Water Resources Data for California

Water Year 1976

Volume 4. Northern Central Valley Basins and The Great Basin from Honey Lake Basin to Oregon State Line

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-76-4

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

CALENDAR FOR WATER YEAR 1976

1975

OCTOBER

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1976

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AUGUST

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SEPTEMBER

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Prepared in cooperation with the California Department 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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12. Sponsoring Organization Name and Address U.S. Geological Survey, Water Resources Division California District 345 Middlefield Rd. Menlo Park, CA 94025			13. Type of Report & Period Covered Annual--Oct. 1, 1975 to Sept. 30, 1976 14.

15. Supplementary Notes
Prepared in cooperation with the California Department of Water Resources and with other agencies.

16. Abstracts

Volume 4 of the water resources data for the 1976 water year for California consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality in lakes and reservoirs; and water levels in wells. This report contains discharge records for 197 gaging stations; stage and contents for 31 lakes and reservoirs; water quality for 38 stations, and water levels for 3 observation wells. Also included are 25 crest-stage partial-record stations, 15 low-flow partial-record stations, and 7 water-quality partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as special investigations and miscellaneous measurements. These data represent that part of the National Water Data system operated by the U.S. Geological Survey and cooperating State and Federal agencies in California.

17. Key Words and Document Analysis. 17a. Descriptors

*California, *Hydrologic data, *Surface water, *Water quality, *Ground water, Flow rate, Gaging stations, Lakes, Reservoirs, chemical analyses, Sediment, Water temperatures, Sampling sites, Water levels, Water analyses.

17b. Identifiers/Open-Ended Terms

17c. COSATI Field Group

18. Availability Statement	19. Security Class (This Report)	21. No. of Pages
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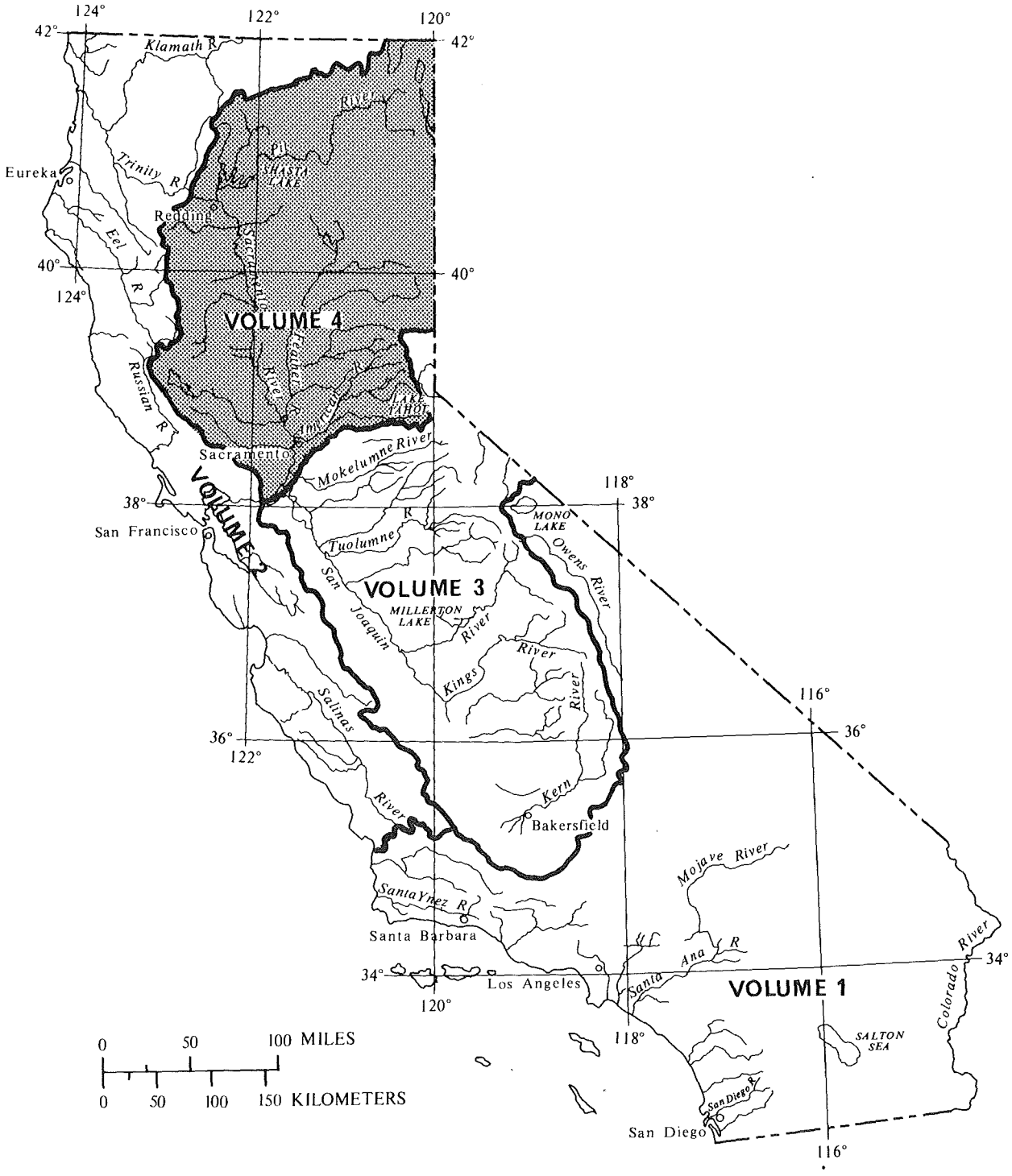

