---	---	8.0	7.0	10.5	8.5	11.0	8.5
9	18.5	17.5	14.0	13.0	---	---	7.5	7.5	10.0	9.0	12.0	9.0
10	18.5	17.5	14.0	13.0	10.0	9.5	7.5	7.0	11.5	8.0	12.5	9.5
11	19.5	18.5	13.5	12.5	9.5	9.5	7.5	7.0	12.0	8.5	13.0	10.0
12	19.5	18.0	13.5	12.0	9.5	9.0	7.5	7.0	12.0	8.0	12.5	10.0
13	19.0	18.0	13.5	12.0	9.5	9.0	7.0	7.0	9.0	7.5	13.0	10.0
14	18.5	17.5	13.5	12.5	9.0	8.5	7.5	6.5	9.0	8.0	13.5	10.5
15	17.5	17.0	13.5	12.5	9.0	8.5	8.5	6.5	8.5	7.5	13.5	11.0
16	17.5	17.0	13.5	13.0	8.5	8.0	8.5	6.5	8.0	7.5	15.0	11.5
17	17.5	17.0	13.0	12.0	8.5	8.0	8.5	7.0	9.5	7.5	14.5	11.5
18	17.5	17.0	12.0	11.5	8.5	8.0	9.0	6.5	10.0	8.0	12.0	10.0
19	17.0	16.5	12.0	11.5	8.5	8.0	8.0	6.5	10.0	8.5	13.0	9.0
20	17.0	16.5	12.0	11.0	8.5	8.0	8.0	6.5	10.0	8.0	13.5	9.0
21	17.0	16.5	11.5	11.0	8.5	8.0	7.5	6.5	10.0	8.0	14.0	9.5
22	17.0	16.5	11.5	11.0	9.0	8.5	8.0	6.5	10.0	8.0	14.5	10.5
23	16.5	16.0	11.5	10.5	9.0	8.5	8.0	6.5	9.5	8.5	14.0	10.5
24	16.5	16.0	11.0	10.5	9.0	8.5	8.5	7.0	10.5	8.0	14.5	10.5
25	16.5	16.0	11.0	10.5	8.5	8.0	8.0	6.5	10.5	8.5	13.0	10.0
26	16.5	16.0	11.0	10.0	8.5	8.0	8.5	6.5	11.0	9.0	11.5	9.0
27	16.0	16.0	10.5	9.5	8.0	8.0	8.5	7.0	12.0	9.0	12.5	9.0
28	16.0	15.5	10.0	9.5	8.0	8.0	8.5	7.0	13.0	10.0	12.5	9.0
29	16.0	15.0	10.0	9.5	8.0	7.5	8.5	7.0	11.0	10.5	12.5	9.5
30	15.5	15.0	10.0	9.5	8.0	8.5	7.0	---	---	---	12.5	9.5
31	15.0	14.5	---	---	8.0	7.5	10.0	7.0	---	---	12.0	10.0
MONTH	22.5	14.5	14.5	9.5	10.5	7.5	10.0	6.5	13.0	7.5	15.0	8.0
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.5	9.0	21.5	16.0	24.5	19.0	25.0	21.0	25.0	21.5	25.5	22.0
2	12.5	9.0	21.5	16.5	24.0	19.5	25.0	20.5	25.5	21.5	26.0	22.5
3	11.0	9.5	22.0	16.5	23.5	18.5	25.0	21.5	25.0	21.5	25.5	22.5
4	11.0	9.5	22.0	16.5	24.0	18.5	25.5	21.5	25.0	21.5	25.0	22.5
5	11.0	10.0	21.5	16.5	24.0	18.5	26.0	22.0	25.0	21.5	25.0	23.0
6	13.5	10.0	18.0	16.0	23.5	18.5	26.0	22.5	25.0	21.5	25.0	22.5
7	14.0	11.0	21.5	15.0	23.5	18.5	26.0	22.5	25.0	21.0	25.0	22.0
8	12.0	10.5	22.0	16.5	22.5	18.5	26.5	22.5	25.0	21.5	25.0	22.0
9	14.5	9.5	22.5	17.5	22.5	19.0	26.5	23.5	25.5	22.0	25.0	22.0
10	11.5	10.5	22.0	17.5	22.0	18.5	26.0	23.0	25.5	22.0	24.5	23.0
11	12.5	10.5	23.0	17.5	23.0	18.0	26.0	23.0	25.5	22.5	23.0	21.5
12	13.5	10.5	22.5	18.0	24.0	19.0	26.0	23.0	25.5	22.5	24.0	20.5
13	14.0	11.5	23.5	19.0	24.0	20.0	26.0	23.0	25.0	22.0	24.0	20.5
14	14.5	11.5	23.5	19.0	24.0	20.0	26.0	23.0	23.5	21.5	23.5	21.0
15	14.0	12.0	23.0	18.5	24.5	21.0	26.0	23.0	23.5	20.5	23.5	20.5
16	14.5	11.5	23.0	18.5	25.0	21.0	26.0	23.5	24.0	20.5	23.0	20.0
17	14.5	11.5	23.5	18.0	25.5	21.5	25.5	23.0	22.0	20.5	23.0	20.0
18	15.0	11.5	23.0	18.0	25.5	22.0	26.0	22.0	22.0	20.0	23.0	20.0
19	16.0	12.0	23.5	17.5	25.5	22.0	26.0	22.5	22.0	20.5	23.0	20.0
20	16.5	12.0	23.0	18.0	26.0	21.5	26.0	22.5	24.5	20.0	23.0	20.0
21	19.0	13.0	23.5	18.5	25.5	21.5	25.5	22.5	25.0	21.5	22.5	20.0
22	19.5	14.0	24.0	18.5	25.0	21.0	26.0	22.5	24.0	22.5	22.0	19.5
23	20.0	14.0	23.5	18.5	25.5	21.5	26.0	24.0	25.0	21.0	21.5	19.5
24	20.5	15.0	23.5	18.5	25.5	21.5	26.5	23.5	25.0	21.5	22.5	19.0
25	20.0	14.5	24.5	19.0	25.5	22.5	27.0	23.5	25.0	22.0	23.0	19.5
26	19.5	14.0	24.0	19.5	26.0	22.0	27.0	24.0	25.0	21.5	24.0	19.0
27	19.5	14.0	25.0	20.5	26.0	22.0	27.5	24.5	25.0	21.5	23.5	19.5
28	19.5	14.0	23.5	19.5	26.0	22.5	26.5	24.5	25.0	21.5	23.0	20.5
29	20.0	14.5	24.0	18.5	25.5	22.5	26.5	24.0	25.5	21.5	23.0	20.0
30	20.5	15.0	24.5	19.0	25.5	21.5	25.5	23.5	25.5	22.0	23.0	19.5
31	---	---	25.0	19.5	---	---	24.0	22.5	25.0	22.0	---	---
MONTH	20.5	9.0	25.0	15.0	26.0	18.0	27.5	20.5	25.5	20.0	26.0	19.0

SAN JOAQUIN RIVER BASIN

11303000 STANISLAUS RIVER AT RIPON, CA

LOCATION.--Lat 37°43'47", long 121°06'34", in NW¼SE¼ sec.29, T.2 S., R.8 E., Stanislaus County, on left bank 15 ft (5 m) downstream from railroad bridge, 1.1 mi (1.8 km) southeast of Ripon, and 15 mi (24 km) upstream from mouth.

DRAINAGE AREA.--1,075 mi² (2,784 km²).

PERIOD OF RECORD.--October 1940 to current year. April to September 1940 in reports of California Department of Water Resources.

GAGE.--Water-stage recorder. Datum of gage is 0.72 ft (0.219 m) above mean sea level. October 1940 to Nov. 17, 1953, at site 100 ft (30 m) upstream at same datum.

REMARKS.--Records good. Flow regulated by reservoirs and powerplants above station (see REMARKS for station 11302000). South San Joaquin and Oakdale Canals (stations 11300500, 11301000) divert at Goodwin Dam 34 mi (55 km) upstream. Diversions for irrigation of 57,250 acres (232 km²) in vicinity of Oakdale area. See schematic diagram of Stanislaus River basin.

COOPERATION.--One discharge measurement furnished by California Department of Water Resources.

AVERAGE DISCHARGE.--36 years, 1,026 ft³/s (29.06 m³/s), 743,300 acre-ft/yr (916 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,500 ft³/s (1,770 m³/s) Dec. 24, 1955, gage height, 63.25 ft (19.279 m); minimum, 40 ft³/s (1.13 m³/s) July 21, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 12, 1938, reached a stage of 64.4 ft (19.63 m) from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,480 ft³/s (41.9 m³/s) Oct. 24, gage height, 42.58 ft (12.978 m); minimum daily, 52 ft³/s (1.47 m³/s) July 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	317	1360	349	667	152	125	110	103	80	62	69	80
2	378	1340	347	663	142	135	116	118	86	62	70	76
3	406	1330	333	666	133	163	125	104	77	58	67	74
4	376	1320	338	672	140	155	134	103	82	66	68	81
5	402	1330	341	675	142	150	167	104	80	65	75	97
6	420	1370	337	636	173	177	179	108	82	68	73	111
7	388	1370	358	581	169	193	155	108	87	61	77	99
8	363	1360	359	512	162	189	129	103	89	58	80	104
9	325	1220	358	354	169	269	213	103	95	54	87	94
10	297	629	367	319	160	280	169	116	92	64	76	89
11	376	468	380	303	154	243	152	104	91	67	73	89
12	350	408	385	295	158	214	120	90	85	72	69	91
13	280	382	380	360	188	202	117	89	91	61	67	98
14	255	358	344	413	203	190	116	88	90	63	67	104
15	764	343	338	307	185	201	116	89	86	62	80	86
16	1050	332	335	218	175	189	112	103	77	59	86	82
17	1020	326	329	199	166	142	109	105	74	56	83	81
18	1010	483	332	202	167	122	113	100	76	70	80	85
19	1020	482	327	170	153	140	112	89	75	70	79	91
20	1030	459	331	158	143	139	120	87	74	68	76	94
21	1210	435	325	157	152	146	124	85	74	59	78	106
22	1440	420	299	152	156	143	116	87	72	54	85	105
23	1470	406	284	168	146	138	128	97	90	53	82	90
24	1480	400	276	158	144	119	112	92	82	57	80	81
25	1460	392	271	168	140	120	106	93	72	62	80	77
26	1440	383	269	172	130	134	106	86	67	56	85	75
27	1430	373	285	142	120	124	102	87	63	57	77	76
28	1400	365	557	139	127	110	104	83	64	52	77	74
29	1370	353	637	133	124	126	104	79	69	53	77	74
30	1380	351	658	121	---	110	104	77	67	61	94	91
31	1390	---	658	158	---	121	---	82	---	67	86	---
TOTAL	26297	20548	11487	10038	4473	5009	3790	2962	2389	1897	2403	2655
MEAN	848	685	371	324	154	162	126	95.5	79.6	61.2	77.5	88.5
MAX	1480	1370	658	675	203	280	213	118	95	72	94	111
MIN	255	326	269	121	120	110	102	77	63	52	67	74
AC-FT	52160	40760	22780	19910	8870	9940	7520	5880	4740	3760	4770	5270
CAL YR 1975 TOTAL	389570		MEAN	1067	MAX	7000	MIN	132	AC-FT	772700		
WTR YR 1976 TOTAL	93948		MEAN	257	MAX	1480	MIN	52	AC-FT	186300		

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA
(National stream-quality accounting network station)

LOCATION.--Lat 37°40'34", long 121°15'55", in El Pescadero Grant, San Joaquin County, on left bank 12 ft (4 m) downstream from Durham Ferry highway bridge, 2.6 mi (4.2 km) downstream from Stanislaus River, and 3.2 mi (5.1 km) northeast of Vernalis.

DRAINAGE AREA.--13,536 mi² (35,058 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1922 to current year (1922-23 and 1925-29, low-water records only).

REVISED RECORDS.--WSP 831: 1936. WSP 931: 1940. WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. See WSP 2130 for history of changes prior to Nov. 30, 1967.

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals, and diversions for irrigation; low flows consist mainly of return flow from irrigated areas.

AVERAGE DISCHARGE.--48 years (water years 1924, 1930-76), 4,365 ft³/s (123.6 m³/s), 3,162,000 acre-ft/yr (3.90 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 79,000 ft³/s (2,240 m³/s) Dec. 9, 1950, elevation, 32.81 ft (10.000 m) present datum, including flow through breaks in levee; maximum elevation, 34.55 ft (10.531 m) Jan. 27, 1969; minimum discharge, 19 ft³/s (0.54 m³/s) Aug. 10, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,720 ft³/s (162 m³/s) Oct. 19, elevation, 15.72 ft (4.791 m); minimum daily, 587 ft³/s (16.6 m³/s) July 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3240	5420	3240	5020	1930	1950	1520	865	885	634	805	859
2	3310	5410	3280	4930	1930	2110	1410	905	883	663	894	855
3	3380	5290	3430	4170	1900	2270	1230	960	924	714	869	865
4	3420	5240	3470	4700	1850	2250	1330	914	876	728	809	859
5	3410	5450	3460	4710	1850	2220	1480	861	864	842	775	885
6	3510	5510	3490	4140	2190	2250	1400	845	880	813	817	881
7	3540	4840	3570	4820	2410	2240	1290	970	868	688	825	885
8	3490	4580	3580	4780	2330	2180	1520	1030	807	645	875	883
9	3880	4490	3560	4300	2330	2130	1760	1030	788	605	975	876
10	4190	4090	3570	3690	2370	2220	1810	1080	769	587	853	854
11	4410	3750	3590	4150	2340	2260	1750	1090	781	595	824	859
12	4600	3670	3620	4120	2330	2320	1760	1010	845	662	815	952
13	4580	3620	3630	3210	2230	2140	1680	984	920	636	903	1050
14	4460	3570	3580	3480	2290	2050	1580	983	899	652	1040	1130
15	4760	3510	3570	3420	2340	1970	1440	960	829	643	1240	1230
16	5280	3440	3550	3270	2300	1780	1420	915	804	623	1350	1210
17	5520	3380	3530	3190	2300	1660	1390	1030	779	630	1140	1100
18	5620	3280	3490	3090	2270	1570	1350	930	745	693	1010	1070
19	5710	3200	3500	2860	2190	1510	1320	904	760	769	1120	1150
20	5660	3200	3530	2450	2040	1450	1150	869	821	698	1240	1180
21	5550	3220	3600	2900	2000	1460	1020	907	886	647	1380	1190
22	5400	3210	3950	2910	2070	1570	931	917	775	639	1470	1190
23	5160	3220	3690	2760	2070	1460	940	921	722	643	1560	1140
24	5090	3190	4350	2260	1960	1420	914	1030	682	627	1470	1130
25	5030	3170	4630	2140	1920	1380	929	971	697	643	1290	1190
26	4920	3200	4350	2090	1930	1440	969	934	655	693	1160	1160
27	4620	3250	3790	2030	1930	1400	924	903	691	693	1100	1250
28	4380	3270	4260	1940	1870	1450	860	855	766	652	1020	1160
29	4700	3270	4440	1880	1860	1540	855	825	692	679	1040	1360
30	4900	3240	4100	1830	---	1430	850	855	632	649	1070	1600
31	5120	---	4690	1870	---	1420	---	868	---	723	959	---
TOTAL	140840	117180	116090	103110	61330	56500	38782	29121	23925	20808	32698	32003
MEAN	4543	3906	3745	3326	2115	1823	1293	939	798	671	1055	1067
MAX	5710	5510	4690	5020	2410	2320	1810	1090	924	842	1560	1600
MIN	3240	3170	3240	1830	1850	1380	850	825	632	587	775	854
AC-FT	279400	232400	230300	204500	121600	112100	76920	57760	47460	41270	64860	63480
CAL YR 1975 TOTAL	1439020			MEAN 3943	MAX 8820	MIN 1340	AC-FT 2854000					
WTR YR 1976 TOTAL	772387			MEAN 2110	MAX 5710	MIN 587	AC-FT 1532000					

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

CHEMICAL ANALYSES: Water years 1951 to current year.

SPECIFIC CONDUCTANCE: Water years 1951-63, 1973 to current year.

WATER TEMPERATURES: Water years 1951 to current year.

SEDIMENT RECORDS: Water years 1957 to current year.

TURBIDITY: Water years 1972 to current year.

PERIOD OF DAILY RECORD.--

CHEMICAL ANALYSES: March 1951 to May 1963.

SPECIFIC CONDUCTANCE: March 1951 to May 1963, January 1973 to current year.

WATER TEMPERATURES: March 1951 to current year.

SEDIMENT RECORDS: November 1956 to current year.

INSTRUMENTATION.--Conductivity recorder since January 1973. Temperature recorder October 1961 to September 1963, and since December 1972.

REMARKS.--Mean daily specific conductance records since January 1973, furnished by Bureau of Reclamation; unpublished records are included in extremes and are available in files of district office. Where no maximum or minimum is shown, temperature is once-daily reading.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,350 micromhos Aug. 11, 1961; minimum daily, 60 micromhos June 21, 1953.

WATER TEMPERATURES: Maximum 30.0°C July 7, 1970; minimum, 3.0°C Jan. 24, 1962.

SEDIMENT CONCENTRATIONS: Maximum daily, 1,590 mg/L Dec. 25, 1964; minimum daily, 9 mg/L Jan. 4, 1960,

Nov. 18, 1961.

SEDIMENT DISCHARGE: Maximum daily, 54,100 tons (49,100 tonnes) Dec. 25, 1964; minimum daily, 2 tons (1.8 tonnes) Aug. 10, 1961.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily recorded, 1,230 micromhos July 10; minimum daily recorded, 242 micromhos Nov. 5.

WATER TEMPERATURES: Maximum, 27.5°C Aug. 31, Sept. 1, 2; minimum observed, 5.0°C Jan. 4.

SEDIMENT CONCENTRATIONS: Maximum daily, 300 mg/L June 28; minimum daily, 26 mg/L Dec. 16.

SEDIMENT DISCHARGE: Maximum daily, 1,340 tons (1,220 tonnes) Oct. 19; minimum daily, 206 tons (187 tonnes) Feb. 24.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT											
01...	1300	3300	365	7.3	18.5	--	1300	2400	--	--	--
NOV											
04...	1300	5240	284	7.0	12.5	7	1700	140	64	0	14
DEC											
02...	1300	3320	405	7.2	8.5	--	140	370	--	--	--
JAN											
07...	1330	4870	266	6.8	7.0	--	--	--	--	--	--
21...	1445	2930	493	7.8	--	--	250	350	--	--	--
FEB											
03...	1230	1940	999	6.8	10.5	15	100	190	210	79	45
APR											
01...	1300	1540	798	7.4	13.0	--	210	420	--	--	--
JUN											
03...	1330	862	1026	8.2	17.0	--	210	240	--	--	--
JUL											
07...	1200	714	1150	9.0	23.0	--	2100	8100	--	--	--
SEP											
01...	1400	859	1026	8.5	25.5	--	--	--	--	--	--

DATE	DISSOLVED MAGNESIUM (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT										
01...	--	--	--	--	--	--	--	--	--	--
NOV										
04...	7.0	31	50	1.7	2.0	78	--	64	23	38
DEC										
02...	--	--	--	--	--	--	--	--	--	--
JAN										
07...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
FEB										
03...	23	120	55	3.6	3.8	156	0	128	140	150
APR										
01...	--	--	--	--	--	--	--	--	--	--
JUN										
03...	--	--	--	--	--	--	--	--	--	--
JUL										
07...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	--	--	--	--	--	--	--	--	--	--

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

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO ₂) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT 01...	--	--	--	--	--	--	.65	1.3	2.0	.26
NOV 04...	.1	12	177	166	.24	2500	.44	.88	1.3	.13
DEC 02...	--	--	--	--	--	--	.61	.53	1.1	.02
JAN 07...	--	--	--	--	--	--	.35	.85	1.2	.09
JAN 21...	--	--	--	--	--	--	.84	1.0	1.8	.16
FEB 03...	.1	16	593	575	.81	3110	1.7	1.3	3.0	.23
APR 01...	--	--	--	--	--	--	1.6	1.2	2.8	.27
JUN 03...	--	--	--	--	--	--	.99	2.2	3.2	.38
JUL 07...	--	--	--	--	--	--	1.7	2.2	3.9	.31
SEP 01...	--	--	--	--	--	--	1.7	1.6	3.3	.43

DATE	TIME	TOTAL ARSENIC (AS) (UG/L)	SUS-PENDED ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	SUS-PENDED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	SUS-PENDED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	SUS-PENDED COBALT (CO) (UG/L)
NOV 04...	1300	2	0	2	0	0	0	6	0	6	<50	<50
FEB 03...	1230	2	1	1	<10	<10	0	10	10	0	<50	<50
MAY 04...	1300	5	3	2	<10	<10	0	10	10	0	<50	<50
AUG 04...	1200	13	9	4	<10	<10	0	20	20	0	<50	<48

DATE	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS-PENDED COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS-PENDED LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	SUS-PENDED MAN-GANESE (MN) (UG/L)
NOV 04...	0	10	8	2	720	30	<100	<100	0	70	50
FEB 03...	0	10	7	3	1700	20	<100	<100	0	150	70
MAY 04...	0	10	4	6	4200	20	--	<99	1	350	270
AUG 04...	2	60	56	4	8500	10	<100	<100	0	500	480

DATE	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS-PENDED MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	SUS-PENDED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS-PENDED ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
NOV 04...	20	.2	.1	.1	0	0	0	10	10	0	6.3
FEB 03...	80	.1	.1	.0	1	0	1	30	30	0	5.9
MAY 04...	80	.0	.0	.1	1	0	1	50	40	10	7.1
AUG 04...	20	.2	.0	.2	1	1	0	50	50	0	1.4

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM .CLASS ..ORDER ...FAMILY....GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
OCT 01	1300	CHLOROPHYTA	GREEN ALGAE		
		.CHLOROPHYCEAE			
		..CHLOROCOCCALES			
		...CHARACIACEAE		120	2
		....SCHROEDERIA			
		...OOCYSTACEAE		480	10
		....OOCYSTIS			
		CHRYSTOPHYTA			
		.BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
		#CYCLOTELLA		1,300	27
		....MELOSIRA		360	7
		..PENNALES	PENNATE		
		...CYMBELLACEAE			
NOV 04		....CYMBELLA		120	2
		...NAVICULACEAE	NAVICULOID		
		*NAVICULA			0
		...NITZSCHIAEAE			
		....NITZSCHIA		360	7
		CYANOPHYTA	BLUE-GREEN ALGAE		
		.MYXOPHYCEAE			
		..CHROOCOCCALES	COCCOID		
		...CHROOCOCCACEAE			
		#ANACYSTIS		2,200	44
		TOTAL PHYTOPLANKTON		5,000	
		CHLOROPHYTA	GREEN ALGAE		
		.CHLOROPHYCEAE			
		..CHLOROCOCCALES			
		...OOCYSTACEAE		160	1
		....ANKISTRODESMUS			
		...SCENEDESMACEAE		330	1
		....SCENEDESMUS			
		CHRYSTOPHYTA			
		.BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
		....CYCLOTELLA		1,600	5
		....MELOSIRA		2,100	7
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		....ACHNANTHES		160	1
		...NITZSCHIAEAE			
		....NITZSCHIA		330	1
		.XANTHOPHYCEAE	YELLOW-GREEN ALGAE		
		..HETEROCOCCALES			
		...CHLOROTHECIACEAE			
		*OPHIOCYTIUM			0
		CYANOPHYTA	BLUE-GREEN ALGAE		
		.MYXOPHYCEAE			
		..CHROOCOCCALES	COCCOID		
		...CHROOCOCCACEAE			
		#ANACYSTIS		21,000	69
		...OSCILLATORIALES	FILAMENTOUS		
		...OSCILLATORIAEAE			
		#LYNGBYA		4,400	15
		*OSCILLATORIA			0
		TOTAL PHYTOPLANKTON		30,000	

See footnotes at end of table.

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM CLASS ORDER FAMILY GENUS SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
JAN 07	1330	CHLOROPHYTA	GREEN ALGAE		
		CHLOROPHYCEAE			
		CHLOROCOCCALES			
		SCENEDESMACEAE			
		* SCENEDESMUS			0
		ZYGNEMATALES			
		DESMIDIACEAE	PLACODERM DESMIDS		
		* CLOSTERIUM			0
		CHRYSOPHYTA			
		BACILLARIOPHYCEAE	DIATOMS		
		CENTRALES	CENTRIC		
		COSCINODISCEAE			
		# CYCLOTELLA		1,200	35
		# MELOSIRA		1,000	29
		PENNALES	PENNATE		
		CYMBELLACEAE			
		CYMBELLA		69	2
		FRAGILARIACEAE			
		* ASTERIONELLA			0
		FRAGILARIA		480	14
		SYNEDRA		280	8
		NAVICULACEAE	NAVICULOID		
		CALONEIS		69	2
		* DIPLONEIS			0
		* PINNULARIA			0
		NITZSCHIA			
		NITZSCHIA		340	10
		TABELLARIACEAE			
		* TABELLARIA			0
		TOTAL PHYTOPLANKTON		3,500	
JAN 21	1445	CHLOROPHYTA	GREEN ALGAE		
		CHLOROPHYCEAE			
		CHLOROCOCCALES			
		OOCYSTACEAE			
		* ANKISTRODESMUS			0
		KIRCHNERIELLA		99	2
		SCENEDESMACEAE			
		* SCENEDESMUS			0
		CHRYSOPHYTA			
		BACILLARIOPHYCEAE	DIATOMS		
		CENTRALES	CENTRIC		
		COSCINODISCEAE			
		# CYCLOTELLA		2,200	51
		MELOSIRA		200	5
		PENNALES	PENNATE		
		CYMBELLACEAE			
		AMPHORA		99	2
		CYMBELLA		99	2
		* RHOPALODIA			0
		DIATOMACEAE			
		* DIATOMA			0
		FRAGILARIACEAE			
		ASTERIONELLA		99	2
		FRAGILARIA		990	23
		* SYNEDRA			0
		GOMPHONEMACEAE			
		* GOMPHONEIS			0
		GOMPHONEMA		99	2
		NAVICULACEAE	NAVICULOID		
		* AMPHIPRORA			0
		* CALONEIS			0
		NAVICULA		300	7
		NITZSCHIA			
		NITZSCHIA		99	2
		SURIPELLACEAE			
		* SURIPELLA			0
		TOTAL PHYTOPLANKTON		4,300	

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM .CLASS ..ORDER ...FAMILY....GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
FEB 03		CHLOROPHYTA	GREEN ALGAE		
		..CHLOROPHYCEAE			
		...CHLOROCOCCALES			
		...MICRACTINIACEAE			
		#MICRACTINIUM		5,500	57
		...OOCYSTACEAE			
		*ANKISTRODESMUS			0
		...SCENEDESMACEAE			
		*ACTINASTRUM			0
		CHRYSTOPHYTA			
		..BACILLARIOPHYCEAE	DIATOMS		
		...CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
		#CYCLOTELLA		3,300	35
		*MELOSIRA			0
		...PENNALES	PENNATE		
		...CYMBELLACEAE			
		...CYMBELLA		200	2
		...FRAGILARIACEAE			
		*ASTERIONELLA			0
		*FRAGILARIA			0
		*SYNEDRA			0
		...GOMPHONEMACEAE			
		*GOMPHONEMA			0
		...NAVICULACEAE	NAVICULOID		
		...AMPHIPRORA		200	2
		*CALONEIS			0
		...NAVICULA		200	2
		...NITZSCHACEAE			
		...NITZSCHIA		200	2
		...SURIPELLACEAE			
		*SURIPELLA			0
		CYANOPHYTA	BLUE-GREEN ALGAE		
		..MYXOPHYCEAE			
		...OSCILLATORIALES	FILAMENTOUS		
		...OSCILLATORIA			
		*OSCILLATORIA			0
		EUGLENOPHYTA	EUGLENOIDS		
		..EUGLENOPHYCEAE			
		...EUGLENALES			
		...EUGLENACEAE			
		*TRACHELOMONAS			0
		TOTAL PHYTOPLANKTON		9,600	
MAR 01	1330	CHLOROPHYTA	GREEN ALGAE		
		..CHLOROPHYCEAE			
		...CHLOROCOCCALES			
		...MICRACTINIACEAE			
		*MICRACTINIUM			0
		...OOCYSTACEAE			
		...ANKISTRODESMUS		270	5
		...KIRCHNERIELLA		68	1
		...OOCYSTIS		480	8
		...SCENEDESMACEAE			
		...CRUCIGENIA		270	5
		...SCENEDESMUS		410	7
		...TETRASTRUM		270	5

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM .CLASS ..ORDER ...FAMILY....GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
MAR 1		CHRYSOPHYTA			
(continued)		.BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
		....CYCLOTELLA		680	11
		..PENNATAES	PENNATE		
		...ACHNANTHACEAE			
		....COCCONEIS		68	1
		...CYMBELLACEAE			
		*RHOPALODIA			0
		...FRAGILARIACEAE			
		*FRAGILARIA			0
		...SYNEDRA		200	3
		...NAVICULACEAE	NAVICULOID		
		...AMPHIPRORA		68	1
		*GYROSIGMA			0
		...NAVICULA		270	5
		...NITZSCHIACEAE			
		...NITZSCHIA		680	11
		...SURIRELLACEAE			
		*SURIRELLA			0
		CYANOPHYTA	BLUE-GREEN ALGAE		
		.MYXOPHYCEAE			
		..CHROOCUCCALES	COCCOID		
		...CHROOCOCCACEAE			
		#AGMENELLUM		1,100	18
		#ANACYSTIS		890	15
		...OSCILLATORIALES	FILAMENTOUS		
		...OSCILLATORIA			
		*OSCILLATORIA			0
		EUGLENOPHYTA	EUGLENOIDS		
		.EUGLENOPHYCEAE			
		..EUGLENALES			
		...EUGLENACEAE			
		....EUGLENA		68	1
		....TRACHELOMONAS		140	2
		PYRRHOPHYTA	FIRE ALGAE		
		.DINOPHYCEAE	DINOFLAGELLATES		
		..PERIDINIALES			
		...GLENODINIACEAE			
		*GLENODINIUM			0
		TOTAL PHYTOPLANKTON		5,900	
APR 01	1300	CHLOROPHYTA	GREEN ALGAE		
		.CHLOROPHYCEAE			
		..CHLOROCOCCALES			
		...COELASTRACEAE			
		....COELASTRUM		150	2
		...OOCYSTACEAE			
		....ANKISTRODESMUS		290	3
		...CHLORELLA		49	1
		...SCENEDESMACEAE			
		....ACTINASTRUM		49	1
		...SCENEDESMUS		340	4
		...VOLVOCALES			
		...CHLAMYDOMONADACEAE			
		....CHLAMYDOMONAS		190	2

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM ..CLASS ..ORDER ...FAMILY ...GENUS....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
APR 01 (continued)		CHRYSTOPHYTA			
		..BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
	#	....CYCLOTELLA		2,400	28
	#	....MELOSIRA		2,100	26
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		....ACHNANTHES		49	1
		...COCCONEIS		49	1
		...CYMBELLACEAE			
	*	....CYMBELLA			0
		...FRAGILARIACEAE			
		....SYNEDRA		150	2
		...NAVICULACEAE	NAVICULOID		
		....CALONEIS		49	1
		...NAVICULA		490	6
		...STAURONEIS		49	1
		...NITZSCHACEAE			
	#	....NITZSCHIA		1,800	22
		CYANOPHYTA	BLUE-GREEN ALGAE		
		..MYXOPHYCEAE			
		...CHROOCOCCALES	COCCOID		
		...CHROOCOCCACEAE			
		...GOMPHOSPHAERIA		97	1
		TOTAL PHYTOPLANKTON		8,300	
MAY 04	1300	CHLOROPHYTA	GREEN ALGAE		
		..CHLOROPHYCEAE			
		...CHLOROCOCCALES			
		...OOCYSTACEAE			
		...CHODATELLA		350	2
		...SCENEDESMACEAE			
	*	....ACTINASTRUM			0
		...SCENEDESMUS		700	4
	*	....TETRALANTOS			0
		CHRYSTOPHYTA			
		..BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
	#	....CYCLOTELLA		10,000	51
	#	....MELOSIRA		6,700	33
		..PENNALES	PENNATE		
		...NITZSCHACEAE			
		....NITZSCHIA		1,800	9
		...SURIRELLACEAE			
		....SURIRELLA		350	2
		CYANOPHYTA	BLUE-GREEN ALGAE		
		..MYXOPHYCEAE			
		...OSCILLATORIALES	FILAMENTOUS		
		...OSCILLATORIA			
	*	....OSCILLATORIA			0
		TOTAL PHYTOPLANKTON		20,000	

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM ..CLASS ...ORDER....FAMILY.....GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
JUNE 03	1330	CHLOROPHYTA ..CHLOROPHYCEAE ..CHLOROCOCCALES ...HYDRODICTYACEAE * ...PEDIASTRUM ...MICRACTINIACEAE ...MICRACTINIUM ...OOCYSTACEAE ...ANKISTRODESMUS * ...DICTYOSPHAERIUM ...SCENEDESMACEAE ...SCENEDESMUS ...VOLVOCALES ...VOLVOCAEAE * ...EUGOINA	GREEN ALGAE	2,600	0 4 1 0 2 0
		CHRYSOPHYTA ..BACILLARIOPHYCEAE ..CENTRALES ...COSCINODISCACEAE # ...CYCLOTELLA # ...MELOSIRA ...PENNALES ...ACHNANTHACEAE ...COCCONEIS ...FRAGILARIACEAE * ...FRAGILARIA * ...SYNEDRA ...NAVICULACEAE * ...AMPHIPRORA * ...CALONEIS ...NAVICULA ...NITZSCHACEAE ...NITZSCHIA ...SURIPELLACEAE * ...SURIPELLA	DIATOMS CENTRIC PENNATE NAVICULOID	19,000 15,000 330 2,000 3,300	29 23 1 0 0 3 5 0
		CYANOPHYTA ..MYXOPHYCEAE ...CHLODOCCOCCALES ...CHLODOCCOCCACEAE * ...AGMENELLUM ...OSCILLATORIALES ...OSCILLATORIAEAE # ...OSCILLATORIA	BLUE-GREEN ALGAE COCCOID FILAMENTOUS		0
		TOTAL PHYTOPLANKTON	TOTALS	21,000 64,000	32
JULY 07	1200	CHLOROPHYTA ..CHLOROPHYCEAE ..CHLOROCOCCALES ...SCENEDESMACEAE # ...SCENEDESMUS	GREEN ALGAE	2,100	24
		CHRYSOPHYTA ..BACILLARIOPHYCEAE ..CENTRALES ...COSCINODISCACEAE # ...CYCLOTELLA ...MELOSIRA	DIATOMS CENTRIC	6,200 540	70 6
		TOTAL PHYTOPLANKTON		8,800	

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM ..CLASS ..ORDER ...FAMILY....GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
AUG 04	1200	CHLOROPHYTA ..CHLOROPHYCEAE ..CHLOROCOCCALES ...MICHACTINIACEAE * ...GOLENKINIA ...SCENEDESMACEAE ...ACTINASTRUM ...SCENEDESMUS	GREEN ALGAE	1,400 2,500	0 3 6
		CHRYSOPHYTA ..BACILLARIOPHYCEAE ..CENTRALES ...COSCINODISCACEAE # ...CYCLOTELLA ...MELOSIRA ...PENNALES ...FRAGILARIACEAE ...FRAGILARIA ...NAVICULACEAE * ...GYROSIGMA ...NAVICULA ...NITZSCHACEAE ...NITZSCHIA	DIATOMS CENTRIC PENNATE NAVICULOID	12,000 2,200 2,900 720 540	28 5 7 0 2 1
		CYANOPHYTA ..MYXOPHYCEAE ..CHROOCOCCALES ...CHROOCOCCACEAE # ...ANACYSTIS ...OSCILLATORIALES ...NOSTOCACEAE ...ANABAENA ...OSCILLATORIACEAE # ...OSCILLATORIA	BLUE-GREEN ALGAE COCCOID FILAMENTOUS	11,000 1,100 9,600	24 2 22
		TOTAL PHYTOPLANKTON		44,000	
SEPT 01	1400	CHLOROPHYTA ..CHLOROPHYCEAE ..CHLOROCOCCALES ...OOCYSTACEAE * ...ANKISTRODESMUS ...KIRCHNERIELLA ...SCENEDESMACEAE ...SCENEDESMUS ...TETRASTRUM ...VOLVOCALES ...CHLAMYDOMONADACEAE ...CHLAMYDOMONAS	GREEN ALGAE	500 2,700 670 500	1 0 7 2 1
		CHRYSOPHYTA ..BACILLARIOPHYCEAE ..CENTRALES ...COSCINODISCACEAE # ...CYCLOTELLA ...MELOSIRA ...PENNALES * ...CYMBELLACEAE ...AMPHORA ...FRAGILARIACEAE ...FRAGILARIA ...NAVICULACEAE ...NAVICULA ...NITZSCHACEAE ...NITZSCHIA	DIATOMS CENTRIC PENNATE NAVICULOID	7,400 2,000 3,400 340 670	19 5 9 1 2
		CYANOPHYTA ..MYXOPHYCEAE ...OSCILLATORIALES ...NOSTOCACEAE ...APHANIZOMENON ...OSCILLATORIACEAE # ...OSCILLATORIA	BLUE-GREEN ALGAE FILAMENTOUS	4,200 16,000	11 41

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM .CLASS ...ORDER ...FAMILY ...GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
SEPT 01 (continued)		EUGLENOPHYTA ..EUGLENOPHYCEAE ...EUGLENALES ...EUGLENAEAE *TRACHELOMONAS	EUGLENOIDS		
					0
				TOTALS	4,200
					0
		TOTAL PHYTOPLANKTON		39,000	

NOTE: # - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 * - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED

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
Dec 2	62	Dry weight	Ash weight				Polyethylene strip
Mar 1	28	65	53	20	0.6	610	Polyethylene strip
Jun 3	30	33	30	22	.2	180	Polyethylene strip
		98.8	89.4	82.7	.000	110	Polyethylene strip

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		248	489		983	890	728	1070	1080	1150	1020	1030
2		250	411		933	845	717	992	1040	1180	920	1010
3		246	400		889	818	905	1000	986	1120	855	983
4		249	406		840	800	991	1060	1030	1150	922	951
5		242	401		872	879	924	1070	1030	---	1000	---
6		255	395		772	873	897	1130	1030	---	949	---
7		272	---		717	782	974	1040	1020	---	946	949
8		276	---		746	790	894	947	1050	---	921	966
9		280	---		738	758	782	923	1030	1210	845	938
10		286	---		752	757	690	972	1060	1230	917	998
11		292	---		770	773	735	958	1020	---	955	1040
12		291	---		750	670	721	985	1030	1110	969	929
13		291	---		786	687	772	1020	950	1110	977	818
14		290	---		768	742	787	---	989	1130	843	759
15		286	---		778	722	854	---	1030	1040	796	698
16		286	---		798	793	878	---	1070	1100	695	675
17		296	---		802	839	869	---	1060	1140	794	762
18		301	---		821	832	898	---	1080	1070	829	805
19		377	---		854	822	938	1030	1090	994	787	769
20		468	---		868	808	1000	1050	1060	1030	761	823
21		475	---		849	789	1080	1060	1030	1070	684	828
22		477	---		837	749	1140	---	1060	1130	645	831
23		484	---		851	779	1110	---	1100	1160	665	832
24		459	---		868	803	1080	---	1140	1140	708	833
25		454	---		889	753	1070	---	1150	1170	766	782
26		446	---		883	696	1060	991	1190	1070	850	777
27		453	---		869	---	1160	1020	1120	1030	922	792
28		450	---		860	---	1100	1040	1030	1160	975	911
29		437	---		854	---	1110	1150	1040	1220	986	849
30		439	---		---	700	1140	1090	1100	1110	943	732
31		---	---		---	726	---	---	---	1080	---	---
MONTH		345	---		827	781	933	---	1060	1120	862	860

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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	19.0	-- 18.0	12.5	-- 12.0	8.5	-- 7.5	-- 7.0	--	10.5	-- 9.5	12.5	-- 11.5
2	18.5	-- 17.5	12.5	-- 12.0	8.5	-- 8.0	-- 6.0	--	11.0	-- 9.5	11.0	-- 9.0
3	18.5	-- 17.5	13.0	-- 12.0	8.5	-- 8.0	-- 5.5	--	11.5	-- 10.0	9.5	-- 8.5
4	19.0	-- 17.5	13.0	-- 12.0	9.0	-- 8.0	-- 5.0	--	11.0	-- 10.0	9.5	-- 8.0
5	19.0	-- 18.0	13.0	-- 12.5	9.5	-- 9.0	-- 7.0	--	10.5	-- 8.0	10.0	-- 8.5
6	18.5	-- 17.5	13.0	-- 12.0	9.5	-- 9.0	-- 6.5	--	8.0	-- 7.5	11.0	-- 9.0
7	17.5	-- 16.5	13.0	-- 12.0	9.5	-- 8.5	7.0	-- 6.5	8.0	-- 7.0	11.5	-- 10.0
8	16.5	-- 15.5	13.5	-- 13.0	9.0	-- 8.5	7.0	-- 6.5	9.0	-- 8.0	12.0	-- 10.5
9	16.0	-- 14.5	12.5	-- 12.0	8.5	-- 8.5	7.5	-- 6.5	10.0	-- 9.0	13.0	-- 11.0
10	14.5	-- 14.5	12.5	-- 12.0	8.5	-- 8.5	7.5	-- 7.0	10.5	-- 9.5	13.0	-- 11.5
11	14.5	-- 14.0	12.0	-- 11.5	8.5	-- 8.5	7.5	-- 7.0	11.0	-- 9.5	13.5	-- 12.0
12	15.0	-- 14.0	11.5	-- 10.5	8.5	-- 7.5	8.0	-- 7.5	11.5	-- 10.0	13.0	-- 11.5
13	15.0	-- 14.0	11.0	-- 10.0	8.0	-- 6.5	8.0	-- 7.5	11.5	-- 10.5	13.5	-- 11.5
14	15.0	-- 14.0	11.0	-- 10.5	7.0	-- 6.0	8.5	-- 7.5	12.0	-- 11.0	14.0	-- 12.0
15	15.0	-- 14.0	12.0	-- 10.5	-- 6.5	--	8.5	-- 8.0	12.0	-- 11.0	14.5	-- 12.5
16	15.0	-- 14.5	12.0	-- 11.5	-- 9.0	--	8.5	-- 8.0	11.0	-- 10.5	15.5	-- 13.5
17	15.0	-- 14.5	11.0	-- 10.0	-- 7.0	--	9.0	-- 8.0	11.5	-- 10.0	17.0	-- 14.5
18	15.5	-- 14.5	9.5	-- 9.0	-- 6.5	--	9.0	-- 8.5	12.5	-- 11.0	16.0	-- 14.0
19	15.5	-- 14.5	9.0	-- 8.0	-- 6.5	--	9.5	-- 8.5	12.5	-- 11.5	14.0	-- 12.5
20	15.5	-- 14.5	9.0	-- 8.0	-- 6.5	--	9.5	-- 8.5	11.5	-- 10.5	13.5	-- 11.5
21	15.5	-- 14.5	9.0	-- 8.5	-- 7.0	--	9.0	-- 8.5	11.5	-- 10.0	14.5	-- 12.0
22	15.0	-- 14.0	9.0	-- 8.5	-- 9.0	--	9.0	-- 8.0	11.5	-- 10.5	15.0	-- 13.0
23	14.0	-- 13.0	9.0	-- 8.0	-- 9.0	--	9.0	-- 8.0	11.0	-- 10.5	14.5	-- 12.5
24	12.5	-- 12.0	9.5	-- 8.5	-- 9.0	--	9.5	-- 8.5	11.0	-- 9.5	15.0	-- 13.0
25	12.5	-- 11.5	9.5	-- 8.5	-- 5.0	--	9.0	-- 8.0	12.0	-- 10.5	13.5	-- 12.0
26	13.0	-- 12.5	9.0	-- 8.5	-- 9.0	--	9.0	-- 8.0	12.5	-- 10.5	13.0	-- 11.5
27	13.5	-- 12.5	9.5	-- 9.0	-- 9.0	--	9.0	-- 8.0	13.5	-- 11.5	13.0	-- 11.0
28	13.5	-- 12.5	9.0	-- 8.5	-- 8.5	--	9.5	-- 8.0	14.5	-- 12.5	13.5	-- 11.0
29	13.0	-- 12.0	8.5	-- 8.0	-- 8.5	--	9.0	-- 8.5	14.0	-- 12.5	14.0	-- 12.0
30	13.0	-- 12.5	8.5	-- 7.5	-- 9.0	--	10.0	-- 9.0	--	--	15.0	-- 12.5
31	13.0	-- 12.0	--	--	-- 8.0	--	10.5	-- 9.0	--	--	15.0	-- 13.5
MONTH	19.0	-- 11.5	13.5	-- 7.5	--	--	10.5	-- 6.5	14.5	-- 7.0	17.0	-- 8.0
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	-- 12.0	20.0	-- 17.0	20.0	-- 16.0	-- 20.0	--	23.5	-- 19.0	27.5	-- 23.0
2	14.5	-- 12.0	19.5	-- 16.5	20.0	-- 16.0	-- 20.0	--	23.5	-- 20.0	27.5	-- 23.0
3	14.0	-- 13.0	20.0	-- 17.0	20.0	-- 15.0	-- 21.0	--	23.0	-- 19.5	27.0	-- 23.5
4	13.5	-- 12.0	20.0	-- 16.5	20.5	-- 14.5	-- 21.5	--	23.5	-- 19.0	26.5	-- 23.0
5	13.5	-- 12.5	20.5	-- 16.5	20.0	-- 15.0	24.5	-- 20.0	23.5	-- 17.5	27.0	-- 24.0
6	15.0	-- 12.5	19.0	-- 17.0	19.5	-- 15.5	24.5	-- 20.5	23.0	-- 18.5	27.0	-- 23.5
7	15.5	-- 13.5	20.0	-- 16.0	19.5	-- 16.0	-- 22.5	--	23.5	-- 18.5	25.5	-- 22.5
8	15.5	-- 14.0	21.5	-- 18.0	20.0	-- 15.5	-- 22.5	--	24.0	-- 19.0	25.0	-- 21.5
9	15.5	-- 13.5	22.0	-- 18.5	20.0	-- 17.0	-- 24.0	--	24.5	-- 20.5	25.0	-- 21.5
10	15.0	-- 13.5	21.0	-- 19.0	20.5	-- 16.0	-- 23.5	--	25.0	-- 20.0	24.0	-- 22.5
11	15.0	-- 12.5	21.0	-- 18.0	20.5	-- 15.0	-- 23.0	--	25.0	-- 20.5	22.5	-- 20.5
12	15.5	-- 14.0	22.0	-- 18.5	21.5	-- 16.0	-- 22.0	--	25.0	-- 20.5	22.5	-- 20.0
13	16.0	-- 13.5	24.0	-- 20.0	21.5	-- 18.0	-- 23.5	--	23.5	-- 20.5	23.0	-- 20.5
14	16.5	-- 14.0	23.0	-- 20.5	21.5	-- 18.0	-- 24.0	--	21.5	-- 20.5	23.0	-- 21.0
15	16.0	-- 13.5	22.5	-- 19.5	23.5	-- 18.5	-- 23.5	--	22.0	-- 19.5	23.0	-- 20.5
16	13.5	-- 11.5	21.5	-- 18.5	24.0	-- 19.5	-- 23.5	--	22.5	-- 20.0	22.5	-- 20.5
17	14.5	-- 11.5	20.5	-- 17.0	24.5	-- 20.0	-- 23.0	--	22.0	-- 20.5	22.0	-- 20.0
18	16.5	-- 13.5	19.5	-- 16.0	24.5	-- 19.5	-- 22.5	--	21.5	-- 20.0	22.5	-- 19.5
19	18.0	-- 15.0	20.0	-- 15.5	24.5	-- 18.5	24.0	-- 19.5	21.5	-- 20.0	22.0	-- 20.5
20	19.0	-- 16.0	20.0	-- 15.5	23.5	-- 19.0	-- 22.0	--	23.0	-- 20.0	22.0	-- 20.0
21	19.0	-- 16.5	20.5	-- 16.5	22.5	-- 19.5	-- 22.5	--	24.5	-- 22.0	22.0	-- 19.5
22	18.5	-- 16.0	21.0	-- 17.0	22.0	-- 18.0	-- 22.0	--	24.5	-- 22.5	21.5	-- 19.0
23	19.0	-- 15.5	20.5	-- 16.5	22.5	-- 18.5	-- 24.0	--	25.0	-- 22.5	21.5	-- 19.0
24	20.0	-- 16.5	20.0	-- 17.0	-- 22.0	--	-- 24.0	--	25.5	-- 23.0	21.5	-- 19.0
25	17.0	-- 15.0	21.0	-- 17.5	-- 23.5	--	-- 24.0	--	26.0	-- 23.0	21.5	-- 19.5
26	15.5	-- 13.0	22.5	-- 18.5	-- 23.0	--	-- 25.0	--	24.5	-- 22.5	21.5	-- 19.5
27	17.0	-- 13.0	22.5	-- 18.5	-- 23.0	--	-- 25.0	--	25.0	-- 22.0	21.5	-- 19.5
28	18.0	-- 14.5	20.0	-- 16.5	-- 24.5	--	-- 25.0	--	26.0	-- 22.5	21.0	-- 19.5
29	19.0	-- 15.0	19.5	-- 15.0	-- 24.5	--	-- 23.5	--	26.5	-- 23.0	19.5	-- 18.5
30	20.0	-- 15.5	20.0	-- 15.5	-- 21.0	--	-- 23.0	--	27.0	-- 24.0	20.5	-- 18.5
31	--	--	20.5	-- 16.5	--	--	24.0	-- 19.0	27.5	-- 24.0	--	--
MONTH	20.0	-- 11.5	24.0	-- 15.0	--	--	--	--	27.5	-- 17.5	27.5	-- 18.5