Area covered by volumes in the annual series on water-resources data for California. Area covered by this volume is shaded.

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

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

WATER RESOURCES DATA FOR CALIFORNIA, 1976

Volume 4

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-76-4." 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. Trumbatore, district director.
California Water Resources Control Board, James A. Robertson, executive director.
Georgetown Divide Public Utility District, C. F. Gierau, general manager.
Lake County Flood Control and Water Conservation District, Willard D. Hansen, manager.
Modoc County Department of Public Works, J. K. Grove, director.
Oroville-Wyandotte Irrigation District, Milton R. Emerson, general manager.
Paradise Irrigation District, C. P. Kelly, manager.
Sacramento County Department of Public Works, Water Resources Division, J. P. Alessandri, chief.
Siskiyou County Flood Control and Water Conservation District, D. A. Gravenkamp, director of public works.
Solano Irrigation District, Brice Bledsoe, secretary-manager.
Yolo County Flood Control and Water Conservation District, W. L. McAnglis, manager.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army; Bureau of Reclamation, U.S. Department of the Interior; and Forest Service and Soil Conservation Service, U.S. Department of Agriculture, and U.S. Environmental Protection Agency.

The following organizations aided in collecting records: Pacific Gas and Electric Co., Placer County Water Agency, Sacramento Municipal Utility District, Nevada and Oroville-Wyandotte Districts, and Yuba County Water Agency.

ACKNOWLEDGMENT

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 acknowledgement 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 Redding and Tahoe City field offices, and the Sacramento field unit supervised by W. F. Shelton, 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. 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.

The areal trend in runoff for the water year is shown in figure 1. Runoff at selected stations is given as a percentage of the median for the 30-year period 1941-70. In the area covered by this volume, runoff ranged from 64 percent of the median in the northern part of the Sacramento River basin to 13 percent in the southern part.

At the beginning of the water year the average of the contents of four of the major reservoirs in this area was 123 percent, which dwindled to 62 percent at the end of the year.

The quality of surface water did not change appreciably during the year. Ground-water levels dropped below average because of the increased demand. Many new wells were drilled during the year to supplement the reduced supply of surface water.

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.

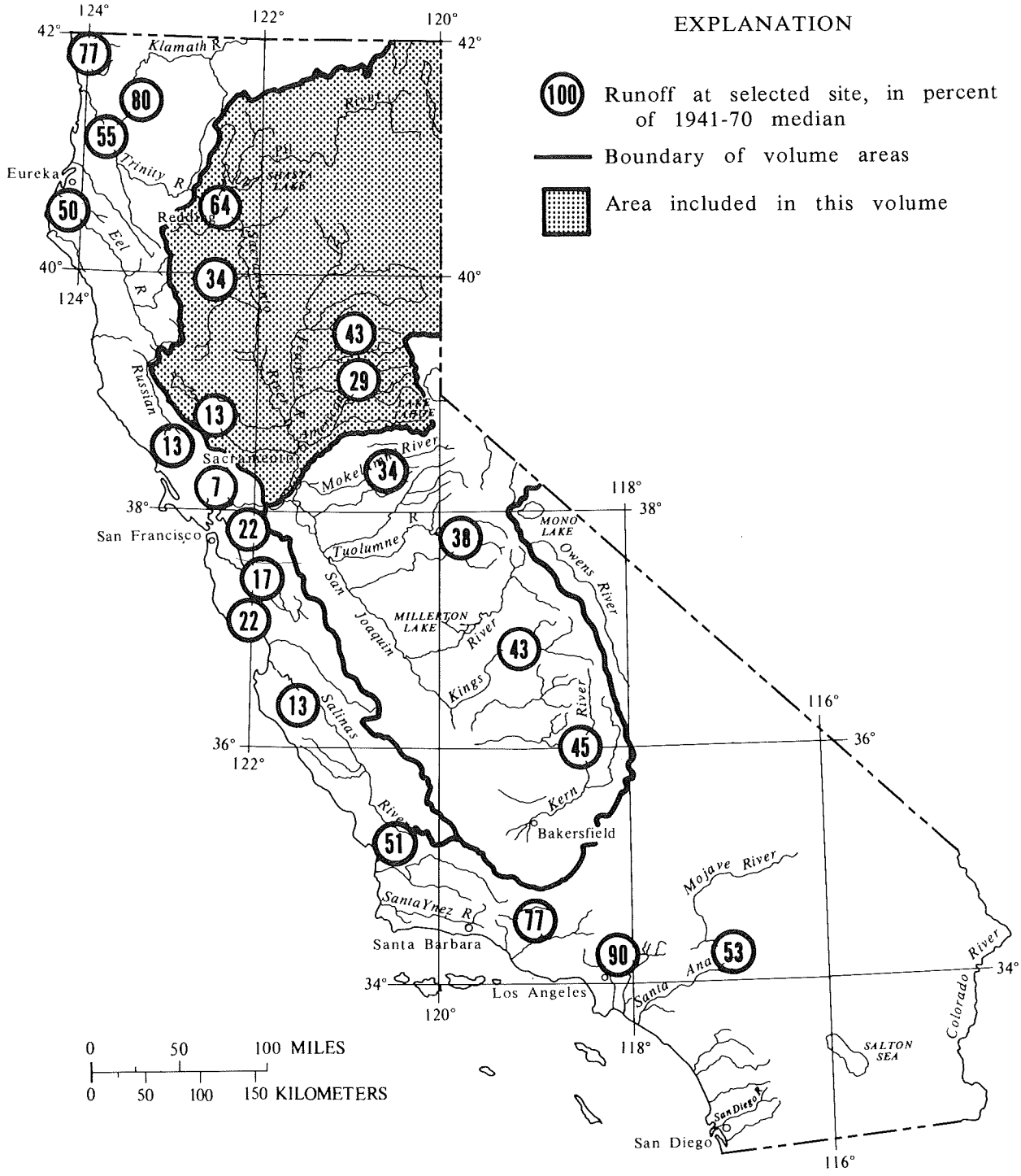

FIGURE 1.--Runoff for the current water year.

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 ± 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 ± 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 streptoccal 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 ± 1.0°C on M-enterrococcus 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 (FT^3/S, ft^3/s), is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

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:

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

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.

Ft^3/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, µg/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, µg/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 (disintegraions per minute).

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

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

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

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

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

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

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

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

Milligrams of carbon per area or volume per unit time [mg C/(m^2·time) for periphyton and macrophytes and mg C/(m^3·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 [mg O_2/(m^2·time) for periphyton and macrophytes and mg O_2/(m^3·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 emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and miltiplate 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.....*Hexagenia*
Species.....*limbata*

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

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 indention in a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention 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.

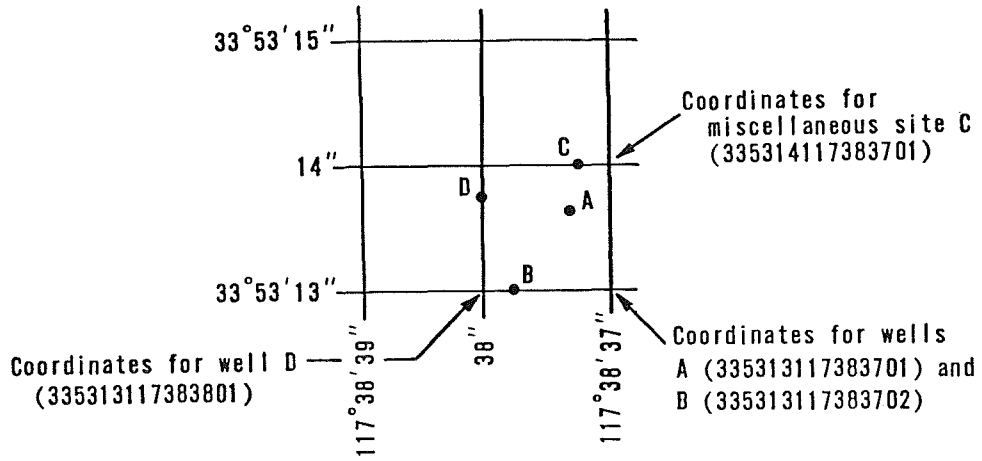

Figure 2.--System for numbering wells and miscellaneous sites (latitude and longitude).

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.