SAN JOAQUIN RIVER BASIN

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11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

OCTOBER					NOVEMBER			DECEMBER		
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	3240	76	665	5420	69	1010	3240	34	297	
2	3310	75	670	5410	64	935	3280	39	345	
3	3380	79	721	5290	67	957	3430	59	546	
4	3420	65	600	5240	64	905	3470	64	600	
5	3410	68	626	5450	70	1030	3460	63	589	
6	3510	76	720	5510	85	1260	3490	45	424	
7	3540	65	621	4840	74	967	3570	41	395	
8	3490	59	556	4580	73	903	3580	39	377	
9	3880	83	870	4490	54	655	3560	42	404	
10	4190	77	871	4090	60	663	3570	50	482	
11	4410	87	1040	3750	59	597	3590	42	407	
12	4600	102	1270	3670	80	793	3620	37	362	
13	4580	89	1100	3620	74	723	3630	38	372	
14	4460	108	1300	3570	59	569	3580	34	329	
15	4760	100	1290	3510	64	607	3570	31	299	
16	5280	77	1100	3440	71	659	3550	26	249	
17	5520	77	1150	3380	58	529	3530	37	353	
18	5620	71	1080	3280	52	461	3490	48	452	
19	5710	87	1340	3200	42	363	3500	31	293	
20	5660	79	1210	3200	40	346	3530	40	381	
21	5550	81	1210	3220	44	383	3600	35	340	
22	5400	72	1050	3210	43	373	3950	55	587	
23	5160	93	1300	3220	39	339	3690	30	299	
24	5090	85	1170	3190	39	336	4350	74	869	
25	5030	77	1050	3170	37	317	4630	80	1000	
26	4920	79	1050	3200	42	363	4350	60	705	
27	4620	66	823	3250	51	448	3790	44	450	
28	4380	59	698	3270	51	450	4260	58	667	
29	4700	61	774	3270	40	353	4440	62	743	
30	4900	67	886	3240	37	324	4100	45	498	
31	5120	72	995	---	---	---	4690	64	810	
TOTAL	140840	---	29806	117180	---	18618	116090	---	14924	
JANUARY					FEBRUARY			MARCH		
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	5020	75	1020	1930	60	313	1950	49	258	
2	4930	53	705	1930	56	292	2110	64	365	
3	4170	41	462	1900	59	303	2270	60	368	
4	4700	49	622	1850	61	305	2250	50	304	
5	4710	41	521	1850	50	250	2220	50	300	
6	4140	42	469	2190	56	331	2250	59	358	
7	4820	57	742	2410	53	345	2240	62	375	
8	4780	49	632	2330	60	377	2180	58	341	
9	4300	42	488	2330	81	510	2130	53	305	
10	3690	34	339	2370	92	589	2220	60	360	
11	4150	54	605	2340	81	512	2260	68	415	
12	4120	51	567	2330	70	440	2320	71	445	
13	3210	42	364	2230	70	421	2140	52	300	
14	3480	46	432	2290	70	433	2050	53	293	
15	3420	43	397	2340	78	493	1970	57	303	
16	3270	46	406	2300	69	428	1780	58	279	
17	3190	41	353	2300	56	348	1660	61	273	
18	3090	43	359	2270	65	398	1570	76	322	
19	2860	45	347	2190	64	378	1510	63	257	
20	2450	48	318	2040	52	286	1450	60	235	
21	2900	55	431	2000	49	265	1460	64	252	
22	2910	55	432	2070	53	296	1570	72	305	
23	2760	59	440	2070	53	296	1460	72	284	
24	2260	63	384	1960	39	206	1420	72	276	
25	2140	70	404	1920	43	223	1380	68	253	
26	2090	60	339	1930	49	255	1440	74	288	
27	2030	59	323	1930	53	276	1400	64	242	
28	1940	61	320	1870	58	293	1450	63	247	
29	1880	64	325	1860	56	281	1540	82	341	
30	1830	62	306	---	---	---	1430	75	290	
31	1870	65	328	---	---	---	1420	79	303	
TOTAL	103110	---	14180	61330	---	10143	56500	---	9537	

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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	1520	82	337	865	138	322	885	168	401
2	1410	82	312	905	136	332	883	163	389
3	1230	83	276	960	132	342	924	165	412
4	1330	94	338	914	151	373	876	154	364
5	1480	97	388	861	145	337	864	161	376
6	1400	99	374	845	159	363	880	183	435
7	1290	101	352	970	171	448	868	189	443
8	1520	117	480	1030	173	481	807	182	397
9	1760	112	532	1030	158	439	788	198	421
10	1810	111	542	1080	158	461	769	181	376
11	1750	96	454	1090	164	483	781	196	413
12	1760	107	508	1010	167	455	845	223	509
13	1680	116	526	984	190	505	920	240	596
14	1580	117	499	983	193	512	899	206	500
15	1440	110	428	960	180	467	829	194	434
16	1420	104	399	915	193	477	804	157	341
17	1390	106	398	1030	196	545	779	142	299
18	1350	117	426	930	157	394	745	156	314
19	1320	121	431	904	152	371	760	153	314
20	1150	137	425	869	141	331	821	175	388
21	1020	132	364	907	158	387	886	202	483
22	931	133	334	917	164	406	775	188	393
23	940	126	320	921	161	400	722	172	335
24	914	123	304	1030	203	565	682	166	306
25	929	119	298	971	188	493	697	204	384
26	969	125	327	934	180	454	655	222	393
27	924	109	272	903	159	388	691	259	483
28	860	110	255	855	163	376	766	300	620
29	855	125	289	825	156	347	692	289	540
30	850	139	319	855	134	309	632	243	415
31	---	---	---	868	149	349	---	---	---
TOTAL	38782	---	11507	29121	---	12912	23925	---	12474
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	634	218	373	805	258	561	859	109	253
2	663	246	440	894	271	654	855	124	286
3	714	257	495	869	274	643	865	121	283
4	728	278	546	809	244	533	859	122	283
5	842	297	675	775	222	465	885	130	311
6	813	299	656	817	211	465	881	117	278
7	688	289	537	825	201	448	885	137	327
8	645	243	423	875	204	482	883	103	246
9	605	226	369	975	222	584	876	103	244
10	587	260	412	853	171	394	854	97	224
11	595	235	378	824	172	383	859	97	225
12	662	256	458	815	166	365	952	120	308
13	636	241	414	903	200	488	1050	118	335
14	652	256	451	1040	215	604	1130	132	403
15	643	254	441	1240	191	639	1230	135	448
16	623	260	437	1350	165	601	1210	126	412
17	630	270	459	1140	145	446	1100	123	365
18	693	281	526	1010	134	365	1070	114	329
19	769	293	608	1120	129	390	1150	108	335
20	698	241	454	1240	125	418	1180	111	354
21	647	211	369	1380	129	481	1190	105	337
22	639	207	357	1470	140	556	1190	94	302
23	643	240	417	1560	141	594	1140	86	265
24	627	231	391	1470	130	516	1130	91	278
25	643	239	415	1290	143	498	1190	98	315
26	693	261	488	1160	124	388	1160	86	269
27	693	265	496	1100	122	362	1250	86	290
28	652	245	431	1020	111	306	1160	81	254
29	679	237	434	1040	136	382	1360	90	330
30	649	230	403	1070	130	376	1600	84	363
31	723	276	539	959	114	295	---	---	---
TOTAL	20808	---	14292	32698	---	14682	32003	---	9252
YEAR	772387		172327						

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM
OCT								
01...	1300	18.5	3300	80	713	--	--	--
NOV								
04...	1300	12.5	5240	64	905	--	--	--
DEC								
02...	1300	8.5	3320	40	359	--	--	--
JAN								
07...	1330	7.0	4870	50	657	--	--	--
21...	1400	8.5	2930	55	435	--	--	--
FEB								
03...	1230	10.5	1940	59	309	--	--	--
MAR								
01...	1330	12.0	1970	49	261	--	--	--
APR								
01...	1300	13.0	1540	81	337	49	59	70
MAY								
04...	1300	18.5	948	154	394	46	66	73
JUN								
03...	1300	18.0	915	158	390	50	62	74
JUL								
07...	1200	23.0	714	299	576	48	61	76
AUG								
04...	1300	22.0	818	244	539	49	61	73
SEP								
01...	1330	26.0	857	108	250	46	57	68

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
OCT								
01...	--	--	--	74	90	98	100	--
NOV								
04...	--	--	--	60	77	91	99	100
DEC								
02...	--	--	--	71	85	97	100	--
JAN								
07...	--	--	--	51	72	90	99	100
21...	--	--	--	82	91	97	100	--
FEB								
03...	--	--	--	79	96	100	--	--
MAR								
01...	--	--	--	94	96	99	100	--
APR								
01...	81	91	--	97	99	100	--	--
MAY								
04...	84	94	98	99	100	--	--	--
JUN								
03...	86	95	--	99	100	--	--	--
JUL								
07...	88	96	100	--	--	--	--	--
AUG								
04...	86	95	--	99	100	--	--	--
SEP								
01...	81	93	--	97	99	100	--	--

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT
CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)	TUR- BID- ITY (JTU)
OCT						
01...	0825	3270	18.0	76	671	15
02...	0800	3310	18.0	71	635	15
03...	0800	3390	18.0	78	714	10
04...	0810	3440	18.5	66	613	15
05...	0835	3400	19.0	66	606	15
06...	0800	3520	18.5	77	732	10
07...	0800	3590	17.0	66	640	10
08...	0855	3520	15.5	59	561	10
09...	0805	3840	15.5	83	861	10
10...	0805	4240	14.5	79	904	10
11...	0845	4480	14.5	84	1020	9
12...	0835	4690	14.5	105	1330	9
13...	0805	4730	14.0	88	1120	10
14...	0805	4530	14.0	103	1260	10
15...	0800	4690	14.5	105	1330	15
16...	0805	5300	14.5	77	1100	10
17...	0820	5540	14.5	82	1230	10
18...	0755	5660	15.0	64	978	6
19...	0750	5750	15.0	93	1440	10
20...	0810	5740	15.0	78	1210	9
21...	0815	5600	15.0	83	1260	9
22...	0755	5500	14.5	69	1030	7
23...	0730	5260	13.0	90	1280	9
24...	0735	5160	12.0	88	1230	8
25...	0755	5150	11.5	76	1060	7
26...	0740	5020	13.0	83	1130	6
27...	0805	4820	13.0	67	872	6
28...	0755	4380	12.5	59	698	7
29...	0710	4750	12.0	60	769	6
31...	0715	5140	12.5	72	999	5
NOV						
02...	0935	5480	12.0	64	947	7
03...	0725	5380	12.0	66	959	6
04...	0815	5230	12.5	65	918	7
04...	1300	5240	12.5	64	905	7
05...	0805	5420	12.5	64	937	4
06...	0650	5610	12.5	97	1470	9
07...	0830	4880	12.5	70	922	8
08...	0815	4590	13.0	82	1020	8
09...	0850	4490	12.5	54	655	8
10...	0755	4280	12.5	63	728	8
11...	0810	3820	12.0	57	588	7
12...	0845	3720	11.5	82	824	8
13...	0800	3680	11.0	75	745	10
14...	0800	3620	11.0	60	586	15
15...	0800	3550	11.0	61	585	6
16...	0735	3500	11.5	75	709	9
17...	0750	3420	11.0	59	545	8
18...	0805	3330	9.5	53	477	9
19...	0810	3220	9.0	42	365	6
20...	0805	3210	8.5	40	347	8
21...	0805	3240	9.0	44	385	7
22...	0810	3240	8.5	44	385	7
23...	0750	3250	9.0	39	342	6
24...	0815	3230	9.0	39	340	7
25...	0805	3190	9.5	37	319	6
26...	0805	3200	9.0	40	346	6
27...	0815	3260	9.5	50	440	6
28...	1700	3300	9.0	50	445	7
29...	0850	3300	8.5	41	365	6
30...	0845	3260	8.0	37	326	7
DEC						
01...	0825	3260	8.5	34	299	5
02...	0800	3270	8.5	35	309	7
03...	0850	3420	8.5	57	526	8
04...	0850	3460	9.0	64	598	7
05...	0850	3480	9.5	64	601	9
06...	0855	3490	9.5	45	424	7
07...	0900	3570	9.5	40	386	7
08...	0845	3600	9.0	39	379	5
09...	0910	3560	8.5	40	384	6
10...	0855	3570	8.5	52	501	7
11...	0850	3590	8.5	42	407	6
12...	0830	3620	8.5	37	362	6
13...	0850	3640	8.0	39	383	5
14...	0905	3580	7.0	34	329	5
15...	0805	3570	6.5	32	308	4
16...	0910	3550	9.0	26	249	5
17...	0855	3540	7.0	33	315	6
18...	0845	3490	6.5	52	490	7

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT
CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)	TUR- BID- ITY (JTU)
DEC						
19...	0915	3490	6.5	29	273	5
20...	0800	3540	6.5	40	382	5
21...	0850	3540	7.0	33	315	7
22...	0900	4040	9.0	64	698	7
23...	0845	3580	9.0	46	445	7
25...	0950	4680	9.0	82	1040	7
26...	0915	4480	9.0	63	762	7
27...	0910	3720	9.0	43	432	6
28...	0915	4230	8.5	56	640	6
29...	0900	4560	8.5	66	813	5
30...	0855	4000	9.0	43	464	6
31...	0850	4690	8.0	63	798	6
JAN						
01...	0855	5020	7.0	81	1100	6
02...	0855	5120	6.0	55	760	5
03...	0850	4070	5.5	37	407	5
04...	0855	4720	5.0	51	650	6
05...	0855	4880	7.0	43	567	5
06...	0845	3990	6.5	36	388	7
07...	0850	4830	7.0	67	874	7
08...	0905	4880	7.0	49	646	7
09...	0850	4400	7.5	43	511	8
10...	0900	3680	7.5	34	338	7
11...	0905	4180	7.5	59	666	9
12...	0900	4330	8.0	53	620	9
13...	1230	3070	8.0	40	332	10
14...	0910	3540	8.5	48	459	8
15...	0900	3490	8.0	42	396	6
16...	0925	3300	8.0	47	419	7
17...	0805	3240	9.0	41	359	8
18...	0920	3130	9.0	43	363	7
19...	0910	2990	9.5	45	363	9
20...	0855	2360	9.5	45	287	10
21...	0900	2950	9.0	57	454	10
22...	0840	2940	9.0	55	437	15
23...	0810	2890	9.0	59	460	15
24...	0810	2300	9.5	62	385	20
25...	0830	2180	9.0	74	436	20
26...	0815	2130	9.0	61	351	20
28...	0850	1950	9.5	60	316	20
29...	0850	1900	9.5	65	333	15
30...	0815	1820	10.0	61	300	20
31...	0815	1850	10.5	66	330	20
FEB						
01...	0840	1930	10.5	61	318	15
02...	0830	1950	11.0	57	300	15
03...	0825	1940	11.0	55	288	15
03...	1230	1940	10.5	59	309	15
04...	0820	1880	11.0	63	320	15
05...	0735	1840	10.5	52	258	15
06...	0850	2120	8.0	58	332	10
08...	0920	2330	9.0	58	365	8
09...	0935	2320	10.0	77	482	10
10...	0805	2400	10.5	95	616	20
11...	0845	2300	11.0	83	515	15
12...	0810	2360	11.0	70	446	15
13...	0800	2230	11.5	70	421	15
14...	0805	2250	12.0	69	419	10
15...	0805	2350	12.0	78	495	15
16...	0815	2310	11.0	71	443	15
17...	0810	2280	11.5	56	345	10
18...	0830	2280	12.5	65	400	15
19...	0805	2220	12.5	67	402	15
20...	0815	2080	11.5	53	298	10
21...	0730	1990	11.0	48	258	8
22...	0750	2040	11.0	52	286	9
23...	0805	2100	11.0	56	318	9
24...	0825	1990	10.5	40	215	6
25...	0835	1920	12.0	42	218	7
26...	0815	1930	12.5	49	255	8
27...	0820	1970	13.0	53	282	10
28...	0820	1880	14.0	58	294	10
29...	0815	1860	14.0	58	291	10
MAR						
01...	0815	1900	12.5	49	251	9
02...	0825	2080	11.0	64	359	10
03...	0815	2240	9.5	62	375	15
04...	0805	2270	9.5	51	313	9
05...	0810	2220	10.0	49	294	7
06...	0805	2240	10.5	58	351	9

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT
CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT DIS- CHARGE (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)	TUR- BID- ITY (JTU)
MAR						
07...	0930	2240	11.5	62	375	8
08...	0820	2210	12.0	58	346	7
09...	0820	2120	12.5	53	303	8
10...	0800	2220	13.0	58	348	7
11...	0805	2240	13.5	67	405	10
12...	0835	2360	13.0	74	472	15
13...	0820	2160	13.5	52	303	10
14...	0810	2070	14.0	52	291	10
15...	0805	2020	14.5	56	305	15
16...	0810	1830	15.5	58	287	15
17...	0800	1680	16.5	59	268	15
18...	0810	1600	16.0	77	333	20
19...	0830	1540	14.0	63	262	15
20...	0700	1460	13.0	60	237	15
21...	0810	1410	14.0	62	236	20
22...	0805	1600	14.5	72	311	20
23...	0805	1490	14.0	72	290	20
24...	0755	1440	15.0	72	280	20
26...	0805	1440	13.0	76	295	20
27...	0825	1440	13.0	64	249	15
28...	0710	1410	12.5	59	225	15
29...	0815	1560	12.5	84	354	20
30...	0800	1470	14.0	75	298	15
31...	0815	1420	15.0	78	299	20
APR						
01...	0815	1520	13.0	82	337	20
02...	0805	1470	13.0	81	321	20
03...	0805	1230	14.0	83	276	25
04...	0630	1270	13.5	90	309	25
05...	0815	1480	13.5	97	388	30
06...	0800	1460	14.0	100	394	25
07...	0810	1290	15.5	100	348	30
08...	0805	1450	15.5	116	454	35
10...	0810	1860	15.0	114	573	25
11...	0805	1740	14.5	96	451	25
12...	0810	1800	15.5	106	515	25
13...	0805	1710	15.5	115	531	30
14...	0805	1600	15.5	118	510	25
15...	0815	1450	15.5	111	435	30
16...	0835	1400	13.0	104	393	30
17...	0745	1410	13.0	104	396	30
18...	0750	1340	15.5	117	423	30
19...	0845	1380	17.0	118	440	35
20...	0805	1200	18.5	138	447	35
22...	0805	932	17.5	134	337	30
23...	0815	927	17.5	126	315	40
24...	0820	922	19.0	124	309	40
26...	0850	1020	15.0	126	347	40
27...	0810	927	15.0	108	270	30
28...	0835	882	16.5	109	260	30
29...	0815	852	17.0	124	285	35
30...	0810	852	17.5	141	324	40
MAY						
01...	0815	877	20.0	136	322	60
02...	0700	887	19.0	137	328	60
03...	0735	976	19.0	130	343	60
04...	0810	927	18.5	155	388	60
05...	0815	852	19.0	144	331	60
06...	0810	837	19.0	156	353	65
07...	0815	970	18.5	169	443	70
08...	0810	1030	20.0	176	489	60
09...	0815	1010	20.0	158	431	60
10...	0815	1060	21.0	156	446	50
11...	0810	1080	20.5	164	478	60
12...	0825	1030	20.0	161	448	60
13...	0810	998	22.0	190	512	70
14...	0820	987	23.0	194	517	70
15...	0705	976	22.0	178	469	60
16...	0805	857	21.0	190	440	60
17...	0820	1060	19.0	204	584	65
18...	0810	959	18.5	156	404	55
19...	0725	902	18.0	154	375	50
20...	0805	862	19.0	140	326	50
21...	0745	897	19.0	158	383	55
22...	0805	937	20.0	165	417	55
23...	0730	902	19.5	156	380	50
24...	0800	1050	19.0	212	601	65
25...	0805	1000	20.0	188	508	65
26...	0730	927	21.0	188	471	65
27...	0810	907	22.5	158	387	50

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT
CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)	TUR- BID- ITY (JTU)
MAY						
28...	0800	862	19.5	160	372	55
29...	0810	837	18.5	160	362	55
30...	0755	828	19.0	134	300	45
31...	0810	862	19.5	146	340	50
JUN						
01...	0810	902	19.0	168	409	60
02...	0810	877	19.0	159	376	50
03...	0855	937	18.5	172	435	70
04...	0900	872	19.0	154	363	60
05...	0900	877	19.0	158	374	60
06...	0745	872	18.5	180	424	70
07...	0855	902	19.0	190	463	80
08...	0855	798	18.5	178	384	60
09...	0900	803	19.5	203	440	70
10...	0655	765	19.0	182	376	70
11...	0900	794	19.0	194	416	70
12...	0900	823	19.5	218	484	80
13...	0745	887	20.0	243	582	70
14...	0850	923	20.0	208	518	60
15...	0850	837	22.0	200	452	70
16...	0910	823	23.5	160	356	60
17...	0910	794	23.5	139	298	50
18...	0715	737	23.5	156	310	60
19...	0640	723	22.5	152	297	50
20...	0720	794	22.0	166	356	60
21...	0815	937	21.5	207	524	60
22...	0835	789	21.0	190	405	70
23...	0840	719	22.0	156	303	60
24...	0815	691	22.0	158	295	50
25...	0910	732	23.5	202	399	70
26...	0855	661	23.0	218	389	80
27...	0745	669	23.0	250	452	80
28...	0820	765	24.5	301	622	90
29...	0835	714	24.5	295	569	110
30...	0935	639	21.0	246	424	90
JUL						
01...	0905	626	20.0	214	362	90
02...	0855	648	20.0	244	427	90
03...	0850	700	21.0	256	484	75
04...	0815	714	21.5	274	528	90
05...	0830	847	23.0	299	684	90
06...	0815	857	23.0	304	703	90
07...	0835	705	22.5	294	560	105
08...	0835	635	22.5	245	420	110
09...	0915	618	24.0	224	374	100
10...	0920	581	23.5	266	417	120
11...	0750	573	23.0	232	359	85
12...	0750	661	22.0	256	457	100
13...	0850	635	23.5	237	406	85
14...	0850	639	24.0	256	442	90
15...	0845	635	23.5	252	432	90
16...	0845	609	23.5	260	428	90
17...	0640	626	23.0	268	453	110
19...	0810	770	22.5	300	624	110
20...	0705	696	22.0	249	468	90
21...	0855	648	22.5	212	371	75
22...	0855	630	22.0	203	345	70
23...	0850	635	24.0	242	415	80
24...	0715	622	24.0	231	388	80
25...	0655	601	24.0	240	389	90
26...	0715	687	25.0	260	482	110
27...	0850	696	25.0	267	502	90
28...	0845	630	25.0	245	417	110
29...	0805	682	23.5	238	438	90
30...	0855	639	23.0	224	386	85
31...	0850	709	22.5	282	540	100
AUG						
01...	0730	765	21.5	253	523	90
03...	0850	882	21.5	278	662	100
04...	0855	813	21.5	246	540	95
05...	0900	761	21.5	224	460	100
06...	0855	808	20.5	212	462	100
07...	0900	828	20.5	202	452	85
08...	1025	852	22.5	200	460	90
09...	0845	965	22.0	234	610	80
10...	0900	842	22.0	168	382	80
11...	0925	828	23.0	174	389	70
12...	0725	808	22.5	164	358	75
13...	0900	892	22.0	197	474	75
14...	0855	1020	21.0	218	600	85

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALITS, CA--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT
CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT CHARGE (T/DAY)	TUR- BID- ITY (JTU)
AUG						
16...	0745	1390	20.0	169	634	60
17...	0910	1160	20.5	146	457	50
18...	0900	1020	20.5	135	372	40
19...	0855	1130	20.0	129	394	40
20...	0900	1240	20.5	125	418	35
21...	0725	1350	22.0	127	463	35
22...	0730	1430	22.5	139	537	40
23...	0850	1610	22.5	142	617	35
25...	0845	1340	23.0	148	535	35
26...	0845	1150	22.5	124	385	30
27...	0730	1110	22.0	125	375	35
28...	0900	1030	22.5	108	300	25
29...	0805	1020	23.0	138	380	35
30...	0750	1080	24.0	134	391	35
31...	0735	965	24.0	116	302	30
SEP						
01...	0745	857	23.0	108	250	30
02...	0855	847	23.0	125	286	35
03...	0655	852	23.5	123	283	40
04...	0855	842	23.0	120	273	35
05...	0730	882	24.0	131	312	40
06...	0840	892	23.5	113	272	35
07...	0650	882	22.5	144	343	40
08...	0645	877	22.0	104	246	30
09...	0705	872	22.0	104	245	30
10...	0710	847	23.0	99	226	25
11...	0840	842	21.5	93	211	25
12...	0815	912	20.0	118	291	25
13...	0715	1030	20.5	118	328	30
14...	0720	1090	21.0	129	380	35
15...	0725	1220	20.5	137	451	35
16...	0850	1230	20.5	126	418	35
17...	0835	1110	22.0	124	372	35
18...	0730	1040	20.0	116	326	30
19...	0740	1120	20.5	108	327	25
20...	0840	1180	20.0	112	357	30
21...	0710	1200	19.5	108	350	30
22...	0820	1200	19.0	96	311	20
23...	0720	1140	19.0	86	265	15
24...	0730	1110	19.5	89	267	20
25...	0830	1210	19.5	99	323	25
26...	0740	1120	19.5	86	260	20
27...	0755	1240	20.0	86	288	20
28...	0730	1140	20.5	75	231	20
29...	0755	1310	19.0	91	322	25
30...	0755	1540	19.0	81	337	15

11306000 SOUTH FORK CALAVERAS RIVER NEAR SAN ANDREAS, CA

LOCATION.--Lat 38°08'40", long 120°39'46", in SW¼NW¼ sec.4, T.3 N., R.12 E., Calaveras County, on right bank 0.1 mi (0.2 km) downstream from San Antonio Creek, and 3.7 mi (6.0 km) south of San Andreas.

DRAINAGE AREA.--118 mi² (306 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1395: 1951(M).

GAGE.--Water-stage recorder. Altitude of gage is 860 ft (262 m), from topographic map. Prior to Feb. 13, 1952, nonrecording gage at same site and datum.

REMARKS.--Records good. Some diversions for irrigation above station.

AVERAGE DISCHARGE.--26 years, 80.3 ft³/s (2,274 m³/s), 58,180 acre-ft/yr (71.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,600 ft³/s (498 m³/s) Dec. 23, 1955, gage height, 10.29 ft (3.136 m), from rating curve extended above 5,700 ft³/s (161 m³/s) on basis of slope-area measurement of peak flow; maximum gage height, 11.41 ft (3.478 m) Mar. 1, 1974; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 76 ft³/s (2.15 m³/s) Mar. 3, gage height, 2.23 ft (0.680 m), no peak above base of 1,000 ft³/s (28.3 m³/s); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	15	8.8	8.0	6.8	41	11	5.0	1.2			
2	1.2	12	9.0	7.3	6.8	49	11	4.6	1.2			
3	1.3	7.6	9.3	7.3	6.8	57	9.3	5.6	1.1			
4	1.6	7.0	9.0	7.6	6.8	37	7.6	5.3	1.1			
5	2.7	6.8	8.8	7.6	9.3	27	7.6	5.0	.98			
6	7.0	6.6	8.6	8.0	11	22	7.0	6.0	.98			
7	8.6	6.3	8.3	8.0	10	23	7.6	9.3	1.1			
8	4.1	8.3	8.0	8.0	12	22	11	8.0	.98			
9	3.0	8.8	8.0	9.3	14	22	19	6.3	.98			
10	4.4	12	7.8	11	16	20	16	5.3	.98			
11	11	12	8.0	9.8	15	19	21	4.8	.98			
12	8.6	9.8	9.0	9.3	12	19	20	3.5	.90			
13	11	7.6	10	9.0	11	18	17	3.7	.82			
14	12	7.3	11	8.6	22	17	16	3.2	.74			
15	14	7.8	9.6	8.6	20	16	16	3.0	.74			
16	6.3	12	9.0	8.6	14	16	19	3.0	.82			
17	4.4	15	8.8	8.3	12	15	19	3.0	.66			
18	4.6	13	8.8	8.3	11	15	18	2.7	.50			
19	6.6	11	8.8	8.3	14	17	15	2.7	.37			
20	8.3	11	7.8	8.0	21	17	15	2.3	.34			
21	8.6	10	7.6	8.0	17	14	15	2.2	.28			
22	8.6	9.0	8.8	7.8	13	13	11	2.2	.21			
23	8.8	8.8	10	7.8	11	12	9.8	2.0	.15			
24	9.6	8.6	10	7.6	10	12	8.3	1.8	.11			
25	9.3	8.6	9.0	7.3	9.3	11	8.6	2.0	.08			
26	14	8.3	8.8	7.0	8.6	11	7.8	1.8	.01			
27	24	9.6	8.6	7.0	8.0	10	7.3	1.5	0			
28	24	11	8.0	7.0	7.8	10	7.0	1.2	0			
29	14	11	8.0	7.0	10	9.3	7.0	1.2	0			
30	14	9.3	8.3	7.0	---	11	6.3	1.3	0			
31	17	---	8.3	6.8	---	12	---	1.3	---			---
TOTAL	273.9	291.1	271.8	249.2	346.2	614.3	371.2	110.8	18.31	0	0	0
MEAN	8.84	9.70	8.77	8.04	11.9	19.8	12.4	3.57	.61	0	0	0
MAX	24	15	11	11	22	57	21	9.3	1.2	0	0	0
MIN	1.2	6.3	7.6	6.8	6.8	9.3	6.3	1.2	0	0	0	0
AC-FT	543	577	539	494	687	1220	736	220	36	0	0	0
CAL YR 1975	TOTAL	31045.30	MEAN	85.1	MAX	2240	MIN	1.2	AC-FT	61580		
WTR YR 1976	TOTAL	2546.81	MEAN	6.96	MAX	57	MIN	0	AC-FT	5050		

11306000 SOUTH FORK CALAVERAS RIVER NEAR SAN ANDREAS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD. --

WATER TEMPERATURES: October 1973 to current year.

SEDIMENT RECORDS: October 1973 to current year.

REMARKS.--Sediment table omitted for period of no flow July to September.

EXTREMES FOR PERIOD OF DAILY RECORD. --

SEDIMENT CONCENTRATIONS: Maximum daily mean, 254 mg/L Mar. 2, 1974; minimum daily mean, 0 mg/L on many days in 1975 and 1976.

SEDIMENT DISCHARGE: Maximum daily, 3,750 tons (3,400 tonnes) Mar. 2, 1974; minimum daily, 0 tons (0 tonnes) on many days in each year.

EXTREMES FOR CURRENT YEAR. --

SEDIMENT CONCENTRATIONS: Maximum daily mean, 10 mg/L Mar. 2; minimum daily mean, 0 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily, 1.3 tons (1.2 tonnes) Mar. 2; minimum daily, 0 tons (0 tonnes) on many days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

[illegible]

11306000 SOUTH FORK CALAVERAS RIVER NEAR SAN ANDREAS, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1.3	1	0	15	1	.04	8.8	0	0
2	1.2	1	0	12	1	.03	9.0	1	.02
3	1.3	1	0	7.6	1	.02	9.3	1	.03
4	1.6	1	0	7.0	1	.02	9.0	1	.02
5	2.7	1	.01	6.8	1	.02	8.8	0	0
6	7.0	1	.02	6.6	1	.02	8.6	0	0
7	8.6	1	.02	6.3	1	.02	8.3	0	0
8	4.1	1	.01	8.3	1	.02	8.0	0	0
9	3.0	1	.01	8.8	1	.02	8.0	0	0
10	4.4	1	.01	12	1	.03	7.8	0	0
11	11	1	.03	12	1	.03	8.0	0	0
12	8.6	1	.02	9.8	1	.03	9.0	0	0
13	11	3	.09	7.6	1	.02	10	0	0
14	12	2	.06	7.3	1	.02	11	0	0
15	14	1	.04	7.8	1	.02	9.6	0	0
16	6.3	1	.02	12	1	.03	9.0	0	0
17	4.4	1	.01	15	1	.04	8.8	0	0
18	4.6	1	.01	13	1	.04	8.8	0	0
19	6.6	1	.02	11	1	.03	8.8	0	0
20	8.3	1	.02	11	1	.03	7.8	0	0
21	8.6	1	.02	10	1	.03	7.6	0	0
22	8.6	1	.02	9.0	1	.02	8.8	0	0
23	8.8	1	.02	8.8	0	0	10	0	0
24	9.6	1	.03	8.6	0	0	10	0	0
25	9.3	1	.03	8.6	0	0	9.0	0	0
26	14	1	.04	8.3	0	0	8.8	0	0
27	24	3	.19	9.6	0	0	8.6	0	0
28	24	1	.06	11	0	0	8.0	0	0
29	14	1	.04	11	0	0	8.0	0	0
30	14	1	.04	9.3	0	0	8.3	0	0
31	17	1	.05	---	---	---	8.3	0	0
TOTAL	273.9	---	.94	291.1	---	.58	271.8	---	.07

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	8.0	0	0	6.8	1	.02	41	3	.33
2	7.3	0	0	6.8	1	.02	49	10	1.3
3	7.3	0	0	6.8	1	.02	57	3	.46
4	7.6	0	0	6.8	1	.02	37	2	.20
5	7.6	0	0	9.3	1	.03	27	2	.15
6	8.0	0	0	11	1	.03	22	2	.12
7	8.0	0	0	10	1	.03	23	2	.12
8	8.0	0	0	12	1	.03	22	2	.12
9	9.3	0	0	14	1	.04	22	2	.12
10	11	0	0	16	1	.04	20	2	.11
11	9.8	0	0	15	1	.04	19	2	.10
12	9.3	0	0	12	1	.03	19	2	.10
13	9.0	0	0	11	2	.06	18	2	.10
14	8.6	0	0	22	4	.24	17	2	.09
15	8.6	0	0	20	1	.05	16	2	.09
16	8.6	0	0	14	1	.04	16	1	.04
17	8.3	0	0	12	1	.03	15	1	.04
18	8.3	0	0	11	1	.03	15	1	.04
19	8.3	1	.02	14	2	.08	17	1	.05
20	8.0	1	.02	21	2	.11	17	1	.05
21	8.0	1	.02	17	1	.05	14	1	.04
22	7.8	2	.04	13	1	.04	13	2	.07
23	7.8	2	.04	11	1	.03	12	2	.06
24	7.6	2	.04	10	1	.03	12	2	.06
25	7.3	2	.04	9.3	1	.03	11	2	.06
26	7.0	1	.02	8.6	1	.02	11	2	.06
27	7.0	1	.02	8.0	1	.02	10	2	.05
28	7.0	1	.02	7.8	1	.02	10	2	.05
29	7.0	1	.02	10	2	.05	9.3	2	.05
30	7.0	1	.02	---	---	---	11	2	.06
31	6.8	1	.02	---	---	---	12	2	.06
TOTAL	249.2	---	.34	346.2	---	1.28	614.3	---	4.35

11306000 SOUTH FORK CALAVERAS RIVER NEAR SAN ANDREAS, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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	11	3	.09	5.0	2	.03	1.2	2	.01
2	11	3	.09	4.6	2	.02	1.2	2	.01
3	9.3	3	.08	5.6	3	.05	1.1	1	0
4	7.6	3	.06	5.3	3	.04	1.1	1	0
5	7.6	2	.04	5.0	4	.05	.98	1	0
6	7.0	2	.04	6.0	4	.06	.98	1	0
7	7.6	2	.04	9.3	5	.13	1.1	1	0
8	11	2	.06	8.0	4	.09	.98	1	0
9	19	2	.10	6.3	3	.05	.98	1	0
10	16	2	.09	5.3	2	.03	.98	1	0
11	21	2	.11	4.8	2	.03	.98	1	0
12	20	2	.11	3.5	2	.02	.90	1	0
13	17	2	.09	3.7	2	.02	.82	1	0
14	16	2	.09	3.2	2	.02	.74	1	0
15	16	2	.09	3.0	1	.01	.74	1	0
16	19	2	.10	3.0	1	.01	.82	1	0
17	19	2	.10	3.0	1	.01	.66	1	0
18	18	2	.10	2.7	1	.01	.50	1	0
19	15	2	.08	2.7	1	.01	.37	1	0
20	15	2	.08	2.3	1	.01	.34	1	0
21	15	2	.08	2.2	1	.01	.28	1	0
22	11	2	.06	2.2	1	.01	.21	1	0
23	9.8	2	.05	2.0	1	.01	.15	1	0
24	8.3	2	.04	1.8	1	0	.11	2	0
25	8.6	2	.05	2.0	1	.01	.08	2	0
26	7.8	2	.04	1.8	1	0	.01	1	0
27	7.3	2	.04	1.5	1	0	0	0	0
28	7.0	2	.04	1.2	1	0	0	0	0
29	7.0	2	.04	1.2	2	.01	0	0	0
30	6.3	2	.03	1.3	2	.01	0	0	0
31	---	---	---	1.3	2	.01	---	---	---
TOTAL	371.2	---	2.11	110.8	---	.77	18.31	---	.02
YEAR	2546.81		10.46						

LOCATION.--Lat 38°13'17", long 120°41'54", in NE¼NW¼ sec.7, T.4 N., R.12 E., Calaveras County, on right bank 0.5 mi (0.8 km) upstream from Chile Gulch, and 1.8 mi (2.9 km) northwest of San Andreas.

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder. Altitude of gage is 750 ft (229 m), from topographic map. Prior to Feb. 14, 1952, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--26 years, 47.0 ft³/s (1.331 m³/s), 34,050 acre-ft/yr (42.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,200 ft³/s (176 m³/s) Dec. 23, 1955, gage height, 12.52 ft (3.816 m), from rating curve extended above 3,900 ft³/s (110 m³/s); no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 155 ft³/s (4.39 m³/s) Mar. 1, gage height, 2.58 ft (0.786 m), no peak above base of 800 ft³/s (22.7 m³/s); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	11	7.9	7.9	6.2	88	7.0	5.8	.68			
2	0	8.5	7.4	7.5	6.2	53	7.0	5.6	.52			
3	0	7.5	7.3	7.5	6.3	40	6.7	5.3	.56			
4	0	6.9	7.0	7.6	6.9	39	6.7	4.9	.43			
5	0	6.5	7.0	7.6	9.1	31	7.0	4.6	.32			
6	.01	6.4	6.9	7.6	9.2	26	7.0	5.1	.29			
7	.55	6.2	6.7	7.6	8.6	22	7.0	5.6	.25			
8	2.3	6.6	6.7	7.6	9.2	18	8.6	5.1	.30			
9	2.6	6.8	6.7	7.8	9.6	16	13	4.5	.25			
10	4.0	15	6.7	8.8	10	15	12	4.1	.32			
11	11	15	6.7	8.0	10	13	14	3.8	.38			
12	9.4	9.7	7.8	7.4	9.3	12	14	3.5	.31			
13	5.8	8.2	9.0	7.3	9.2	11	12	3.1	.32			
14	4.5	7.5	8.8	7.1	18	11	10	2.5	.25			
15	4.3	7.1	8.2	7.0	22	10	10	2.3	.17			
16	4.0	8.9	7.8	7.0	15	9.7	11	2.1	.07			
17	3.8	9.3	7.6	6.7	13	9.0	11	2.0	.01			
18	3.6	8.3	7.4	6.7	12	8.9	10	1.9	0			
19	3.6	7.7	7.3	6.7	15	10	9.7	1.9	0			
20	3.8	7.3	7.3	6.7	38	9.8	8.5	1.8	0			
21	3.9	7.1	7.0	6.5	23	8.7	8.0	1.6	0			
22	3.9	6.9	8.9	6.5	17	8.1	7.5	1.4	0			
23	3.7	6.7	10	6.5	13	7.9	7.3	1.3	0			
24	4.1	6.7	9.5	6.5	12	7.6	6.9	1.3	0			
25	4.5	6.7	8.9	6.2	10	7.5	6.6	1.1	0			
26	9.2	7.0	8.8	6.3	9.7	7.3	6.3	1.2	0			
27	15	7.8	8.8	6.4	9.1	7.3	6.1	.81	0			
28	11	11	8.3	6.4	8.7	7.2	6.0	.73	0			
29	8.1	9.6	8.2	6.5	9.6	7.3	6.2	.82	0			
30	12	8.6	8.1	6.4	---	7.1	6.1	.74	0			
31	16	---	7.9	6.4	---	7.0	---	.75	---			---
TOTAL	154.66	248.5	242.6	218.7	354.9	535.4	259.2	87.25	5.43	0	0	0
MEAN	4.99	8.28	7.83	7.05	12.2	17.3	8.64	2.81	.18	0	0	0
MAX	16	15	10	8.8	38	88	14	5.8	.68	0	0	0
MIN	0	6.2	6.7	6.2	6.2	7.0	6.0	.73	0	0	0	0
AC-FT	307	493	481	434	704	1060	514	173	11	0	0	0
CAL YR 1975	TOTAL	15067.73	MEAN	41.3	MAX	1020	MIN	0	AC-FT	29890		
WTR YR 1976	TOTAL	2106.64	MEAN	5.76	MAX	88	MIN	0	AC-FT	4180		

SAN JOAQUIN RIVER BASIN

11308000 NORTH FORK CALAVERAS RIVER NEAR SAN ANDREAS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD. --

WATER TEMPERATURES: October 1973 to current year.

SEDIMENT RECORDS: October 1973 to current year.

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

EXTREMES FOR PERIOD OF DAILY RECORD. --

SEDIMENT CONCENTRATIONS: Maximum daily mean, 294 mg/L Mar. 2, 1974; minimum daily mean, 0 mg/L on several days in 1975-76.

SEDIMENT DISCHARGE: Maximum daily, 1,680 tons (1,520 tonnes) Mar. 2, 1974; minimum daily, 0 tons (0 tonnes) on many days each year.

EXTREMES FOR CURRENT YEAR. - -

SEDIMENT CONCENTRATIONS: Maximum daily mean, 31 mg/L Mar. 1; minimum daily mean, 0 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily, 9.9 tons (9.0 tonnes) Mar. 1; minimum daily, 0 tons (0 tonnes) on many days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

[illegible]

11308000 NORTH FORK CALAVERAS RIVER NEAR SAN ANDREAS, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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	11	1	.03	7.9	1	.02
2	0	0	0	8.5	1	.02	7.4	1	.02
3	0	0	0	7.5	1	.02	7.3	1	.02
4	0	0	0	6.9	1	.02	7.0	0	0
5	0	0	0	6.5	1	.02	7.0	0	0
6	.01	0	0	6.4	1	.02	6.9	0	0
7	.55	1	0	6.2	1	.02	6.7	0	0
8	2.3	1	.01	6.6	1	.02	6.7	0	0
9	2.6	1	.01	6.8	1	.02	6.7	0	0
10	4.0	1	.01	15	4	.16	6.7	0	0
11	11	3	.09	15	1	.04	6.7	0	0
12	9.4	2	.05	9.7	1	.03	7.8	0	0
13	5.8	1	.02	8.2	1	.02	9.0	0	0
14	4.5	1	.01	7.5	1	.02	8.8	0	0
15	4.3	1	.01	7.1	1	.02	8.2	0	0
16	4.0	1	.01	8.9	2	.05	7.8	0	0
17	3.8	1	.01	9.3	1	.03	7.6	0	0
18	3.6	1	.01	8.3	1	.02	7.4	0	0
19	3.6	1	.01	7.7	1	.02	7.3	0	0
20	3.8	1	.01	7.3	1	.02	7.3	0	0
21	3.9	1	.01	7.1	1	.02	7.0	0	0
22	3.9	1	.01	6.9	0	0	8.9	0	0
23	3.7	1	.01	6.7	0	0	10	0	0
24	4.1	1	.01	6.7	0	0	9.5	0	0
25	4.5	1	.01	6.7	0	0	8.9	0	0
26	9.2	8	.20	7.0	0	0	8.8	0	0
27	15	7	.28	7.8	0	0	8.8	0	0
28	11	1	.03	11	1	.03	8.3	0	0
29	8.1	1	.02	9.6	0	0	8.2	0	0
30	12	4	.13	8.6	0	0	8.1	0	0
31	16	3	.13	---	---	---	7.9	0	0
TOTAL	154.66	---	1.10	248.5	---	.67	242.6	---	.06

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	7.9	0	0	6.2	1	.02	88	31	7.4
2	7.5	0	0	6.2	1	.02	53	12	1.7
3	7.5	0	0	6.3	1	.02	40	4	.43
4	7.6	1	.02	6.9	1	.02	39	4	.42
5	7.6	1	.02	9.1	1	.02	31	2	.17
6	7.6	1	.02	9.2	1	.02	26	2	.14
7	7.6	0	0	8.6	1	.02	22	2	.12
8	7.6	0	0	9.2	1	.02	18	2	.10
9	7.8	0	0	9.6	1	.03	16	2	.09
10	8.8	0	0	10	1	.03	15	2	.08
11	8.0	0	0	10	1	.03	13	2	.07
12	7.4	0	0	9.3	1	.03	12	2	.06
13	7.3	0	0	9.2	2	.05	11	2	.06
14	7.1	0	0	18	3	.15	11	2	.06
15	7.0	0	0	22	1	.06	10	2	.05
16	7.0	0	0	15	1	.04	9.7	2	.05
17	6.7	0	0	13	1	.04	9.0	2	.05
18	6.7	0	0	12	1	.03	8.9	2	.05
19	6.7	0	0	15	1	.04	10	2	.05
20	6.7	0	0	38	5	.51	9.8	2	.05
21	6.5	0	0	23	1	.06	8.7	2	.05
22	6.5	0	0	17	1	.05	8.1	2	.04
23	6.5	0	0	13	1	.04	7.9	2	.04
24	6.5	0	0	12	1	.03	7.6	2	.04
25	6.2	0	0	10	1	.03	7.5	2	.04
26	6.3	1	.02	9.7	1	.03	7.3	2	.04
27	6.4	1	.02	9.1	1	.02	7.3	2	.04
28	6.4	1	.02	8.7	1	.02	7.2	2	.04
29	6.5	1	.02	9.6	2	.05	7.3	2	.04
30	6.4	1	.02	---	---	---	7.1	2	.04
31	6.4	1	.02	---	---	---	7.0	2	.04
TOTAL	218.7	---	.18	354.9	---	1.53	535.4	---	11.65

SAN JOAQUIN RIVER BASIN

11308000 NORTH FORK CALAVERAS RIVER NEAR SAN ANDREAS, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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	7.0	2	.04	5.8	1	.02	.68	1	
2	7.0	2	.04	5.6	1	.02	.52	1	
3	6.7	2	.04	5.3	1	.01	.56	1	
4	6.7	2	.04	4.9	2	.03	.43	1	
5	7.0	2	.04	4.6	2	.02	.32	1	
6	7.0	2	.04	5.1	1	.01	.29	1	
7	7.0	2	.04	5.6	1	.02	.25	1	
8	8.6	2	.05	5.1	1	.01	.30	1	
9	13	2	.07	4.5	2	.02	.25	1	
10	12	2	.06	4.1	2	.02	.32	1	
11	14	2	.08	3.8	2	.02	.38	1	
12	14	2	.08	3.5	2	.02	.31	1	
13	12	2	.06	3.1	2	.02	.32	1	
14	10	2	.05	2.5	2	.01	.25	1	
15	10	2	.05	2.3	2	.01	.17	1	
16	11	1	.03	2.1	2	.01	.07	1	
17	11	1	.03	2.0	2	.01	.01	1	
18	10	1	.03	1.9	2	.01	0	0	
19	9.7	1	.03	1.9	2	.01	0	0	
20	8.5	1	.02	1.8	2	.01	0	0	
21	8.0	2	.04	1.6	2	.01	0	0	
22	7.5	2	.04	1.4	1	0	0	0	
23	7.3	2	.04	1.3	1	0	0	0	
24	6.9	2	.04	1.3	1	0	0	0	
25	6.6	2	.04	1.1	1	0	0	0	
26	6.3	2	.03	1.2	1	0	0	0	
27	6.1	2	.03	.81	1	0	0	0	
28	6.0	1	.02	.73	1	0	0	0	
29	6.2	1	.02	.82	1	0	0	0	
30	6.1	1	.02	.74	1	0	0	0	
31	---	---	---	.75	1	0	---	---	
TOTAL	259.2	---	1.24	87.25	---	.32	5.43	---	0
YEAR	2110		17						

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)	SUS- SED. SIEVE DIAM. % FINER THAN .062 MM	SUS- SED. SIEVE DIAM. % FINER THAN .125 MM
MAR 01...	1810	8.5	70	11	2.1	99	100

11308600 CALAVERAS RIVER ABOVE NEW HOGAN LAKE, NEAR SAN ANDREAS, CA

LOCATION.--lat 38°11'48", long 120°43'18", in NW¼SW¼ sec.13, T.4 N., R.11 E., Calaveras County, on right bank 600 ft (183 m) below confluence of the North and South Forks of the Calaveras River, and 2.3 mi (3.7 km) west of San Andreas.

DRAINAGE AREA.--307 mi² (795 km²).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1970 to current year.

INSTRUMENTATION.--Temperature recorder since October 1970.

REMARKS.--Stream dry June 26 to Sept. 30.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1972-73, 1975-76), 31.0°C June 30, July 14, 15, 1972; minimum, 2.0°C Jan. 7, 1973, Jan. 4, 1976.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.5°C May 26, 27; minimum, 2.0°C Jan. 4.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	24.0	16.5	13.5	11.0	8.0	5.5	5.0	3.5	9.0	6.0	10.5	8.5
2	23.5	16.5	13.5	11.0	8.0	6.0	4.5	2.5	9.0	6.0	8.5	6.5
3	24.0	17.0	14.0	11.5	8.0	6.0	4.0	2.5	9.0	6.0	7.5	6.0
4	25.0	16.5	14.5	11.5	8.0	6.0	4.0	2.0	8.5	7.0	8.0	6.0
5	24.0	16.5	13.5	11.5	9.0	7.5	5.0	3.5	7.5	6.5	9.5	6.5
6	19.0	17.0	14.5	12.5	9.0	7.0	5.5	4.0	8.0	6.5	10.0	6.5
7	19.0	16.0	13.5	12.0	9.0	7.0	5.5	3.5	7.5	6.5	10.5	7.0
8	18.5	15.0	15.0	12.5	9.0	7.0	5.5	3.5	8.5	7.0	10.0	8.0
9	18.0	15.0	13.0	11.0	8.5	6.0	5.0	4.5	9.0	8.0	11.5	8.0
10	18.0	15.0	13.5	11.5	8.0	6.5	6.0	4.5	10.0	7.0	11.5	8.5
11	18.0	15.5	12.5	10.0	7.5	6.0	6.0	5.0	10.0	7.0	13.0	9.5
12	17.0	14.0	12.0	9.5	7.5	7.0	6.0	5.5	10.0	7.0	12.5	9.0
13	17.0	14.0	12.0	9.0	7.0	6.0	7.0	5.5	10.0	7.5	13.0	9.5
14	17.0	14.0	11.5	9.5	6.5	5.0	7.0	5.0	10.0	9.0	13.5	9.5
15	17.0	14.0	11.5	9.5	6.5	4.5	7.0	5.0	10.0	8.5	13.5	10.0
16	17.5	14.0	12.0	11.0	6.0	4.0	7.5	5.0	8.5	8.0	14.5	11.0
17	17.5	14.0	11.5	9.5	6.0	3.5	7.5	5.0	11.0	8.0	16.0	12.0
18	18.0	15.0	10.5	8.5	5.5	3.5	7.5	5.0	11.5	9.0	15.0	12.5
19	17.5	14.5	9.0	7.5	5.5	3.5	7.0	4.5	10.5	9.0	14.5	11.5
20	17.5	14.5	10.5	8.5	5.5	3.5	7.0	4.5	10.5	7.5	14.0	10.5
21	17.5	14.5	10.0	8.0	5.5	3.5	7.0	4.5	10.0	7.0	15.0	10.5
22	17.0	14.5	9.0	7.0	7.0	5.5	7.0	4.5	9.5	7.0	15.0	11.0
23	15.5	13.0	9.0	7.0	7.5	6.0	7.0	4.5	9.0	7.0	15.0	12.0
24	14.5	12.0	9.0	7.0	7.0	5.5	7.5	5.0	10.0	7.0	15.5	11.5
25	13.5	11.5	9.0	7.0	7.5	5.5	7.0	4.5	10.0	8.0	15.0	11.0
26	13.5	12.5	8.5	7.0	7.5	5.5	7.0	4.5	11.5	8.0	14.0	10.5
27	14.0	12.0	9.0	8.5	8.0	6.5	7.5	4.5	12.5	8.5	14.5	10.5
28	13.5	11.0	9.0	7.0	8.0	6.5	8.0	5.0	13.5	10.0	15.0	11.0
29	13.5	11.0	8.0	6.0	7.5	6.0	8.0	5.0	11.5	10.5	15.5	11.0
30	12.5	12.0	7.5	5.5	7.5	6.0	8.0	5.5	---	---	16.5	11.5
31	13.5	11.0	---	---	6.0	4.5	8.5	5.5	---	---	14.0	12.5
MONTH	25.0	11.0	15.0	5.5	9.0	3.5	8.5	2.0	13.5	6.0	16.5	6.0

11308600 CALAVERAS RIVER ABOVE NEW HOGAN LAKE, NEAR SAN ANDREAS, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.0	11.0	---	---	25.0	16.0						
2	15.5	10.5	---	---	25.0	16.5						
3	13.5	11.5	---	---	25.5	15.0						
4	12.5	11.0	---	---	26.0	15.0						
5	12.0	11.5	---	---	25.5	15.5						
6	16.0	11.5	19.0	15.5	25.0	15.0						
7	16.0	12.0	21.0	15.5	25.0	15.5						
8	14.5	12.5	21.5	17.0	24.0	15.5						
9	16.0	11.0	22.5	17.0	23.5	15.5						
10	13.0	12.0	22.0	17.5	24.5	16.0						
11	14.0	11.5	22.5	17.0	25.5	15.0						
12	15.0	11.5	24.0	17.5	26.0	15.5						
13	15.5	12.0	24.5	18.5	26.0	16.5						
14	16.5	12.5	24.0	18.5	28.5	15.5						
15	15.0	13.0	24.0	18.0	31.0	16.5						
16	15.5	11.5	23.0	18.5	31.5	17.5						
17	15.5	11.5	23.0	17.0	29.0	18.0						
18	17.5	13.5	22.0	17.0	29.0	19.5						
19	18.5	13.5	22.0	16.5	27.0	19.5						
20	19.0	14.5	22.0	17.0	26.0	19.5						
21	19.0	15.0	22.5	17.5	25.5	19.0						
22	---	---	22.5	17.0	25.0	19.0						
23	---	---	22.5	16.5	25.5	19.0						
24	---	---	22.5	17.0	27.0	19.0						
25	---	---	23.5	17.0	27.0	20.5						
26	---	---	25.5	17.5	---	---						
27	---	---	25.5	18.5	---	---						
28	---	---	23.0	17.0	---	---						
29	---	---	23.0	16.0	---	---						
30	---	---	25.0	17.0	---	---						
31	---	---	25.0	18.0	---	---						
MONTH	---	---	25.5	15.5	31.5	15.0						

11308700 NEW HOGAN LAKE NEAR VALLEY SPRINGS, CA

LOCATION.--Lat 38°09'01", long 120°48'45", in SW¼SW¼ sec.31, T.4 N., R.11 E., Calaveras County, in control house at New Hogan Dam on the Calaveras River, 3.0 mi (4.8 km) south of Valley Springs.

DRAINAGE AREA.--362 mi² (938 km²).

PERIOD OF RECORD.--December 1963 to current year. Prior to October 1971, published as "New Hogan Reservoir."

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by an earthfill dam and four earthfill dikes. Storage began Dec. 20, 1963. Total capacity, 323,715 acre-ft (399 hm³) between elevations 534.5 ft (162.92 m), invert of outlet valve and 713.0 ft (217.32 m), top of spillway gates. Capacity table revised Oct. 1, 1975. Elevation of spillway crest is 679.5 ft (207.11 m). No dead storage. The reservoir is operated for flood control according to existing downstream channel conditions. Reservoir releases limited, insofar as possible, to amounts that will not cause flows greater than 6,000 ft³/s (170 m³/s) at Bellota. Records, including extremes, show contents at 2400 hours.

COOPERATION.--Records furnished by Corps of Engineers, not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 273,130 acre-ft (337 hm³) May 7, 1974, elevation, 700.88 ft (213.628 m); minimum since initial season of normal operation, 9,360 acre-ft (11.5 hm³) Oct. 27, 1964, elevation, 516.81 ft (157.524 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 144,504 acre-ft (178 hm³) Oct. 1, elevation, 662.19 ft (201.836 m); minimum, 70,900 acre-ft (87.4 hm³) Sept. 30, elevation, 630.17 ft (192.076 m).

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

545	588	600	27228
550	1120	610	38995
555	1897	630	70585
560	2965	650	113160
570	6157	670	166770
580	11054	700	269594
590	17985		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	144504	143110	142565	141263	139643	136967	137580	128898	115991	102897	88279	76619
2	144285	143110	142538	141236	139133	137393	137153	128589	115528	102395	87901	76154
3	144203	143110	142511	141209	138596	137660	136674	128331	115116	101963	87525	75787
4	144093	143110	142375	141183	138034	137820	136222	127920	114704	101464	87107	75421
5	143957	143083	142348	141154	137767	137954	135692	127561	114365	101011	86670	75094
6	143820	143028	142375	141127	137420	138061	135216	127126	114051	100537	86234	74749
7	143656	143001	142348	141127	137047	138114	134661	126692	113713	100087	85841	74348
8	143574	143001	142239	141100	136914	138221	134582	126309	113280	99750	85428	73909
9	143492	142974	142130	141154	136807	138302	134345	125927	112680	99391	85016	73472
10	143437	143028	142076	141182	136541	138355	134318	125469	112392	99033	84646	73037
11	143410	143028	142049	141209	136196	138302	134266	125012	112010	98586	84236	72716
12	143383	143028	142130	141209	135904	138275	134081	124683	111675	98118	83827	72396
13	143274	143001	142103	141236	135798	138462	133818	124202	111246	97607	83399	72096
14	143246	142974	142076	141263	135798	138409	133529	123698	110913	97031	83013	71777
15	143219	143028	142049	141263	135904	138436	133267	123194	110438	96479	82790	71590
16	143165	143165	141913	141290	136010	138436	132978	122691	109893	95907	82446	71534
17	143110	143137	141886	141290	136063	138409	132716	122340	109468	95381	82062	71497
18	143083	143001	141832	141290	136116	138516	132585	121965	109091	94943	81699	71459
19	143028	142947	141778	141317	136302	138489	132481	121465	108667	94550	81358	71403
20	142974	142892	141751	141317	136355	138355	132298	121041	108174	94136	81077	71366
21	142919	142919	141723	141317	136435	138302	131958	120593	107658	93571	80777	71310
22	142865	142810	141696	141317	136488	138382	131645	120146	107121	93052	80517	71273
23	142729	142865	141588	141317	136541	138382	131254	119749	106678	92491	80198	71217
24	142647	142838	141534	141317	136568	138328	130890	119303	106283	92060	79840	71161
25	142620	142810	141507	141317	136621	138302	130605	118834	105842	91653	79443	71105
26	142810	142647	141479	141317	136621	138141	130501	118464	105379	91224	78988	71068
27	142865	142647	141452	141317	136621	138061	130216	118021	104871	90691	78673	71031
28	142838	142593	141425	141317	136648	138034	129853	117604	104364	90138	78358	70975
29	142838	142620	141371	141317	136754	137981	129440	117187	103904	89692	78024	70956
30	143110	142593	141317	141073	---	137954	129104	116771	103400	89184	77652	70900
31	143110	---	141290	140479	---	137874	---	116381	---	88678	77183	---
MAX	144504	143165	142565	141317	139643	138516	137580	128898	115991	102897	88279	76619
MIN	142620	142593	141290	140479	135798	136967	129104	116381	103400	88678	77183	70900
†	661.68	661.49	661.01	660.71	659.32	659.74	656.40	651.33	645.84	639.14	633.47	630.17
‡	-1696	-517	-1303	-811	-3725	+1120	-8770	-12723	-12981	-14722	-11495	-6283
†‡	992	454	273	322	377	699	940	1488	1752	1830	1282	1086

CAL YR 1975 † -30770
WTR YR 1976 ‡ -73906

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

†‡ Evaporation, in acre-feet.

NOTE.--Record computed on basis of revised capacity table put into use Oct. 1, 1975.

11308900 CALAVERAS RIVER BELOW NEW HOGAN DAM, NEAR VALLEY SPRINGS, CA

LOCATION.--Lat 38°08'53", long 120°49'26", in NW¼NE¼ sec.1, T.3 N., R.10 E., Calaveras County, on right bank at county road bridge, 0.5 mi (0.8 km) upstream from Cosgrove Creek, 0.8 mi (1.3 km) downstream from New Hogan Dam, and 3.0 mi (4.8 km) south of Valley Springs.

DRAINAGE AREA.--363 mi² (940 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 519.8 ft (158.44 m) above mean sea level (levels by Corps of Engineers). Auxiliary nonrecording gage 300 ft (91 m) downstream at different datum used May 1, 1962, to Jan. 26, 1963.

REMARKS.--Records good. Flow regulated by New Hogan Lake (station 11308700). Some seepage of North Fork Stanislaus River water enters basin from diversion canals and reservoirs, normally not over 1.5 ft³/s (0.042 m³/s). Small diversions above station for irrigation.

AVERAGE DISCHARGE (adjusted for change in contents in and evaporation from New Hogan Lake).--15 years, 226 ft³/s (6,400 m³/s), 163,700 acre-ft/yr (202 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,830 ft³/s (222 m³/s) Jan. 25, 26, 1969, gage height, 7.46 ft (2.274 m); no flow many days in 1961-65, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 472 ft³/s (13.4 m³/s) Jan. 31, Feb. 1, gage height, 2.20 ft (0.671 m); minimum daily, 9.6 ft³/s (0.27 m³/s) Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	25	37	29	469	20	157	146	184	211	201	240
2	84	25	39	29	248	21	226	151	187	223	177	224
3	38	25	41	29	249	21	248	153	188	219	177	158
4	41	27	41	29	266	21	248	176	188	219	178	153
5	41	26	41	28	242	21	252	204	160	219	197	153
6	41	24	41	30	225	21	260	235	147	219	203	152
7	41	24	41	26	177	21	276	235	141	194	202	180
8	41	24	41	19	109	21	169	205	187	166	202	202
9	41	24	41	19	85	21	110	205	202	160	202	202
10	35	22	41	19	180	21	149	205	202	160	192	202
11	26	25	41	19	216	21	99	205	195	195	177	173
12	26	25	41	18	170	21	127	205	181	220	193	141
13	26	25	41	14	121	21	181	223	181	245	195	139
14	26	25	41	12	68	21	177	248	177	248	181	139
15	26	25	41	14	14	30	177	248	206	248	162	81
16	25	25	41	15	15	37	177	213	241	247	141	9.6
17	25	33	41	15	15	37	131	175	200	248	169	11
18	25	39	41	15	15	37	98	184	170	209	184	11
19	25	39	41	15	15	37	98	210	184	188	183	11
20	24	39	41	15	15	37	106	211	226	204	162	11
21	25	39	41	15	15	37	134	202	244	235	142	11
22	25	39	41	16	15	37	202	202	230	248	142	11
23	26	39	41	16	15	37	202	202	217	224	142	11
24	26	40	41	16	15	37	202	208	189	198	167	11
25	25	40	41	16	15	37	141	229	194	198	201	11
26	25	40	41	15	18	37	98	210	228	202	211	11
27	25	40	41	14	20	37	150	191	230	235	177	11
28	25	41	41	14	20	37	202	188	218	250	153	11
29	25	41	41	14	20	37	202	188	205	252	153	11
30	25	41	36	160	---	37	185	188	205	238	172	11
31	25	---	29	335	---	37	---	188	---	223	231	---
TOTAL	1042	946	1248	1040	3067	915	5184	6233	5907	6745	5569	2702.6
MEAN	33.6	31.5	40.3	33.5	106	29.5	173	201	197	218	180	90.1
MAX	108	41	41	335	469	37	276	248	244	252	231	240
MIN	24	22	29	12	14	20	98	146	141	160	141	9.6
AC-FT	2070	1880	2480	2060	6080	1810	10280	12360	11720	13380	11050	5360
MEAN ‡	19.4	30.6	23.6	25.5	46.8	59.0	41.2	18.2	8.25	7.94	13.6	2.74
AC-FT ‡	1190	1820	1450	1570	2690	3630	2450	1120	491	488	837	163
CAL YR 1975 TOTAL	86193.0			236	6380	13	AC-FT	171000	MEAN ‡	213	AC-FT ‡	153900
WTR YR 1976 TOTAL	40598.6			111	469	9.6	AC-FT	80530	MEAN ‡	24.7	AC-FT ‡	17900

‡ Adjusted for change in contents and evaporation in New Hogan Lake.

11308900 CALAVERAS RIVER BELOW NEW HOGAN DAM, NEAR VALLEY SPRINGS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-66, 1971 to current year.

CHEMICAL ANALYSES: Water years 1964-66.

WATER TEMPERATURES: Water years 1971 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1970 to current year.

INSTRUMENTATION.--Temperature recorder since October 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 17.0°C Oct. 12, 1971; minimum (water years 1972-76), 5.5°C Dec. 17, 1971, Jan. 1, 1973.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 16.5°C on several days during September; minimum, 7.5°C on several days during January.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.5	12.5	13.5	11.5	12.5	11.0	10.5	9.0	10.0	9.5	10.5	9.0
2	13.5	12.0	13.5	11.5	12.5	11.5	10.5	9.0	10.0	9.5	9.0	8.5
3	14.0	12.0	13.5	11.5	13.0	11.5	10.0	9.0	10.0	9.5	11.0	9.0
4	14.0	12.0	13.5	11.5	12.5	11.5	10.5	9.0	9.5	9.0	11.5	8.5
5	14.0	12.0	13.5	11.5	12.5	11.5	10.0	9.5	9.5	9.0	12.0	9.0
6	13.0	12.0	13.5	11.5	12.5	11.5	10.5	9.0	9.5	9.0	12.0	8.5
7	13.5	11.5	13.0	11.5	12.5	11.5	10.5	9.0	9.5	9.0	12.0	9.0
8	13.5	12.0	13.0	11.5	12.5	11.5	10.5	8.5	9.5	9.0	12.0	9.0
9	13.0	12.0	13.0	11.0	12.5	11.5	9.5	9.0	9.5	9.0	12.5	9.0
10	13.5	12.0	12.5	11.0	12.0	11.5	9.5	8.5	10.0	9.0	12.5	9.0
11	14.0	12.0	12.5	11.0	12.0	11.5	9.5	8.5	10.0	9.0	12.5	9.0
12	13.5	11.5	13.0	11.0	12.0	11.5	9.5	9.0	10.0	9.0	12.5	9.0
13	14.0	11.5	13.0	11.0	12.0	11.0	10.0	8.5	10.0	9.0	12.5	9.0
14	14.0	11.5	13.0	11.5	12.0	10.5	10.5	8.0	10.0	9.0	12.5	9.0
15	14.0	11.5	12.5	11.5	12.0	10.5	10.5	8.0	10.5	9.0	12.0	9.0
16	14.0	11.5	12.5	11.0	12.0	10.5	10.5	8.0	10.0	8.5	12.0	9.5
17	14.0	11.5	12.5	10.5	12.0	10.5	10.5	8.0	11.5	9.0	12.0	9.5
18	14.0	11.5	12.5	11.0	11.5	10.5	10.5	8.0	12.0	9.5	11.0	9.5
19	14.0	11.5	12.5	11.0	11.5	10.5	10.5	7.5	11.0	9.0	11.5	9.0
20	14.5	11.5	12.5	11.5	11.5	10.5	10.5	8.0	11.5	8.0	12.0	9.0
21	14.0	11.5	12.5	11.0	11.5	10.5	10.5	7.5	12.0	8.5	12.5	9.5
22	13.5	11.5	12.5	11.0	11.5	10.5	10.5	7.5	11.0	8.5	12.0	9.5
23	13.5	11.5	12.5	11.0	11.5	10.5	10.5	7.5	10.5	8.5	11.5	9.5
24	13.5	11.5	12.5	11.5	11.0	10.0	10.5	7.5	11.5	8.5	12.0	9.0
25	13.0	11.5	12.5	11.5	11.0	10.0	10.5	7.5	11.0	9.0	12.0	9.0
26	12.5	11.5	12.5	11.5	11.0	10.0	10.5	8.0	11.5	9.0	11.5	9.0
27	13.5	11.5	12.0	11.5	10.5	10.0	10.5	7.5	12.0	9.0	12.0	9.0
28	13.5	11.5	12.5	11.0	11.0	10.0	10.5	8.0	12.0	9.0	12.0	9.5
29	13.5	11.5	12.0	11.0	11.0	9.5	10.5	8.0	10.0	9.0	12.5	9.5
30	12.5	11.5	12.5	11.0	11.0	9.5	9.5	8.0	---	---	12.5	9.5
31	13.5	11.5	---	---	10.5	9.0	9.5	9.0	---	---	11.0	9.5
MONTH	14.5	11.5	13.5	10.5	13.0	9.0	10.5	7.5	12.0	8.0	12.5	8.5

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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

11312000 BEAR CREEK NEAR LOCKEFORD, CA

LOCATION.--Lat 38°09'10", long 121°08'17", in NW¼SE¼ sec.31, T.4 N., R.8 E., San Joaquin County, on right bank 15 ft (5 m) downstream from county road bridge, and 0.8 mi (1.3 km) southeast of Lockeford.

DRAINAGE AREA.--47.6 mi² (123.3 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1315-A. October 1926 to November 1930 at site 3 mi (5 km) downstream; records not equivalent.

REVISED RECORDS.--WSP 1635: Drainage area.

GAGE.--Water-stage recorder and low-water concrete control. Datum of gage is 80.68 ft (24.591 m) above mean sea level (levels by Corps of Engineers).

REMARKS.--Records good except those for period of no gage-height record, which are fair. No storage or diversion above station. Occasionally water is released from East Bay Municipal Utility District aqueduct into Bear Creek above station. Summer discharge influenced by return flows from irrigated areas.

AVERAGE DISCHARGE.--46 years, 11.6 ft³/s (0.329 m³/s), 8,400 acre-ft/yr (10.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,930 ft³/s (83.0 m³/s) Apr. 3, 1958, gage height, 15.13 ft (4.612 m); no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28 ft³/s (0.79 m³/s) Mar. 3, gage height, 4.78 ft (1.457 m), no peak above base of 500 ft³/s (14.2 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.63	.02	.14	.14	.11	.11	.10	.15	.01	.05	.04	.01
2	.58	.10	.14	.15	.09	.20	.43	.33	.36	.45	.01	.12
3	.24	.18	.10	.13	.07	3.3	.08	.04	.21	.09	.10	.22
4	.61	.24	.09	.13	.07	2.6	.07	.16	.19	.14	.30	.09
5	.27	.23	.09	.13	.20	1.8	.07	.47	1.2	.06	.11	.04
6	.20	.19	.07	.14	.08	1.1	.03	.19	.42	.11	.23	.21
7	1.1	.16	.09	.11	.03	.75	.03	.20	.12	.28	2.1	.44
8	.72	.13	.09	.13	.09	.48	.40	.17	.02	.09	1.9	.20
9	.31	.11	.09	.22	.04	.37	.04	.04	.01	.32	.78	.13
10	.85	.12	.07	.20	0	.30	.21	.01	0	.91	.18	1.5
11	1.2	.12	.05	.29	0	.32	.92	.01	0	.15	.05	2.2
12	.61	.13	.07	.33	0	.27	1.4	.12	0	.04	.02	1.4
13	.32	.13	.09	.36	.06	.20	.13	.31	.18	.01	.08	1.4
14	.19	.15	.09	.29	.48	.17	.02	.54	.01	.33	.97	.35
15	.13	.20	.14	.26	.48	.24	.01	.12	.19	.08	1.7	.08
16	.10	.19	.13	.27	.48	.42	.03	.40	.16	.02	1.4	1.2
17	.07	.16	.10	.27	.39	.42	.12	1.4	.03	.14	.64	1.2
18	.05	.33	.07	.38	.33	.46	.16	.53	0	.07	.18	1.1
19	.03	.88	.07	.33	.40	.29	.06	.71	.36	.05	.08	.66
20	0	.32	.10	.21	2.6	.22	.25	1.8	.04	.40	.31	.46
21	0	.15	.11	.14	.85	.56	.28	.39	.21	.08	.22	.11
22	0	.14	.60	.11	.40	.61	1.2	.14	.89	.03	.11	.10
23	0	.07	.83	.08	.20	.39	.33	.03	.10	.08	.15	.08
24	0	.05	.37	.06	.15	.24	.04	.01	.01	.76	.13	.12
25	0	.04	.27	.14	.18	.12	.02	0	.58	.33	.07	.20
26	.09	.03	.22	.34	.21	.07	.01	.07	.66	.07	.38	.27
27	0	.04	.15	.25	.23	.13	0	.08	.39	.02	.06	.23
28	0	.34	.13	.16	.18	.49	0	.13	1.3	.01	.75	1.6
29	0	.43	.13	.12	.30	.28	.06	.43	.36	.09	.12	.62
30	.22	.19	.15	.09	---	.46	.03	.17	.17	.07	.06	.55
31	0	---	.16	.09	---	.35	---	.01	---	.13	.03	---
TOTAL	8.52	5.57	5.00	6.05	8.70	17.72	6.53	9.16	8.18	5.46	13.26	16.89
MEAN	.27	.19	.16	.20	.30	.57	.22	.30	.27	.18	.43	.56
MAX	1.2	.88	.83	.38	2.6	3.3	1.4	1.8	1.3	.91	2.1	2.2
MIN	0	.02	.05	.06	0	.07	0	0	0	.01	.01	.01
AC-FT	17	11	9.9	12	17	35	13	18	16	11	26	34
CAL YR 1975	TOTAL	3037.95	MEAN	8.32	MAX	434	MIN	0	AC-FT	6030		
WTR YR 1976	TOTAL	111.04	MEAN	.30	MAX	3.3	MIN	0	AC-FT	220		

NOTE.--No gage-height record Feb. 12 to Mar. 5.

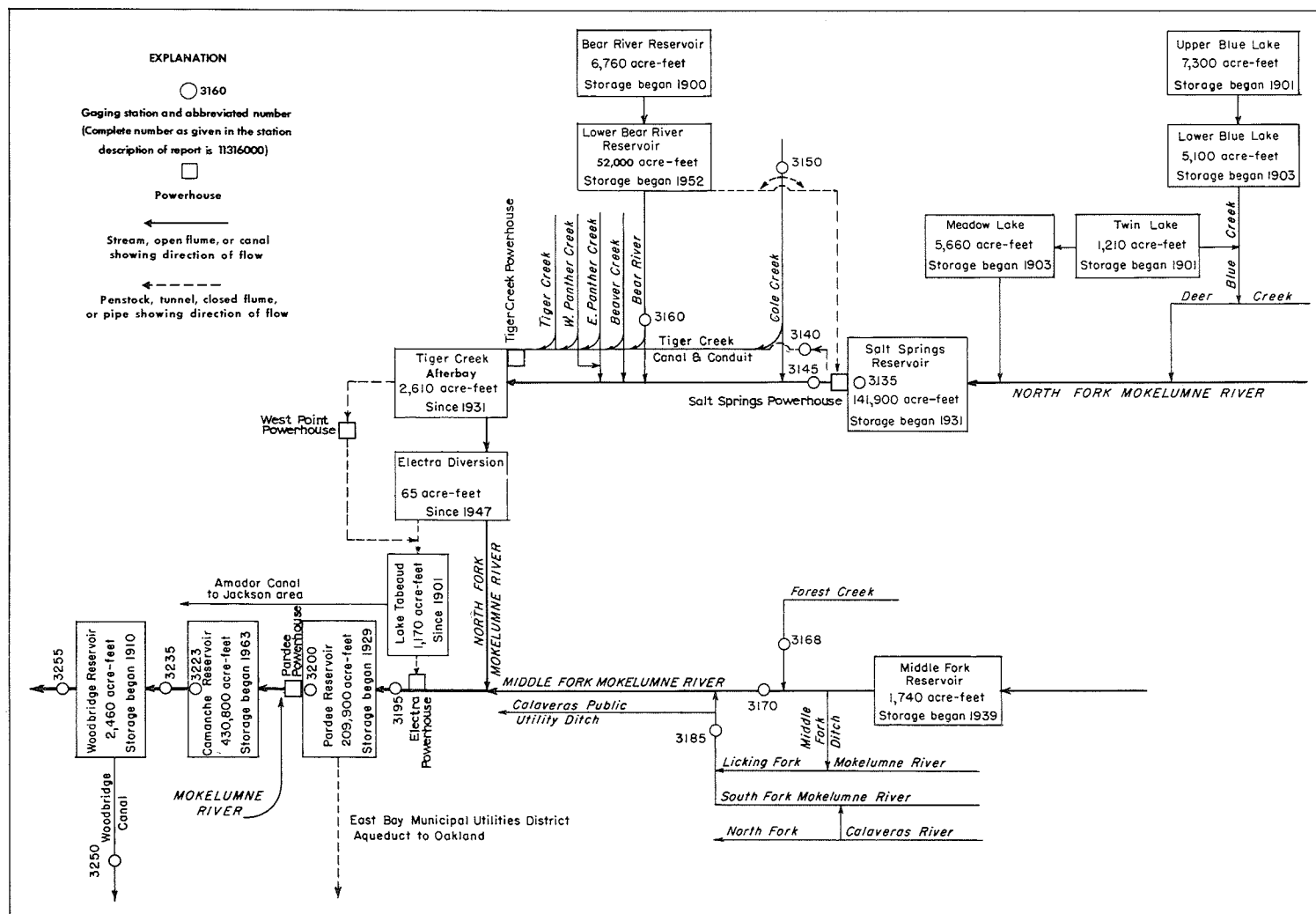


FIGURE 11.—Schematic diagram showing diversions and storage in Mokelumne River basin.

11313000 DELTA-MENDOTA CANAL AT TRACY PUMPING PLANT, NEAR TRACY, CA

LOCATION.--Lat 37°47'49", long 121°35'03", in SW¼SW¼ sec.31, T.1 S., R.4 E., Alameda County, at Tracy pumping plant at intake to canal, 6 mi (10 km) southeast of Byron, and 10 mi (16 km) northwest of Tracy.

PERIOD OF RECORD.--June 1951 to current year. Prior to October 1959, published as "near Tracy."

GAGE.--Water-stage recorder on forebay, pressure gages on pump discharge lines, and operating time of pumps. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

REMARKS.--Discharge computed from records of operation of pumps. Water is diverted from Sacramento-San Joaquin Delta by way of Old River and a dredged channel to the Tracy pumping plant where it is lifted 200 ft (61 m) into canal. Water, less intermediate diversions, flows into Mendota Pool on San Joaquin River to replace water diverted at Friant Dam. The canal is a part of the Central Valley Project.

COOPERATION.--Records furnished by Bureau of Reclamation, rounded to Geological Survey standards.

AVERAGE DISCHARGE.--25 years, 2,096 ft³/s (59.36 m³/s), 1,519,000 acre-ft/yr (1.87 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,935 ft³/s (140 m³/s) Aug. 11, 1969; no flow many days in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2460	3920	3710	3900	4630	4590	4570	4700	4640	1970	4700	4610
2	2360	3900	3790	3900	4620	4570	4570	4660	4680	1710	4670	4610
3	2300	3920	3800	3890	4640	4580	4580	4660	4630	1710	4690	4610
4	2480	3920	3810	3880	4650	4550	4510	4660	4640	1700	4660	4560
5	3000	3940	3830	3870	4640	4540	4530	4650	4640	1710	4700	4540
6	3220	3930	3820	3870	4610	4540	4620	4220	4600	2210	4700	4510
7	3930	3940	3810	3870	4580	4540	4570	4010	4610	2530	4680	4570
8	3920	3940	3800	3860	4620	4560	3760	4020	4260	2500	4690	4580
9	3930	3910	3850	3870	4630	4590	3660	4030	3990	2510	4720	4660
10	3970	3920	3900	3860	4600	4590	4020	4030	4220	2500	4700	4640
11	3960	3900	3920	3870	4590	4580	4340	4000	4410	2520	4690	4680
12	3960	3900	3920	3860	4610	4570	4640	4460	4560	2870	4680	4660
13	3940	3900	3920	3880	4590	4540	4640	4680	4640	3270	4680	4640
14	3940	3900	3880	3880	4590	4540	4400	4670	4670	3240	4670	4680
15	3960	3910	3960	3880	4540	4580	4690	4680	4600	3260	4600	4630
16	3930	3910	3970	3870	4570	4530	4650	4670	4630	3790	4660	4630
17	3940	3880	3960	3880	4560	4550	4620	4680	4270	4050	4120	4590
18	3940	3820	3960	3890	4560	4580	4640	4680	3580	4060	3970	4590
19	3930	3860	3930	3910	4580	4530	4620	4640	3250	4050	4700	4590
20	3930	3740	3930	3880	4550	4570	4630	4660	3250	4030	4580	4620
21	3940	3710	3930	3880	4540	4560	4620	4600	2900	4730	4500	4520
22	3280	3700	3930	3870	4550	4570	4640	4670	2510	4580	4540	4460
23	3300	3690	3880	4200	4570	4570	4280	4650	2490	4480	4510	4440
24	3480	3670	3890	4520	4570	4580	4010	4670	2490	4540	4420	4480
25	3950	3690	3880	4540	4560	4570	3990	4670	2500	4570	4370	4450
26	3960	3700	3870	4320	4530	4550	4420	4670	2500	4580	4020	4480
27	3950	3690	3890	4380	4550	4560	4560	4680	2500	4660	4640	4450
28	3580	3730	3890	4500	4540	4570	4090	4660	2500	4740	4520	4480
29	3460	3700	3880	4660	4570	4570	3900	4660	2450	4720	4540	4170
30	3820	3710	3910	4630	---	4580	4220	4680	2430	4720	4570	4040
31	3990	---	3920	4630	---	4560	---	4670	---	4720	4590	---
TOTAL	111710	114950	120340	125700	132940	141460	131990	140740	112040	107230	141480	136170
MEAN	3604	3832	3882	4055	4584	4563	4400	4540	3735	3459	4564	4539
MAX	3990	3940	3970	4660	4650	4590	4690	4700	4680	4740	4720	4680
MIN	2300	3670	3710	3860	4530	4530	3660	4000	2430	1700	3970	4040
AC-FT	221600	228000	238700	249300	263700	280600	261800	279200	222200	212700	280600	270100
CAL YR 1975	TOTAL	1424230.00	MEAN	3902	MAX	4790	MIN	.00	AC-FT	2825000		
WTR YR 1976	TOTAL	1516750.00	MEAN	4144	MAX	4740	MIN	1700	AC-FT	3008000		

11313500 SALT SPRINGS RESERVOIR NEAR WEST POINT, CA

LOCATION.--Lat 38°30'00", long 120°12'55", in SE¼ sec.33, T.8 N., R.16 E., Calaveras County, Eldorado National Forest, at right end of Salt Springs Dam on North Fork Mokelumne River, 2 mi (3 km) upstream from Cole Creek, and 18 mi (29 km) northeast of West Point.

DRAINAGE AREA.--169 mi² (438 km²).

PERIOD OF RECORD.--March 1931 to current year. Prior to October 1964, records published as usable contents.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Nonrecording gage read once daily. Datum of gage is at mean sea level (levels by Pacific Gas and Electric Co.).

REMARKS.--Reservoir is formed by concrete-faced, rockfill dam, completed in 1931; storage began in March 1931. Capacity, 141,900 acre-ft (175 hm³) between elevations 3,667.75 ft (1,117.930 m), outlet drain and 3,958.0 ft (1,206.40 m), top of radial gates, above mean sea level. Storage of 1,860 acre-ft (2.29 hm³) available for release to river only. Water is released through powerhouse just below dam and discharged into Tiger Creek powerhouse conduit (station 11314000). Figures given herein represent total contents. See schematic diagram of Mokelumne River basin.

COOPERATION.--Records furnished by Pacific Gas and Electric Co. in connection with a Federal Power Commission Project.

EXTREMES (AT 1700) FOR PERIOD OF RECORD.--Maximum contents observed, 141,900 acre-ft (175 hm³) for several days in June or July each year 1948-54, 1956-58, 1960, 1962-63, 1965, 1967, 1969-75, elevation, 3,958.0 ft (1,206.40 m); no contents at times in 1932-33, 1945, 1962.

EXTREMES (AT 1700) FOR CURRENT YEAR.--Maximum contents observed, 70,300 acre-ft (86.7 hm³) Oct. 1, elevation, 3,872.84 ft (1,180.442 m); minimum, 3,630 acre-ft (4.48 hm³) Feb. 29, elevation, 3,720.70 ft (1,134.069 m).

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

3667.75	45	3740.0	7320
3700.0	1250	3750.0	9800
3705.0	1680	3760.0	12700
3710.0	2200	3780.0	19600
3715.0	2810	3800.0	28000
3720.0	3520	3850.0	54900
3725.0	4320	3900.0	90800
3730.0	5230	3958.0	141900
3735.0	6230		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69591	58174	43513	22275	4837	3672	12167	26578	56242	47192	36190	33790
2	68526	58109	42688	21348	4837	3672	12319	28566	56242	46788	35835	33544
3	67537	58044	42196	20794	4873	3845	12442	30660	56179	46672	35683	33348
4	66556	57525	41544	19823	4892	3750	12442	32716	55743	46500	35683	33007
5	65581	57525	40361	18988	4710	3829	12442	34830	55481	46328	35683	32716
6	64889	57139	39669	18428	4764	3941	12380	36956	55229	46156	35633	32329
7	64407	56753	38983	17043	4728	3990	12227	37834	55040	45814	35582	32040
8	63789	58044	38250	16263	4674	4122	12380	39141	54852	45473	35532	31801
9	63243	57719	37782	15569	4692	4410	12411	40361	54601	45814	35431	31562
10	62834	57655	37316	14555	4855	4764	12442	41869	54289	45587	35381	31371
11	63107	57590	36853	13478	5003	5096	12472	43458	54102	45303	35331	31086
12	62902	57267	36393	12534	5191	5246	12534	45077	53915	45021	35281	30991
13	62427	56689	35582	11776	5325	5520	12596	46615	53667	44739	35281	30754
14	62089	56242	34681	11480	5153	5879	12689	48416	53481	44403	35180	30613
15	61684	55797	33790	11189	4984	6251	12782	50554	53049	44042	35431	30471
16	61213	55040	33348	10902	4764	6549	12876	52068	52680	43568	35633	30283
17	60878	54539	32861	10425	4341	6942	13002	53605	52251	43237	35683	30049
18	59814	53977	32329	9826	4122	7256	13478	54351	52007	42795	35784	30049
19	58892	53110	31897	9221	4072	7624	13735	55166	51702	42305	35734	29536
20	58239	52557	31038	8587	4307	7906	14060	55607	51338	41924	35835	29304
21	57525	51702	30096	7978	4358	8146	14622	55481	50975	41544	35683	29072
22	56882	50855	29304	7324	4375	8513	15295	55988	50614	40897	35482	28842
23	56306	50015	28796	6657	4427	8888	15984	55544	50194	40527	35331	28658
24	55861	49182	28337	6335	4532	9195	17693	55734	49717	40095	35230	28566
25	55166	48181	27428	5658	4358	9666	19252	56051	49360	39669	35030	28382
26	55355	47540	26534	5115	4105	10014	20481	56242	48946	39246	34880	28108
27	58304	46845	25610	5021	3845	10425	21508	56306	48474	38733	34631	27881
28	58630	45985	24702	4984	3703	10760	22275	56343	47947	38354	34382	27654
29	58565	45303	23851	4947	3626	11045	23222	56497	47598	37885	34036	27473
30	58434	44347	23389	4910	---	11451	24616	56434	47308	37368	33888	27473
31	58369	---	22808	4873	---	11865	---	56306	---	36853	33839	---
MAX	69591	58174	43513	22275	5325	11865	24616	56497	56242	47192	36190	33790
MIN	55166	44347	22808	4873	3626	3672	12167	26578	47308	36853	33839	27473
(†)	3855.5	3832.3	3788.0	3728.1	3720.7	3757.3	3792.3	3852.3	3837.5	3818.3	3812.3	3798.8
(‡)	-12300	-14000	-21500	-17900	-1250	+8240	+12800	+31700	-9000	-10500	-3010	-6370

CAL YR 1975 † +10600

WTR YR 1976 ‡ -43200

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet, rounded to Geological Survey standards.

11314000 TIGER CREEK POWERHOUSE CONDUIT BELOW SALT SPRINGS DAM, CA

LOCATION.--Lat 38°29'47", long 120°13'04", in SW¼ sec.33, T.8 N., R.16 E., Amador County, Eldorado National Forest, on left bank 1,000 ft (305 m) downstream from Salt Springs Dam and powerhouse.

PERIOD OF RECORD.--June 1931 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 3,620 ft (1,103 m), from topographic map. Auxiliary nonrecording gages in stilling wells upstream and downstream from control.

REMARKS.--Conduit conveys water of North Fork Mokelumne River from tailrace of Salt Springs powerhouse to forebay of Tiger Creek powerhouse. Since December 1952, records include Bear River diversion to Salt Springs powerhouse. See schematic diagram of Mokelumne River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--45 years, 351 ft³/s (9.940 m³/s), 254,300 acre-ft/yr (314 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 577 ft³/s (16.3 m³/s) June 22, 1945; no flow at times in some years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	541	539	523	540	91	199	126	.26	243	172	348	198
2	544	539	541	541	91	269	190	.47	242	194	340	323
3	548	540	541	540	91	250	190	.60	242	92	339	330
4	546	514	541	540	91	127	191	.61	245	93	342	248
5	545	522	541	540	205	90	241	1.4	244	93	305	190
6	544	541	542	539	189	91	290	1.7	241	261	340	189
7	551	346	542	540	90	92	223	.64	241	239	122	189
8	546	95	541	539	90	124	191	303	240	175	91	321
9	542	358	542	538	34	137	191	303	241	14	142	338
10	541	349	542	539	4.4	137	190	303	236	25	337	331
11	540	310	542	538	2.5	61	191	302	244	238	337	262
12	542	426	542	483	2.2	180	190	302	241	238	340	190
13	543	523	542	369	.64	222	190	412	240	319	340	188
14	543	522	541	370	203	222	193	196	240	251	218	311
15	544	520	541	369	199	184	190	90	340	289	190	339
16	543	518	539	365	198	141	191	90	244	289	209	339
17	546	519	542	362	195	139	44	221	359	290	337	340
18	544	519	542	368	191	135	41	292	243	295	340	270
19	546	521	541	366	197	135	187	292	240	339	340	188
20	546	521	541	364	166	91	190	404	240	397	340	188
21	545	534	542	364	95	93	192	458	239	334	226	301
22	549	541	541	362	94	115	185	390	241	337	189	340
23	545	541	540	364	148	91	6.8	331	242	340	197	340
24	540	541	541	365	190	60	1.4	291	307	292	337	340
25	539	540	540	363	188	1.7	2.1	291	328	290	339	262
26	449	540	541	197	189	1.7	2.1	293	266	318	339	136
27	274	539	539	92	185	1.7	1.7	295	242	367	338	138
28	479	540	539	91	184	1.5	.93	278	339	360	238	268
29	539	539	539	91	186	22	1.8	243	241	366	189	340
30	539	540	540	90	---	39	1.1	243	143	303	190	302
31	539	---	540	91	---	40	---	293	---	367	198	---
TOTAL	16422	14637	16751	11820	3853.1	3492.6	4024.93	6985.04	7634	7977	8477	8039
MEAN	530	488	540	381	133	113	134	225	254	257	273	268
MAX	551	541	542	541	205	269	290	458	359	397	348	340
MIN	274	95	523	90	2.2	1.5	.93	.26	143	14	91	136
AC-FT	32570	29030	33230	23440	7640	6930	7980	13850	15140	15820	16810	15950
CAL YR 1975 TOTAL	160052.01			MEAN 438	MAX 551	MIN 0	AC-FT 317500					
WTR YR 1976 TOTAL	110112.67			MEAN 301	MAX 551	MIN .26	AC-FT 218400					

11314500 NORTH FORK MOKELUMNE RIVER BELOW SALT SPRINGS DAM, CA

LOCATION.--Lat 38°29'37", long 120°13'12", in NE¼NW¼ sec.4, T.7 N., R.16 E., Calaveras County, Stanislaus National Forest, on left bank 0.3 mi (0.5 km) downstream from Salt Springs Dam, and 1.3 mi (2.1 km) upstream from Cole Creek.

DRAINAGE AREA.--170 mi² (440 km²).

PERIOD OF RECORD.--September 1926 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as "above Moore Creek" 1926-30.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 3,590 ft (1,094 m), from topographic map. Prior to Sept. 12, 1928, at site 100 ft (30 m) upstream and Sept. 12, 1928, to Sept. 23, 1940, at present site at datum 2.0 ft (0.61 m) higher.

REMARKS.--Flow regulated by Salt Springs Reservoir 0.3 mi (0.5 km) upstream since 1931 (station 11313500). Diversion from Bear River and Cole Creek to Salt Springs powerhouse averaged 63.0 ft³/s (1.78 m³/s) during current year. Diversion above station through Tiger Creek powerhouse conduit (station 11314000). See schematic diagram of Mokelumne River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE (combined flow of North Fork Mokelumne River and Tiger Creek powerhouse conduit minus Bear River-Cole Creek diversion).--50 years, 470 ft³/s (13.31 m³/s), 340,500 acre-ft/yr (420 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft³/s (453 m³/s), Nov. 21, 1950, gage height, 17.20 ft (5.243 m), from rating curve extended above 3,900 ft³/s (110 m³/s) on basis of computations of flow over dam and discharge through powerhouse; minimum daily, 0.3 ft³/s (0.008 m³/s) Mar. 31, Apr. 1, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 297 ft³/s (8.41 m³/s) Oct. 18, gage height, 3.41 ft (1.039 m); minimum daily, 4.3 ft³/s (0.12 m³/s) June 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	276	7.7	5.5	5.4	6.6	7.8	7.2	6.9	5.3	6.3	5.7	5.4
2	276	4.9	5.6	6.0	6.6	6.9	7.4	7.3	5.2	7.1	5.7	5.7
3	276	5.2	6.3	7.1	6.6	6.7	7.1	7.5	5.0	6.0	5.8	5.8
4	244	5.5	6.3	7.0	6.6	6.1	7.2	7.8	4.9	5.5	5.8	5.8
5	125	5.4	6.3	6.9	6.6	6.2	7.3	6.8	4.9	5.3	5.7	5.9
6	69	5.0	6.3	6.9	6.0	6.9	7.1	6.4	4.8	5.5	5.6	5.9
7	51	5.4	6.1	6.8	5.6	6.8	7.0	7.0	4.8	5.3	5.1	5.8
8	39	6.0	6.0	6.6	5.7	8.1	7.2	6.5	4.8	5.0	5.0	5.8
9	13	5.7	6.0	5.9	5.5	6.5	7.3	6.4	4.8	5.8	5.3	5.8
10	13	5.2	5.9	5.8	6.8	5.9	7.2	6.2	4.8	6.0	5.6	5.8
11	13	5.3	5.8	5.8	6.6	6.2	7.2	5.9	4.6	5.0	5.6	5.8
12	13	5.8	6.0	5.5	6.4	6.8	7.3	5.8	4.4	5.0	5.5	5.6
13	12	5.8	5.8	5.3	6.1	6.6	7.9	6.2	4.3	5.3	5.4	5.8
14	11	5.8	5.8	5.3	6.5	6.6	7.3	6.2	4.4	5.2	5.7	5.8
15	12	5.8	5.8	5.3	6.3	6.4	7.3	6.2	4.6	5.3	6.5	5.8
16	12	5.8	5.7	5.6	6.4	6.1	7.3	6.3	5.0	5.5	6.2	5.6
17	99	5.9	5.5	6.3	6.3	6.3	7.5	6.1	5.0	5.3	6.0	5.4
18	292	6.9	5.5	6.3	6.3	6.9	7.9	5.3	5.0	5.3	5.5	5.8
19	232	7.4	5.5	6.3	6.8	6.5	7.5	5.3	4.9	5.5	5.5	5.8
20	111	7.2	5.5	6.3	6.6	6.1	5.9	5.3	4.9	5.0	5.3	5.8
21	96	6.6	5.8	6.3	6.0	6.4	5.8	5.3	4.8	5.0	5.2	5.9
22	73	5.8	5.8	6.0	6.0	6.8	5.9	5.3	5.0	5.3	5.7	6.0
23	75	5.8	5.8	6.0	6.3	6.3	9.0	5.2	5.0	6.1	5.8	5.8
24	77	5.8	5.8	6.0	6.6	6.6	7.8	4.8	4.9	6.0	5.8	5.6
25	75	5.8	5.8	5.8	6.6	8.4	8.7	4.8	4.8	5.8	5.8	5.4
26	39	5.8	5.8	5.7	6.6	8.7	9.1	4.8	4.8	5.9	5.7	5.3
27	16	5.9	5.5	5.8	6.3	8.9	7.8	5.0	4.6	5.9	5.8	5.3
28	13	5.8	5.5	5.8	6.0	8.1	6.4	5.4	4.6	5.9	6.0	5.3
29	11	5.7	5.5	5.8	7.0	7.2	5.7	5.3	4.6	5.9	6.0	5.3
30	12	5.5	5.5	5.9	---	7.1	6.0	5.3	5.2	5.7	5.6	5.3
31	11	---	5.4	6.7	---	7.1	---	5.3	---	5.8	5.5	---
TOTAL	2687	176.2	179.4	188.2	184.3	214.0	217.3	183.9	144.7	173.5	175.4	170.1
MEAN	86.7	5.87	5.79	6.07	6.36	6.90	7.24	5.93	4.82	5.60	5.66	5.67
MAX	292	7.7	6.3	7.1	7.0	8.9	9.1	7.8	5.3	7.1	6.5	6.0
MIN	11	4.9	5.4	5.3	5.5	5.9	5.7	4.8	4.3	5.0	5.0	5.3
AC-FT	5330	349	356	373	366	424	431	365	287	344	348	337
CAL YR 1975 TOTAL	88978.9			MEAN 244		MAX 3190		MIN 4.2	AC-FT 176500			
WTR YR 1976 TOTAL	4694.0			MEAN 12.8		MAX 292		MIN 4.3	AC-FT 9310			

11315000 COLE CREEK NEAR SALT SPRINGS DAM, CA

LOCATION.--Lat 38°31'09", long 120°12'41", in NE¼ sec.28, T.8 N., R.16 E., Amador County, Eldorado National Forest, on left bank 200 ft (61 m) downstream from bridge, 1.4 mi (2.3 km) north of Salt Springs Dam, 3.2 mi (5.1 km) upstream from mouth, and 6.5 mi (10.5 km) southwest of Mokelumne Peak. Prior to Oct. 30, 1974, at site 0.4 mi (0.6 km) upstream.

DRAINAGE AREA.--21.0 mi² (54.4 km²). Area at site used prior to Oct. 30, 1974, 20.4 mi² (52.8 km²).

PERIOD OF RECORD.--July 1927 to November 1942, October 1943 to current year. Prior to October 1958, published as Cold Creek near Mokelumne Peak. October 1958 to September 1960, published as "near Mokelumne Peak."

REVISED RECORDS.--WSP 1515: 1928, 1930-31, 1938(M), 1944, 1947. WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Oct. 30, 1974. Altitude of gage is 5,900 ft (1,800 m), from topographic map. Prior to Oct. 30, 1974, at site 0.4 mi (0.6 km) upstream at different datum.

REMARKS.--Occasional pumping for domestic use in summer-home tract began in September 1961. See schematic diagram of Mokelumne River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--48 years, 64.1 ft³/s (1.815 m³/s), 46,440 acre-ft/yr (57.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,140 ft³/s (174 m³/s) Dec. 23, 1964, gage height, 10.21 ft (3.112 m) site and datum then in use, from rating curve extended above 900 ft³/s (25.5 m³/s) on basis of slope-area measurement at gage height 9.69 ft (2.954 m) site and datum then in use; no flow many days in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 26	1645	Unknown	*4.51 1.375
May 9	1815	5.12 14.5	3.03 .924

Minimum daily discharge, 0.11 ft³/s (0.003 m³/s) Aug. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	52	19	17	11	34	42	195	14	.79	.18	.20
2	.17	53	33	16	12	60	45	152	13	.74	.18	.18
3	.17	46	32	13	12	64	57	160	11	.70	.16	.17
4	.17	40	28	12	11	44	51	154	9.9	.65	.15	.16
5	.17	33	25	12	11	29	45	128	8.9	.60	.15	.15
6	.45	28	23	14	11	23	38	117	8.1	.53	.15	1.8
7	1.4	86	20	13	9.6	24	47	109	7.6	.43	.19	1.5
8	.62	92	19	12	9.6	28	65	129	7.1	.43	.26	.81
9	.47	44	18	11	13	29	52	215	7.2	.42	.15	.52
10	27	34	18	12	13	33	54	163	9.7	.41	.14	.44
11	57	44	16	12	15	45	47	141	11	.40	.13	21
12	27	44	16	11	18	41	43	142	8.5	.38	.11	13
13	18	49	17	11	24	42	41	145	6.7	.36	.11	5.2
14	20	47	22	11	28	45	44	129	5.6	.33	.84	3.0
15	24	37	16	12	22	47	47	99	4.6	.32	61	2.0
16	21	134	17	14	20	56	41	89	3.9	.31	17	1.5
17	22	69	18	16	18	67	34	80	3.5	.39	5.2	1.2
18	16	42	16	15	23	68	47	67	3.2	.41	3.0	1.0
19	11	31	16	13	23	49	74	58	2.9	.29	2.5	.84
20	9.3	27	15	12	23	43	114	50	2.6	.26	2.4	.70
21	7.8	24	14	12	20	53	123	46	2.5	.25	1.9	.61
22	15	22	14	12	22	61	124	43	2.4	.23	1.3	.48
23	13	20	15	10	20	61	134	36	2.1	.23	1.1	.38
24	7.5	19	15	10	18	56	144	32	1.8	.49	.90	.33
25	5.8	20	15	11	16	46	129	30	1.6	.29	.77	.29
26	500	19	15	10	16	40	94	28	1.4	.23	.61	.25
27	124	19	15	9.3	21	35	76	26	1.2	.18	.46	.24
28	58	19	15	9.1	25	32	78	24	1.1	.16	.36	.24
29	45	19	18	9.9	39	33	106	19	.94	.15	.30	.28
30	40	17	18	10	---	46	167	16	.84	.15	.25	.27
31	45	---	18	10	---	61	---	15	---	.17	.22	---
TOTAL	1117.20	1230	576	372.3	524.2	1395	2203	2837	164.88	11.68	102.17	58.74
MEAN	36.0	41.0	18.6	12.0	18.1	45.0	73.4	91.5	5.50	.38	3.30	1.96
MAX	500	134	33	17	39	68	167	215	14	.79	61	21
MIN	.17	17	14	9.1	9.6	23	34	15	.84	.15	.11	.15
AC-FT	2220	2440	1140	738	1040	2770	4370	5630	327	23	203	117
CAL YR 1975	TOTAL	32047.34	MEAN	87.8	MAX	1090	MIN	.17	AC-FT	63570		
WTP YR 1976	TOTAL	10592.17	MEAN	28.9	MAX	500	MIN	.11	AC-FT	21010		

SAN JOAQUIN RIVER BASIN

11316000 BEAR RIVER NEAR SALT SPRINGS CAM, CA

LOCATION.--Lat 38°29'37", long 120°17'18", in NE¼NW¼ sec.2, T.7 N., R.15 E., Amador County, Eldorado National Forest, on right bank 200 ft (61 m) upstream from diversion to Tiger Creek powerhouse conduit and highway bridge, 1.5 mi (2.4 km) upstream from mouth, and 4 mi (6 km) west of Salt Springs Dam.

DRAINAGE AREA.--48.0 mi² (124.3 km²).

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

GAGE.--Water-stage recorder and broad-crested weir. Altitude of gage is 3,710 ft (1,131 m), from topographic map.

REMARKS.--Flow regulated by Bear River Reservoir since 1900, capacity, 6,760 acre-ft (8.34 hm³) and Lower Bear River Reservoir 4 mi (6 km) upstream since December 1952, capacity, 49,100 acre-ft (60.5 hm³). Water diverted for power from Lower Bear River Reservoir through tunnel to Salt Springs powerhouse on North Fork Mokelumne River since December 1952. Water diverted occasionally from Cole Creek into Lower Bear River Reservoir. See schematic diagram of Mokelumne River basin

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--25 years, 53.3 ft³/s (1.509 m³/s), 38,620 acre-ft/yr (47.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft³/s (312 m³/s) Dec. 24, 1964, gage height, 10.11 ft (3.082 m) in gage well, 11.8 ft (3.60 m) from flood profile, from rating curve extended above 560 ft³/s (15.9 m³/s) on basis of slope-area measurements of maximum flow; minimum daily, 1.0 ft³/s (0.028 m³/s) Aug. 23-28, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1950 reached a stage of 11.2 ft (3.41 m), from floodmarks, discharge, 10,000 ft³/s (283 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 786 ft³/s (22.3 m³/s) Nov. 7, gage height, 3.31 ft (1.009 m); minimum daily, 2.4 ft³/s (0.068 m³/s) July 16, Aug. 12, 13, Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	9.2	4.7	2.9	2.5	12	11	9.7	3.6	2.7	2.6	2.7
2	4.3	8.1	4.9	3.0	2.5	9.7	10	9.3	3.6	2.7	2.6	2.9
3	4.3	6.7	4.4	3.3	2.5	7.6	10	8.7	3.5	2.8	2.6	2.5
4	4.3	5.2	4.0	3.1	2.7	6.9	10	8.9	3.5	3.0	2.6	2.5
5	4.3	4.9	3.8	3.4	3.3	7.5	10	9.0	3.5	2.8	2.5	2.6
6	6.0	4.7	3.6	3.4	2.7	8.4	9.9	10	3.5	2.6	2.5	2.6
7	6.9	293	3.5	3.3	2.8	8.9	9.7	8.6	3.5	2.6	2.6	2.5
8	4.8	589	3.5	3.3	3.3	9.4	12	8.1	3.5	2.6	2.6	2.5
9	4.7	158	3.4	3.4	6.7	10	11	9.5	3.5	2.7	2.5	2.4
10	14	239	3.4	3.5	4.3	11	11	8.1	3.5	3.4	2.7	2.6
11	15	323	3.4	3.5	3.5	11	12	6.7	3.6	3.3	2.5	7.3
12	7.1	148	4.4	3.4	3.4	11	12	6.2	3.5	5.5	2.4	3.3
13	6.3	107	3.9	3.3	3.5	11	12	5.9	3.5	5.2	2.4	2.8
14	5.5	81	3.4	3.4	7.7	11	12	5.7	3.4	3.6	6.1	2.7
15	5.3	4.6	3.5	3.4	5.6	12	14	5.5	3.4	3.4	16	2.7
16	5.1	12	3.5	3.4	5.0	13	12	5.3	3.4	2.4	3.9	2.6
17	5.0	8.1	3.5	3.4	5.6	13	12	5.2	3.3	2.6	3.4	2.6
18	4.9	5.9	3.4	3.3	5.4	16	12	5.2	3.3	2.7	3.3	2.6
19	4.8	5.3	3.4	3.0	7.8	15	13	5.0	3.3	2.7	3.5	2.6
20	4.8	5.1	3.3	2.9	6.6	13	13	4.9	3.3	2.6	3.6	2.6
21	4.7	4.7	3.3	2.8	6.2	13	14	4.8	3.3	2.6	3.1	2.6
22	5.4	4.2	3.8	2.7	5.6	13	13	4.6	3.3	2.6	3.4	2.5
23	4.8	3.9	3.5	2.7	5.3	13	13	4.4	3.1	2.8	3.1	2.5
24	4.8	3.6	3.5	2.8	4.9	13	13	4.2	3.0	2.8	2.9	2.5
25	4.8	3.5	3.4	2.7	4.8	13	12	4.4	2.9	2.6	2.8	2.5
26	4.8	3.5	3.4	2.7	4.9	12	12	4.2	2.9	2.6	2.7	2.5
27	19	3.8	3.4	2.6	5.2	12	11	4.0	2.8	2.5	2.7	2.5
28	9.8	5.0	3.4	2.6	5.6	11	11	3.9	2.7	2.5	3.9	2.5
29	7.5	3.7	3.4	2.6	9.6	11	10	3.8	2.7	2.5	5.1	2.5
30	14	3.6	3.4	2.6	---	11	9.8	3.8	2.7	2.5	2.6	2.5
31	10	---	3.3	2.6	---	11	---	3.8	---	2.6	2.6	---
TOTAL	254.5	2057.3	112.7	95.0	139.5	350.4	347.4	191.4	98.6	90.5	107.8	82.7
MEAN	8.21	68.6	3.64	3.06	4.81	11.3	11.6	6.17	3.29	2.92	3.48	2.76
MAX	48	589	4.9	3.5	9.6	16	14	10	3.6	5.5	16	7.3
MIN	4.3	3.5	3.3	2.6	2.5	6.9	9.7	3.8	2.7	2.4	2.4	2.4
AC-FT	505	4080	224	188	277	695	689	380	196	180	214	164
CAL YR 1975	TOTAL	21009.5	MEAN 57.6	MAX 899	MIN 2.8	AC-FT 41670						
WTR YR 1976	TOTAL	3927.8	MEAN 10.7	MAX 589	MIN 2.4	AC-FT 7790						

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LOCATION.--Lat 38°24'12", long 120°26'45", in SW¼NW¼ sec.4, T.6 N., R.14 E., Calaveras County, on left bank 1.0 mi (1.6 km) downstream from Lion Creek, 1.8 mi (2.9 km) upstream from mouth, and 4 mi (6 km) northeast of Wilseyville.

REMARKS.--Records good. No regulation. Minor diversions above station for irrigation and domestic use. See schematic diagram of Mokelumne River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,770 ft³/s (50.1 m³/s) Dec. 24, 1964, gage height, 7.68 ft (2.341 m), from rating curve extended above 500 ft³/s (14.2 m³/s) on basis of slope-area measurement at gage height 7.41 ft (2.259 m); minimum, 0.6 ft³/s (0.17 m³/s) Aug. 24, 25, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 43 ft³/s (1.22 m³/s) Oct. 26, gage height, 3.88 ft (1.183 m), no peak above base of 120 ft³/s (3.40 m³/s); minimum daily, 0.78 ft³/s (0.022 m³/s) July 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	8.7	5.9	4.8	4.6	20	7.7	7.7	4.0	1.7	1.6	1.6
2	3.0	7.7	6.1	4.5	4.6	14	7.3	7.5	3.8	1.7	1.3	1.4
3	3.3	7.1	5.9	4.7	4.6	12	7.3	7.3	3.7	1.7	1.4	.79
4	3.1	6.7	5.9	5.0	5.1	11	7.3	6.9	3.6	1.3	1.5	1.1
5	3.4	6.3	5.9	5.8	5.0	11	7.3	6.6	3.3	1.7	1.8	1.3
6	4.0	6.3	5.8	5.5	5.2	10	7.7	7.7	2.7	1.3	1.6	1.2
7	6.4	6.5	5.4	5.2	5.1	10	7.3	7.3	2.9	1.3	1.9	1.2
8	4.6	7.2	5.4	5.4	5.4	10	10	6.2	3.6	1.3	1.8	1.4
9	4.2	6.7	5.4	5.8	6.5	9.5	9.0	5.5	3.6	1.5	1.4	1.0
10	12	11	5.3	5.3	7.4	9.8	9.3	6.0	3.7	1.5	1.0	1.2
11	19	8.7	5.4	5.7	6.5	9.8	11	5.7	3.6	1.6	1.4	3.1
12	8.0	7.7	7.2	5.4	6.3	9.1	11	5.5	3.6	1.5	1.2	2.6
13	7.1	7.3	6.6	5.3	6.6	8.9	11	5.3	2.6	1.5	1.2	2.1
14	6.1	6.8	5.1	5.5	12	8.9	11	5.1	1.9	1.5	3.1	1.9
15	5.4	6.8	6.4	5.4	9.1	8.8	12	4.5	1.8	1.2	12	1.8
16	5.1	11	6.1	5.4	8.5	8.4	11	4.4	2.7	.78	5.4	2.0
17	4.9	9.5	5.8	5.4	8.8	8.7	10	4.3	2.8	.82	3.6	2.1
18	4.6	8.0	5.6	5.3	7.8	11	10	4.1	2.6	.92	3.3	2.1
19	4.3	6.7	5.5	5.0	14	12	9.9	3.9	2.4	1.5	4.8	2.0
20	4.1	7.1	5.5	4.9	11	10	9.7	3.9	2.5	1.3	4.1	1.8
21	3.9	6.5	5.5	4.9	10	9.8	9.7	3.6	2.8	1.2	3.2	1.7
22	4.6	6.3	8.0	5.0	8.9	9.4	9.6	3.8	2.8	1.4	3.0	1.2
23	4.9	6.1	6.5	5.0	8.1	9.3	9.5	3.8	2.8	1.2	3.0	1.4
24	5.1	5.9	6.1	5.0	7.4	9.1	9.1	3.7	2.5	1.4	2.7	1.5
25	5.4	6.0	5.9	4.6	6.8	9.5	9.0	3.8	1.7	1.4	2.3	1.5
26	21	6.0	5.9	4.9	6.5	8.9	8.7	3.5	1.6	1.2	2.1	1.3
27	19	6.9	5.9	4.8	6.3	8.7	8.5	3.6	1.4	1.1	2.1	1.4
28	9.9	7.0	5.6	4.8	6.4	8.4	8.2	3.6	1.2	1.1	1.7	1.6
29	8.0	5.4	6.0	4.7	15	8.2	8.1	3.7	1.1	1.2	.79	2.5
30	14	6.1	5.9	4.7	---	7.6	7.7	3.7	1.2	1.2	1.1	2.6
31	11	---	5.0	4.7	---	7.8	---	3.8	---	1.3	1.3	---
TOTAL	222.5	216.0	182.5	158.4	219.5	310.2	274.9	156.0	80.5	41.32	78.69	50.39
MEAN	7.18	7.20	5.89	5.11	7.57	10.0	9.16	5.03	2.68	1.33	2.54	1.68
MAX	21	11	8.0	5.8	15	20	12	7.7	4.0	1.7	12	3.1
MIN	3.0	5.4	5.0	4.5	4.6	7.8	7.3	3.5	1.1	.78	.79	.79
AC-FT	441	428	362	314	435	615	545	309	160	82	156	100
CAL YR 1976	TOTAL	8888.10	MEAN	24.4	MAX	549	MIN	2.9	AC-FT	17630		
WTR YR 1975	TOTAL	1990.90	MEAN	5.44	MAX	21	MIN	.78	AC-FT	3950		

SAN JOAQUIN RIVER BASIN

11317000 MIDDLE FORK MOKELUMNE RIVER AT WEST POINT, CA

LOCATION.--Lat 38°23'23", long 120°31'32", in SE¼NE¼ sec.10, T.6 N., R.13 E., Calaveras County, on right bank 200 ft (61 m) downstream from highway bridge, 0.6 mi (1.0 km) south of West Point, and 4.5 mi (7.2 km) upstream from South Fork Mokelumne River.

DRAINAGE AREA.--68.4 mi² (177.2 km²).

PERIOD OF RECORD.--October 1911 to current year. Monthly discharge only for October 1911, published in WSP 1315-A.

REVISED RECORDS.--WSP 1515: 1919-20, 1927-28(M), 1936(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,450 ft (747 m), from topographic map. Prior to Oct. 6, 1926, nonrecording gage at site 1,200 ft (366 m) upstream at different datum. Oct. 6, 1926, to Aug. 18, 1928, nonrecording gage at present site and datum.

REMARKS.--Records good. Flow slightly regulated by Middle Fork Reservoir, capacity, 1,740 acre-ft (2.15 hm³), 6 mi (10 km) above station, since January 1940. Several small diversions above station. At times water diverted 4 mi (6 km) above station to South Fork Mokelumne River via Middle Fork ditch, capacity, 15 ft³/s (0.42 m³/s) and Licking Fork Mokelumne River. See schematic diagram of Mokelumne River basin.

AVERAGE DISCHARGE.--65 years, 60.8 ft³/s (1.722 m³/s), 44,050 acre-ft/yr (54.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,320 ft³/s (122 m³/s) Dec. 23, 1955, gage height, 8.98 ft (2.737 m); no flow Aug. 23 to Sept. 14, 1931, Sept. 9, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 78 ft³/s (2.21 m³/s) Mar. 1, gage height, 1.75 ft (0.533 m), no peak above base of 400 ft³/s (11.3 m³/s); minimum daily, 1.7 ft³/s (0.048 m³/s) July 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	21	17	14	15	66	21	20	8.9	6.7	2.5	5.0
2	11	21	16	14	15	44	21	19	9.5	7.6	2.5	5.6
3	11	17	17	14	15	36	20	18	8.7	5.3	2.5	4.9
4	11	17	17	14	16	32	20	17	7.7	3.0	2.7	6.6
5	11	16	17	16	15	30	20	17	7.8	2.9	2.7	3.3
6	12	16	17	15	9.7	30	20	20	7.1	3.1	3.0	3.0
7	15	16	17	15	9.5	29	19	19	6.9	2.3	2.5	2.9
8	14	16	17	15	10	29	26	17	8.0	2.3	2.7	3.9
9	14	16	16	17	12	28	26	16	7.7	1.7	2.8	3.3
10	23	24	16	16	13	28	25	16	8.2	1.8	2.3	2.4
11	36	19	16	17	11	28	30	15	8.1	1.9	3.4	6.0
12	18	17	25	16	11	27	29	14	7.3	2.6	3.9	5.2
13	16	17	31	16	11	26	30	14	6.5	2.2	3.5	3.9
14	16	16	16	16	19	26	30	13	5.3	3.3	3.2	3.5
15	16	17	16	16	16	26	31	14	5.3	3.9	16	3.1
16	15	22	17	16	15	25	31	15	5.9	3.8	8.8	3.1
17	15	21	16	16	24	25	28	12	5.9	2.7	5.7	3.5
18	15	19	15	16	23	28	28	12	5.6	2.2	5.3	3.3
19	15	17	15	16	41	33	27	11	5.6	2.1	6.9	4.6
20	15	18	16	15	34	28	26	12	5.0	2.4	7.6	4.6
21	15	17	16	15	29	26	26	11	5.0	2.5	5.1	4.1
22	15	17	20	15	26	25	26	9.8	4.8	2.2	6.1	3.3
23	15	17	17	15	24	25	25	11	4.3	2.5	9.3	2.7
24	16	16	17	15	21	25	24	10	4.1	2.4	7.6	3.0
25	16	16	16	14	20	25	23	10	4.7	2.3	7.1	3.1
26	34	16	16	15	20	24	22	10	5.8	2.5	7.0	2.7
27	33	20	16	16	19	23	21	9.8	5.9	2.6	6.3	2.5
28	20	20	16	15	19	23	21	8.4	6.0	2.8	4.4	3.0
29	17	17	16	16	36	22	20	8.2	6.6	2.2	3.5	3.6
30	27	16	16	16	---	22	21	8.9	6.6	2.4	1.9	4.1
31	23	---	15	15	---	21	---	8.8	---	2.4	4.0	---
TOTAL	541	535	531	477	549.2	885	737	416.9	194.8	90.6	152.8	113.8
MEAN	17.5	17.8	17.1	15.4	18.9	28.5	24.6	13.4	6.49	2.92	4.93	3.79
MAX	36	24	31	17	41	66	31	20	9.5	7.6	16	6.6
MIN	11	16	15	14	9.5	21	19	8.2	4.1	1.7	1.9	2.4
AC-FT	1070	1060	1050	946	1090	1760	1460	827	386	180	303	226
CAL YR 1975	TOTAL	26958.2	MEAN 73.9	MAX 828	MIN 7.1	AC-FT 53470						
WTR YR 1976	TOTAL	5224.1	MEAN 14.3	MAX 66	MIN 1.7	AC-FT 10360						

11318500 SOUTH FORK MOKELUMNE RIVER NEAR WEST POINT, CA

LOCATION.--Lat 38°22'06", long 120°32'40", in SE¼SE¼ sec.16, T.6 N., R.13 E., Calaveras County, on right bank 500 ft (152 m) upstream from highway bridge, 2.4 mi (3.9 km) southwest of West Point, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--75.1 mi² (194.5 km²).

PERIOD OF RECORD.--October 1933 to current year.

REVISED RECORDS.--WSP 1315-A: 1934(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,950 ft (594 m), from topographic map. October 1933 to Sept. 19, 1957, at site 1,100 ft (335 m) downstream at different datum.

REMARKS.--Records good. Several small diversions above station for domestic use and for irrigation of about 100 acres (405,000 m²). Diversions into South Fork Mokelumne River basin above station at times from North Fork Calaveras River and from Middle Fork Mokelumne River for use below station. See schematic diagram of Mokelumne River basin.

AVERAGE DISCHARGE.--43 years, 82.5 ft³/s (2.336 m³/s), 59,770 acre-ft/yr (73.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,920 ft³/s (196 m³/s) Dec. 23, 1955, gage height, 14.8 ft (4.51 m) from floodmarks, site and datum then in use, from rating curve extended above 2,700 ft³/s (76.5 m³/s) on basis of slope-area measurement of peak flow; no flow Aug. 6, 7, Aug. 12 to Sept. 26, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 128 ft³/s (3.62 m³/s) Feb. 29, gage height, 3.52 ft (1.073 m), no peak above base of 500 ft³/s (14.2 m³/s); minimum daily, 0.87 ft³/s (0.025 m³/s) Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	27	18	15	13	77	22	18	7.3	3.9	3.9	3.1
2	9.1	24	19	15	13	48	21	18	7.2	3.9	3.9	2.9
3	9.6	22	18	18	14	41	21	18	8.2	3.8	4.0	2.9
4	9.4	22	17	19	15	36	21	17	6.8	1.9	2.9	3.0
5	9.8	20	17	18	17	31	21	17	7.1	1.1	2.8	1.6
6	13	19	17	18	16	30	22	19	2.4	2.7	2.6	.87
7	18	19	16	17	16	30	21	21	8.0	3.2	2.5	2.8
8	16	21	17	17	18	29	28	16	7.2	3.1	2.7	3.0
9	16	20	16	19	23	30	28	14	6.7	3.6	3.0	3.6
10	32	31	16	19	28	29	26	14	6.8	3.3	2.6	3.5
11	54	26	16	18	20	29	35	13	7.1	3.1	2.4	7.7
12	28	23	23	18	19	28	33	14	7.0	3.4	2.4	2.7
13	23	20	20	17	19	27	32	11	3.8	2.9	2.6	5.2
14	21	20	18	17	38	26	31	10	5.7	3.0	3.9	6.0
15	19	19	17	17	32	25	33	10	6.8	2.4	14	6.0
16	18	25	18	17	27	25	32	7.6	6.6	2.4	15	5.3
17	16	28	18	17	28	25	29	7.6	6.3	3.2	10	5.7
18	16	22	17	17	23	28	29	8.8	6.5	3.1	5.7	4.7
19	16	20	17	16	44	33	28	8.5	6.7	3.0	8.4	2.9
20	15	20	17	16	38	28	27	8.9	3.9	3.1	9.5	4.8
21	15	19	17	15	30	27	27	8.7	5.8	2.8	6.2	5.1
22	14	19	24	15	27	27	27	9.8	5.9	2.8	4.6	4.5
23	15	18	22	15	25	26	26	8.7	5.6	3.0	7.6	4.0
24	16	18	20	15	24	25	25	9.1	4.6	2.9	5.3	3.9
25	16	17	19	15	22	25	24	9.3	3.6	2.8	4.9	3.9
26	41	17	19	15	22	24	24	9.8	4.0	2.5	4.2	2.3
27	60	20	18	14	21	24	23	8.3	2.0	2.9	5.7	3.1
28	30	22	18	14	21	23	23	8.9	3.4	2.5	5.6	4.1
29	24	19	18	14	47	23	22	9.6	4.2	2.3	3.9	3.8
30	36	18	18	14	---	22	17	3.5	3.6	2.6	3.3	3.8
31	35	---	17	14	---	22	---	2.4	---	3.5	3.4	---
TOTAL	670.0	635	562	505	700	923	778	359.5	170.8	90.7	159.5	116.77
MEAN	21.6	21.2	18.1	16.3	24.1	29.8	25.9	11.6	5.69	2.93	5.15	3.89
MAX	60	31	24	19	47	77	35	21	8.2	3.9	15	7.7
MIN	9.1	17	16	14	13	22	17	2.4	2.0	1.1	2.4	.87
AC-FT	1330	1260	1110	1000	1390	1830	1540	713	339	180	316	232
CAL YR 1975	TOTAL	30522.20	MEAN 83.6	MAX 1130	MIN 7.5	AC-FT 60540						
WTR YR 1976	TOTAL	5670.27	MEAN 15.5	MAX 77	MIN .87	AC-FT 11250						

SAN JOAQUIN RIVER BASIN

11319500 MOKELUMNE RIVER NEAR MOKELUMNE HILL, CA

LOCATION.--Lat 38°18'46", long 120°43'09", in SW¼SW¼ sec.1, T.5 N., R.11 E., Calaveras County, on downstream side of bridge 1.2 mi (1.9 km) northwest of Mokelumne Hill, and 8 mi (13 km) downstream from confluence of North and South Forks of Mokelumne River.

DRAINAGE AREA.--544 mi² (1,409 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January to June 1901, May 1903 to December 1904, October 1927 to current year. Yearly estimate only for water year 1928 (incomplete), published in WSP 1315-A. Published as "at Electra" 1901, 1903-4.

REVISED RECORDS.--WSP 1445: 1903-4, 1928(M), 1936(M), 1938(M), 1940(M), 1943(M), 1945(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 589.88 ft (179.796 m) above mean sea level (levels by California Division of Highways). Jan. 1 to June 30, 1901, and May 11, 1903, to Dec. 31, 1904, nonrecording gage at site 3 mi (5 km) upstream at different datum. Nov. 10, 1927, to Aug. 26, 1952, water-stage recorder at site 40 ft (12 m) upstream at present datum.

REMARKS.--Records excellent. Flow regulated by Salt Springs Reservoir (station 11313500) beginning in 1931, several smaller reservoirs, and four powerplants. Diversion above station for irrigation and domestic use. See schematic diagram of Mokelumne River basin.

AVERAGE DISCHARGE.--50 years (water years 1904, 1928-76), 972 ft³/s (27.53 m³/s), 704,200 acre-ft/yr (868 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,700 ft³/s (954 m³/s) Dec. 3, 1950, gage height, 18.5 ft (5.64 m); minimum observed, 5 ft³/s (0.14 m³/s) Aug. 13-15, 17, 18, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,010 ft³/s (56.9 m³/s) Oct. 27, gage height, 5.16 ft (1.573 m); minimum daily, 30 ft³/s (0.85 m³/s) Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	859	669	550	485	148	599	206	52	155	118	259	231
2	936	762	560	590	160	371	302	66	315	227	360	346
3	804	620	637	583	198	481	336	104	325	110	343	328
4	839	795	632	607	152	276	293	103	195	109	350	197
5	875	686	649	616	194	291	229	84	233	103	258	187
6	788	681	637	647	155	221	457	150	286	212	292	128
7	495	607	572	604	265	261	389	178	319	325	165	254
8	618	933	628	627	259	225	377	220	314	128	30	317
9	605	888	591	590	272	196	505	505	352	56	188	334
10	656	718	599	637	57	261	307	418	139	51	305	277
11	794	718	653	575	47	223	354	351	321	191	327	225
12	758	756	676	652	42	246	330	428	243	250	341	207
13	639	754	671	435	58	284	292	440	172	223	251	331
14	613	910	607	422	371	390	332	255	461	319	208	310
15	557	685	672	666	237	283	344	197	204	233	264	420
16	582	581	539	336	207	288	353	135	260	307	368	413
17	653	746	754	444	291	304	287	253	338	340	327	226
18	866	758	551	308	268	301	143	186	318	206	470	238
19	1010	609	577	456	395	312	289	360	221	350	293	180
20	748	717	641	340	322	199	277	418	223	387	348	282
21	716	545	585	453	310	193	318	541	281	353	169	341
22	710	566	642	506	239	244	302	413	292	387	182	338
23	640	710	647	394	174	232	238	427	238	346	340	317
24	697	509	643	352	193	151	154	348	279	258	353	367
25	682	599	584	466	343	95	207	335	303	300	355	75
26	750	579	640	342	307	122	158	360	299	356	297	105
27	1140	653	700	144	249	202	316	315	210	378	335	277
28	632	613	615	146	258	95	204	241	332	380	164	377
29	622	609	584	180	316	131	93	271	220	371	182	307
30	615	645	570	126	---	180	77	391	194	394	278	324
31	760	---	683	173	---	120	---	332	---	388	143	---
TOTAL	22659	20621	19289	13902	6485	7853	8160	8877	8042	8156	8545	8259
MEAN	731	687	622	448	224	253	272	286	268	263	276	275
MAX	1140	933	754	666	395	599	457	541	461	394	470	420
MIN	495	509	539	126	42	95	77	52	139	51	30	75
AC-FT	44940	40900	38260	27570	12860	15580	16190	17610	15950	16180	16950	16380
CAL YR 1975 TOTAL	400079			1096	5620	157		793600				
WTR YR 1976 TOTAL	140848			385	1140	30		279400				

11319500 MOKELUNNE RIVER NEAR MOKELUNNE HILL, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: February 1961 to current year.

INSTRUMENTATION.--Temperature recorder since February 1961.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 25.0°C July 10, 1976; minimum (water years 1962-65, 1967-76), 1.0°C Jan. 31, Feb. 1, 1968.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.0°C July 10; minimum, 3.5°C Jan. 3, 4.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.0	14.5	11.0	9.5	8.5	7.0	5.5	4.5	7.5	4.5	7.5	6.0
2	16.0	15.0	11.0	10.0	8.5	7.5	5.0	4.0	7.0	4.0	6.0	5.5
3	16.0	15.0	11.0	10.0	9.0	8.0	4.5	3.5	7.0	4.5	6.5	5.0
4	16.5	15.0	11.0	10.0	9.0	8.0	4.5	3.5	6.5	5.0	6.5	4.5
5	16.5	15.0	11.0	10.0	9.0	8.5	5.0	4.5	5.5	5.0	7.5	4.5
6	15.5	15.0	11.5	10.5	8.5	8.0	5.5	4.5	6.5	5.0	9.0	4.0
7	16.5	14.5	11.5	10.5	8.5	7.5	5.5	4.0	5.5	5.0	9.5	4.5
8	15.0	14.0	11.5	10.5	8.0	7.5	5.5	4.5	6.0	5.0	9.0	4.5
9	14.5	13.5	10.5	9.5	8.0	7.0	5.0	4.5	6.0	4.5	10.5	5.0
10	14.0	14.0	10.0	9.5	8.0	7.0	5.0	4.5	8.0	4.5	11.0	5.0
11	14.5	13.5	10.0	8.5	7.5	7.0	5.0	4.5	8.5	5.5	11.5	5.5
12	14.0	13.0	9.5	8.0	7.0	6.5	5.0	4.5	8.5	6.0	11.5	6.0
13	13.5	12.5	9.5	8.5	7.0	6.5	5.5	4.5	9.0	6.5	11.5	6.0
14	14.0	12.0	10.0	9.0	6.5	5.5	5.5	4.5	8.0	5.5	11.5	6.5
15	14.0	12.5	10.0	9.5	6.5	6.0	5.5	4.5	8.5	5.5	11.0	6.0
16	15.0	12.5	10.5	10.0	7.0	5.5	6.0	4.5	7.5	5.0	12.0	7.0
17	15.0	13.5	10.5	9.5	6.5	5.5	5.5	4.5	7.5	5.5	10.5	7.0
18	15.0	13.5	10.0	8.5	6.5	5.0	6.5	4.5	7.5	6.0	10.0	7.5
19	15.0	13.5	9.5	8.0	6.0	5.0	5.5	4.5	7.0	5.5	9.0	7.0
20	15.5	14.0	10.0	9.0	6.0	5.0	6.0	4.0	7.5	5.5	12.0	7.0
21	15.5	14.0	9.5	8.0	6.0	5.0	5.5	4.5	7.5	5.0	13.0	7.5
22	15.0	14.0	9.5	7.5	6.5	6.0	5.5	4.5	7.5	4.5	11.0	7.5
23	14.5	13.5	9.5	7.5	7.0	6.0	6.0	4.0	7.5	4.5	13.5	7.5
24	14.0	12.5	9.5	8.0	6.5	5.5	6.0	4.0	8.0	5.0	13.0	7.5
25	13.0	12.5	9.5	8.0	6.0	5.5	5.5	4.0	7.0	5.5	13.5	7.5
26	13.0	12.5	9.5	8.0	6.0	5.5	5.5	4.0	8.0	5.5	12.0	7.5
27	12.5	11.0	9.5	9.0	6.5	6.0	6.0	4.0	11.0	5.0	11.5	8.0
28	11.0	9.5	9.5	8.5	7.0	6.0	6.0	4.0	11.5	6.0	13.5	8.0
29	10.5	9.0	9.0	7.5	7.0	6.0	6.0	4.0	9.5	6.5	14.0	8.0
30	10.5	9.5	8.5	7.5	7.0	6.0	6.5	4.0	---	---	15.0	8.5
31	11.0	10.0	---	---	6.0	5.0	7.5	4.0	---	---	11.5	8.5
MONTH	16.5	9.0	11.5	7.5	9.0	5.0	7.5	3.5	11.5	4.0	15.0	4.0
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.5	8.0	21.0	14.0	22.0	13.0	21.5	14.5	19.5	15.0	22.5	17.0
2	12.5	8.5	21.5	16.0	17.5	13.5	19.0	14.5	18.5	15.0	19.5	17.5
3	11.0	8.5	20.0	14.5	17.0	13.5	22.0	15.0	19.0	15.0	20.5	17.0
4	10.5	8.5	21.5	14.0	20.5	13.0	22.0	15.5	20.0	15.0	23.0	17.0
5	10.0	9.0	21.5	14.5	18.0	13.5	22.5	16.0	20.5	15.0	22.5	17.5
6	10.5	9.0	17.5	14.5	17.0	13.5	23.0	15.5	19.5	14.5	23.5	17.5
7	13.5	8.0	20.0	14.0	17.0	13.0	19.0	15.5	20.5	14.5	21.5	17.0
8	10.5	9.0	20.0	15.0	18.0	13.0	24.0	15.5	22.5	14.0	21.5	17.0
9	14.5	8.0	18.5	16.0	17.0	13.5	24.5	17.0	24.5	15.5	21.5	17.5
10	10.5	9.0	18.0	15.0	19.0	13.0	25.0	18.5	20.0	15.0	19.5	18.5
11	12.0	9.0	20.5	14.0	19.5	13.0	24.0	17.0	19.0	15.5	19.0	18.0
12	10.5	9.0	20.0	14.0	20.5	12.5	23.0	16.5	20.0	15.5	20.5	18.0
13	14.0	8.5	20.0	14.0	21.5	13.0	20.5	17.0	18.5	15.5	21.0	17.5
14	12.5	8.5	23.0	13.5	17.0	13.0	20.5	17.0	16.5	15.5	19.5	17.5
15	11.0	9.0	22.0	13.0	20.5	13.5	21.5	16.5	17.0	15.5	20.0	17.5
16	11.0	8.0	23.0	13.5	18.0	14.0	20.0	16.5	17.0	15.5	19.5	17.5
17	12.5	8.0	21.0	13.0	18.5	14.5	18.5	16.0	16.5	15.0	21.0	17.0
18	16.5	9.5	19.5	14.0	17.5	15.0	21.0	15.5	16.5	15.0	20.5	17.0
19	14.0	10.0	17.5	14.5	20.5	15.0	19.5	16.0	17.5	15.0	21.5	17.0
20	16.5	10.0	16.0	14.0	18.5	14.0	19.0	15.5	18.0	15.0	20.0	16.5
21	16.0	10.5	15.5	13.5	18.5	14.5	18.5	15.0	20.5	15.0	20.5	17.0
22	15.0	11.0	18.0	13.0	18.5	14.5	18.0	15.0	18.0	15.5	19.5	16.5
23	16.0	11.5	16.5	13.0	21.0	14.5	19.0	15.5	18.0	15.0	19.5	16.5
24	18.5	12.0	15.5	13.0	22.0	14.5	23.0	15.5	21.5	16.0	19.5	16.5
25	15.5	12.0	16.0	13.0	21.0	15.0	20.0	15.5	19.5	16.0	21.0	16.5
26	17.0	11.5	19.0	13.5	20.5	14.0	21.0	15.5	21.5	16.0	21.0	16.5
27	16.0	11.5	19.5	14.0	21.5	14.5	20.0	16.0	20.5	16.0	20.0	17.0
28	17.0	12.0	19.0	13.5	20.5	14.5	17.5	16.0	22.0	16.0	19.0	18.0
29	18.5	12.0	16.5	13.5	22.0	14.5	18.5	15.5	23.0	16.5	19.5	17.5
30	20.5	13.0	17.0	14.0	19.5	14.5	18.0	15.5	21.0	16.5	19.0	17.0
31	---	---	17.0	14.0	---	---	16.5	15.5	23.0	16.5	---	---
MONTH	20.5	8.0	23.0	13.0	22.0	12.5	25.0	14.5	24.5	14.0	23.5	16.5

SAN JOAQUIN RIVER BASIN

11320000 PARDEE RESERVOIR NEAR VALLEY SPRINGS, CA

LOCATION.--Lat 38°15'25", long 120°50'59", in NW¼SW¼ sec.26, T.5 N., R.10 E., Amador County, at Pardee Dam on the Mokelumne River, 4.5 mi (7.2 km) north of Valley Springs.

DRAINAGE AREA.--578 mi² (1,497 km²).

PERIOD OF RECORD.--March 1929 to September 1930 (lake elevation only), October 1930 to September 1933, published in reports of the Geological Survey. October 1933 to September 1961 in files of East Bay Municipal Utility District. October 1961 to current year.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by East Bay Municipal Utility District).

REMARKS.--Reservoir is formed by a curved concrete gravity dam, completed in 1929. Storage began Mar. 9, 1929. Usable capacity, 194,100 acre-ft (239 hm³) between elevations 393.50 ft (119.939 m) diversion tunnel invert, and 567.65 ft (173.020 m) spillway crest, above mean sea level. Dead storage, 15,800 acre-ft (19.5 hm³). Water is released from reservoir for municipal use in the area on the east side of San Francisco Bay. Small intermittent diversions are made to Jackson Valley Irrigation District. Records represent total contents at 2400 hours. See schematic diagram of Mokelumne River basin.

COOPERATION.--Records furnished by East Bay Municipal Utility District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 219,300 acre-ft (270 hm³) Dec. 23, 1955, elevation, 571.72 ft (174.260 m); minimum, 49,000 acre-ft (60.4 hm³) Aug. 31, 1931, elevation, 457.6 ft (139.48 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 201,300 acre-ft (248 hm³) Oct. 1, 2, elevation, 563.76 ft (171.834 m); minimum, 106,900 acre-ft (132 hm³) Sept. 27-30, elevation, 510.85 ft (155.707 m).

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

505	98820	540	153800
510	105700	550	172700
515	112900	560	193200
520	120400	570	215300
525	128300	580	239100
530	136500		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	201300	197300	191600	186600	186800	177700	170300	164900	155300	141400	127500	114500
2	201300	197800	191100	186200	186400	177700	170200	164300	154800	140800	127200	114200
3	200700	197900	190700	186700	186000	177900	170300	163600	154400	140100	127000	113800
4	200400	198200	190300	187300	185500	177600	170200	162900	153800	139400	126700	113300
5	200100	198300	189900	186900	185000	177300	170000	162100	153300	138700	126200	112800
6	200000	198300	190200	186500	184400	177000	170100	161600	153000	138000	125700	112200
7	199600	198300	190800	186100	184200	176800	170200	161100	152600	137700	125200	111700
8	199400	198800	190400	185600	184000	176500	170400	160700	152200	137000	124400	111400
9	199300	199300	189900	185200	183700	176400	170100	161000	151900	136000	123700	111100
10	199200	199500	189400	185900	183000	176100	170200	160900	151200	135200	123200	110800
11	199300	199600	189000	186400	182200	175900	170200	160800	150800	134600	122800	110400
12	199400	199800	188700	186300	181400	175600	170200	160700	150300	134100	122500	109900
13	199300	200000	189100	186300	180800	175600	170000	160600	149800	133500	122100	109600
14	199100	200400	189800	186200	180900	175700	170000	160300	149700	133100	121700	109500
15	198800	200000	189500	186700	180600	175600	169900	159900	149100	132600	121400	109600
16	198500	199400	188800	186500	180300	175500	169900	159400	148700	132100	121100	109500
17	198200	199100	188600	186700	180000	175300	169800	158900	148300	131900	120700	108900
18	198000	198500	187900	186700	179800	175200	169500	158400	147900	131400	120700	108500
19	198000	197600	187300	186700	179800	175100	169300	158100	147400	131100	120300	108000
20	197800	196900	187600	186500	179600	174900	169200	158100	146900	130800	120000	107800
21	197700	195900	188100	186500	179500	174700	169100	158200	146400	130600	119500	107700
22	197600	195000	187800	186600	179300	174500	169000	158200	146000	130300	119000	107700
23	197200	194300	187400	186500	178700	174200	168700	158200	145500	130000	118700	107700
24	197100	193100	186900	186700	178200	173700	168500	157900	144900	129600	118300	107800
25	196900	192200	187400	187300	178000	173200	168200	157500	144500	129300	118100	107400
26	197000	191400	186900	187500	177800	172700	167700	157300	144200	128900	117700	107000
27	197800	192200	187300	187400	177500	172500	167500	156900	143700	128700	117400	106900
28	197500	191900	187900	187400	177300	172000	167100	156500	143400	128400	116800	106900
29	197200	191400	187300	187500	177300	171600	166400	156200	142800	128100	116300	106900
30	197100	192200	186600	187400	---	171200	165600	156000	142200	127900	115800	106900
31	197100	---	186300	187200	---	170700	---	155900	---	127800	115100	---
MAX	201300	200400	191600	187500	186800	177900	170400	164900	155300	141400	127500	114500
MIN	196900	191400	186300	185200	177300	170700	165600	155900	142200	127800	115100	106900
†	561.82	559.55	556.73	557.15	552.33	548.97	546.34	541.11	533.37	524.72	516.46	510.82
‡	-4000	-4900	-5900	+900	-9900	-6600	-5100	-9700	-13700	-14400	-12700	-8200
††	462	187	104	143	186	417	539	1122	1262	1208	739	535
†††	18876	15280	16558	16380	19857	18821	17894	23414	25421	26006	25582	20574

CAL YR 1975 † -7500

WTR YR 1976 † -94200

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

†† Evaporation, in acre-feet.

††† Diversion, in acre-feet, from Pardee Reservoir to East Bay Municipal Utility District and to Jackson Valley Irrigation District.

11322300 CAMANCHE RESERVOIR NEAR CLEMENTS, CA

LOCATION.--Lat 38°13'31", long 121°01'17", in NE¼SE¼ sec.6, T.4 N., R.9 E., San Joaquin County, at Camanche Dam on the Mokelumne River, 4.3 mi (6.9 km) northeast of Clements.

DRAINAGE AREA.--621 mi² (1,608 km²).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by East Bay Municipal Utility District).

REMARKS.--Reservoir is formed by earthfill dam. Storage began Dec. 18, 1963. Usable capacity, 430,300 acre-ft (531 hm³) between elevations 104.00 ft (31.699 m) invert of emergency valve release, and 235.50 ft (71.780 m) spillway crest above mean sea level. Dead storage, 534 acre-ft (658,000 m³). Camanche Reservoir provides holdover storage to meet downstream water requirements and flood control on the Mokelumne River. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Mokelumne River basin.

COOPERATION.--Records furnished by East Bay Municipal Utility District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 425,700 acre-ft (525 hm³) July 14, 1967, elevation, 234.82 ft (71.573 m); minimum since initial season of operation, 68,700 acre-ft (84.7 hm³) Sept. 5, 11, 18, 1966, elevation, 164.97 ft (50.283 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 336,300 acre-ft (415 hm³) Oct. 1, elevation, 222.31 ft (67.760 m); minimum, 186,100 acre-ft (229 hm³) Sept. 30, elevation, 196.47 ft (59.884 m).

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

120	4970	170	82600
130	13600	190	156200
140	25000	220	320900
150	38900	235.5	430900
160	57100		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	336300	304400	289500	297000	300600	298000	287000	274800	256100	234800	213900	197300
2	335800	301300	289900	297700	300600	298200	286600	274300	255400	234200	213300	197000
3	335300	298000	290400	297300	300600	298100	286000	273800	254600	233400	212700	196600
4	335000	295300	290900	297100	300600	298000	285400	273200	253900	232600	212100	196000
5	334500	292800	291200	298200	300500	298000	285000	272700	253100	231900	211500	195600
6	334200	291000	291000	299000	300600	297800	284800	272100	252400	231300	211000	195100
7	334300	289800	290400	299900	300400	297700	284400	271600	251700	230700	210400	194700
8	334000	288600	290800	300800	300300	297500	284300	270900	251000	230100	209700	194300
9	332900	287900	291200	301600	300100	297400	284200	270300	250400	229400	209200	194000
10	331700	287100	291700	301400	300100	297300	284000	269700	249700	228700	208600	193600
11	330700	286800	292100	301200	300100	296900	283700	269100	249000	227900	208200	193300
12	329700	286400	292700	301800	299800	296500	283300	268700	248300	227300	207700	192800
13	328600	286100	292400	302900	300000	296100	283100	268200	247600	226700	207100	192400
14	327500	285900	291900	302200	299700	295600	282600	267600	246800	226000	206600	192000
15	326500	285900	292300	302300	299600	295100	282000	266800	246300	225200	206100	191500
16	325500	286000	292800	302500	299400	294800	281500	266100	245600	224700	205700	191100
17	324400	285900	293200	302300	299500	294300	281200	265500	245000	224100	205100	191000
18	323800	286400	293800	302100	299500	293600	280700	264900	244100	223400	204600	190500
19	323600	286700	294300	302300	299400	293100	280400	264300	243300	222700	204200	190000
20	322800	287200	294100	302400	299200	292800	280100	263700	242500	222100	203700	189600
21	321800	287700	293500	302600	297000	292200	279600	263100	241900	221500	203000	189200
22	320700	288200	294000	302700	296900	291800	279200	262400	241200	220800	202500	189000
23	319500	288900	294400	302600	296700	291400	278900	261700	240500	220200	202000	188600
24	318200	289500	295100	302300	296700	290800	278200	261200	239900	219500	201600	188300
25	317100	290100	294500	302000	296600	290400	277800	260600	239300	218800	201000	187700
26	316100	290700	295100	302000	296500	290000	277200	260100	238500	218100	200400	187400
27	315000	289800	295100	301800	296400	289400	276800	259400	237800	217500	199900	187000
28	313700	289600	294900	301600	296200	288800	276400	258800	237000	216900	199300	186700
29	312000	290100	295800	301400	296000	288400	276000	258100	236200	216200	198700	186400
30	309800	289300	296800	301300	---	288000	275600	257300	235500	215500	198200	186100
31	307300	---	297400	301100	---	287400	---	256600	---	214700	197800	---
MAX	336300	304400	297400	302900	300600	298200	287000	274800	256100	234800	213900	197300
MIN	307300	285900	289500	297000	297000	287400	275600	256600	235500	214700	197800	186100
†	217.90	215.06	216.35	216.93	216.45	214.75	212.83	209.63	205.93	202.10	198.83	196.47
‡	-30000	-18000	+8100	+3700	-3100	-10600	-11800	-19000	-21100	-20800	-16900	-11700
††	2361	954	570	716	977	2399	2830	4502	5207	4993	3289	2848

CAL YR 1975 ‡ +10400

WTR YR 1976 ‡ -151200

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

†† Evaporation, in acre-feet.

SAN JOAQUIN RIVER BASIN

11323500 MOKELUMNE RIVER BELOW CAMANCHE DAM, CA

LOCATION.--Lat 38°13'14", long 121°02'19", in NW¼NW¼ sec.7, T.4 N., R.9 E., San Joaquin County, on left bank 0.7 mi (1.1 km) downstream from Murphy Creek, 1.0 mi (1.6 km) downstream from Camanche Dam, and 3.4 mi (5.5 km) northeast of Clements.

DRAINAGE AREA.--627 mi² (1,624 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1904 to current year. Monthly discharge only for some periods, published in WSP 1315-A, and 1735. Prior to October 1961, published as "near Clements."

REVISED RECORDS.--WSP 751: Drainage area. WSP 881: 1905-9 (yearly summaries only). WSP 1445: 1911, 1917(M), 1925(M).

GAGE.--Water-stage recorder. Datum of gage is 82.71 ft (25.210 m) above mean sea level. See WSP 1930 for history of changes prior to Oct. 1, 1961.

REMARKS.--Records good. Flow regulated by Camanche Reservoir (station 11322300) 1 mi (2 km) upstream beginning December 1963, Salt Springs Reservoir (station 11313500) beginning March 1931, Pardee Reservoir (station 11320000) beginning March 1929, several small reservoirs, and four powerplants. East Bay Municipal Utility District aqueducts are the largest of several diversions above the station. Maximum capacity is 511 ft³/s (14.5 m³/s) with Pardee Reservoir full. See schematic diagram of Mokelumne River basin.

COOPERATION.--Eleven discharge measurements furnished by the East Bay Municipal Utility District.

AVERAGE DISCHARGE.--24 years (water years 1905-28), 1,111 ft³/s (31.47 m³/s), 804,300 acre-ft/yr (992 hm³/yr); 48 years (water years 1929-76), 816 ft³/s (23.11 m³/s), 591,200 acre-ft/yr (729 hm³/yr), adjusted for change in contents and evaporation from Camanche Reservoir since 1963. Storage and diversion by East Bay Municipal Utility District began in March 1929.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,800 ft³/s (816 m³/s) Nov. 21, 1950, gage height, 24.40 ft (7.437 m) site and datum then in use; no flow July 9, Aug. 15, 20-23, 1924.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,810 ft³/s (51.3 m³/s) Oct. 30, gage height, 6.47 ft (1.972 m); minimum daily, 69 ft³/s (1.95 m³/s) Jan. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	864	1790	388	150	109	107	247	307	346	332	320	264
2	864	1780	368	132	107	110	237	307	367	319	306	219
3	863	1790	342	119	107	109	237	307	374	320	290	217
4	864	1790	338	119	107	107	234	307	374	320	288	215
5	864	1660	338	96	109	107	235	306	374	320	286	215
6	530	1280	338	69	109	107	232	306	374	320	284	219
7	277	989	338	89	109	107	227	304	373	320	281	219
8	523	866	338	110	109	112	228	303	362	320	281	219
9	872	867	337	100	109	111	226	303	355	320	281	219
10	874	695	338	95	109	109	227	304	344	320	281	219
11	872	567	338	96	109	167	226	303	347	320	281	219
12	871	567	338	96	109	258	226	303	347	320	286	219
13	871	567	338	97	110	256	224	303	347	320	286	219
14	871	567	338	96	110	255	225	303	347	320	286	220
15	871	567	338	96	109	254	227	303	345	320	286	219
16	871	571	338	93	109	255	230	303	345	320	287	219
17	871	567	338	94	109	262	229	303	342	320	290	222
18	871	567	340	91	109	278	229	307	342	320	290	220
19	870	568	339	91	109	282	227	307	342	320	290	219
20	870	521	341	89	107	281	226	307	342	320	290	219
21	876	477	342	89	107	273	226	307	342	320	289	221
22	877	477	343	107	107	272	228	307	342	320	289	218
23	978	477	313	135	107	269	229	307	342	320	287	211
24	1060	477	253	146	106	269	230	307	342	320	286	211
25	1060	477	253	141	102	269	230	307	342	320	286	211
26	1060	477	217	123	102	265	230	307	342	320	290	211
27	1060	477	183	107	102	265	230	307	342	320	291	200
28	1060	433	183	109	102	265	230	307	341	320	291	190
29	1370	383	163	109	104	265	230	306	342	321	290	190
30	1800	385	127	109	---	264	279	306	342	322	290	190
31	1790	---	149	109	---	260	---	303	---	323	290	---
TOTAL	29095	23676	9375	3302	3113	6570	6941	9467	10508	9937	8949	6473
MEAN	939	789	302	107	107	212	231	305	350	321	289	216
MAX	1800	1790	388	150	110	282	279	307	374	332	320	264
MIN	277	383	127	69	102	107	224	303	341	319	281	190
AC-FT	57710	46960	18600	6550	6170	13030	13770	18780	20840	19710	17750	12840
MEAN ‡	489	503	444	178	70	79	81	70	83	63	67	67
AC-FT ‡	30070	29910	27270	10970	4050	4830	4800	4280	4950	3900	4140	3990
CAL YR 1975 TOTAL	282003		MEAN 773	MAX 1910	MIN 74	AC-FT 559400	MEAN ‡ 835	AC-FT ‡ 604700				
WTR YR 1976 TOTAL	127406		MEAN 348	MAX 1800	MIN 69	AC-FT 252700	MEAN ‡ 183	AC-FT ‡ 133200				

‡ Adjusted for change in contents and evaporation from Camanche Reservoir.

11323500 MOKELUMNE RIVER BELOW CAMANCHE DAM, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1906-7, 1956 to current year.

CHEMICAL ANALYSES: Water years 1906-7, 1965-66. Published as "at Clements" in 1906.

WATER TEMPERATURES: Water years 1962-68, 1970 to current year.

SEDIMENT RECORDS.--Water years 1956-70. Prior to 1962 water year published as "near Clements."

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1961 to September 1968, October 1969 to current year.

INSTRUMENTATION.--Temperature recorder October 1961 to September 1968, and since October 1969.

COOPERATION.--Temperature record furnished by East Bay Municipal Utility District and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1962-63, 1965, 1971-76), 22.0°C Aug. 9, 10, 1971; minimum (water years 1962-63, 1966-68, 1971-76), 7.0°C Jan. 22-26, 1962.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 16.0°C Aug. 22, Sept. 30; minimum recorded, 10.5°C Jan. 6.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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

SAN JOAQUIN RIVER BASIN

11323500 MOKELUMNE RIVER BELOW CAMANCHE DAM, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.0	13.5	14.5	14.0	15.0	14.5	15.0	15.0	15.5	15.0	15.5	15.0
2	13.5	13.5	14.5	14.0	15.0	14.5	15.0	15.0	15.5	15.0	15.5	15.0
3	13.5	13.5	14.5	14.0	14.5	14.5	15.0	15.0	15.5	15.0	15.5	15.0
4	13.5	13.5	14.5	14.0	14.5	14.0	15.0	15.0	15.5	15.0	15.5	15.0
5	13.5	13.5	14.5	14.0	14.5	14.5	15.0	14.5	15.5	15.0	15.5	15.0
6	13.5	13.5	14.5	14.0	14.5	14.5	15.0	15.0	15.5	15.0	15.5	15.5
7	14.0	13.5	14.5	14.0	14.5	14.5	15.5	15.0	15.5	15.0	15.5	15.5
8	14.0	14.0	14.5	14.5	14.5	14.5	15.5	15.0	15.5	15.0	15.5	15.5
9	14.0	13.5	14.5	14.5	15.0	14.5	15.5	15.0	15.5	15.0	15.5	15.5
10	14.0	13.5	14.5	14.5	15.0	14.5	15.5	15.0	15.5	15.0	15.5	15.5
11	14.0	13.5	14.5	14.5	15.0	14.5	15.5	15.0	15.5	15.0	15.5	15.0
12	14.0	14.0	14.5	14.5	15.0	14.5	15.5	15.0	15.5	15.0	15.5	15.5
13	14.0	13.5	15.0	14.5	15.0	14.5	15.5	15.0	15.5	15.0	15.5	15.0
14	14.0	13.5	15.0	14.5	15.0	14.5	15.5	15.0	15.5	15.0	15.5	15.5
15	14.0	13.5	15.0	14.5	15.0	14.5	15.5	15.0	15.5	15.0	15.5	15.5
16	14.0	13.5	15.0	14.5	15.0	14.5	15.5	15.0	15.5	15.0	15.5	15.0
17	14.0	13.5	15.0	14.5	15.0	15.0	15.5	15.0	15.5	15.0	16.0	15.0
18	14.0	13.5	14.5	14.5	15.0	15.0	15.5	15.0	15.5	15.0	15.5	15.0
19	14.0	14.0	14.5	14.5	15.0	15.0	15.5	15.0	15.5	15.0	15.5	15.0
20	14.0	14.0	14.5	14.5	15.0	15.0	15.5	15.0	15.5	15.0	15.5	15.0
21	14.5	14.0	15.0	14.5	15.0	15.0	15.5	15.0	15.5	15.0	15.5	15.0
22	14.5	14.0	15.0	14.5	15.0	15.0	15.0	15.0	16.0	15.0	15.5	15.0
23	14.5	14.0	15.0	14.5	15.0	15.0	15.5	15.0	15.5	15.0	15.0	15.0
24	14.5	14.0	15.0	14.5	15.5	15.0	15.5	15.0	15.5	15.0	15.5	15.0
25	14.5	14.0	15.0	14.5	15.5	15.0	15.5	15.0	15.5	15.0	15.5	15.0
26	14.5	14.0	15.0	14.5	15.0	15.0	15.5	15.0	15.5	15.0	15.5	15.0
27	14.0	14.0	15.0	14.5	15.5	15.0	15.5	15.0	15.5	15.0	15.5	15.0
28	14.0	14.0	15.0	14.5	15.0	15.0	15.5	15.0	15.5	15.0	15.5	15.0
29	14.0	14.0	15.0	14.5	15.5	15.0	15.5	15.0	15.5	15.0	15.5	15.0
30	14.5	14.0	15.0	14.5	15.5	15.0	15.5	15.0	15.5	15.0	16.0	15.5
31	---	---	15.0	14.5	---	---	15.5	15.0	15.5	15.0	---	---
MONTH	14.5	13.5	15.0	14.0	15.5	14.0	15.5	14.5	16.0	15.0	16.0	15.0

11325000 WOODBRIDGE CANAL AT WOODBRIDGE, CA

LOCATION.--Lat 38°09'07", long 121°18'00", in NE¼SE¼ sec.34, T.4 N., R.6 E., San Joaquin County, on right bank at Woodbridge, at point of diversion from Woodbridge Reservoir.

PERIOD OF RECORD.--April 1926 to current year.

GAGE.--Water-stage recorder. Datum of gage is 32.18 ft (9.808 m) above mean sea level (levels by East Bay Municipal Utility District). Prior to Mar. 15, 1931, water-stage recorder at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Records good. Discharge computed from records of gate openings and effective head as shown by differential recorder. Canal diverts from Woodbridge Reservoir on Mokelumne River for irrigation south and west of Woodbridge. See schematic diagram of Mokelumne River basin.

AVERAGE DISCHARGE.--50 years, 137 ft³/s (3.880 m³/s), 99,260 acre-ft/yr (122 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 482 ft³/s (13.6 m³/s) July 8, 1953; no flow at times in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129					0	131	172	211	209	199	185
2	129					0	119	173	220	206	204	170
3	131					0	110	192	227	202	202	149
4	121					0	106	197	231	193	198	138
5	119					0	107	193	237	203	196	120
6	119					0	116	195	234	198	192	132
7	113					0	104	186	252	191	186	129
8	113					0	93	182	253	180	180	125
9	121					0	107	199	248	199	180	120
10	99					0	99	201	252	205	176	112
11	86					0	105	202	252	202	172	120
12	85					0	106	200	252	206	169	124
13	84					0	125	199	243	209	165	133
14	73					0	129	187	248	206	162	134
15	85					6.7	125	171	243	203	158	134
16	85					37	128	172	238	201	182	136
17	82					63	124	178	233	200	184	132
18	84					73	115	178	222	205	173	126
19	82					93	120	182	228	216	178	120
20	85					115	127	184	214	214	188	117
21	75					138	128	176	213	212	187	119
22	68					149	122	180	212	208	186	116
23	81					149	119	181	218	210	194	112
24	62					146	115	189	218	206	198	109
25	57					135	103	190	220	197	199	109
26	53					134	109	193	220	201	196	108
27	57					124	120	195	222	200	185	115
28	55					123	120	198	228	196	182	113
29	22					133	123	205	220	197	178	109
30	0				---	135	136	199	211	199	180	100
31	0	---			---	131	---	210	---	198	184	---
TOTAL	2555	0	0	0	0	1884.7	3491	5859	6920	6272	5713	3766
MEAN	82.4	0	0	0	0	60.8	116	189	231	202	184	126
MAX	131	0	0	0	0	149	136	210	253	216	204	185
MIN	0	0	0	0	0	0	93	171	211	180	158	100
AC-FT	5070	0	0	0	0	3740	6920	11620	13730	12440	11330	7470
CAL YR 1975	TOTAL	48635.00	MEAN	133	MAX	351	MIN	0	AC-FT	96470		
WTR YR 1976	TOTAL	36460.70	MEAN	99.6	MAX	253	MIN	0	AC-FT	72320		

SAN JOAQUIN RIVER BASIN

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CA
(National stream-quality accounting network station)

LOCATION.--Lat 38°09'31", long 121°18'09", in NW¼NE¼ sec.34, T.4 N., R.6 E., San Joaquin County, on right bank at Woodbridge, 0.4 mi (0.6 km) downstream from county highway bridge, and 0.5 mi (0.8 km) downstream from dam and canal intake of Woodbridge Irrigation District.

DRAINAGE AREA.--661 mi² (1,712 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1924 to current year (low-water records only 1924-25).

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 14.9 ft (4.54 m) above mean sea level (levels by East Bay Municipal Utility District). See WSP 2130 for history of changes prior to July 26, 1968.

REMARKS.--Records fair. Concerning regulation and diversions see REMARKS for Mokelumne River below Camanche Dam (station 11323500); between Woodbridge and Camanche Dam there are many additional diversions for irrigation, including Woodbridge Canal (station 11325000). Nearest diversion is 0.5 mi (0.8 km) upstream. See schematic diagram of Mokelumne River basin.

AVERAGE DISCHARGE (since start of diversion through East Bay Municipal Utility District aqueduct).--47 years (water years 1929-76), 600 ft³/s (16.99 m³/s), 434,700 acre-ft/yr (536 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,000 ft³/s (765 m³/s) Nov. 22, 1950, gage height, 29.58 ft (9.016 m), from rating curve extended above 6,200 ft³/s (176 m³/s) on basis of contracted-opening measurement of maximum flow; minimum daily, 1.4 ft³/s (0.04 m³/s) Sept. 19, 20, 22, 1927.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,890 ft³/s (53.5 m³/s) Oct. 29, gage height, 14.34 ft (4.371 m); minimum daily, 7.0 ft³/s (0.20 m³/s) May 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	669	1630	361	121	40	64	19	18	11	15	14	16
2	671	1630	361	105	47	70	22	18	11	12	15	14
3	667	1640	322	97	42	72	21	20	12	11	16	9.4
4	660	1680	306	81	38	61	20	20	14	11	15	9.4
5	655	1680	302	65	43	57	20	19	14	12	15	9.4
6	654	1470	301	54	54	56	20	19	14	12	14	9.4
7	267	1180	298	47	55	57	20	18	15	12	14	8.4
8	160	941	297	52	59	59	21	19	15	12	13	7.3
9	453	899	298	64	61	59	21	20	15	12	14	7.3
10	723	882	296	57	56	56	21	21	15	13	19	7.3
11	734	661	293	49	51	47	21	21	14	13	18	7.8
12	708	608	297	47	51	42	21	20	14	13	11	8.1
13	705	594	297	46	52	33	21	20	14	13	11	7.8
14	722	591	298	45	58	18	21	19	15	13	11	7.3
15	715	584	298	44	54	26	21	20	14	13	13	7.3
16	706	583	297	43	60	33	21	20	14	12	12	7.5
17	707	580	296	43	60	25	21	20	13	12	13	7.5
18	709	578	293	44	58	19	20	21	13	12	13	9.0
19	710	577	294	44	59	18	20	15	13	13	14	11
20	707	574	293	42	60	19	21	7.0	13	13	15	13
21	705	495	296	43	58	19	21	7.3	14	13	15	10
22	711	473	305	44	57	17	20	9.3	14	15	16	10
23	723	469	297	52	56	17	20	19	14	15	16	11
24	861	466	240	72	58	16	20	24	14	15	16	11
25	891	462	207	77	59	16	20	15	15	15	17	11
26	908	458	201	77	58	16	15	14	15	15	16	11
27	945	456	157	64	58	16	18	10	15	15	16	11
28	954	452	138	47	58	16	18	9.2	16	14	16	12
29	1320	383	133	39	65	16	18	10	15	14	16	12
30	1520	364	116	39	---	16	18	12	15	14	16	12
31	1630	---	106	40	---	16	---	12	---	14	16	---
TOTAL	23870	24040	8294	1784	1585	1072	601	516.8	420	408	456	295.2
MEAN	770	801	268	57.5	54.7	34.6	20.0	16.7	14.0	13.2	14.7	9.84
MAX	1630	1680	361	121	65	72	22	24	16	15	19	16
MIN	160	364	106	39	38	16	15	7.0	11	11	11	7.3
AC-FT	47350	47680	16450	3540	3140	2130	1190	1030	833	809	904	586
CAL YR 1975 TOTAL	200525.0		MEAN 549	MAX 1680	MIN 33	AC-FT 397700						
WTR YR 1976 TOTAL	63342.0		MEAN 173	MAX 1680	MIN 7.0	AC-FT 125600						

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

CHEMICAL ANALYSES: Water years 1951 to current year.

SPECIFIC CONDUCTANCE: Water years 1952-58, 1975 to current year.

WATER TEMPERATURES: Water years 1951-58, 1961 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1951 to September 1958, October 1974 to current year.

WATER TEMPERATURES: March 1951 to September 1958, November 1960 to current year.

INSTRUMENTATION.--Specific conductance recorder since October 1974; temperature recorder since November 1960.

REMARKS.--Unpublished records of specific conductance of daily samples available in district office.

COOPERATION.--The letter "A" following a date indicates chemical-quality data furnished by California Department of Water Resources. Specific conductance records for the current year furnished by California Department of Water Resources.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 202 micromhos Dec. 15, 1952; minimum daily, 29 micromhos July 9, 1952.

WATER TEMPERATURES: Maximum (water years 1951-54, 1957-58, 1961-76), 28.5°C July 17, 1951; minimum (water years 1952-55, 1957-58, 1962-73, 1974-76), 1.5°C Jan. 29, 30, 1954.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 50 micromhos Sept. 26-30; minimum, 39 micromhos on many days during November and December.

WATER TEMPERATURES: Maximum, 25.5°C June 28; minimum, 5.0°C Jan. 3, 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
OCT											
10...	1300	733	47	7.1	14.5	--	--	--	--	--	--
14...A	1000	712	40	5.7	14.5	10	40	45	15	0	4.6
NOV											
07...	0930	1090	40	7.0	15.5	--	--	--	--	--	--
18...A	0900	578	40	6.4	12.0	--	26	69	--	--	--
DEC											
02...	1500	361	39	7.1	12.5	--	--	--	--	--	--
16...A	0900	297	38	8.2	9.0	--	818	823	--	--	--
JAN											
13...A	0930	E46	44	7.4	6.5	1	82	812	16	0	4.1
13...	1340	46	43	7.2	7.0	--	--	--	--	--	--
FEB											
09...	1345	63	43	7.3	10.5	--	--	--	--	--	--
18...A	1130	58	44	7.5	12.0	--	28	32	--	--	--
MAR											
08...	1400	59	42	7.3	13.0	1	--	--	19	3	4.2
15...A	0930	28	38	7.5	13.0	--	40	64	--	--	--
APR											
01...	1400	23	40	7.2	16.0	--	--	--	--	--	--
13...A	1030	21	37	8.1	15.0	1	815	817	17	0	3.6
MAY											
07...	1245	18	44	7.2	20.0	--	--	--	--	--	--
12...A	1000	21	50	7.5	19.0	--	814	29	--	--	--
20...A	1000	7.0	41	5.6	18.0	--	--	--	--	--	--
JUN											
04...	1300	13	49	7.2	20.5	--	--	--	--	--	--
14...A	0930	14	39	6.3	18.0	--	26	819	--	--	--
JUL											
13...A	1000	13	41	6.9	21.5	2	22	813	13	0	3.8
29...	1420	14	43	7.2	24.0	--	--	--	--	--	--
AUG											
12...A	1030	11	43	7.3	21.0	--	811	811	--	--	--
30...	1500	16	44	7.2	23.0	--	--	--	--	--	--
SEP											
16...A	1000	7.2	48	6.8	19.5	--	20	27	--	--	--
23...	1330	11	48	7.0	21.0	1	--	--	18	0	4.8

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

E Estimated.

SAN JOAQUIN RIVER BASIN

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED MAG- NE- SIUM (MG) (MG/L)	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)
OCT										
10...	--	--	--	--	--	--	--	--	--	--
14...	.9	2.2	23	.2	.7	19	0	16	2.7	1.8
NOV										
07...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--
DEC										
02...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
JAN										
13...	1.4	2.2	22	.2	1.1	19	0	16	3.8	1.1
13...	--	--	--	--	--	--	--	--	--	--
FEB										
09...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--
MAR										
08...	--	2.5	--	--	--	20	0	16	--	2.5
15...	--	--	--	--	--	--	--	--	--	--
APR										
01...	--	--	--	--	--	--	--	--	--	--
13...	1.9	2.0	20	.2	.8	21	0	17	2.3	1.2
MAY										
07...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
JUN										
04...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
JUL										
13...	.8	2.4	27	.3	.8	18	0	15	3.8	1.4
29...	--	--	--	--	--	--	--	--	--	--
AUG										
12...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
SEP										
16...	--	--	--	--	--	--	--	--	--	--
23...	--	1.9	--	--	--	22	0	18	--	2.4

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT										
10...	--	--	--	--	--	--	--	--	--	--
14...	.1	10	36	32	.05	69.2	.12	.15	.27	.10
NOV										
07...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	.01	.13	.14	.02
DEC										
02...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	.01	.22	.23	.00
JAN										
13...	.1	7.5	29	31	.04	3.60	.03	.29	.32	.01
13...	--	--	--	--	--	--	--	--	--	--
FEB										
09...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	.00	.25	.25	.01
MAR										
08...	--	--	31	--	.04	4.94	--	--	--	--
15...	--	--	--	--	--	--	.01	.00	.01	.02
APR										
01...	--	--	--	--	--	--	--	--	--	--
13...	.1	7.8	31	30	.04	1.76	.04	.01	.05	.01
MAY										
07...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	.07	.00	.07	.01
JUN										
04...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	.01	.10	.11	.01
JUL										
13...	.1	8.7	42	31	.06	1.47	.00	.16	.16	.02
29...	--	--	--	--	--	--	--	--	--	--
AUG										
12...	--	--	--	--	--	--	.01	.04	.05	.02
30...	--	--	--	--	--	--	--	--	--	--
SEP										
16...	--	--	--	--	--	--	.01	.36	.37	.01
23...	--	--	22	--	.03	.65	--	--	--	--

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L)	SUS- PENDE ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	SUS- PENDE CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	SUS- PENDE CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	SUS- PENDE COBALT (CO) (UG/L)
OCT 14...	1000	1	0	1	10	9	1	20	20	0	60	59
JAN 13...	0930	0	0	0	<10	<9	1	0	0	0	<50	<50
APR 13...	1030	1	0	1	10	9	1	0	0	0	<50	<48
JUL 13...	1000	1	1	0	0	0	0	20	20	0	0	0

DATE	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS- PENDE COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS- PENDE LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	SUS- PENDE MAN- GANESE (MN) (UG/L)
OCT 14...	1	10	9	1	100	0	<100	<100	0	10	0
JAN 13...	0	10	8	2	130	20	<100	<98	2	10	0
APR 13...	2	10	7	3	190	60	<100	<98	2	20	0
JUL 13...	0	14	10	4	580	50	15	11	4	20	10

DATE	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS- PENDE MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	SUS- PENDE SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS- PENDE ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT 14...	10	.0	.0	.0	0	0	0	30	10	20	1.4
JAN 13...	10	1.1	.0	1.3	0	0	0	50	40	10	1.6
APR 13...	20	2.6	.0	4.1	0	0	0	40	30	10	1.6
JUL 13...	10	.4	.3	.1	0	0	0	80	60	20	.2

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM ..CLASS ..ORDER ...FAMILY ...GENUS....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
OCT 14		CHRYSOPHYTA			
		..BACILLARIOPHYCEAE	DIATOMS		
		...CENTRALES	CENTRIC		
		...COSCINODISCEAE		100	12
		....MELOSIRA			
		...PENNALES	PENNATE		
		...ACHNANTHACEAE		23	3
		...ACHNANTHES		70	8
		...CYMBELLACEAE		70	8
		....CYMBELLA			
		...FRAGILARIACEAE		70	8
		...FRAGILARIA			
		...GOMPHONEMACEAE		12	1
		....GOMPHONEMA			
		...NAVICULACEAE	NAVICULOID	12	1
		...FRUSTULIA		82	9
		...NAVICULA			
		...NITZSCHACEAE		160	19
		#NITZSCHIA			
		CYANOPHYTA	BLUE-GREEN ALGAE		
		..MYXOPHYCEAE			
		...OSCILLATORIALES	FILAMENTOUS		
		...OSCILLATORIA		330	38
		#OSCILLATORIA			

TOTAL PHYTOPLANKTON

860

See footnotes at end of table.

11325500 MOKELUNNE RIVER AT WOODBRIDGE, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM ..CLASS ...ORDER ...FAMILY....GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
NOV 18	0930	CHLOROPHYTA ..CHLOROPHYCEAE ...ZYGNEATALES ...DESMIDIACEAE *STAUHASTRUM	GREEN ALGAE PLACODERM DESMIDS		0
		CHRYSOPHYTA ..BACILLARIOPHYCEAE ...CENTRALES ...COSCINODISCACEAE #MELOSIRA ...PENNALES ...ACHNANTHACEAE #ACHNANTHES ...CYMBELLACEAE ...CYMBELLA ...EUNOTIACEAE ...EUNOTIA ...FRAGILARIACEAE ...ASTERIONELLA ...FRAGILARIA ...NAVICULACEAE ...NAVICULA ...NITZSCHACEAE *NITZSCHIA.....NITZSCHIA	DIATOMS CENTRIC PENNATE NAVICULOID	1,500 680 76 76 380 300 76 230	45 20 2 2 11 9 2 7
		TOTAL PHYTOPLANKTON		3,300	
DEC 16	0900	CHLOROPHYTA ..CHLOROPHYCEAE ...CHLOROCOCCALES ...OOCYSTACEAE *DICTYOSPHAERIUM ...SCENEDESMACEAE....CRUCIGENIA	GREEN ALGAE		0 9
		CHRYSOPHYTA ..BACILLARIOPHYCEAE ...CENTRALES ...COSCINODISCACEAE ...CYCLOTELLA ...MELOSIRA ...PENNALES ...ACHNANTHACEAE #ACHNANTHES ...CYMBELLACEAE #CYMBELLA ...FRAGILARIACEAE ...SYNEDRA ...GOMPHONEMACEAE ...GOMPHONEMA ...NAVICULACEAE ...NAVICULA ...NITZSCHACEAE ...NITZSCHIA	DIATOMS CENTRIC PENNATE NAVICULOID	14 21 69 48 35 14 14 21	4 7 22 15 11 4 4 7
		CYANOPHYTA ..MYXOPHYCEAE ...CHROOCOCCALES ...CHROOCOCCACEAE #ANACYSTIS	BLUE-GREEN ALGAE COCCOID	55	17
		TOTAL PHYTOPLANKTON		320	

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM .CLASS ..ORDER ...FAMILY....GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
JAN 13	0930	CHLOROPHYTA ..CHLOROPHYCEAE ..CHLOROCOCCALES ...OOCYSTACEAE....ANKISTRODESMUS	GREEN ALGAE	6	1
		CHRYSOPHYTA ..BACILLARIOPHYCEAE ..CENTRALES ...COSCINODISCACEAE	DIATOMS CENTRIC		
		#CYCLOTELLA		190	30
		....MELOSIRA		83	13
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		...ACHNANTHES		44	7
		...CYMBELLACEAE			
		...CYMBELLA		44	7
		...EUNOTIACEAE			
		*EUNOTIA			0
		...FRAGILARIACEAE			
		#FRAGILARIA		130	21
		...GOMPHONEMATACEAE			
		...GOMPHONEMA		6	1
		...NAVICULACEAE	NAVICULOID		
		...NAVICULA		6	1
		...PINNULARIA		6	1
		...NITZSCHACEAE			
		#NITZSCHIA		120	18
		...TABELLARIACEAE			
		*TABELLARIA			0
		TOTAL PHYTOPLANKTON		630	
FEB 18	1130	CHLOROPHYTA ..CHLOROPHYCEAE ..CHLOROCOCCALES ...OOCYSTACEAE....ANKISTRODESMUS ...KIRCHNERIELLA ..VOLVOCALES ...VOLVOCAEAE ...EUDORINA ...ZYGNEMATALES ...ZYGNEMATACEAE *MOUGEOTIA	GREEN ALGAE	10 10 87	1 1 5 0
		CHRYSOPHYTA ..BACILLARIOPHYCEAE ..CENTRALES ...COSCINODISCACEAE	DIATOMS CENTRIC		
		#CYCLOTELLA		39	2
		....MELOSIRA		1,100	63
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		...ACHNANTHES		120	6
		...CYMBELLACEAE			
		...CYMBELLA		19	1
		...EUNOTIACEAE			
		...EUNOTIA		10	1
		...FRAGILARIACEAE			
		*ASTERIONELLA			0
		...FRAGILARIA		110	6
		...NAVICULACEAE	NAVICULOID		
		...NAVICULA		39	2
		...NITZSCHACEAE			
		....NITZSCHIA		240	13
		TOTAL PHYTOPLANKTON		1,800	

SAN JOAQUIN RIVER BASIN

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM .CLASS ..ORDER ...FAMILY....GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
MAR 15	1030	CHRYSTOPHYTA			
		..BACILLARIOPHYCEAE	DIATOMS		
		...CENTRALES	CENTRIC		
		...COSCONODISCACEAE		13	2
		....CYCLOTELLA		13	2
		....MELOSIRA			
		...PENNALES	PENNATE		
		....ACHNANTHACEAE			
		#ACHNANTHES		180	34
		...CYMBELLACEAE			
		....CYMBELLA		64	12
		...FRAGILARIACEAE			
		....ASTERIONELLA		13	2
		....SYNEDRA		13	2
		...GOMPHONEMACEAE			
		....GOMPHONEMA		13	2
		...NAVICULACEAE	NAVICULOID		
		#NAVICULA		90	17
		...NITZSCHACEAE			
		#NITZSCHIA		130	24
		...TABELLARIACEAE			
		*TABELLARIA			0
		TOTAL PHYTOPLANKTON		530	
APR 13	1030	CHLOROPHYTA	GREEN ALGAE		
		..CHLOROPHYCEAE			
		...CHLOROCOCCALES			
		...OOCYSTACEAE			
		....ANKISTRODESMUS		29	2
		....SELENASTRUM		15	1
		...TETRASPORALES			
		...PALMELLACEAE			
		#SPHAEROCYSTIS		230	19
		...VOLVOCALES			
		...VOLVOCAEAE			
		....GONIUM		160	13
		CHRYSTOPHYTA			
		..BACILLARIOPHYCEAE	DIATOMS		
		...CENTRALES	CENTRIC		
		...COSCONODISCACEAE			
		....CYCLOTELLA		73	6
		....MELOSIRA		44	3
		...PENNALES	PENNATE		
		....ACHNANTHACEAE			
		....ACHNANTHES		58	5
		...CYMBELLACEAE			
		....CYMBELLA		58	5
		...FRAGILARIACEAE			
		....SYNEDRA		44	3
		...GOMPHONEMACEAE			
		....GOMPHONEMA		15	1
		...NAVICULACEAE	NAVICULOID		
		....NAVICULA		29	2
		...NITZSCHACEAE			
		....NITZSCHIA		130	10
		...TABELLARIACEAE			
		....TABELLARIA		15	1
		..CHRYSTOPHYCEAE	YELLOW-BROWN ALGAE		
		...CHRYSONOMADALES			
		...MALLONADACEAE			
		....MALLONAS		15	1

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM ..CLASS ..ORDER ...FAMILY ...GENUS....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
APR 13 (continued)		CYANOPHYTA ..MYXOPHYCEAE ..CHROOCOCCALES ...CHROOCOCCACEAE	BLUE-GREEN ALGAE COCCOID		
		....ANACYSTIS ..OSCILLATORIALES ...NOSTOCACEAE #ANABAENA	FILAMENTOUS	120 200	9 16
		EUGLENOPHYTA ..EUGLENOPHYCEAE ...EUGLENALES ...EUGLENACEAE....TRACHELOMONAS	EUGLENOIDS	15	1
		TOTAL PHYTOPLANKTON		1,200	
MAY 12	1000	CHLOROPHYTA ..CHLOROPHYCEAE ..CHLOROCOCCALES ...OOCYSTACEAE ...KIRCHNERIELLA ...SCENEDESMACEAE *SCENEDESMUS	GREEN ALGAE	7	4 0
		CHRYSTOPHYTA ..BACILLARIOPHYCEAE ..CENTRALES ...COSCINODISCACEAE #MELOSIRA ...PENNALES ...CYMBELLACEAE....CYMBELLA ...FRAGILARIACEAE ...HANNAEA ...NAVICULACEAE ...NAVICULA ...NITZSCHACEAE #NITZSCHIA ...TABELLARIACEAE #TABELLARIA	DIATOMS CENTRIC PENNATE NAVICULOID	33 20 13 20 53 26	19 12 8 12 31 15
		TOTAL PHYTOPLANKTON		170	

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM CLASS ORDER FAMILY GENUS SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
JUNE 14	0930	CHLOROPHYTA CHLOROPHYCEAE CHLOROCOCCALES COELASTRACEAE COELASTRUM OOCYSTACEAE ANKISTRODESMUS KIRCHNERIELLA SCENEDESMACEAE SCENEDESMUS	GREEN ALGAE	56 7 14 42	10 1 3 8
		CHRYSOPHYTA BACILLARIOPHYCEAE CENTRALES COSCINODISCAEAE CYCLOTELLA # MELOSIRA PENNALES ACHNANTHACEAE ACHNANTHES COCCONEIS CYMBELLACEAE CYMBELLA FRAGILARIACEAE ASTERIONELLA SYNEDRA GOMPHONEMACEAE GOMPHONEMA NAVICULACEAE NAVICULA NITZSCHACEAE # NITZSCHIA	DIATOMS CENTRIC PENNATE NAVICULOID	7 190 28 7 14 42 14 21 98	1 34 5 1 3 8 3 4 18
		TOTAL PHYTOPLANKTON		550	
JULY 13	1000	CHRYSOPHYTA BACILLARIOPHYCEAE CENTRALES COSCINODISCAEAE CYCLOTELLA # MELOSIRA PENNALES ACHNANTHACEAE ACHNANTHES CYMBELLACEAE CYMBELLA DIATOMACEAE DIATOMA FRAGILARIACEAE # FRAGILARIA NAVICULACEAE NAVICULA NITZSCHACEAE NITZSCHIA SURIACEAE SURIELLA	DIATOMS CENTRIC PENNATE NAVICULOID	23 240 15 45 8 98 83 75 8	4 40 3 8 1 16 14 13 1
		PYRRHOPHYTA DINOPHYCEAE PERIDINIALES CERATACEAE CERATIUM	FIRE ALGAE DINOFLAGELLATES	8	1
		TOTAL PHYTOPLANKTON		600	

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM .CLASS ..ORDER ...FAMILY....GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
AUG 12	1030	CHLOROPHYTA .CHLOROPHYCEAE ..CHLOROCOCCALES ...SCENEDESMACEAE....SCENEDESMUS	GREEN ALGAE	18	3
		CHRYSTOPHYTA .BACILLARIOPHYCEAE ..CENTRALES ...COSCINODISCACEAE # ...MELOSIRA ..PENNALES ...ACHNANTHACEAE ...ACHNANTHES ...CYMBELLACEAE ...CYMBELLA ...DIATOMACEAE ...DIATOMA ...FRAGILARIACEAE # ...FRAGILARIA ...SYNEDRA ...NAVICULACEAE ...NAVICULA ...NITZSCHACEAE ...NITZSCHIA ...NITZSCHIA	DIATOMS CENTRIC PENNATE NAVICULOID	120 9 88 9 270 9 35 9 53	19 43 1 6 1 8
		EUGLENOPHYTA .EUGLENOPHYCEAE ..EUGLENALES ...EUGLENACEAE....EUGLENA	EUGLENOIDS	9	1
		TOTAL PHYTOPLANKTON		630	
SEPT 16	1000	CHLOROPHYTA .CHLOROPHYCEAE ..CHLOROCOCCALES ...SCENEDESMACEAE ...CRUCIGENIA ...SCENEDESMUS ...VOLVOCALES ...CHLAMYDOMONADACEAE *CHLAMYDOMONAS	GREEN ALGAE	89 45	1 1
		CHRYSTOPHYTA .BACILLARIOPHYCEAE ..CENTRALES ...COSCINODISCACEAE ...CYCLOTELLA ..PENNALES ...CYMBELLACEAE ...CYMBELLA ...EUNOTIACEAE * ...EUNOTIA ...FRAGILARIACEAE ...FRAGILARIA * ...SYNEDRA ...NITZSCHACEAE * ...NITZSCHIA	DIATOMS CENTRIC PENNATE	220 45 800	3 1 12 0 0

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	TIME	PHYLUM .CLASS ...ORDER ...FAMILY....GENUS.....SPECIES	COMMON NAME	COUNT (CELLS/ML)	PERCENT OF TOTAL
SEPT 16	(continued)	CYANOPHYTA	BLUE-GREEN ALGAE		
		..MYXOPHYCEAE			
		...OSCILLATORIALES	FILAMENTOUS		
		...NOSTOCACEAE			
		....ANABAENA		180	3
		....APHANIZOMENON		490	7
		...OSCILLATORIA			
		#OSCILLATORIA		4,600	70
		PYRRHOPHYTA	FIRE ALGAE		
		..DINOPHYCEAE	DINOFAGELLATES		
		...PERIDINIALES			
		...GLENODINIACEAE			
		*GLENODINIUM			0
		TOTAL PHYTOPLANKTON		6,600	

NOTE: # - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 * - LESS THEN 1% MAY NOT HAVE BEEN ACTUALLY COUNTED

PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m ²)		Chlorophyll a	Chlorophyll b	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight	(mg/m ²)	(mg/m ²)		
Nov 18	35	0.9	0.5	1.8	0.1	220	Polyethylene strip
Mar 15	24	9.8	8.2	3.6	.7	420	Polyethylene strip
May 12	29	9.31	7.08	2.13	.180	1000	Polyethylene strip
Aug 12	25	10.8	8.08	7.58	1.28	360	Polyethylene strip

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	41	39	41	42	45	40	43	44	44	43	44
2	46	41	39	41	42	45	40	44	44	44	43	44
3	46	40	39	41	42	44	40	44	44	44	43	44
4	46	40	39	41	42	44	40	44	44	44	43	44
5	46	40	39	41	42	43	41	44	44	44	43	45
6	46	40	39	---	43	42	41	44	44	44	43	45
7	46	40	39	---	43	42	41	44	44	44	43	45
8	47	40	39	---	43	42	41	44	45	44	43	45
9	48	40	39	---	43	42	41	44	42	44	43	45
10	46	40	40	---	43	42	41	44	42	44	43	46
11	48	41	40	---	43	42	41	44	42	44	44	46
12	47	42	40	---	43	42	41	44	42	44	44	46
13	46	42	40	---	43	42	41	44	42	44	44	46
14	46	41	40	43	43	42	41	44	42	44	44	46
15	46	41	40	43	43	42	41	44	42	44	44	46
16	45	41	40	43	44	41	41	44	42	44	44	46
17	45	41	40	43	44	41	42	44	42	44	44	46
18	45	39	40	42	44	41	42	44	42	44	44	---
19	44	39	40	42	44	41	43	44	42	44	44	---
20	44	39	40	42	44	41	43	44	42	44	44	---
21	44	39	40	42	44	41	43	44	42	44	44	---
22	43	39	40	42	44	41	43	44	42	44	44	---
23	43	39	40	41	44	41	43	44	42	44	44	48
24	42	39	41	41	44	41	43	44	42	44	44	48
25	42	39	41	41	44	41	43	44	42	44	44	49
26	41	39	41	41	44	41	43	44	43	44	44	50
27	41	39	41	41	44	41	43	44	43	43	44	50
28	41	39	41	41	44	40	43	44	43	43	44	50
29	41	39	41	41	44	40	43	44	44	43	44	50
30	41	39	41	41	---	40	43	44	44	43	44	50
31	41	---	41	41	---	40	---	44	---	43	44	---
MONTH	45	40	40	---	43	42	42	44	43	44	44	47

11325500 MOKELUNNE RIVER AT WOODBRIDGE, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	15.5	14.5	15.5	15.0	12.5	11.0	7.0	6.0	11.0	9.5	13.0	12.0
2	16.0	14.5	15.5	15.0	12.5	11.5	6.5	5.5	11.5	9.5	11.5	9.0
3	16.0	14.5	15.5	15.0	12.0	11.5	6.0	5.0	11.5	10.0	9.5	8.0
4	16.0	15.0	15.5	15.0	12.5	11.0	6.0	5.0	11.0	10.0	10.5	8.0
5	16.0	15.0	15.5	15.0	13.5	12.0	6.5	5.5	10.5	9.0	11.5	9.0
6	15.5	15.0	15.5	15.5	13.5	12.5	7.5	6.0	9.0	8.0	12.5	9.5
7	15.5	14.5	15.5	15.0	12.0	11.0	7.5	6.5	8.5	7.5	13.0	11.0
8	15.5	14.0	15.5	15.0	12.0	11.0	7.5	6.5	9.5	8.5	14.0	12.0
9	15.5	14.0	15.5	15.0	11.5	11.0	7.5	7.0	11.5	9.5	14.5	12.0
10	14.5	13.5	15.0	15.0	11.5	11.0	7.0	6.5	12.0	10.5	14.5	12.5
11	15.0	14.0	15.0	15.0	11.5	11.0	7.5	7.0	12.0	10.5	14.5	13.0
12	15.0	14.0	15.0	14.0	11.0	10.5	7.5	7.0	12.0	10.5	14.5	13.0
13	15.0	14.0	15.0	14.0	10.5	10.0	7.0	6.5	12.0	10.5	15.0	13.5
14	15.5	14.5	15.0	14.5	10.0	9.0	8.0	6.5	12.0	11.0	15.5	13.0
15	15.5	14.5	15.0	14.5	10.0	8.5	8.0	7.0	12.0	11.5	15.0	13.0
16	15.5	14.5	15.5	15.0	10.0	9.0	8.5	7.0	11.5	10.5	15.5	13.5
17	15.5	14.5	14.5	12.5	10.0	9.0	8.5	7.5	12.0	10.5	16.5	14.5
18	16.0	14.5	13.0	12.0	10.0	9.0	9.0	8.0	13.0	11.0	15.5	14.0
19	16.0	15.0	13.0	12.0	10.0	9.0	9.0	7.5	13.0	12.0	15.5	13.5
20	16.0	15.0	14.5	13.0	10.0	9.0	9.0	7.5	12.5	11.0	15.5	13.0
21	16.0	15.0	13.5	12.5	10.5	9.0	9.0	7.5	12.5	10.5	15.5	13.0
22	15.5	15.0	13.0	12.0	11.0	10.5	9.0	7.5	12.0	10.5	15.5	13.0
23	14.5	13.5	13.5	12.0	11.0	10.5	9.0	7.5	11.5	10.5	15.5	13.5
24	14.5	13.5	13.5	12.0	10.5	9.5	9.5	8.0	11.5	10.0	16.0	13.5
25	14.5	14.0	13.5	12.0	10.0	9.5	9.5	8.0	12.0	10.5	15.5	13.0
26	14.5	14.5	13.0	12.0	9.5	9.5	9.0	7.5	13.5	11.0	15.0	12.5
27	15.0	14.0	13.0	12.5	10.0	9.5	9.0	7.5	14.5	12.0	15.0	12.5
28	15.0	14.0	12.5	11.5	10.0	9.0	9.0	7.5	15.5	13.5	15.5	12.5
29	15.0	14.5	11.5	11.0	9.5	9.0	9.0	8.0	14.5	13.5	15.5	13.0
30	15.5	15.0	12.0	10.5	9.5	9.0	10.0	8.0	---	---	16.5	13.0
31	15.5	15.0	---	---	8.5	7.0	10.5	9.0	---	---	16.5	14.0
MONTH	16.0	13.5	15.5	10.5	13.5	7.0	10.5	5.0	15.5	7.5	16.5	8.0
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.0	13.5	20.5	17.5	22.0	17.5	23.5	19.5	22.5	19.5	23.5	21.0
2	16.5	13.5	20.5	18.0	22.0	17.5	23.5	19.0	22.5	19.0	23.5	20.5
3	15.5	14.0	21.0	18.0	21.5	18.0	23.5	19.0	21.0	19.0	23.5	20.5
4	14.5	13.0	20.5	17.5	22.0	17.5	24.0	19.5	22.5	19.0	23.5	20.5
5	14.0	13.0	20.5	18.0	21.5	17.5	24.5	20.0	22.5	19.5	23.5	20.5
6	15.5	13.0	19.5	18.0	21.0	17.5	24.5	20.5	21.5	19.0	23.5	21.0
7	15.0	13.0	21.0	17.5	21.0	17.5	24.5	21.0	22.5	19.5	23.5	20.5
8	14.5	13.5	21.0	18.0	20.5	17.5	25.0	21.0	23.0	19.5	23.5	20.5
9	16.5	13.0	21.0	18.0	20.5	17.5	25.0	21.5	23.0	19.5	23.5	20.5
10	15.5	14.0	21.0	18.0	20.5	17.5	25.0	21.5	23.0	20.0	22.0	21.0
11	16.5	13.5	21.0	18.0	20.5	17.0	25.0	21.5	23.5	21.0	21.5	20.5
12	16.0	14.0	22.0	18.5	22.0	17.5	25.0	21.0	23.5	20.5	22.0	19.5
13	16.5	14.0	23.0	19.5	21.5	18.0	25.0	21.0	22.5	20.5	22.0	19.5
14	17.0	14.0	23.0	20.0	22.5	17.5	24.5	21.0	21.5	20.5	21.5	19.0
15	16.5	14.5	23.0	20.0	23.5	19.0	24.5	21.0	20.5	19.5	21.0	18.5
16	16.5	13.5	22.5	20.0	24.0	19.5	24.0	21.0	21.0	18.5	21.5	18.5
17	17.0	13.5	22.5	19.0	24.5	20.0	23.5	20.5	19.0	18.0	---	---
18	18.0	15.5	21.5	18.5	24.0	20.0	24.0	20.5	19.5	18.0	---	---
19	18.5	15.0	21.5	18.0	23.5	20.0	24.0	20.5	20.5	18.5	---	---
20	19.0	16.0	21.5	17.5	23.5	19.5	24.0	20.0	21.5	18.5	---	---
21	20.0	17.0	21.5	17.5	23.0	19.0	24.0	20.5	21.5	19.0	---	---
22	20.0	17.0	21.5	17.5	23.0	19.0	24.0	20.5	21.5	20.0	---	---
23	20.5	17.0	21.5	18.0	23.0	19.0	24.0	21.0	22.5	19.5	---	---
24	21.0	18.0	21.5	18.0	23.5	19.0	24.5	20.5	22.5	20.0	21.0	18.5
25	19.5	17.5	22.0	18.5	24.0	20.5	25.0	21.5	23.0	20.0	20.5	18.5
26	19.0	16.0	22.5	18.5	24.5	20.5	25.0	21.5	22.5	20.0	20.0	18.5
27	19.5	15.5	23.0	19.0	25.0	20.5	25.0	22.0	23.0	20.0	20.5	18.5
28	19.0	16.0	21.5	18.5	25.5	21.0	23.5	22.0	23.0	20.5	20.0	19.0
29	19.0	16.0	21.0	18.0	24.5	21.0	24.0	21.5	23.5	20.5	20.5	18.5
30	20.0	16.5	21.5	18.0	23.5	20.0	23.0	20.5	23.5	20.5	21.0	19.0
31	---	---	21.5	18.0	---	---	22.0	20.0	23.5	20.5	---	---
MONTH	21.0	13.0	23.0	17.5	25.5	17.0	25.0	19.0	23.5	18.0	---	---

SAN JOAQUIN RIVER BASIN

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT 14...	1000	14.5	712	4	7.7	76
NOV 18...	0900	12.0	578	7	11	61
DEC 16...	0900	9.0	297	5	4.0	53
JAN 13...	0930	6.5	E46	4	.50	83
FEB 18...	1130	12.0	58	4	.63	72
MAR 15...	0930	13.0	28	4	.30	86
APR 13...	1030	15.0	21	4	.23	71
MAY 12...	1000	19.0	21	3	.17	84
JUN 14...	0930	18.0	14	4	.15	88
JUL 13...	1000	21.5	13	7	.25	71
AUG 12...	1030	21.0	11	4	.12	90
SEP 16...	1000	19.5	7.2	4	.08	77

E Estimated.

11327000 SUTTER CREEK NEAR SUTTER CREEK, CA

LOCATION.--Lat 38°23'45", long 120°46'49", in SE¼SE¼ sec.5, T.6 N., R.11 E., Amador County, on left bank 1.3 mi (2.1 km) east of town of Sutter Creek.

DRAINAGE AREA.--48.1 mi² (124.6 km²).

PERIOD OF RECORD.--October 1935 to December 1941, March 1960 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,220 ft (372 m), from topographic map. Prior to Oct. 29, 1937, nonrecording gage 15 ft (5 m) downstream at datum 4.00 ft (1.219 m) lower. Oct. 29, 1937, to Dec. 7, 1938, nonrecording gage at present site at datum 4.00 ft (1.219 m) lower.

REMARKS.--Small diversion above station for irrigation.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--22 years, 31.1 ft³/s (0.881 m³/s), 22,530 acre-ft/yr (27.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,770 ft³/s (163 m³/s) Jan. 31, 1963, gage height, 6.27 ft (1.911 m), from rating curve extended above 1,200 ft³/s (34.0 m³/s) on basis of slope-area measurement at gage height 4.77 ft (1.454 m); no flow at times in each year except 1938, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 95 ft³/s (2.69 m³/s) Feb. 29, gage height, 1.52 ft (0.463 m); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.70	6.9	6.6	6.2	5.6	52	6.1	4.0	1.0			
2	.80	5.7	6.2	5.9	5.6	28	5.6	4.1	.90			
3	.90	5.0	6.1	6.1	5.6	23	5.6	3.9	.80			
4	1.0	4.5	6.1	6.1	6.1	22	5.6	3.9	.80			
5	1.0	4.9	6.1	6.1	7.4	19	5.6	3.7	.70			
6	1.4	4.7	5.7	6.1	7.1	16	5.7	4.1	.70			
7	2.2	4.5	5.6	6.1	6.9	15	5.7	4.2	.70			
8	2.8	4.6	5.6	6.1	7.7	13	7.7	3.8	.70			
9	2.8	5.2	5.6	6.8	8.1	12	10	3.4	.80			
10	4.7	14	5.6	7.8	8.6	11	8.2	3.3	.80			
11	11	11	5.4	6.9	7.8	10	13	3.0	.80			
12	5.4	7.4	6.6	6.6	7.2	9.4	10	2.8	.90			
13	3.7	6.7	7.8	6.6	7.4	8.9	11	2.6	.80			
14	3.3	6.3	7.1	6.5	22	8.6	7.9	2.2	.70			
15	3.0	6.1	6.6	6.2	16	8.1	7.6	2.0	.50			
16	3.0	7.9	6.4	6.1	12	7.8	8.1	1.9	.30			
17	2.9	7.7	6.2	6.1	11	7.6	6.5	1.9	.10			
18	2.8	6.4	6.1	6.1	10	7.8	6.5	1.9	0			
19	2.8	6.5	6.0	5.8	23	8.9	6.3	1.8	0			
20	2.8	6.1	5.8	5.6	23	8.3	6.0	1.9	0			
21	2.8	6.1	5.7	5.6	15	7.6	5.8	1.7	0			
22	2.7	5.8	10	5.6	12	7.3	5.6	1.6	0			
23	2.7	5.6	11	5.6	11	7.0	5.6	1.6	0			
24	3.1	5.6	8.3	5.6	10	6.8	5.3	1.5	0			
25	3.4	5.6	7.6	5.4	9.6	6.6	5.1	1.5	0			
26	10	5.6	7.6	5.2	9.0	6.6	4.9	1.3	0			
27	17	6.1	7.1	5.2	8.7	6.6	5.0	1.2	0			
28	7.1	8.3	7.0	5.2	8.4	6.5	4.8	1.1	0			
29	5.2	7.2	6.6	5.4	19	6.3	4.6	1.0	0			
30	11	6.5	6.6	5.6	---	6.1	4.1	1.0	0			
31	12	---	6.6	5.6	---	6.1	---	.90	---			---
TOTAL	136.00	194.5	207.3	185.8	310.8	369.9	199.5	74.80	12.00	0	0	0
MEAN	4.39	6.48	6.69	5.99	10.7	11.9	6.65	2.41	.40	0	0	0
MAX	17	14	11	7.8	23	52	13	4.2	1.0	0	0	0
MIN	.70	4.5	5.4	5.2	5.6	6.1	4.1	.90	0	0	0	0
AC-FT	270	386	411	369	616	734	396	148	24	0	0	0

CAL YR 1975 TOTAL 11918.80 MEAN 32.7 MAX 850 MIN 0 AC-FT 23640
WTR YR 1976 TOTAL 1690.60 MEAN 4.62 MAX 52 MIN 0 AC-FT 3350

SAN JOAQUIN RIVER BASIN

11329500 DRY CREEK NEAR GALT, CA

LOCATION.--Lat 38°14'53", long 121°13'33", in NE¼NE¼ sec.32, T.5 N., R.7 E., San Joaquin County, on left bank of main channel 35 ft (11 m) downstream from county road bridge, 2 mi (3 km) downstream from Coyote Creek, and 4 mi (6 km) east of Galt.

DRAINAGE AREA.--329 mi² (852 km²).

PERIOD OF RECORD.--October 1926 to September 1933, October 1944 to current year. Monthly figures only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 52.83 ft (16.103 m) above mean sea level (levels by East Bay Municipal Utility District). Dec. 4, 1926, to Sept. 30, 1933, at site 4 mi (6 km) downstream at different datum. Oct. 1, 1944, to Sept. 30, 1945, on right bank at datum 3.00 ft (0.914 m) higher. Oct. 1, 1945, to June 15, 1966, on right bank at same datum.

REMARKS.--Records good. Many small diversions above station for irrigation. Total storage of many small reservoirs, 1,000 acre-ft (1.23 hm³) and approximately a total of 500 acres (202 hm²) irrigated.

AVERAGE DISCHARGE.--39 years, 114 ft³/s (3.228 m³/s), 82,590 acre-ft/yr (102 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,000 ft³/s (680 m³/s) Apr. 3, 1958, gage height, 15.28 ft (4.657 m); no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 289 ft³/s (8.18 m³/s) Oct. 11, gage height, 4.59 ft (1.399 m), no peak above base of 2,000 ft³/s (56.6 m³/s); no flow for many months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	4.9			0	.14						
2	3.7	7.0			0	37						
3	4.5	2.3			0	44						
4	3.0	.30			0	34						
5	1.3	.04			0	24						
6	.23	0			0	19						
7	0	0			0	16						
8	0	0			0	11						
9	0	0			0	8.1						
10	0	0			0	5.2						
11	23	0			0	3.0						
12	23	0			0	1.4						
13	10	.16			0	.22						
14	3.6	.02			0	.02						
15	1.8	0			0	0						
16	1.2	0			11	0						
17	1.3	0			11	0						
18	.90	0			7.7	0						
19	.72	0			7.6	0						
20	.02	0			18	0						
21	0	0			21	0						
22	0	0			12	0						
23	0	0			6.9	0						
24	0	0			5.8	0						
25	0	0			3.7	0						
26	0	0			1.8	0						
27	0	0			.94	0						
28	0	0			.21	0						
29	0	0			0	0						
30	2.5	0			---	0						
31	.53	---			---	0	---		---			---
TOTAL	83.00	14.72	0	0	107.65	203.08	0	0	0	0	0	0
MEAN	2.68	.49	0	0	3.71	6.55	0	0	0	0	0	0
MAX	23	7.0	0	0	21	44	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	165	29	0	0	214	403	0	0	0	0	0	0
CAL YR 1975 TOTAL	49414.46		MEAN 135		MAX 3810	MIN 0	AC-FT 98010					
WTR YR 1976 TOTAL	408.45		MEAN 1.1		MAX 44	MIN 0	AC-FT 810					

11333000 CAMP CREEK NEAR SOMERSET, CA

LOCATION.--Lat 38°39'26", long 120°39'46", in SW¼SW¼ sec.4, T.9 N., R.12 E., El Dorado County, on right bank 0.2 mi (0.3 km) upstream from mouth, 1.3 mi (2.1 km) northeast of Somerset, and 5.6 mi (9.0 km) south of Camino.

DRAINAGE AREA.--62.6 mi² (162.1 km²).

PERIOD OF RECORD.--February to May 1924 (published as "near Pleasant Valley"), October 1954 to current year.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,820 ft (555 m), from topographic map. Feb. 1 to May 31, 1924, nonrecording gage at site 0.2 mi (0.3 km) upstream at different datum.

REMARKS.--Records good. Flow partly regulated since January 1955 by Jenkinson Lake, usable capacity, 40,570 acre-ft (50.0 hm³). Water is released from Jenkinson Lake through Camino conduit for irrigation and domestic supply in North Fork Cosumnes and South Fork American River basins. Some water is released from Jenkinson Lake for irrigation downstream from station.

AVERAGE DISCHARGE (adjusted for change in contents, evaporation, and diversion from Jenkinson Lake).--22 years (water years 1955-76), 79.5 ft³/s (2.251 m³/s), 57,600 acre-ft/yr (71.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,040 ft³/s (171 m³/s) Dec. 23, 1964, gage height, 12.50 ft (3.810 m); minimum, 0.5 ft³/s (0.014 m³/s) Aug. 1-3, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 86 ft³/s (2.44 m³/s) Oct. 27, gage height, 2.98 ft (0.908 m); minimum daily, 1.9 ft³/s (0.054 m³/s) June 29 to July 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	8.9	4.7	4.7	3.6	15	4.0	6.6	15	1.9	2.9	3.7
2	6.1	5.6	4.6	4.4	3.6	11	3.8	5.5	15	1.9	2.9	3.5
3	6.1	5.0	4.6	4.7	3.4	9.2	3.8	4.8	15	2.4	3.0	3.5
4	6.0	4.7	4.6	4.6	3.9	8.2	3.8	4.7	15	4.6	3.0	3.4
5	6.0	4.5	4.7	4.7	4.4	7.5	4.0	4.6	16	4.7	3.0	3.4
6	6.6	4.4	4.6	4.9	3.8	7.1	4.1	4.5	17	4.6	3.0	3.3
7	12	4.6	4.5	4.6	3.6	6.7	3.9	4.5	17	3.9	3.0	3.3
8	10	5.8	4.4	4.6	3.9	6.4	6.9	4.2	17	3.6	3.0	3.2
9	9.5	4.9	4.4	5.5	4.8	6.2	7.2	4.2	17	4.0	2.8	3.1
10	17	6.9	4.4	5.5	4.5	5.9	5.9	4.3	16	4.0	2.3	3.2
11	51	6.4	4.4	4.8	4.0	5.7	7.7	4.2	5.1	3.7	2.2	10
12	22	5.4	6.8	4.8	3.7	5.3	7.0	4.0	4.0	3.3	2.1	8.8
13	16	4.9	7.0	4.6	4.0	5.1	6.5	3.8	3.9	3.2	2.1	6.4
14	13	4.6	6.1	4.5	10	4.9	6.5	3.6	3.5	3.2	3.0	5.4
15	12	4.5	5.4	4.4	7.8	4.8	7.3	3.4	2.8	3.4	2.2	4.8
16	11	7.0	5.3	4.4	6.8	4.6	7.4	3.3	2.6	3.2	2.0	4.6
17	11	6.3	5.1	4.3	7.6	4.4	6.3	3.3	2.4	3.2	9.7	4.5
18	10	5.3	5.0	4.2	6.6	5.0	6.7	3.2	2.4	3.2	7.0	4.4
19	10	4.8	4.8	4.2	15	7.0	5.9	3.2	2.3	3.3	6.8	4.4
20	9.7	4.6	4.8	4.0	14	5.8	5.4	3.5	2.2	3.6	7.0	4.2
21	9.3	4.5	4.8	4.0	9.5	5.1	4.9	10	2.3	3.4	6.4	4.1
22	9.0	4.4	13	4.0	7.5	4.7	4.8	10	2.3	3.2	6.1	3.9
23	9.3	4.4	10	4.0	6.5	4.6	4.7	9.8	2.3	3.1	5.6	3.9
24	9.5	4.1	7.5	4.0	6.0	4.5	4.5	9.9	2.2	3.3	5.3	3.8
25	9.5	4.2	6.7	3.9	5.6	5.2	4.3	11	2.1	3.2	5.2	3.7
26	37	4.2	6.3	3.8	5.3	4.7	4.2	16	2.1	2.9	4.8	3.7
27	63	5.1	6.0	3.8	5.1	4.5	4.0	16	2.0	2.9	4.6	3.8
28	29	6.6	5.8	3.8	5.0	4.2	4.1	16	2.0	2.9	4.1	3.8
29	22	5.5	5.6	3.8	8.4	4.2	5.0	15	1.9	2.9	4.0	3.9
30	31	4.9	5.0	3.6	---	4.0	4.1	16	1.9	2.9	3.9	4.1
31	25	---	4.8	3.6	---	3.9	---	15	---	2.9	3.8	---
TOTAL	504.8	157.0	175.7	134.7	177.9	185.4	158.7	228.1	212.3	102.5	164.6	129.8
MEAN	16.3	5.23	5.67	4.35	6.13	5.98	5.29	7.36	7.08	3.31	5.31	4.33
MAX	63	8.9	13	5.5	15	15	7.7	16	17	4.7	22	10
MIN	6.0	4.1	4.4	3.6	3.4	3.9	3.8	3.2	1.9	1.9	2.1	3.1
AC-FT	1000	311	349	267	353	368	315	452	421	203	326	257
‡	-1734	+63	+74	-127	+428	+1175	+627	-2475	-3768	-4618	-2909	-2312
††	81	32	25	37	31	59	92	227	242	254	137	98
†	1885	764	772	772	683	881	1252	3844	4013	4368	2832	2280
MEAN ‡‡	20.0	19.7	19.8	15.4	26.1	40.3	38.5	33.3	15.3	3.37	6.28	5.43
AC-FT ‡‡	1230	1170	1220	949	1500	2480	2290	2050	908	207	386	323

CAL YR 1975 TOTAL 22600.5 MEAN 61.9 MAX 427 MIN 4.1 AC-FT 44830 MEAN ‡‡ 97.4 AC-FT ‡‡ 70520
WTR YR 1976 TOTAL 2331.5 MEAN 6.37 MAX 63 MIN 1.9 AC-FT 4620 MEAN ‡‡ 20.3 AC-FT ‡‡ 14700

‡ Change in contents, in acre-feet, in Jenkinson Lake, furnished by Bureau of Reclamation.

†† Evaporation, in acre-feet, from Jenkinson Lake, furnished by Bureau of Reclamation.

† Diversion, in acre-feet, from Jenkinson Lake, furnished by Bureau of Reclamation.

‡‡ Adjusted for change in contents, evaporation, and diversion from Jenkinson Lake.

11333500 NORTH FORK COSUMNES RIVER NEAR EL DORADO, CA

LOCATION.--Lat 38°35'20", long 120°50'38", in NE¼SW¼ sec.35, T.9 N., R.10 E., El Dorado County, on downstream side of left abutment of county road bridge, 0.8 mi (1.3 km) north of Nashville, 2.6 mi (4.2 km) upstream from mouth, and 6 mi (10 km) south of El Dorado.

DRAINAGE AREA.--205 mi² (531 km²).

PERIOD OF RECORD.--August 1911 to December 1941, October 1948 to current year.

REVISED RECORDS.--WSP 1315-A: 1914(M), 1925(M), 1928(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 840 ft (256 m), from topographic map. Prior to October 1933, nonrecording gage at site 1.5 mi (2.4 km) upstream at different datum. October 1933 to December 1941, water-stage recorder at site 1,000 ft (305 m) upstream at different datum.

REMARKS.--Records good except those for summer months, which are fair. Flow partly regulated since January 1955 by Jenkinson Lake, usable capacity, 40,570 acre-ft (50.0 hm³). Camino conduit above the station diverts water out of the basin. See REMARKS for Camp Creek near Somerset (station 11333000). Numerous small diversions above station for irrigation and domestic use.

AVERAGE DISCHARGE.--58 years, 200 ft³/s (5.664 m³/s), 144,900 acre-ft/yr (179 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft³/s (447 m³/s) Dec. 23, 1955, gage height, 14.8 ft (4.51 m), from rating curve extended above 7,500 ft³/s (212 m³/s) on basis of slope-area measurement of peak flow; no flow for part of 1924, 1926, 1931, 1933-34.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 248 ft³/s (7.02 m³/s) Oct. 27, gage height, 3.47 ft (1.058 m), no peak above base of 1,800 ft³/s (51.0 m³/s); minimum daily, 0.85 ft³/s (0.024 m³/s) July 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	82	38	33	29	146	56	62	30	8.4	3.8	6.8
2	14	66	44	28	29	101	59	64	28	9.7	4.0	6.4
3	13	61	44	34	28	86	53	63	26	11	4.4	5.4
4	13	58	43	36	30	76	53	63	26	11	4.9	5.4
5	13	53	37	36	37	67	53	62	26	7.3	5.1	4.0
6	14	52	38	37	34	62	52	60	25	9.0	5.2	3.8
7	21	52	38	35	33	59	52	59	27	8.6	7.1	4.1
8	29	56	36	33	33	57	62	56	27	7.8	5.7	4.4
9	30	54	37	35	36	58	75	58	27	9.7	5.3	4.3
10	34	52	44	40	40	55	63	63	27	9.3	5.8	4.3
11	97	49	42	35	39	54	75	59	26	6.5	5.0	14
12	76	41	41	36	36	54	76	53	17	4.9	4.5	26
13	53	39	48	34	33	52	70	50	14	5.2	4.5	19
14	46	38	44	32	69	52	69	47	10	5.1	4.8	19
15	41	38	37	32	77	53	69	44	9.1	2.6	14	15
16	39	52	39	31	59	55	80	41	8.7	1.6	33	13
17	38	57	39	30	62	56	69	38	8.3	.85	20	11
18	37	49	38	30	55	59	68	35	8.8	.99	15	9.6
19	36	42	37	30	95	74	70	33	9.2	.98	12	8.5
20	40	40	36	30	115	70	72	31	9.4	2.1	13	8.1
21	34	41	36	31	76	65	74	33	8.4	2.8	13	7.5
22	33	39	48	31	65	62	76	36	8.6	2.3	13	7.2
23	34	37	61	30	57	62	77	34	8.8	2.4	12	7.2
24	38	36	47	30	51	63	76	33	9.7	2.9	10	8.2
25	38	37	43	29	47	66	76	32	9.9	2.9	10	6.2
26	61	36	40	28	44	64	74	34	10	3.1	9.9	6.4
27	193	38	39	30	42	61	68	36	9.9	3.1	8.7	8.3
28	107	45	38	30	42	57	65	34	8.3	2.8	7.0	8.0
29	82	42	37	30	54	55	61	33	9.3	3.2	7.5	8.0
30	89	36	37	29	---	54	63	33	8.2	3.5	6.5	8.6
31	116	---	37	30	---	54	---	32	---	3.5	6.4	---
TOTAL	1522	1418	1263	995	1447	2009	2006	1411	480.6	155.12	281.1	267.7
MEAN	49.1	47.3	40.7	32.1	49.9	64.8	66.9	45.5	16.0	5.00	9.07	8.92
MAX	193	82	61	40	115	146	80	64	30	11	33	26
MIN	13	36	36	28	28	52	52	31	8.2	.85	3.8	3.8
AC-FT	3020	2810	2510	1970	2870	3980	3980	2800	953	308	558	531
CAL YR 1975	TOTAL	80638.00	MEAN	221	MAX	3000	MIN	13	AC-FT	159900		
WTR YR 1976	TOTAL	13255.52	MEAN	36.2	MAX	193	MIN	.85	AC-FT	26290		

11334300 SOUTH FORK COSUMNES RIVER NEAR RIVER PINES, CA

LOCATION.--Lat 38°33'25", long 120°47'32", in SE¼SW¼ sec.8, T.8 N., R.11 E., Amador County, on left bank 2.4 mi (3.9 km) upstream from mouth, and 2.7 mi (4.3 km) west of River Pines.

DRAINAGE AREA.--64.3 mi² (166.5 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 1,220 ft (372 m), from topographic map.

REMARKS.--No storage or known diversion above station.

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by Geological Survey.

AVERAGE DISCHARGE.--19 years, 45.0 ft³/s (1.274 m³/s), 32,600 acre-ft/yr (40.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,540 ft³/s (157 m³/s) Feb. 1, 1963, gage height, 10.90 ft (3.322 m), from rating curve extended above 1,900 ft³/s (53.8 m³/s) on basis of slope-area measurement at gage height 9.90 ft (3.018 m); no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 40 ft³/s (1.13 m³/s) Mar. 1, gage height, 1.36 ft (0.415 m); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.60	12	8.4	7.1	6.1	35	7.6	6.5	1.5			
2	.60	9.9	8.1	6.6	6.0	28	7.6	6.2	1.4			
3	.60	8.5	7.9	7.5	6.0	24	7.1	6.0	1.3			
4	.70	7.8	7.9	7.4	6.7	22	7.1	5.9	1.2			
5	.70	7.4	7.9	7.9	8.4	19	7.6	5.5	1.1			
6	.80	7.3	7.8	7.9	7.8	18	7.6	5.4	1.0			
7	1.9	7.0	7.5	7.6	7.3	17	7.6	5.9	1.0			
8	2.7	8.1	7.3	7.3	7.7	16	8.9	5.3	1.0			
9	2.3	7.7	7.3	8.0	8.8	16	11	4.8	1.0			
10	3.7	10	7.3	9.6	9.2	15	9.9	5.2	1.0			
11	16	12	7.3	8.5	8.8	14	14	4.6	1.1			
12	12	10	8.9	8.1	8.2	13	12	4.2	1.1			
13	6.9	8.9	10	7.9	8.0	13	11	3.8	1.0			
14	5.4	8.2	9.8	7.8	18	12	11	3.5	.80			
15	4.8	8.0	9.0	7.8	18	11	10	3.3	.70			
16	4.5	10	8.5	7.6	16	11	11	3.1	.80			
17	4.4	9.9	8.4	7.6	15	10	9.8	3.1	.30			
18	4.2	8.7	8.1	7.6	14	11	9.8	2.9	.10			
19	4.1	7.7	7.9	7.5	20	13	10	2.8	0			
20	4.0	7.6	7.8	7.2	24	11	9.5	2.9	0			
21	4.0	7.2	7.3	7.0	19	10	9.1	2.7	0			
22	3.8	7.0	12	6.7	17	9.7	8.7	2.5	0			
23	3.5	7.0	16	6.5	15	9.3	8.4	2.2	0			
24	3.5	6.9	13	6.5	13	9.2	7.9	2.3	0			
25	4.0	6.8	11	6.5	13	9.4	7.3	2.2	0			
26	8.6	6.8	10	6.4	12	9.1	7.0	2.2	0			
27	22	7.3	9.5	6.2	11	8.6	7.2	1.9	0			
28	13	9.7	9.2	6.2	11	8.5	6.9	1.6	0			
29	9.5	9.6	8.8	6.2	13	7.8	6.5	1.5	0			
30	13	8.8	8.7	6.2	---	7.6	6.5	1.6	0			
31	17	---	8.4	6.2	---	7.6	---	1.5	---			---
TOTAL	182.80	253.8	277.0	225.1	348.0	425.8	265.6	113.1	17.40	0	0	0
MEAN	5.90	8.46	8.94	7.26	12.0	13.7	8.85	3.65	.58	0	0	0
MAX	22	12	16	9.6	24	35	14	6.5	1.5	0	0	0
MIN	.60	6.8	7.3	6.2	6.0	7.6	6.5	1.5	0	0	0	0
AC-FT	363	503	549	446	690	845	527	224	35	0	0	0
CAL YR 1975 TOTAL	20784.70			MEAN 56.9	MAX 1680	MIN .60	AC-FT 41230					
WTR YR 1976 TOTAL	2108.60			MEAN 5.76	MAX 35	MIN 0	AC-FT 4180					

SAN JOAQUIN RIVER BASIN

11335000 COSUMNES RIVER AT MICHIGAN BAR, CA

LOCATION.--Lat 38°30'01", long 121°02'39", in NW¼SE¼ sec.36, T.8 N., R.8 E., Sacramento County, on downstream side of midstream pier of highway bridge at Michigan Bar, 5.5 mi (8.8 km) southwest of Latrobe, and 12 mi (19 km) downstream from confluence of North and Middle Forks of Cosumnes River.

DRAINAGE AREA.--536 mi² (1,388 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1907 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 331: 1911-12. WSP 1315-A: 1980-9, 1911(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 168.09 ft (51.234 m) above mean sea level. Prior to July 10, 1930, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow partly regulated since January 1955 by Jenkinson Lake, usable capacity, 40,570 acre-ft (50.0 hm³). Camino conduit above the station diverts water out of the basin. See REMARKS for Camp Creek near Somerset (station 11333000). Numerous small diversions above station for irrigation and domestic use.

AVERAGE DISCHARGE.--69 years, 481 ft³/s (13.62 m³/s), 348,500 acre-ft/yr (430 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,000 ft³/s (1,190 m³/s) Dec. 23, 1955, gage height, 14.59 ft (4.447 m); no flow at times in many years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1907 reached a stage of 16.3 ft (4.97 m), discharge unknown.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 434 ft³/s (12.3 m³/s) Oct. 27, gage height, 3.80 ft (1.158 m), no peak above base of 4,000 ft³/s (113 m³/s); minimum daily, 1.7 ft³/s (0.048 m³/s) July 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	157	81	80	58	253	127	144	46	7.2	2.4	8.8
2	21	116	85	68	60	271	126	151	45	7.0	3.1	7.1
3	21	97	91	64	60	236	126	151	42	6.2	3.3	7.1
4	21	87	92	82	60	200	120	144	39	5.8	2.6	6.3
5	20	82	89	97	68	176	120	144	39	6.7	3.9	6.0
6	21	77	84	86	74	159	121	143	39	7.1	4.4	6.1
7	22	74	85	82	72	149	121	143	42	5.5	4.4	5.9
8	35	74	83	77	71	145	132	132	37	7.1	4.8	5.3
9	52	93	80	78	74	141	168	129	37	7.6	6.2	4.2
10	61	97	82	90	81	140	152	137	38	6.3	6.3	4.9
11	134	119	85	88	87	134	170	147	39	5.9	4.9	8.1
12	219	105	87	82	78	135	177	127	33	7.1	4.4	8.8
13	117	92	96	80	77	131	164	117	28	6.3	4.8	37
14	87	87	101	75	108	129	158	109	25	4.8	4.9	31
15	74	86	90	75	168	130	159	101	23	4.8	7.5	24
16	66	114	76	73	137	130	178	95	20	5.9	42	19
17	60	130	83	72	126	133	161	88	18	5.2	85	18
18	59	128	83	72	128	140	154	81	18	4.5	47	16
19	57	105	79	70	140	169	157	72	15	3.9	33	13
20	56	92	76	67	226	168	161	69	14	4.0	27	13
21	59	93	74	65	169	152	167	64	14	3.3	23	13
22	50	90	84	65	147	151	173	63	14	3.9	27	13
23	47	86	132	65	130	149	174	63	13	4.3	26	11
24	48	83	125	65	119	145	171	60	12	3.2	24	11
25	52	81	103	64	109	148	172	57	11	2.8	20	11
26	65	80	97	63	103	155	173	53	9.5	3.3	17	11
27	266	82	92	60	100	145	164	55	8.9	2.9	17	11
28	224	90	89	64	98	134	155	51	8.8	1.7	15	11
29	141	104	87	64	106	128	147	50	7.8	2.4	12	11
30	137	90	86	62	---	123	143	48	7.0	2.9	10	10
31	197	---	84	62	---	124	---	48	---	2.0	9.1	---
TOTAL	2510	2891	2761	2257	3034	4823	4591	3036	743.0	151.6	502.0	362.6
MEAN	81.0	96.4	89.1	72.8	105	156	153	97.9	24.8	4.89	16.2	12.1
MAX	266	157	132	97	226	271	178	151	46	7.6	85	37
MIN	20	74	74	60	58	123	120	48	7.0	1.7	2.4	4.2
AC-FT	4980	5730	5480	4480	6020	9570	9110	6020	1470	301	996	719
CAL YR 1975 TOTAL	185989.0			MEAN 510	MAX 7000	MIN 20	AC-FT 368900					
WTR YR 1976 TOTAL	27662.2			MEAN 75.6	MAX 271	MIN 1.7	AC-FT 54870					

11335000 COSUMNES RIVER AT MICHIGAN BAR, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953 to current year.

CHEMICAL ANALYSES: Water years 1953 to current year.

WATER TEMPERATURES: Water years 1963 to current year.

SEDIMENT RECORDS: Water years 1958-74.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1962 to current year.

SEDIMENT RECORDS: October 1962 to September 1970.

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 (water years 1966-76), 32.0°C July 25-27, 1976; minimum (water years 1964-76), 1.5°C on several days in 1965, 1968, and 1973.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 32.0°C July 25-27; minimum, 2.0°C Jan. 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)
OCT 14...	0845	87	60	7.2	15.0	9.6
NOV 05...	0815	82	61	7.2	11.5	10.6
DEC 04...	1345	92	81	7.3	8.0	12.5
JAN 02...	1340	66	89	7.3	4.0	13.9
FEB 24...	1240	119	107	7.4	9.5	12.0
MAR 24...	0900	148	66	7.4	13.0	11.0
APR 22...	1345	173	62	7.4	18.5	9.8
MAY 28...	1400	51	63	7.1	24.0	10.8
JUN 22...	1330	14	71	8.6	28.0	12.7
JUL 19...	0800	4.3	96	7.4	23.0	7.4
AUG 20...	1100	28	73	8.1	25.5	10.4
SEP 29...	1215	11	90	8.4	--	12.7

DATE	TIME	TURBIDITY (JTU)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED PHOSPHATE-SILICUM (K) (MG/L)
DEC 04...	1345	0	28	0	6.2	--	4.8	--	--	--
MAR 24...	0900	0	27	0	7.1	2.3	3.5	21	.3	.8
JUN 22...	1330	11	30	0	5.7	--	3.6	--	--	--
AUG 20...	1100	0	26	0	5.9	2.8	4.7	27	.4	1.1

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRATE (N) (MG/L)	DISSOLVED BORON (B) (UG/L)
DEC 04...	36	0	30	--	3.0	57	.08	14.2	--	--
MAR 24...	34	0	28	3.3	1.5	55	.07	--	.02	0
JUN 22...	39	0	32	--	1.5	61	.08	2.31	--	--
AUG 20...	36	0	30	3.6	2.8	63	.09	4.76	.02	0

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	22.5	17.5	11.5	10.5	7.5	5.5	6.0	4.0	10.0	8.0	11.5	9.5
2	22.5	17.5	12.0	10.5	8.0	6.0	5.0	3.0	9.5	7.5	10.0	7.5
3	22.5	17.5	13.0	10.5	8.0	6.0	4.0	3.0	9.5	7.5	8.5	7.0
4	23.0	18.0	13.5	11.0	8.0	6.5	3.5	2.0	9.5	8.0	8.5	6.5
5	22.5	18.0	13.0	11.5	9.0	7.5	4.0	3.0	8.5	7.5	9.0	7.0
6	20.5	17.5	14.0	12.5	9.0	7.0	5.0	3.5	8.0	6.5	10.0	8.0
7	21.5	16.0	13.5	12.5	9.0	6.5	5.0	3.5	7.5	6.5	10.5	8.5
8	20.0	15.0	14.5	12.0	9.0	6.5	5.5	3.5	8.0	7.0	11.0	9.0
9	18.0	15.0	12.5	10.0	9.0	7.5	5.0	4.5	8.5	7.0	11.5	9.0
10	17.0	15.5	13.0	11.0	8.5	7.0	5.0	4.0	8.5	7.0	11.5	10.0
11	17.0	15.5	11.0	9.5	8.0	7.5	5.0	4.0	9.0	6.5	12.5	10.0
12	16.0	15.0	10.5	8.5	8.0	7.0	5.5	4.5	9.5	6.5	12.5	10.5
13	15.5	14.0	10.5	8.5	7.5	6.5	6.5	4.5	9.0	7.0	13.0	10.5
14	16.0	13.5	10.5	9.0	7.0	5.0	6.5	4.5	9.5	8.0	13.5	10.5
15	16.5	14.0	11.0	9.5	6.5	4.5	6.5	4.5	9.0	7.5	13.0	11.0
16	17.0	14.5	11.5	10.0	6.0	4.0	7.5	5.0	7.5	7.0	14.5	11.5
17	17.5	15.0	10.5	8.5	5.5	3.5	7.0	5.5	9.0	7.0	15.5	13.0
18	18.0	16.0	9.0	7.0	5.5	3.5	7.5	5.5	10.5	8.0	15.0	13.5
19	18.0	15.5	8.0	6.5	5.5	3.5	7.0	5.0	10.5	9.0	14.0	12.0
20	18.0	15.5	8.5	7.0	5.5	3.0	7.0	5.0	9.0	7.5	13.0	11.0
21	18.0	16.0	8.5	7.0	5.0	3.5	7.0	5.0	8.5	6.5	14.0	11.5
22	18.0	14.0	8.0	6.5	7.0	4.5	7.0	5.0	8.5	7.0	14.0	12.0
23	16.5	13.0	8.0	6.0	7.0	5.5	6.5	5.0	8.0	7.0	14.5	13.0
24	15.5	11.5	8.0	6.0	6.5	5.5	7.5	5.5	8.0	6.0	14.0	12.0
25	14.0	11.5	8.0	6.0	6.5	5.0	7.5	5.5	8.5	7.0	13.5	11.5
26	13.5	12.5	8.0	6.5	6.5	5.0	7.0	5.5	10.0	7.0	13.0	11.5
27	12.5	11.5	8.0	7.5	7.5	6.0	7.5	6.0	11.0	8.0	13.0	11.0
28	11.5	10.0	8.5	6.5	7.5	6.0	7.5	6.0	12.5	9.5	14.0	11.0
29	11.5	10.0	7.0	5.5	7.5	6.0	7.5	6.5	12.0	10.0	14.5	12.0
30	12.0	11.0	7.5	5.5	7.5	6.0	8.5	7.0	---	---	15.5	12.5
31	11.5	10.0	---	---	7.0	5.0	9.0	7.5	---	---	14.5	13.0
MONTH	23.0	10.0	14.5	5.5	9.0	3.0	9.0	2.0	12.5	6.0	15.5	6.5
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.0	11.5	20.5	17.5	24.0	20.0	28.0	21.0	---	---	28.5	22.5
2	14.5	11.5	20.5	18.5	24.0	20.5	28.5	21.5	---	---	28.5	22.5
3	13.5	12.0	20.5	18.0	24.0	19.5	29.0	21.5	---	---	28.0	23.0
4	13.0	11.5	20.5	18.0	24.5	19.5	29.5	21.5	---	---	27.5	22.0
5	12.0	11.0	21.0	18.5	23.5	19.5	30.0	23.0	27.0	21.0	26.0	22.5
6	13.5	11.0	21.0	18.5	23.5	19.0	30.5	22.5	26.5	21.0	27.0	22.0
7	15.0	12.5	21.5	18.5	23.5	19.5	30.0	23.5	28.0	20.5	27.5	21.5
8	15.0	13.5	22.0	19.5	23.0	19.0	30.5	23.5	28.0	21.5	28.0	21.5
9	15.0	12.0	22.0	19.5	23.5	19.5	31.0	25.0	28.5	22.0	27.5	21.5
10	14.0	12.0	22.0	20.0	24.0	20.0	31.0	24.0	28.5	23.0	24.0	22.5
11	14.0	12.0	22.5	19.5	24.0	19.0	30.0	24.0	29.5	22.5	23.0	21.0
12	15.0	13.0	23.5	20.0	25.0	19.0	30.5	23.5	29.0	22.5	25.0	20.5
13	16.0	13.0	24.5	21.0	25.0	20.5	31.0	24.0	26.5	22.5	24.5	20.5
14	16.5	13.5	24.5	21.5	26.0	20.0	31.0	24.0	23.5	21.5	24.5	21.0
15	16.0	14.0	24.5	21.0	26.5	21.5	30.5	24.0	23.5	20.5	23.5	20.0
16	14.5	12.5	24.0	21.0	27.0	22.0	30.0	24.5	25.0	20.0	23.0	20.0
17	15.0	12.0	23.5	20.0	28.0	22.5	29.5	23.0	22.0	20.0	24.0	20.0
18	17.0	14.0	22.5	19.5	28.5	23.0	30.5	23.0	22.0	20.0	24.5	19.5
19	18.0	14.5	22.5	19.0	28.0	22.5	30.5	23.0	24.5	20.0	24.5	20.0
20	19.0	16.0	22.5	19.5	27.5	22.5	30.5	23.0	26.0	21.0	23.5	19.5
21	19.0	16.5	22.5	20.0	27.0	21.5	30.5	23.0	27.0	21.5	24.0	19.5
22	19.0	17.0	23.0	20.0	27.0	21.0	31.0	23.0	26.0	22.5	23.5	19.0
23	19.5	16.5	22.5	19.5	27.5	22.0	30.5	25.0	27.0	21.5	23.5	18.5
24	20.0	17.5	22.5	19.5	28.0	21.5	31.0	24.0	28.0	22.0	23.5	19.0
25	19.0	17.0	23.5	20.5	28.5	23.0	32.0	25.0	27.5	22.5	23.0	19.0
26	17.5	15.5	24.5	21.0	29.0	22.5	32.0	25.0	27.0	22.0	23.0	19.0
27	17.5	14.5	24.5	22.0	30.0	23.0	32.0	25.0	27.0	22.0	22.5	19.0
28	17.5	15.5	24.0	21.5	30.5	24.0	28.5	25.5	27.5	22.0	22.5	20.0
29	18.5	15.5	23.0	20.0	28.0	23.0	29.5	24.0	28.0	22.0	22.0	19.5
30	19.5	16.5	23.5	20.0	27.5	21.5	27.5	23.0	28.5	22.5	22.5	19.5
31	---	---	24.0	20.5	---	---	25.0	22.5	29.0	22.5	---	---
MONTH	20.0	11.0	24.5	17.5	30.5	19.0	32.0	21.0	29.5	20.0	28.5	18.5

11335700 DEER CREEK NEAR SLOUGHHOUSE, CA

LOCATION.--Lat 38°33'06", long 121°06'30", in NW¼NW¼ sec.16, T.8 N., R.8 E., Sacramento County, on right bank 0.2 mi (0.3 km) upstream from Scott Road, 0.4 mi (0.6 km) upstream from Little Deer Creek, and 5.9 mi (9.5 km) northeast of Sloughhouse.

DRAINAGE AREA.--46.0 mi² (119.1 km²).

PERIOD OF RECORD.--November 1959 to September 1966, October 1967 to current year.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 160 ft (49 m), from topographic map.

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.--15 years, 26.8 ft³/s (0.759 m³/s), 19,420 acre-ft/yr (23.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,560 ft³/s (186 m³/s) Oct. 13, 1962, gage height, 12.86 ft (3.920 m) from floodmarks, from rating curve extended above 2,200 ft³/s (62.3 m³/s); no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 47 ft³/s (1.33 m³/s) Mar. 3, gage height, 6.42 ft (1.957 m); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	6.0	2.4	3.0	2.6	18	2.5	.60				
2	0	4.1	2.4	2.6	2.6	19	2.5	.60				
3	0	3.8	2.4	2.3	2.6	41	2.4	.50				
4	0	2.9	2.3	2.6	2.6	28	2.4	.50				
5	0	2.0	2.6	2.6	3.0	16	2.6	.30				
6	0	1.4	2.3	2.6	3.0	11	2.7	.20				
7	0	1.8	2.5	2.5	3.0	8.3	2.5	.20				
8	0	2.0	2.5	2.6	3.0	7.0	5.3	.20				
9	0	1.8	2.6	2.9	3.4	6.0	18	.10				
10	0	2.4	2.6	3.6	3.0	5.7	10	0				
11	0	3.2	2.6	4.5	2.6	5.0	16	0				
12	0	3.4	3.1	3.8	2.6	4.6	12	0				
13	0	2.6	4.1	3.5	2.8	4.1	6.8	0				
14	0	2.2	4.7	3.6	7.8	3.8	5.3	0				
15	0	2.3	3.6	3.4	13	3.4	4.3	0				
16	0	15	3.4	3.2	7.8	3.4	4.2	0				
17	.20	20	3.0	3.2	8.2	3.3	3.1	0				
18	4.2	8.3	3.0	3.2	8.2	3.4	2.8	0				
19	5.6	5.4	3.0	3.2	13	3.5	2.6	0				
20	6.3	4.4	2.7	3.0	21	4.0	2.4	0				
21	7.1	3.5	2.7	3.0	10	3.3	2.0	0				
22	7.0	3.0	4.0	3.0	7.1	3.0	1.8	0				
23	7.0	2.6	9.0	3.2	6.2	3.1	1.7	0				
24	7.1	2.6	5.9	3.0	5.3	3.0	1.5	0				
25	6.6	2.6	4.5	2.9	4.7	2.8	1.5	0				
26	14	2.4	3.8	2.9	4.2	2.6	1.2	0				
27	20	2.7	3.6	2.8	3.9	2.6	1.0	0				
28	6.4	2.6	3.4	2.7	3.8	2.8	1.0	0				
29	4.3	3.0	3.2	2.3	5.0	2.8	.80	0				
30	7.8	2.7	3.0	2.4	---	2.7	.70	0				
31	16	---	3.0	2.6	---	2.7	---	0	---			---
TOTAL	119.60	122.7	103.9	92.7	166.0	229.9	123.60	3.20	0	0	0	0
MEAN	3.86	4.09	3.35	2.99	5.72	7.42	4.12	.10	0	0	0	0
MAX	20	20	9.0	4.5	21	41	18	.60	0	0	0	0
MIN	0	1.4	2.3	2.3	2.6	2.6	.70	0	0	0	0	0
AC-FT	237	243	206	184	329	456	245	6.3	0	0	0	0
CAL YR 1975	TOTAL	8129.70	MEAN	22.3	MAX	776	MIN	0	AC-FT	16130		
WTR YR 1976	TOTAL	961.60	MEAN	2.63	MAX	41	MIN	0	AC-FT	1910		

11336000 COSUMNES RIVER AT McCONNELL, CA

LOCATION.--Lat 38°21'29", long 121°20'34", in NE¼NE¼ sec.20, T.6 N., R.6 E., Sacramento County, on downstream side of bridge on U.S. Highway 99, 0.2 mi (0.3 km) south of McConnell, 1 mi (2 km) downstream from Deer Creek, and 7 mi (11 km) north of Galt.

DRAINAGE AREA.--724 mi² (1,875 km²).

PERIOD OF RECORD.--October 1941 to current year. Monthly figures only for some periods, published in WSP 1315-A. Gage heights only during high-water periods 1931-40, in reports of California Department of Water Resources.

REVISED RECORDS.--WSP 1315-A: 1947(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3.34 ft (1.018 m) below mean sea level.

REMARKS.--Records good except those for the summer months, which are poor. Diversions for irrigation of about 2,100 acres (8.50 km²) between stations at Michigan Bar and at McConnell.

AVERAGE DISCHARGE.--35 years, 539 ft³/s (15.26 m³/s), 390,500 acre-ft/yr (481 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (water years 1944-76).--Maximum discharge, 54,000 ft³/s (1,530 m³/s) Dec. 23, 1955, gage height, 46.26 ft (14.100 m), from rating curve extended above 36,000 ft³/s (1,020 m³/s); no flow for parts of each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 23, 24, 1936, reached a stage of 45.94 ft (14.003 m), discharge unknown.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 375 ft³/s (10.6 m³/s) Oct. 28, gage height, 32.54 ft (9.918 m), no peak above base of 3,600 ft³/s (102 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.29	204	54	59	31	83	56	82	0	.21	.09	0
2	.21	144	51	55	.29	254	71	92	0	0	0	0
3	.04	108	55	43	27	244	88	105	0	0	0	0
4	0	88	60	45	15	185	79	99	0	0	0	0
5	0	63	59	51	16	156	71	98	0	0	.02	.17
6	0	54	53	58	26	134	68	94	.53	0	.61	.10
7	0	49	52	59	21	118	65	82	.54	.03	2.7	.11
8	0	47	53	55	20	105	87	76	1.0	0	2.7	.02
9	0	49	51	51	21	100	100	73	2.1	.08	2.7	0
10	22	67	50	54	17	96	126	77	2.0	1.5	.45	0
11	42	70	53	64	21	89	121	76	2.3	1.4	0	0
12	204	89	55	57	27	84	138	54	2.7	.28	0	0
13	159	69	58	54	22	85	134	53	2.7	0	1.9	0
14	97	58	73	49	36	79	125	48	2.7	0	2.7	0
15	65	54	69	46	80	76	123	39	.51	0	2.7	0
16	51	60	57	46	121	73	123	28	1.1	1.2	2.7	0
17	42	88	52	44	107	71	144	18	0	.70	.02	0
18	35	103	55	46	96	74	118	14	.29	.02	.14	.15
19	34	85	55	44	95	70	104	2.5	2.7	.03	1.3	.35
20	31	66	53	43	138	106	104	.04	2.7	0	2.7	.28
21	29	59	51	41	172	101	105	0	.75	0	.98	.16
22	29	59	52	39	120	87	109	0	2.7	.12	0	.01
23	21	56	70	36	100	88	114	0	2.7	.47	0	0
24	17	53	120	34	87	88	120	0	2.7	1.3	0	0
25	20	50	88	34	74	92	117	0	1.8	2.7	0	0
26	31	49	74	34	56	93	118	0	2.7	2.7	0	0
27	50	50	67	33	52	86	127	0	2.1	0	0	0
28	303	52	63	31	51	75	115	0	2.7	0	0	0
29	179	65	59	32	54	68	106	0	.04	.33	0	0
30	151	67	58	31	---	61	88	0	.09	2.0	0	0
31	156	---	59	30	---	51	---	0	---	2.7	0	---
TOTAL	1768.54	2175	1879	1398	1732	3172	3164	1210.54	42.15	17.77	24.41	1.35
MEAN	57.0	72.5	60.6	45.1	59.7	102	105	39.0	1.41	.57	.79	.045
MAX	303	204	120	64	172	254	144	105	2.7	2.7	2.7	.35
MIN	0	47	50	30	15	51	56	0	0	0	0	0
AC-FT	3510	4310	3730	2770	3440	6290	6280	2400	84	35	48	2.7
CAL YR 1975	TOTAL	183926.83	MEAN	504	MAX	6340	MIN	0	AC-FT	364800		
WTR YR 1976	TOTAL	16584.76	MEAN	45.3	MAX	303	MIN	0	AC-FT	32900		

11336580 MORRISON CREEK NEAR SACRAMENTO, CA

LOCATION.--Lat 38°29'55", long 121°27'06", in SW¼SE¼ sec.32, T.8 N., R.5 E., Sacramento County, on right bank 750 ft (229 m) upstream from Florin Road, 1.6 mi (2.6 km) upstream from Elder Creek, and 3.8 mi (6.1 km) south of State Capitol Building in Sacramento.

DRAINAGE AREA.--53.4 mi² (138.3 km²).

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

REVISED RECORDS.--WDR CA-72-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7.60 ft (2.316 m) above mean sea level. Prior to June 29, 1960, at site 650 ft (198 m) downstream at datum 1.55 ft (0.472 m) higher. June 29, 1960, to Sept. 12, 1965, at site 475 ft (144.8 m) upstream at datum 2.71 ft (0.826 m) higher.

REMARKS.--Records fair. No regulation or diversion above station. Summer flow is sustained by waste water from domestic and industrial use.

AVERAGE DISCHARGE.--17 years, 18.0 ft³/s (0.510 m³/s), 13,040 acre-ft/yr (16.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,610 ft³/s (45.6 m³/s) Jan. 26, 1969, gage height, 8.53 ft (2.600 m); no flow at times in 1960, 1962, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 307 ft³/s (8.69 m³/s) Aug. 15 (0600 hrs), gage height, 3.35 ft (1.021 m), no other peak above base of 300 ft³/s (8.50 m³/s); minimum daily, 1.1 ft³/s (0.031 m³/s) Jan. 1, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	13	2.8	1.1	2.1	13	5.2	3.8	5.0	6.0	7.2	5.0
2	5.3	1.8	2.7	1.9	4.0	69	5.7	2.6	6.1	6.3	15	5.2
3	4.5	1.3	5.0	1.4	5.0	35	3.6	4.9	5.6	2.7	19	5.0
4	3.0	1.5	7.2	1.1	4.8	9.0	2.2	5.3	6.2	1.7	17	4.8
5	2.4	1.9	11	3.4	8.9	7.6	4.8	5.1	3.5	2.3	18	4.7
6	4.6	2.5	2.6	4.4	6.3	3.9	6.0	5.3	2.9	6.6	15	4.5
7	5.7	2.0	2.8	4.2	2.6	2.6	7.6	5.7	4.7	8.8	5.3	4.8
8	5.9	4.1	3.0	4.4	2.9	5.3	95	3.1	5.5	9.1	5.0	4.7
9	42	5.4	3.0	26	4.3	5.9	13	2.0	5.3	9.4	7.6	4.9
10	33	2.2	5.0	3.9	4.8	5.5	48	4.2	5.8	5.5	8.5	5.6
11	11	1.4	7.0	2.2	4.7	5.2	12	5.2	5.4	5.1	7.2	50
12	5.4	1.6	3.5	3.3	5.0	5.5	8.1	6.1	3.1	11	6.6	11
13	2.8	2.7	2.3	3.9	23	4.0	6.8	6.5	2.3	15	5.3	9.4
14	4.5	8.5	2.9	4.3	11	3.3	5.9	6.0	4.2	14	2.6	9.0
15	5.0	7.2	2.2	4.5	7.2	5.4	5.3	3.6	5.5	14	57	8.7
16	5.0	5.5	1.7	4.7	19	6.2	3.6	2.7	5.1	13	11	8.4
17	4.6	6.2	1.6	2.3	6.0	6.0	3.1	5.1	5.4	7.3	6.5	8.0
18	4.3	6.2	1.4	1.6	4.7	5.9	2.4	5.7	4.8	5.2	4.5	7.4
19	4.6	5.9	1.4	4.0	6.5	5.3	4.5	5.9	4.5	10	4.4	6.6
20	4.7	6.1	5.1	5.1	5.3	4.4	5.1	5.7	4.6	17	4.6	5.7
21	4.1	5.6	6.4	5.2	4.2	2.7	5.4	6.5	4.9	18	4.4	5.7
22	4.3	3.4	8.2	4.7	1.6	4.9	5.3	4.5	5.3	21	4.3	5.6
23	5.3	2.0	2.4	4.5	3.8	5.9	5.6	3.2	5.6	20	4.1	5.2
24	8.3	4.9	1.4	2.6	4.9	6.0	5.6	5.1	5.4	12	4.4	5.5
25	51	5.4	1.3	1.9	4.7	6.0	3.1	6.0	5.0	9.3	4.6	5.8
26	35	4.8	1.4	3.5	4.1	5.6	4.7	6.7	3.3	20	4.6	6.1
27	5.4	2.4	1.5	4.7	4.3	3.8	5.5	6.9	2.8	26	4.8	7.2
28	9.0	2.2	1.6	4.9	2.2	2.5	5.7	6.6	6.3	26	4.7	12
29	27	1.7	1.7	4.8	68	4.6	6.0	4.1	7.3	26	4.7	8.4
30	59	1.8	1.5	4.6	---	4.9	6.1	2.7	6.6	24	4.8	5.5
31	30	---	1.4	2.3	---	5.1	---	2.7	---	12	4.9	---
TOTAL	401.8	121.2	103.0	131.4	235.9	260.0	300.9	149.5	148.0	384.3	277.6	240.4
MEAN	13.0	4.04	3.32	4.24	8.13	8.39	10.0	4.82	4.93	12.4	8.95	8.01
MAX	59	13	11	26	68	69	95	6.9	7.3	26	57	50
MIN	2.4	1.3	1.3	1.1	1.6	2.5	2.2	2.0	2.3	1.7	2.6	4.5
AC-FT	797	240	204	261	468	516	597	297	294	762	551	477
CAL YR 1975	TOTAL	5444.4	MEAN 14.9	MAX 523	MIN 1.2	AC-FT 10800						
WTR YR 1976	TOTAL	2754.0	MEAN 7.52	MAX 95	MIN 1.1	AC-FT 5460						

SAN JOAQUIN RIVER BASIN

11337000 CONTRA COSTA CANAL NEAR OAKLEY, CA

LOCATION.--Lat 37°59'44", long 121°42'03", in NW¼NE¼ sec.25, T.2 N., R.2 E., Contra Costa County, at pumping plant No. 1, 0.7 mi (1.1 km) east of Oakley, and 2.6 mi (4.2 km) northwest of Knightsen.

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

GAGE.--Recording flowmeters on pumps. Prior to Jan. 1, 1953, water-stage recorder at site 3.2 mi (5.1 km) downstream at datum 121.72 ft (37.100 m) above mean sea level (levels by Bureau of Reclamation).

REMARKS.--Water is diverted from Sacramento-San Joaquin Delta by way of Old River, Rock Slough, and a dredged channel. A series of four pumps lift the water 115 ft (35.1 m) into the canal. Water is used for municipal, agricultural, and industrial purposes. The canal is a part of the Central Valley Project.

COOPERATION.--Records of daily discharge furnished by Bureau of Reclamation and reviewed by Geological Survey.

AVERAGE DISCHARGE.--26 years, 96.0 ft³/s (2.719 m³/s), 69,500 acre-ft/yr (85.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 255 ft³/s (7.22 m³/s) June 23, 1972; minimum daily, 4.0 ft³/s (0.11 m³/s) Jan. 20, 1970.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	70	60	33	154	126	177	194	206	227	219	219
2	94	70	60	67	159	135	179	195	210	225	229	221
3	92	85	64	83	166	131	181	203	212	226	225	221
4	77	78	61	82	168	129	179	204	212	206	224	215
5	91	70	56	84	169	131	182	202	201	213	224	205
6	90	72	54	80	168	117	187	198	203	228	227	181
7	106	61	58	80	176	120	179	200	229	225	217	182
8	122	62	56	103	167	120	170	200	227	231	219	203
9	118	66	50	90	170	119	168	199	228	230	222	207
10	117	67	47	89	176	115	159	201	217	228	232	210
11	102	63	49	89	165	123	149	203	226	222	230	205
12	99	66	37	88	158	139	155	210	220	231	222	192
13	102	60	26	91	156	143	152	221	222	242	213	207
14	100	59	23	92	171	147	155	217	247	247	202	207
15	104	58	34	96	179	158	147	217	226	251	197	207
16	87	55	35	95	189	160	139	215	227	243	200	207
17	69	61	35	89	183	161	142	211	226	232	195	197
18	66	59	35	90	173	155	149	203	223	232	197	184
19	61	61	32	96	178	149	150	209	217	240	193	179
20	88	61	21	102	162	151	169	213	217	241	192	182
21	89	57	25	105	160	151	179	211	218	243	193	185
22	83	56	37	107	159	153	183	212	220	246	178	177
23	90	56	44	108	160	158	192	212	223	238	200	174
24	85	51	37	122	163	158	188	213	230	240	212	174
25	65	51	30	117	169	167	181	214	236	227	221	171
26	65	52	32	131	161	157	188	219	232	239	220	167
27	68	53	29	136	158	145	193	220	233	235	223	172
28	67	51	36	149	148	147	195	213	227	236	217	168
29	64	50	39	145	136	160	202	198	230	236	203	150
30	64	52	44	150	---	171	201	200	225	234	212	139
31	67	---	41	156	---	167	---	197	---	225	213	---
TOTAL	2694	1833	1287	3145	4801	4463	5170	6424	6670	7219	6571	5708
MEAN	86.9	61.1	41.5	101	166	144	172	207	222	233	212	190
MAX	122	85	64	156	189	171	202	221	247	251	232	221
MIN	61	50	21	33	136	115	139	194	201	206	178	139
AC-FT	5340	3640	2550	6240	9520	8850	10250	12740	13230	14320	13030	11320
CAL YR 1975	TOTAL	38760	MEAN 106	MAX 234	MIN 21	AC-FT	76880					
WTR YR 1976	TOTAL	55985	MEAN 153	MAX 251	MIN 21	AC-FT	111000					

11337500 MARSH CREEK NEAR BYRON, CA

LOCATION.--Lat 37°52'24", long 121°43'34", in Los Meganos Grant, Contra Costa County, on right bank 40 ft (12 m) downstream from highway bridge on Marsh Creek Road, 1.2 mi (1.9 km) upstream from Marsh Creek Dam, and 5.0 mi (8.0 km) west of Byron.

DRAINAGE AREA.--42.6 mi² (110.3 km²).

PERIOD OF RECORD.--February 1953 to current year.

REVISED RECORDS.--WSP 1635: 1955.

GAGE.--Water-stage recorder and concrete control (control ineffective since 1972 due to gravel fill). Datum of gage is 177.87 ft (54.215 m) above mean sea level.

REMARKS.--No flow since May 28, 1975. No regulation or diversion above station. Discharge for calendar year 1975 as follows: Total, 1,955.28 ft³/s (55.4 m³/s); mean, 5.36 ft³/s (0.15 m³/s); maximum daily, 141 ft³/s (3.99 m³/s); minimum daily, zero ft³/s (zero m³/s); total, 3,880 acre-ft (4.78 hm³).

AVERAGE DISCHARGE.--23 years, 8.18 ft³/s (0.232 m³/s), 5,930 acre-ft/yr (7.31 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,880 ft³/s (110 m³/s) Jan. 31, 1963, gage height, 11.62 ft (3.542 m), from rating curve extended above 880 ft³/s (24.9 m³/s) on basis of slope-area measurement at gage height 10.90 ft (3.322 m); maximum gage height, 12.98 ft (3.956 m) Dec. 23, 1955; no flow for long periods in each year.

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

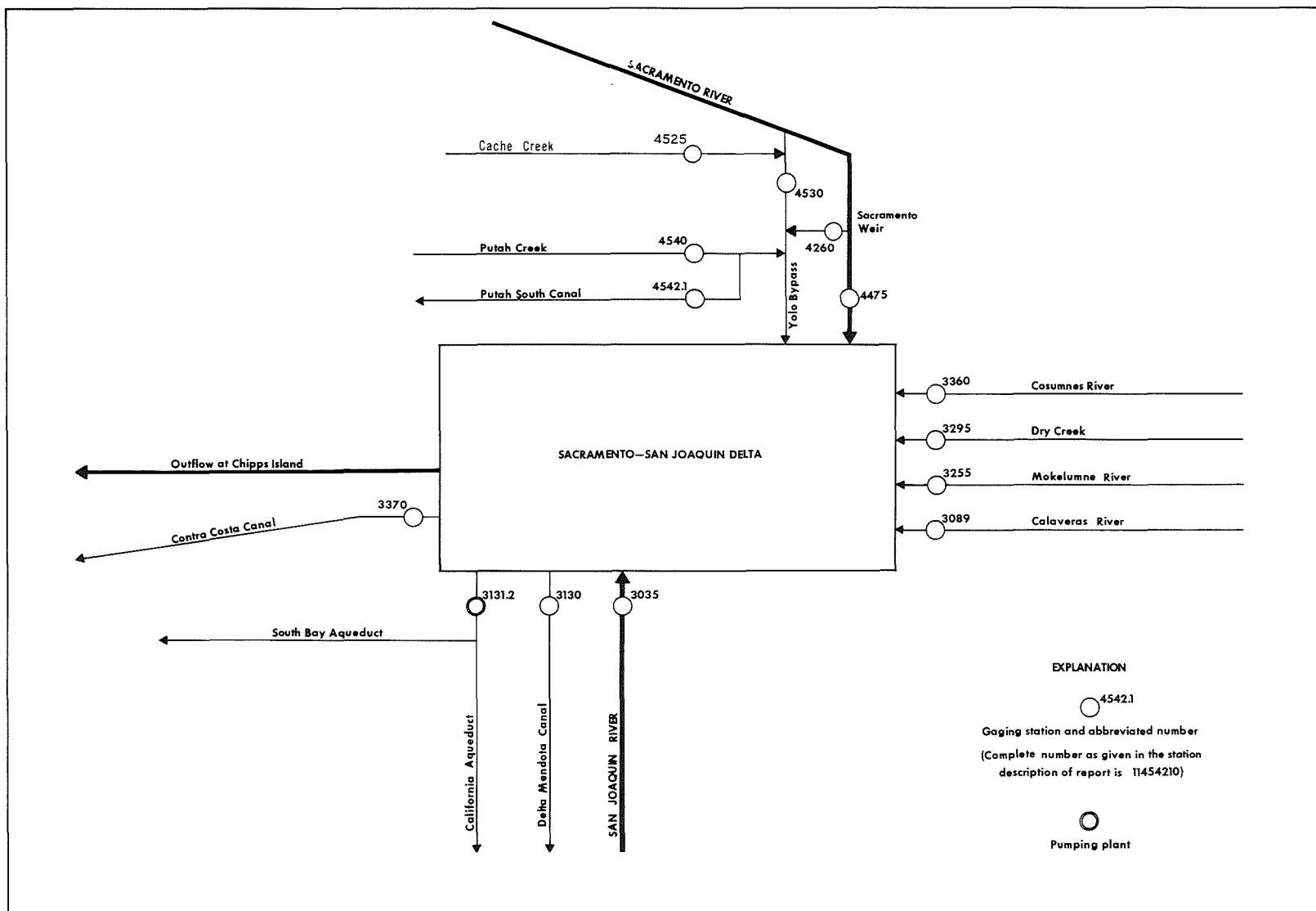


FIGURE 12.—Schematic diagram showing principal inflows and diversions, Sacramento-San Joaquin Delta.

LOCATION.--See schematic diagram of inflows and diversions, Sacramento-San Joaquin Delta.

DRAINAGE AREA.--Total drainage area of inflow streams tabulated below is 39,699 mi² (102,820 km²).

PERIOD OF RECORD.--October 1971 to current year. Data for periods prior to October 1971, can be obtained from published records for stations tabulated below.

COOPERATION.--Records for Delta-Mendota, Contra Costa, and Putah South Canals furnished by Bureau of Reclamation, California Aqueduct by California Department of Water Resources.

SUMMARY OF PRINCIPAL INFLOWS AND DIVERSIONS IN THE
SACRAMENTO-SAN JOAQUIN DELTA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Inflows, in thousands of acre-feet												
Month												Water year
Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
11303500 SAN JOAQUIN RIVER NEAR VERNALIS												
279.4	232.4	230.3	204.5	121.6	112.1	76.92	57.76	47.46	41.27	64.86	63.48	1532
11308900 CALAVERAS RIVER BELOW NEW HOGAN DAM												
2.07	1.88	2.48	2.06	6.08	1.81	10.28	12.36	11.72	13.38	11.05	5.36	80.53
11325500 MOKELUMNE RIVER AT WOODBRIDGE												
47.35	47.68	16.45	3.54	3.14	2.13	1.19	1.03	.83	.81	.90	.57	125.6
11329500 DRY CREEK NEAR GALT												
.16	.03	0	0	.21	.40	0	0	0	0	0	0	.80
11336000 COSUMNES RIVER AT McCONNELL												
3.51	4.31	3.73	2.77	3.44	6.29	6.28	2.40	.08	.04	.05	0	32.90
11426000 SACRAMENTO WEIR SPILL												
0	0	0	0	0	0	0	0	0	0	0	0	0
11447500 SACRAMENTO RIVER AT SACRAMENTO												
1179	1324	1571	930.5	735.5	894.8	751.4	649.4	628.8	723.2	816.0	727.0	10931
11453000 YOLO BYPASS NEAR WOODLAND												
.89	.33	1.99	1.58	1.59	2.80	0	2.43	.03	0	.22	.27	12.13
11454000 PUTAH CREEK NEAR WINTERS												
9.93	4.16	4.44	9.10	18.66	23.28	33.81	46.63	42.39	46.60	31.42	25.53	296.0
Total	1522	1615	1830	1154	890.2	1044	879.9	772.0	731.3	825.3	924.5	13011

Diversions, in thousands of acre-feet												
Month												Water year
Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
11313000 DELTA-MENDOTA CANAL												
221.7	228.0	238.7	249.3	263.7	280.6	261.8	279.2	222.3	212.7	280.7	270.2	3009
11313120 CALIFORNIA AQUEDUCT (DELTA PUMPING PLANT)												
237.6	245.1	238.1	253.9	175.1	228.0	26.08	41.60	17.79	19.37	130.4	209.1	1822
11337000 CONTRA COSTA CANAL												
5.34	3.64	2.55	6.24	9.52	8.85	10.25	12.74	13.23	14.32	13.03	13.32	111.0
11454210 PUTAH SOUTH CANAL												
8.17	2.68	2.42	6.24	16.12	20.32	29.75	41.38	38.81	44.26	29.75	23.57	263.5
Total	472.8	479.4	481.8	515.7	464.4	537.8	327.9	374.9	292.1	290.6	453.9	5206

NOTE.--Minor inflow streams and diversions are not included.

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. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at 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. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

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 1976

				Measurements		
Station No.	Station name		Drainage area (mi ²)	Period of record	Date	Discharge (ft ³ /s)
Pyramid and Winnemucca Lake basins						
10336615	Glenn Alpine Creek near Meyers, CA	SE¼SW¼ sec.14, T.12 N., R.17 E., El Dorado County, Eldorado National Forest, on downstream side of road bridge 500 ft (152 m) upstream from mouth, 3.5 mi (5.6 km) northwest of Meyers, and 4.1 mi (6.6 km) southwest of Camp Richardson.	10.8	1974-76	10-22-75 7-2-76 9-3-76	41.8 2.44 3.52
10336693	Wood Creek near Crystal Bay, NV	SE¼SE¼ sec.9, T.16 N., R.18 E., Washoe County, at culvert on State Highway 27 and 3.5 mi (5.6 km) northeast of Crystal Bay, NV.	1.69	1967-74a, 1975-76	8-1-76	12
10336760	Edgewood Creek at Stateline, NV	NE¼NE¼ sec.27, T.13 N., R.18 E., Douglas County, on upstream side of culvert on U.S. Highway 50 and 0.5 mi (0.8 km) northeast of Stateline.	5.5	1967-76	4-20-76 8-31-76 9-1-76	6.05 1.86 1.63
Buena Vista Lake basin						
*11185300	Golden Trout Creek near Cartago, CA	NW¼SW¼ sec.10, T.18 S., R.34 E., Tulare County, 0.5 mi (0.8 km) upstream from Tunnel Ranger Station, and 15 mi (24 km) west of Cartago.	23.6	1956-67½, 1969½, 1970-75b, 1976	9-22-76	c 6.18
*11185350	Kern River near Quaking Aspen Camp, CA	SW¼SW¼ sec.32, T.20 S., R.33 E., Tulare County, Sequoia National Forest, 0.4 mi (0.6 km) upstream from Little Kern River, and 6.8 mi (10.9 km) east of Quaking Aspen Camp.	530	1960-74½, 1975b, 1976	9-22-76	242
*11185400	Little Kern River near Quaking Aspen Camp, CA	SE¼SE¼ sec.31, T.20 S., R.33 E., Tulare County, 600 ft (183 m) upstream from mouth and 5 mi (8 km) east of Quaking Aspen Camp.	132	1957-69½, 1970-75b, 1976	9-22-76	16.7
*11188200	South Fork Kern River near Olancho, CA	NW¼SW¼ sec.18, T.20 S., R.36 E., Tulare County, 2.0 mi (3.2 km) downstream from Snake Creek and 9.7 mi (15.6 km) southwest of Olancho.	146	1956-67½, 1969½, 1970-75b, 1976	9-22-76	12.0
11189700	Kelso Creek near Weldon, CA	NW¼ sec.20, T.27 S., R.35 E., Kern County, 0.5 mi (0.8 km) upstream from Woolstaff Creek, and 7 mi (11 km) southeast of Weldon.	101	1958-66½, 1968-75b, 1976	5-6-76	0

See footnotes at end of table.

Discharge measurements made at low-flow partial-record stations during water year 1976--Continued

Station No.	Station name		Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
Tulare Lake basin						
11212320	Copper Creek near Cedar Grove, CA ¹	Lat 36°47'56", long 118°34'47", unsurveyed, Fresno County, Kings Canyon National Park, 0.5 mi (0.8 km) upstream from South Fork Kings River and 5.0 mi (8.0 km) east of Cedar Grove.	7.24	1965-68b, 1970-75b, 1976	8-30-76	c 0.18
11212430	Sheep Creek at Cedar Grove, CA	Lat 36°47'08", long 118°40'34", unsurveyed, Fresno County, Kings Canyon National Park, 0.4 mi (0.6 km) southwest of Cedar Grove, and 0.7 mi (1.1 km) upstream from South Fork Kings River.	7.62	1965-68b, 1970-75b, 1976	8-30-76	c .65
11212440	Lewis Creek near Cedar Grove, CA	Lat 36°48'14", long 118°41'29", unsurveyed, Fresno County, Kings Canyon National Park, 0.3 mi (0.5 km) upstream from South Fork Kings River and 1.5 mi (2.4 km) northwest of Cedar Grove.	16.4	1965-68b, 1970-75b, 1976	8-30-76	c 1.13
11212500	South Fork Kings River near Cedar Grove, CA	NW¼ sec.8, T.13 S., R.30 E., Fresno County, 0.3 mi (0.5 km) downstream from Grizzly Creek, and 4.5 mi (7.2 km) west of Cedar Grove.	408	1950-57†, 1959-61b, 1963-66b, 1968b, 1970-75b, 1976	8-30-76	c 66.2
11216800	Rock Creek at Dinkey Creek, CA	NE¼SW¼ sec.5, T.10 S., R.26 E., Fresno County, 0.4 mi (0.6 km) northwest of town of Dinkey Creek, and 0.5 mi (0.8 km) upstream from mouth.	7.60	1961-70†, 1971-75b, 1976	8-31-76	c .05
San Joaquin River basin						
11264700	Porcupine Creek at Porcupine Flat Campgrounds, near Yosemite Village, CA	NE¼SW¼ sec.33, T.1 S., R.22 E., Mariposa County, in Yosemite National Park, at Porcupine Flat Campgrounds, 1,500 ft (457 m) downstream from high- way bridge, and 4.1 mi (6.6 km) northeast of Yosemite Village.	3.60	1970-76	10-8-75 7-29-76	c .34 c .38
11265700	Yosemite Creek at Yosemite Creek Campgrounds, near Yosemite Village, CA	SW¼NE¼ sec.30, T.1 S., R.22 E., Mariposa County, in Yosemite National Park, at Yosemite Creek Campgrounds, and 5.6 mi (9.0 km) north of Yosemite Village.	18.5	1970-76	10-8-75 7-29-76	c 2.99 c .20
11266000	Yosemite Creek at Yosemite, CA	Lat 37°44'45", long 119°35'40", Mariposa County, in Yosemite National Park, 0.3 mi (0.5 km) upstream from mouth, and 0.7 mi (1.1 km) west of Yosemite National Park Headquarters.	42.7	1904-9†, 1912-26†, 1960b, 1966-69b, 1971-75b, 1976	8-16-76	0
11266600	Cascade Creek near El Portal, CA	NW¼SW¼ sec.19, T.2 S., R.21 E., Mariposa County, in Yosemite National Park, 200 ft (61 m) upstream from unnamed tribu- tary, 6.2 mi (10.0 km) north- east of El Portal, and 6.5 mi (10.5 km) west of Yosemite Village.	10.3	1971-76	10-8-75 7-29-76	c .46 c .09
11266700	Tamarack Creek at Tamarack Flat Campground, near El Portal, CA	NE¼NW¼ sec.23, T.2 S., R.20 E., Mariposa County, in Yosemite National Park, at culvert on Big Oak Flat Road at Tamarack Flat Campground, 5.7 mi (9.2 km) northeast of El Portal, and 8.2 mi (13.2 km) west of Yosemite Village.	4.31	1970-76	10-8-75 7-29-76	c .87 c .36

See footnotes at end of table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1976--Continued

Station No.	Station name		Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
San Joaquin River basin--Continued						
11266800	Wildcat Creek near El Portal, CA	SE¼SW¼ sec.25, T.2 S., R.20 E., Mariposa County, in Yosemite National Park, upstream from highway bridge, and 4.9 mi (7.9 km) northeast of El Portal.	1.24	1971-76	10-8-75 7-30-76	c 0.15 0
11266900	Crane Creek above diversion dam, near El Portal, CA	SE¼SW¼ sec.34, T.2 S., R.20 E., Mariposa County, in Yosemite National Park, 40 ft (12 m) upstream from head of diver- sion ditch, and 2.8 mi (4.5 km) northeast of El Portal.	8.10	1964-70b, 1971-76	10-8-75 7-30-76	c 1.26 c .14
11267000	Little Crane Creek near El Portal, CA	NW¼NE¼ sec.32, T.2 S., R.20 E., Mariposa County, Stanislaus National Forest, on left bank 80 ft (24 m) upstream from Little Nellie Falls and 3.2 mi (5.1 km) north of El Portal.	1.31	1971-73, 1975-76	10-8-75 7-30-76	c .21 c .06
11267100	Moss Creek near El Portal, CA	SE¼NW¼ sec.25, T.2 S., R.19 E., Mariposa County, in Stanislaus National Forest, 120 ft (37 m) downstream from road crossing, 300 ft (91 m) downstream from unnamed tributary, and 4.7 mi (7.6 km) northwest of El Portal.	4.45	1971-76	10-8-75 7-30-76	c .79 c .12
11267300	South Fork Merced River at Wawona, CA	SW¼ sec.34, T.4 S., R.21 E., Mariposa County, in Yosemite National Park, 1,000 ft (305 m) downstream from highway bridge at Wawona, and 1,200 ft (366 m) upstream from Big Creek.	100	1958-68†, 1969-71b, 1974-75b, 1976	8-3-76	c 3.99
11285200	Hunter Creek near Tuolumne, CA	SW¼NE¼ sec.19, T.1 N., R.17 E., Tuolumne County, Stanislaus National Forest, at road ford 5.5 mi (8.8 km) southeast of Tuolumne.	6.68	1911a, 1964b, 1967-75b, 1976	8-11-76	c .37
11279400	Smoky Jack Creek at Smoky Jack Camp- ground, near Yosemite Village, CA	NW¼NW¼ sec.31, T.1 S., R.21 E., Tuolumne County, in Yosemite National Park, 12 ft (4 m) downstream from culvert on Tioga Road, 8.5 mi (13.7 km) northeast of Yosemite Village, and 10.6 mi (17.1 km) northeast of El Portal.	4.15	1970-76	10-8-75 7-29-76	b .11 b .19

1 Published as Cooper Creek in 1966-68.

* Also a crest-stage partial-record station.

† Operated as a continuous-record gaging station.

a Operated as a crest-stage partial-record station.

b Published as a miscellaneous measurement.

c Base flow.

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 1976

					Annual maximum		
Station No.	Station name	Location	Drain- age area (mi ²)	Period of record	Date	Gage height (feet)	Discharge (ft ³ /s)
Buena Vista Lake basin							
*11185300	Golden Trout Creek near Cartago, CA	NW¼SW¼ sec.10, T.18 S., R.34 E., Tulare County, Inyo National Forest, 0.5 mi (0.8 km) upstream from Tunnel Ranger Station and 15 mi (24 km) west of Cartago.	23.6	1956-67†, 1969†, 1970, 1972-76	9-12-76	1.44	30
*11185350	Kern River near Quaking Aspen Camp, CA	SW¼SW¼ sec.32, T.20 S., R.33 E., Tulare County, Sequoia National Forest, 0.4 mi (0.6 km) upstream from Little Kern River and 6.8 mi (10.9 km) east of Quaking Aspen Camp.	530	1960-74†, 1975-76	9-29-76	5.48	1930
*11185400	Little Kern River near Quaking Aspen Camp, CA	SE¼SE¼ sec.31, T.20 S., R.33 E., Tulare County, Sequoia National Forest, 600 ft (183 m) upstream from mouth and 5 mi (8 km) east of Quaking Aspen Camp.	132	1957-68†, 1969†, 1970, 1972-76	9-11-76	4.68	768
*11188200	South Fork Kern River near Olancho, CA	NW¼SW¼ sec.18, T.20 S., R.36 E., Tulare County, Sequoia National Forest, 2.0 mi (3.2 km) downstream from Snake Creek and 9.7 mi (15.6 km) southwest of Olancho.	146	1956-67†, 1969†, 1970, 1973-76	9-11-76	1.38	14
11191500	Ersine Creek near Bodfish, CA	NE¼NE¼ sec.16, T.27 S., R.33 E., Kern County, 1.5 mi (2.4 km) downstream from Spring Gulch and 3.3 mi (5.3 km) southeast of Bodfish.	30.4	1976	9-29-76	8.01	2660
11191600	Bodfish Creek near Bodfish, CA	SE¼NW¼ sec.17, T.27 S., R.33 E., Kern County, at culvert on county road 1.9 mi (3.1 km) southeast of Bodfish.	7.95	1976	9-29-76	8.70	18
11191650	Bodfish Creek tributary near Bodfish, CA	SE¼NE¼ sec.18, T.27 S., R.33 E., Kern County, at culvert on private road 0.6 mi (1.0 km) upstream from Bodfish Creek and 1.5 mi (2.4 km) southeast of Bodfish.	3.70	1976	9-29-76	7.21	6.2
11195510	Pleito Creek near Lake- view, CA	NW¼NE¼ sec.13, T.11 N., R.21 W., Kern County, at overshoot on California Aqueduct, 3.8 mi (6.1 km) southeast of Lakeview, and 5.9 mi (9.5 km) west of Mettler.	39.7	1975-76	9-29-76	--	a 6
11195520	Cuddy Creek at Lake of the Woods, near Frazier Park, CA	NE¼SE¼ sec.33, T.9 N., R.20 W., Kern County, at culvert on Lakewood Drive, 500 ft (152 m) downstream from the Lake of the Woods, at the village of Lake of the Woods, and 2.8 mi (4.5 km) west of Frazier Park.	25.1	1975-76	9-29-76	--	a 2
11195610	Pastoria Creek near Grape- vine, CA	Unsurveyed, T.10 N., R.18 W., Kern County, on left bank 4,000 ft (1,219 m) upstream from California Aqueduct and 4.9 mi (7.9 km) east of Grapevine.	31.1	1975-76	9-29-76	9.54	104
11195890	El Paso Creek above diver- sion dam, near Wheeler Ridge, CA	Unsurveyed, T.11 N., R.17 W., Kern County, on right bank 300 ft (91 m) upstream from Tejon Reservoir No. 2 diver- sion ditch, 13.2 mi (21.2 km) east of Wheeler Ridge, and 14.8 mi (23.8 km) southeast of Mettler.	31.1	1976	9-26-76	2.32	92

See footnotes at end of table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1976--Continued

						Annual maximum	
Station No.	Station name	Location	Drain- age area (mi ²)	Period of record	Date	Gage height (feet)	Discharge (ft ³ /s)
Buena Vista Lake basin--Continued							
11196010	Tejon Creek near Arvin, CA	SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.33, T.12 N., R.18 E., Kern County, on left bank 0.8 mi (1.3 km) east of Commanche Oil Field Head- quarters, 8.7 mi (14.0 km) southeast of Arvin, and 9.9 mi (15.9 km) east of Mettler.	110	1975-76	9-29-76	--	59
11196200	Sycamore Creek near Keene, CA	SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.5, T.32 S., R.31 E., Kern County on right bank at west boundary of Bear Valley Springs development, 6.5 mi (10.5 km) southwest of Keene, and 9.4 mi (15.1 km) south- east of Arvin.	15.0	1975-76	9-22-76	5.44	a 6
11196210	Sycamore Creek near Arvin, CA	SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.34, T.31 S., R.30 E., Kern County, on right bank 1.8 mi (2.9 km) upstream from Arvin-Edison Canal, 5.1 mi (8.2 km) southeast of Arvin, and 10.1 mi (16.3 km) south- west of Keene.	28.3	1975-76	2-8-76	4.49	91
Tulare Lake basin							
11197360	Franciscan Creek at Kecks Corner, near Lost Hills, CA	SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.13, T.26 S., R.17 E., Kern County, on left bank 0.4 mi (0.6 km) south of Kecks Corner, 0.9 mi (1.4 km) downstream from Barrel Valley Creek, and 25 mi (40 km) north- west of Lost Hills.	20.4	1969b, 1974-76	9-29-76	12.08	266
11197370	Bitterwater Creek near Lost Hills, CA	NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.21, T.27 S., R.18 E., Kern County, 0.2 mi (0.3 km) downstream from Cedar Canyon, 21 mi (34 km) west of Lost Hills.	76.4	1962-76	9-29-76	12.42	755
11205680	Frazier Creek near Strath- more, CA	NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.32, T.20 S., R.28 E., Tulare County, at culvert on County Road No. J28, 5.9 mi (9.5 km) east of Strathmore.	3.05	1974-76	9-29-76	4.50	a .3
11205690	Lewis Creek near Lindsay, CA	NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.13, T.20 S., R.27 E., Tulare County, at culvert on Road 258, 0.2 mi (0.4 km) downstream from unnamed tributary, and 7.0 mi (11.3 km) southeast of Lindsay.	21.5	1969b, 1974-76	9-29-76	7.79	36
11210970	Antelope Creek at Woodlake, CA	SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.25, T.17 S., R.26 E., Tulare County, at culvert on State Highway 216, and 0.6 mi (1.0 km) west of town of Woodlake.	19.2	1969b, 1974-76	9-29-76	4.48	a 2.5
*11216800	Rock Creek at Dinkey Creek, CA	NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.5, T.10 S., R.26 E., Fresno County, 0.4 mi (0.6 km) northwest of town of Dinkey Creek and 0.5 mi (0.8 km) upstream from mouth.	7.6	1960-70 $\frac{1}{2}$, 1971-76	9-29-76	5.80	450
11220000	Big Creek above Pine Flat Lake, near Trimmer, CA	SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.4, T.12 S., R.25 E., Fresno County, on right bank 2.4 mi (3.9 km) upstream from mouth, and 2.7 mi (4.3 km) northeast of Trimmer.	70.0	1953-73 $\frac{1}{2}$, 1974-76	9-29-76	3.34	269
San Joaquin River basin							
11304000	Corral Hollow Creek near Tracy, CA	SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.24, T.3 S., R.4 E., San Joaquin County, just upstream from highway bridge, 0.8 mi (1.3 km) downstream from Elk Ravine, and 6.3 mi (10.1 km) southwest of Tracy.	61.6	1959-65 $\frac{1}{2}$, 1967, 1972-76	3-2-76	2.01	18
11305500	San Antonio Creek near San Andreas, CA	NE $\frac{1}{4}$ sec.10, T.3 N., R.12 E., Calaveras County, 800 ft (244 m) downstream from highway bridge, 1.9 mi (3.1 km) upstream from mouth, and 5 mi (8 km) southeast of San Andreas.	48.0	1950-59 $\frac{1}{2}$, 1962-76	3-3-76	1.68	23

See footnotes at end of table.

Annual maximum discharge at crest-stage partial-record stations during water year 1976--Continued

					Annual maximum		
Station No.	Station name	Location	Drain- age area (mi ²)	Period of record	Date	Gage height (feet)	Discharge (ft ³ /s)
San Joaquin River basin--Continued							
11309000	Cosgrove Creek near Valley Springs, CA	SE¼ sec.35, T.4 N., R.10 E., Calaveras County, 0.4 mi (0.6 km) upstream from mouth and 2.7 mi (4.3 km) south of Valley Springs.	21.1	1930-69‡, 1970-71, 1973-76	3-3-76	2.38	4.4
11334200	Middle Fork Cosumnes River near Somerset, CA	NW¼NW¼ sec.19, T.9 N., R.12 E., El Dorado County, 1,000 ft (305 m) downstream from county road bridge and 1.8 mi (2.9 km) southwest of Somerset.	107	1957-71‡, 1973-76	10-28-75	4.56	107
11336030	Badger Creek at Riley Road, near Galt, CA	Lat 38°20'21", long 121°17'48", in San Jon De Los Moquelumnes Land Grant, T.6 N., R.6 E., Sacramento County, at bridge on Riley Road, 2.3 mi (3.7 km) upstream from U.S. Highway 99, and 5.9 mi (9.5 km) north of Galt.	13.0	1972-76	3-2-76	<36.57	--
11336040	North Fork Badger Creek at Riley Road, near Galt, CA	Lat 38°21'06", long 121°17'48", in San Jon De Los Moquelumnes Land Grant, T.6 N., R.6 E., Sacramento County, at bridge on Riley Road 2.4 mi (3.9 km) upstream from U.S. Highway 99, and 6.8 mi (10.9 km) north of Galt.	12.6	1972-76	3-2-76	<37.25	< 4
11336050	Willow Creek at McKenzie Road, near Galt, CA	Lat 39°19'08", long 121°18'01", in San Jon De Los Moquelumnes Land Grant, T.5 N., R.6 E., Sacramento County, at bridge on McKenzie Road, 1.5 mi (2.4 km) upstream from U.S. Highway 99, and 4.5 mi (7.2 km) north of Galt.	2.95	1972-76	3-2-76	35.48	--
11336070	Cosumnes River at State Highway 104, near Galt, CA	Lat 38°17'27", long 121°22'45", in San Jon De Los Moquelumnes Land Grant, T.5 N., R.5 E., Sacramento County, at State Highway 104 crossing and 5.0 mi (8.0 km) northwest of Galt.	Not 1972-76 determined		10-28-75	16.38	--
11336530	Laguna Creek at McKenzie Road, near Galt, CA	Lat 38°18'46", long 121°18'01", in San Jon De Los Moquelumnes Land Grant, T.5 N., R.6 E., Sacramento County, at bridge on McKenzie Road, 1.2 mi (1.9 km) upstream from U.S. Highway 99, and 4.1 mi (6.6 km) north of Galt.	117	1972-76	3-2-76	31.00	100
11336550	Skunk Creek at McKenzie Road, near Galt, CA	Lat 38°17'57", long 121°18'01", in San Jon De Los Moquelumnes Land Grant, T.5 N., R.6 E., Sacramento County, at bridge on McKenzie Road, 1.6 mi (2.6 km) upstream from U.S. Highway 99, and 3.1 mi (5.0 km) north of Galt.	11.7	1972-76	10-28-75	35.30	--
11336555	Laguna Creek at State High- way 104, near Galt, CA	Lat 38°17'27", long 121°22'29", in San Jon De Los Moquelumnes Land Grant, T.5 N., R.5 E., Sacramento County, at bridge on State Highway 104, 4.8 mi (7.7 km) northwest of Galt.	Not 1972-76 determined		10-28-75	13.04	--
11336560	Deadman Gulch at Christen- son Road, near Galt, CA	Lat 38°16'44", long 121°21'11", in San Jon De Los Moquelumnes Land Grant, T.5 N., R.6 E., Sacramento County, at bridge on Christenson Road, 2.6 mi (4.2 km) downstream from U.S. Highway 99, and 2.6 mi (4.2 km) northwest of Galt.	8.82	1972-76	3-2-76	22.93	a 3

* Also a low-flow partial-record station.

‡ Operated as a continuous-record gaging station.

a Estimated.

b Published as miscellaneous measurement.

DISCHARGE AT PARTIAL-RECORD AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1976

Stream	Tributary to	Location	Drain- age area (mi ²)	Measured pre- viously (water year)	Date	Measurements Discharge (ft ³ /s)
Carson River basin						
Silver Creek	East Fork Carson River	SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.28, T.9 N., R.20 E., Alpine County, 0.3 mi (0.4 km) downstream from Pennsylvania Creek, 4 mi (6 km) upstream from mouth, and 6.5 mi (10.5 km) south of Markleeville, CA.	19.6	1947-65†, 1966-73a	9-29-76	5.00
Hot Springs Creek	East Fork Carson River	SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.23, T.10 N., R.19 E., Alpine County, 0.5 mi (0.8 km) upstream from Buck Creek, 4 mi (6 km) upstream from mouth, and 4 mi (6 km) west of Markleeville, CA.	b14	1947-57†	9-29-76	.53
Markleeville Creek	East Fork Carson River	SE $\frac{1}{4}$ sec.21, T.10 N., R.20 E., Alpine County, at highway bridge at Markleeville and 0.8 mi (1.2 km) upstream from Pleasant Valley Creek, CA.	53.4	1913-31†	9-29-76	2.72
Bryant Creek	East Fork Carson River	NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.30, T.11 N., R.21 E., Douglas County, 500 ft (152 m) upstream from Doud Springs Creek, 1.7 mi (2.7 km) upstream from mouth, and 11 mi (18 km) southeast of Gardnerville, NV.	31.5	1961-69†, 1970-73a	9-29-76	3.23
Stuard Creek	West Fork Carson River	SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.23, T.11 N., R.19 E., Alpine County, 1.8 mi (2.9 km) northeast of Woodfords, CA.	--	--	9-27-76	.08
Fredericks- burg Canyon	West Fork Carson River	NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.12, T.11 N., R.19 E., Alpine County, about 0.7 mi (1.1 km) west of Fredericks- burg, CA.	3.71	1972-73	9-27-76	2.42
Luther Creek	West Fork Carson River	SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.35, T.12 N., R.19 E., Alpine County, about 2.3 mi (3.7 km) northwest of Fredericksburg, CA.	--	--	9-27-76	1.89
Jobs Canyon	West Fork Carson River	SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.21, T.12 N., R.19 E., Alpine County, about 5 mi (8 km) northwest of Fredericksburg, CA.	--	--	9-28-76	.08
Pyramid and Winnemucca Lake basin						
Dog Creek	Truckee River	SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.30, T.20 N., R.18 E., Sierra County, 3.5 mi (5.6 km) upstream from mouth and 4 mi (6 km) northwest of Verdi, CA.	16.2	1956-61†	9-29-76	2.17
10336693 Wood Creek	Lake Tahoe	SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.9, T.16 N., R.18 E., Washoe County, at culvert on State Highway 27, and 3.5 mi (5.6 km) northeast of Crystal Bay, NV.	1.69	1967-75	8-1-76	12

† Operated as a continuous-record station.

a Operated as a crest-stage partial-record station.

b Approximate.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CARSON RIVER BASIN
10305500 EAST FORK CARSON RIVER NEAR MARKLEEVILLE, CALOCATION.--Lat 38°41'20", long 119°45'52", in NW¼NE¼ sec.27, T.10 N., R.20 E., Alpine County.
PERIOD OF RECORD.--CHEMICAL ANALYSES: Water years 1959 to current year. Published as 10308200 in 1966-68, 1970.
COOPERATION.--Chemical-quality records furnished by California Department of Water Resources.

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA, MG)	NON-CARBONATE HARDNESS (MG/L)
APR 27...	1045	86	7.4	4.5	1	10.7	32	0
SEP 22...	0900	133	8.1	10.0	0	9.3	46	0

DATE	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)
APR 27...	7.4	5.9	44	0	36	4.0	62	.08
SEP 22...	14	11	68	0	56	5.3	92	.13

PYRAMID AND WINNEMUCCA LAKES BASIN
10336673 WARD CREEK LOOP ROAD TRIBUTARY NEAR TAHOE PINES, CA

LOCATION.--Lat 39°08'28", long 120°13'05", in SE¼SW¼ sec.16, T.15 N., R.16 E., Placer County, Tahoe National Forest.

DRAINAGE AREA.--0.48 mi² (1.2 km²).

PERIOD OF RECORD.--

SEDIMENT RECORDS: Water years 1973 to September 1976 (discontinued).

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT 26...	0845	2.5	7.3	72	1.4
26...	1020	2.5	8.4	94	2.1
26...	1450	2.5	9.6	409	11
APR 09...	1410	4.0	1.2	1	.00
13...	1420	3.0	.68	1	.00
19...	1605	--	1.3	4	.01
20...	1705	3.0	2.9	22	.17
21...	1510	4.0	2.9	6	.05
21...	1700	2.5	3.5	20	.19
23...	0635	1.0	2.7	1	.01
23...	1445	4.5	4.4	11	.13
24...	1710	2.0	6.6	37	.66
25...	1555	2.5	5.0	9	.12
26...	1040	2.0	3.1	6	.05
27...	1345	--	2.5	2	.01
28...	1520	4.5	3.1	3	.03
29...	1445	7.0	3.9	8	.08
30...	1705	2.5	7.3	79	1.6
MAY 01...	1625	2.5	8.1	119	2.6
02...	1130	4.5	4.1	4	.04
02...	1700	3.0	6.6	21	.37
03...	1625	3.0	8.1	46	1.0
04...	1710	3.5	6.6	18	.32
05...	1210	3.5	3.5	2	.02
05...	1430	4.0	4.7	6	.08
06...	1550	4.0	3.3	16	.14
07...	1050	7.0	3.7	5	.05
07...	1610	5.5	6.6	20	.36
08...	1500	7.0	5.3	7	.10
09...	1625	5.0	4.7	3	.04
10...	0940	--	2.9	2	.02
10...	1450	7.0	5.0	15	.20
11...	0655	2.5	3.1	2	.02
11...	1615	7.0	5.0	4	.05
12...	1015	5.5	2.7	6	.04
12...	1605	8.0	4.4	3	.04
13...	1115	8.0	2.7	2	.01
13...	1305	10.5	3.3	4	.04

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PYRAMID AND WINNEMUCCA LAKES BASIN
10336673 WARD CREEK LOOP ROAD TRIBUTARY NEAR TAHOE PINES, CA--Continued

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SUS- PENDE SUS- PENDE MENT MENT MENT (MG/L)	SUS- PENDE SUS- PENDE SUS- PENDE MENT MENT MENT (T/DAY)
MAY					
13...	1435	9.5	4.1	6	.07
13...	1705	7.0	4.1	5	.06
13...	1940	5.0	3.7	3	.03
13...	2140	4.5	3.5	2	.02
14...	0005	4.0	3.3	1	.01
14...	0805	3.5	2.5	1	.01
14...	1005	5.5	2.5	2	.01
14...	1640	6.5	3.5	2	.02
15...	1100	6.0	1.9	1	.01
15...	1500	10.0	2.4	2	.01
16...	0905	4.5	1.8	1	.00
16...	1410	11.5	2.4	2	.01
18...	1130	7.0	1.2	1	.00

TULARE LAKE BASIN
11222700 KINGS RIVER AT PEOPLES WEIR, NEAR KINGSBURG, CA

LOCATION.--Lat 36°29'06", long 119°32'22", in NW¼NE¼ sec.1, T.17 S., R.22 E., Kings County.
PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1951 to current year.
COOPERATION.--Chemical-quality records furnished by California Department of Water Resources.

DATE	TIME	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)
DEC									
17...	0915	117	8.4	15.0	9.9	43	0	11	--
MAR									
15...	1230	90	7.3	16.0	9.3	38	0	8.8	3.9
SEP									
21...	0815	114	7.6	23.0	8.9	45	0	11	4.2

DATE	SODIUM AD- SORP- TION RATIO	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 SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)
DEC								
17...	--	54	0	44	5.6	5.0	73	.10
MAR								
15...	.5	48	0	39	6.9	5.1	61	.08
SEP								
21...	.5	58	0	48	12	4.4	68	.09

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SAN JOAQUIN RIVER BASIN
11266750 MERCED RIVER AT BIG OAK FLAT, NEAR EL PORTAL, CA

LOCATION.--Lat 37°43'18", long 119°42'45", in NW¼NE¼ sec.36, T.2 S., R.20 E., Mariposa County, Yosemite National Park.

DRAINAGE AREA.--345 mi² (894 km²).

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1975 to current year.

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)	ALKA- LINITY AS CAC03 (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)
OCT 23...	1130	135	26	6.2	7.5	10.3	14	.03

DATE	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L)
OCT 23...	.03	.04	.26	.30	.33	.01	.01

SAN JOAQUIN RIVER BASIN
11267050 MERCED RIVER AT RANCHERIA FLAT, NEAR EL PORTAL, CA

LOCATION.--Lat 37°40'10", long 119°48'25", in SE¼SW¼ sec.18, T.3 S., R.20 E., Mariposa County, Stanislaus National Forest.

DRAINAGE AREA.--393 mi² (1,018 km²).

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1974 to current year.

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L)
OCT 24...	0800	140	6.6	7.5	.05	.05	.02	.20	.22	.27	.00	.02

11268000 SOUTH FORK MERCED RIVER NEAR EL PORTAL, CA

LOCATION.--Lat 37°39'05", long 119°53'04", in NW¼NE¼ sec.29, T.3 S., R.19 E., Mariposa County.

DRAINAGE AREA.--241 mi² (624 km²).

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1974 to current year.

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L)
OCT 24...	0930	50	7.4	9.0	.01	.01	.00	.03	.03	.04	.01	.01

11268100 MERCED RIVER BELOW SOUTH FORK, NEAR BRICEBURG, CA

LOCATION.--Lat 37°39'25", long 119°53'29", unsurveyed, Mariposa County, Stanislaus National Forest.

DRAINAGE AREA.--660 mi² (1,709 km²).

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1975 to current year.

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L)
OCT 24...	1030	196	6.5	8.5	.02	.02	.00	.20	.20	.22	.02	.01

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SAN JOAQUIN RIVER BASIN
11268200 MERCED RIVER NEAR BRICEBURG, CA

LOCATION.--Lat 37°38'09", long 119°55'56", in NW¼NE¼ sec.36, T.3 S., R.18 E., Mariposa County.
DRAINAGE AREA.--691 mi² (1,790 km²).

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1974 to current year.

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL- NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L)
OCT 24...	1200	192	6.5	9.0	.01	.01	.00	.14	.14	.15	.05	.01

Kern County

Antelope Valley-Willow Springs Area

345636118182001. Local number 10N/13W-19 M1 S.
 LOCATION.--Lat 34°56'36", long 118°18'20", about 4.5 mi (7.2 km) north of Willow Springs.
 Owner: Dewey Butler.
 AQUIFER.--Alluvium of Pleistocene age.
 WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in (41 cm), depth 770 ft (235 m), cased with steel.
 DATUM.--Altitude of land-surface datum is 2,905 ft (885 m) above mean sea level.
 PERIOD OF RECORD.--January 1953 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level, 291.61 ft (88.88 m) below land-surface datum, Jan. 20, 1953; lowest, 319.38 ft (97.35 m) below land-surface datum, Sept. 18, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 15, 1975	316.29	FEB. 12, 1976	316.25				

Fremont Valley-KoeHN Lake Area

352052117483001. Local number 30S/39E-8A1 M.
 LOCATION.--Lat 35°20'52", long 117°48'30", about 3 mi (5 km) east of KoeHN Lake.
 Owner: Unknown.
 AQUIFER.--Alluvium of Pleistocene age.
 WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in (30 cm), depth 268 ft (82 m), cased with steel.
 DATUM.--Altitude of land-surface datum is 2,058 ft (627 m) above mean sea level.
 PERIOD OF RECORD.--April 1953 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level, 136.55 ft (41.62 m) below land-surface datum, Mar. 2, 1955; lowest 149.08 ft (45.44 m) below land-surface datum, Feb. 3, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN. 20, 1976	N	FEB. 3, 1976	149.08				

351104117590401. Local number 31S/37E-35N1 M.
 LOCATION.--Lat 35°11'04", long 117°59'04", about 4 mi (6 km) north of California City.
 Owner: M. and R. Conklin Ranch.
 AQUIFER.--Alluvium of Pleistocene age.
 WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in (41 cm), depth 429.2 ft (130.8 m), previously reported 439 ft (134 m), cased with steel.
 DATUM.--Altitude of land-surface datum is 2,320 ft (708 m) above mean sea level.
 PERIOD OF RECORD.--January to April 1953, January 1958 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level, 230.79 ft (70.34 m) below land-surface datum, Jan. 22, 1953; lowest 267.04 ft (81.39 m) below land-surface datum, Apr. 15, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 16, 1975	255.45	FEB. 12, 1976	254.98				

See footnotes at end of table.

GROUND-WATER LEVELS

San Joaquin County

Mokelumne River Basin

380656121204901. Local number 3N/6E-17D11 M.

LOCATION.--Lat 38°06'56", long 121°20'49", about 4.5 mi (7.2 km) southwest of Lodi.

Owner: Arthur Ripken.

AQUIFER.--Victor Formation of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (30.42 cm), depth 49.3 ft (15.0 m), previously reported 93 ft (28.3 m), casing information not available.

DATUM.--Altitude of land-surface datum is 23.9 ft (7.3 m), previously reported 35.68 ft (10.88 m), above mean sea level. Measuring point: 1.18 ft (0.36 m) above land-surface datum.

REMARKS.--Measured by East Bay Municipal Utility District.

PERIOD OF RECORD.--1949-68, 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.46 ft (2.27 m) below land-surface datum, May 1, 1952; lowest, 45.45 ft (13.85 m) below land-surface datum, Sept. 1, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 1, 1975	32.58	JAN. 2, 1976	29.44	APR. 1, 1976	33.45	JULY 6, 1976	39.31
NOV. 3	31.50	FEB. 2	32.52	MAY 3	34.96	AUG. 2	39.70
DEC. 1	30.28	MAR. 1	30.69	JUNE 4	36.85	SEP. 1	39.26

380328121153601. Local number 3N/6E-36R2 M.

LOCATION.--Lat 38°03'28", long 121°15'36", about 5.5 mi (8.9 km) south of Lodi.

Owner: Leland W. Bunch.

AQUIFER.--Victor Formation of Pleistocene age.

WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter, 8 in (20.32 cm), depth 53.6 ft (16.3 m), previously reported 85 ft (25.9 m), casing information not available.

DATUM.--Altitude of land-surface datum is 37.97 ft (11.57 m) above mean sea level. Measuring point: 7.63 ft (2.33 m) below land-surface datum.

REMARKS.--Measured by East Bay Municipal Utility District.

PERIOD OF RECORD.--1926-29, 1935-68, 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.72 ft (3.57 m) below land-surface datum, Apr. 8, 1938; lowest, 56.80 ft (17.31 m) below land-surface datum, July 1, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 6, 1975	49.65	JAN. 7, 1976	48.76	APR. 2, 1976	53.29	JULY 7, 1976	F
NOV. 4	49.51	FEB. 3	49.61	MAY 6	52.12	AUG. 4	F
DEC. 3	48.03	MAR. 3	49.86	JUNE 7	F	SEP. 8	F

380717121114602. Local number 3N/7E-10L4 M.

LOCATION.--Lat 38°07'17", long 121°11'46", about 4 mi (6 km) east of Lodi.

Owner: Alfred Preszler, formerly Edward Preszler.

AQUIFER.--Victor Formation of Pleistocene age, Arroyo Seco Gravel of Pleistocene age, and Laguna

Formation of Pliocene(?) age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter, 12 in (30.48 cm) to 10 in (25.4 cm), depth, 183 ft (55.8 m), previously reported 190 ft (57.9 m), cased.

DATUM.--Altitude of land-surface datum is 72.37 ft (22.06 m) above mean sea level. Measuring point: 0.44 ft (0.13 m) above land-surface datum.

REMARKS.--Measured by East Bay Municipal Utility District.

PERIOD OF RECORD.--1935-68, 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.13 ft (10.71 m) below land-surface datum, Jan. 12, 1939; lowest, 95.60 ft (29.14 m) below land-surface datum, July 6, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JULY 6, 1895	.60	AUG. 4, 1976	95.26	SEP. 7, 1976	89.38		

See footnotes at end of table.

San Joaquin County--Continued

Mokelumne River Basin--Continued

380611121153001. Local number 3N/7E-18N12 M.

LOCATION.--Lat 38°06'11", long 121°15'30", about 2.5 mi (4.0 km) south of Lodi.

Owner: Joe Garner.

AQUIFER.--Victor Formation of Pleistocene age.

WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter 6 in (15.24 cm), depth 62.9 ft (19.17 m), previously reported 78 ft (23.8 m), casing information not available.

DATUM.--Altitude of land-surface datum is 47.44 ft (14.46 m). Measuring point: 0.34 ft (0.10 m) above land-surface datum.

REMARKS.--Measured by East Bay Municipal Utility District.

PERIOD OF RECORD.--1946-68, 1971-76 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.86 ft (9.10 m) below land-surface datum, Feb. 2, 1953; lowest, dry, Aug. 4, 1965, July 5, Aug. 1, Sept. 1, 1966, Aug. 1, 1968, Aug. 2, Sept. 4, 1974, July 1, Aug. 4, Sept. 3, 1975, Apr. 2, May 6, June 7, July 7, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 3, 1975	57.78	JAN. 7, 1976	53.14	APR. 2, 1976	F	JUNE 7, 1976	F
NOV. 4	57.49	FEB. 3	55.68	MAY 6	F	JULY 7	0
DEC. 3	53.71	MAR. 3	55.95				

380605121115201. Local number 3N/7E-22C11 M.

LOCATION.--Lat 38°06'05", long 121°11'52", about 4.6 mi (7.4 km) southeast of Lodi.

Owner: John Nietschke.

AQUIFER.--Victor Formation of Pleistocene age and probably Arroyo Seco Gravel of Pleistocene age and Laguna Formation of Pliocene(?) age.

WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter 8 in (20.32 cm), depth 135 ft (41.1 m), previously reported 137 ft (41.8 m), casing information not available.

DATUM.--Altitude of land-surface datum is 66.43 ft (20.25 m) above mean sea level. Measuring point: 0.83 ft (0.25 m) above land-surface datum.

REMARKS.--Measured by East Bay Municipal Utility District.

PERIOD OF RECORD.--1952-68, 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 50.21 ft (15.30 m) below land-surface datum, Mar. 2, 1953; lowest, 93.59 ft (28.53 m) below land-surface datum, Sept. 7, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 7, 1975	81.35	JAN. 8, 1976	77.05	APR. 2, 1976	87.03	JULY 6, 1976	A
NOV. 4	79.57	FEB. 3	80.29	MAY 6	88.81	AUG. 4	A
DEC. 3	78.09	MAR. 3	79.81	JUNE 4	A	SEP. 7	93.59

381215121154601. Local number 4N/6E-12R11 M.

LOCATION.--Lat 38°12'15", long 121°15'46", about 4.5 mi (7.2 km) north of Lodi.

Owner: Fred Fromm, formerly A. T. Carlson.

AQUIFER.--Victor, Arroyo seco, and Laguna Formations.

WELL CHARACTERISTICS.--Drilled domestic and irrigation water-table well, diameter 8 in (20.32 cm), depth 80.4 ft (24.5 m), previously reported 90 ft (27.4 m) and 150 ft (45.7 m), casing information not available.

DATUM.--Altitude of land-surface datum is 57.95 ft (17.66 m) above mean sea level. Measuring point: 0.55 ft (0.17 m) above land-surface datum.

REMARKS.--Measured by East Bay Municipal Utility District.

PERIOD OF RECORD.--1948-68, 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 38.84 ft (11.84 m) below land-surface datum, May 1, 1952; lowest, dry, Sept. 3, 1966, Aug. 4, Sept. 3, Nov. 4, 1975, Sept. 7, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 3, 1975	81.45	JAN. 6, 1976	75.04	APR. 2, 1976	77.43	JULY 6, 1976	A
NOV. 4	F	FEB. 3	77.03	MAY 6	80.19	AUG. 4	A
DEC. 2	76.91	MAR. 2	74.43	JUNE 4	A	SEP. 7	F

See footnotes at end of table.

GROUND-WATER LEVELS

San Joaquin County--Continued

Mokelumne River Basin--Continued

380933121163502. Local number 4N/6E-36D2 M.

LOCATION.--Lat 38°09'33", long 121°16'35", about 1.6 mi (2.6 km) north of Lodi.

Owner: M. S. Wortley.

AQUIFER.--Victor Formation of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 10 in (25.4 cm), depth 52 ft (15.8 m), casing information not available.

DATUM.--Altitude of land-surface datum is 49.11 ft (14.97 m) above mean sea level. Measuring point: 0.61 ft (0.19 m) above land-surface datum.

REMARKS.--Measured by East Bay Municipal Utility District.

PERIOD OF RECORD.--1962-68, 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.84 ft (8.18 m) below land-surface datum, Apr. 1, 1963; lowest, 40.18 ft (12.25 m) below land-surface datum, Apr. 2, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 3, 1975	32.39	JAN. 6, 1976	33.20	APR. 2, 1976	40.18	JULY 6, 1976	38.05
NOV. 4	32.81	FEB. 3	34.15	MAY 6	36.71	AUG. 4	39.27
DEC. 2	33.89	MAR. 3	36.08	JUNE 4	36.37	SEP. 7	A

381032121114702. Local number 4N/7E-22Q5 M.

LOCATION.--Lat 38°10'32", long 121°11'47", about 4.9 mi (7.9 km) northeast of Lodi.

Owner: Adolphus Eddleman.

AQUIFER.--Victor, Arroyo Seco, and Laguna Formations.

WELL CHARACTERISTICS.--Drilled observation well, diameter 10 in (25.4 cm), depth 130 ft (39.6 m), previously reported 266 ft (81.1 m), casing information not available.

DATUM.--Altitude of land-surface datum is 83.6 ft (25.48 m), previously reported 83.83 ft (25.55 m), and 83.95 ft (25.59 m). Measuring point: 0.55 ft (0.17 m) above land-surface datum.

REMARKS.--Measured by East Bay Municipal Utility District.

PERIOD OF RECORD.--1935-68, 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.34 ft (11.08 m) below land-surface datum, Mar. 31, 1943; lowest, 96.27 ft (29.34 m) below land-surface datum, Aug. 4, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 9, 1975	83.27	JAN. 2, 1976	78.93	APR. 5, 1976	93.14	JULY 6, 1976	94.13
NOV. 4	86.13	FEB. 3	81.02	MAY 5	91.51	AUG. 4	96.27
DEC. 3	80.57	MAR. 1	82.38	JUNE 4	89.24	SEP. 7	90.29

380940121114601. Local number 4N/7E-27P1 M.

LOCATION.--Lat 38°09'40", long 121°11'46", about 4.4 mi (7.1 km) northeast of Lodi.

Owner: Frank H. and Leonard W. Buck.

AQUIFER.--Victor Formation of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 10 in (25.4 cm), depth 48 ft (14.6 m), previously reported 49 ft (14.9 m), cased to 48 ft (14.6 m), perforated 39-48 ft (11.9-14.6 m).

DATUM.--Altitude of land-surface datum is 81.5 ft (24.84 m), previously reported 81.20 ft (24.75 m) above mean sea level. Measuring point: 0.60 ft (0.18 m) above land-surface datum.

REMARKS.--Measured by East Bay Municipal Utility District.

PERIOD OF RECORD.--1935-68, 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.60 ft (7.50 m) below land-surface datum, June 3, 1938; lowest, 44.70 ft (13.62 m) below land-surface datum, Sept. 7, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 9, 1975	41.22	JAN. 2, 1976	42.56	APR. 5, 1976	43.82	JULY 6, 1976	43.99
NOV. 4	41.17	FEB. 3	43.10	MAY 5	43.77	AUG. 4	44.50
DEC. 3	41.34	MAR. 1	43.65	JUNE 4	43.80	SEP. 7	44.70

See footnotes at end of table.

San Joaquin County--Continued

Mokelumne River Basin--Continued

381007121153601. Local number 4N/7E-30E4 M.

LOCATION.--Lat 38°10'07", long 121°15'36", about 2.5 mi (4.0 km) north of Lodi.

Owner: Charles Weber.

AQUIFER.--Victor Formation of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in (15.24 cm), depth 76 ft (23.2 m), casing information not available.

DATUM.--Altitude of land-surface datum is 57.18 ft (17.43 m) above mean sea level. Measuring point: 0.42 ft (0.13 m) above land-surface datum.

REMARKS.--Measured by East Bay Municipal Utility District.

PERIOD OF RECORD.--1941-68, 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.35 ft (8.03 m) below land-surface datum, Jan. 4, 1944; lowest, 63.72 ft (19.42 m) below land-surface datum, Aug. 4, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 3, 1975	54.37	JAN. 6, 1976	51.37	APR. 2, 1976	59.30	JULY 6, 1976	62.59
NOV. 4	53.32	FEB. 3	52.70	MAY 6	58.81	AUG. 4	63.72
DEC. 2	52.56	MAR. 2	53.09	JUNE 4	59.76	SEP. 7	61.55

380911121114801. Local number 4N/7E-34F11 M.

LOCATION.--Lat 38°09'11", long 121°11'48", about 4.2 mi (6.8 km) east of Lodi.

Owner: John J. Schmiedt.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in (10.16 cm), depth, 23 ft (7.0 m), previously reported 24 ft (7.3 m), casing information not available.

DATUM.--Altitude of land-surface datum is 61.76 ft (18.82 m) above mean sea level. Measuring point: 1.35 ft (0.41 m) above mean sea level.

REMARKS.--Measured by East Bay Municipal Utility District.

PERIOD OF RECORD.--1952-68, 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.09 ft (1.86 m) below land-surface datum, Jan. 6, 1956; lowest, 21.90 ft (6.68 m) below land-surface datum, Sept. 7, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 7, 1975	18.61	JAN. 9, 1976	19.85	APR. 2, 1976	21.63	JULY 6, 1976	21.61
NOV. 4	17.39	FEB. 3	20.87	MAY 6	21.31	AUG. 5	21.70
DEC. 3	18.58	MAR. 3	21.28	JUNE 4	20.55	SEP. 7	21.90

A Well being pumped.

F Dry.

N No measurement.

O Discontinued.

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

KERN COUNTY

Fremont Valley-Koehn Lake Area

LOCAL IDENTIFIER		DATE OF SAMPLE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
030S039E08A01M		76-02-03	3162	8.7	320	89	28	61	530	78	13

DATE OF SAMPLE	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED SILICA (SiO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED BORON (B) (UG/L)
76-02-03	11	240	21	232	.9	51	850	.7	8.8	1680	.03	1800

DATE OF SAMPLE	DIS-SOLVED IRON (FE) (UG/L)
76-02-03	90

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FACTORS FOR CONVERTING ENGLISH UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the English units published herein to the International System of Units (SI). Subsequent reports will contain both the English and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply English units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1 2.54×10^{-2}	millimeters (mm) meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3 4.047×10^{-1} 4.047×10^{-1} 4.047×10^{-3}	square meters (m ²) *hectares (ha) square hectometers (hm ²) square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0 3.785×10^0 3.785×10^{-3}	**liters (l) cubic decimeters (dm ³) cubic meters (m ³)
million gallons (10 ⁶ gal)	3.785×10^3 3.785×10^{-3}	cubic meters (m ³) cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1 2.832×10^{-2}	cubic decimeters (dm ³) cubic meters (m ³)
cfs-days [(ft ³ /s) · d]	2.447×10^3 2.447×10^{-3}	cubic meters (m ³) cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3 1.233×10^{-3} 1.233×10^{-6}	cubic meters (m ³) cubic hectometers (hm ³) cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1 2.832×10^1 2.832×10^{-2}	liters per second (l/s) cubic decimeters per second (dm ³ /s) cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2} 6.309×10^{-2} 6.309×10^{-5}	liters per second (l/s) cubic decimeters per second (dm ³ /s) cubic meters per second (m ³ /s)
million gallons per day (mgal/d)	4.381×10^1 4.381×10^{-2}	cubic decimeters per second (dm ³ /s) cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	tonnes (t)

*The unit hectare is approved for use with the International System (SI) for a limited time. See NBS Special Bulletin 330, p.15, 1972 edition.

**The unit liter is accepted for use with the International System (SI). See NBS Special Bulletin 330, p. 13, 1972 edition.

U.S. DEPARTMENT OF THE INTERIOR
Geological Survey
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