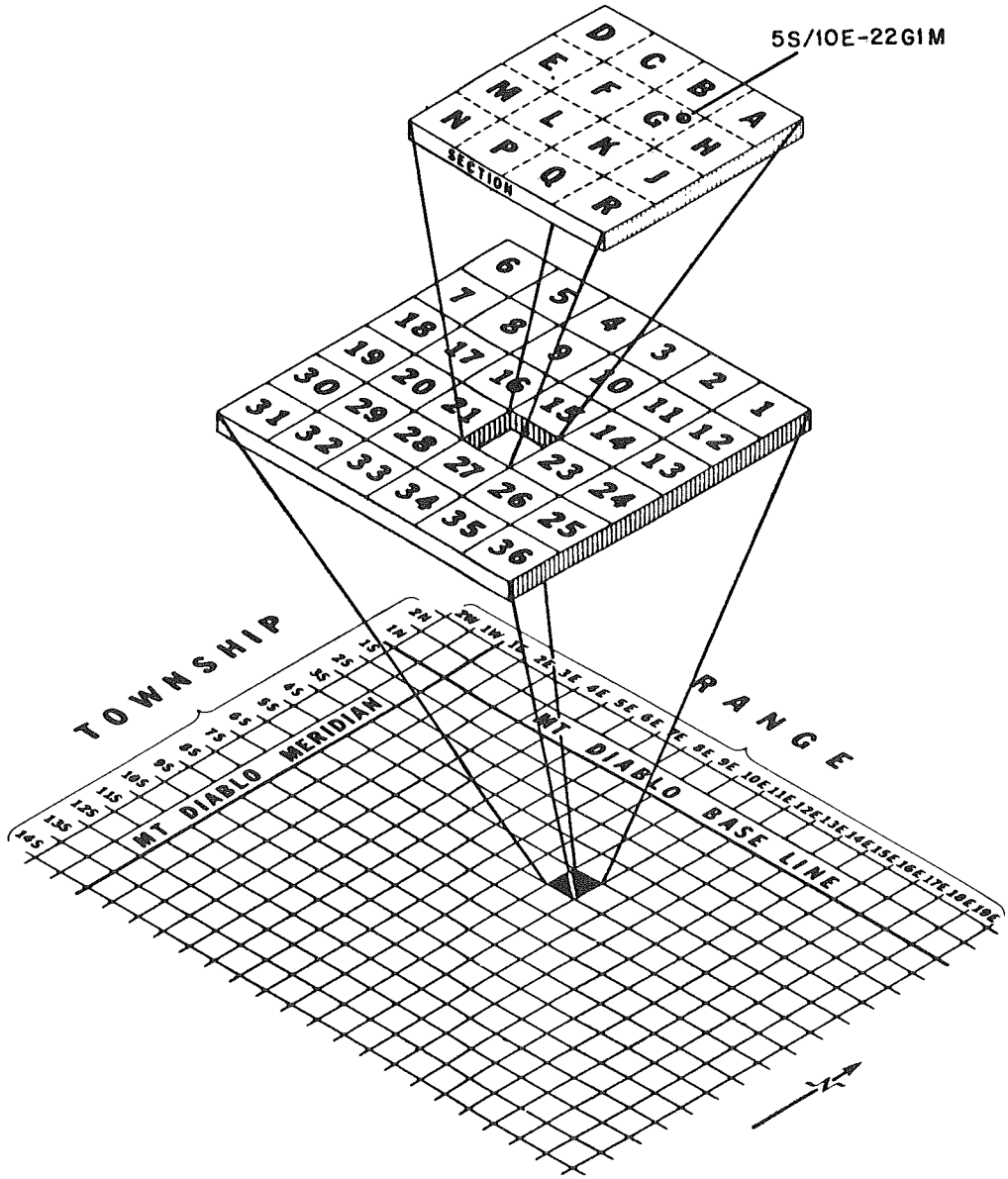

Figure 3.--Local well-numbering system.

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. Measuremements 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 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures above 1,000 ft^3/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*

Turbidity, in ppm or mg/L	Turbidity, in JTU
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 Dalyrmple 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. *Fluormetric procedures for dye tracing,* by J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A12. 1968. 31 pages. $0.35. Not currently available.

3-B1. *Aquifer-test design, observation, and data analyses,* by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages. $0.70.

3-B2. *Introduction to ground-water hydraulics--a programed text for self-instruction,* by 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 simultation 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.

10356500 SUSAN RIVER AT SUSANVILLE, CA

LOCATION.--Lat 40°25'03", long 120°40'15", in SW¼NE¼ sec.31, T.30 N., R.12 E., Lassen County, on left bank 0.5 mi (0.8 km) west of Susanville, and 1.1 mi (1.8 km) upstream from Piute Creek.

DRAINAGE AREA.--184 mi^2 (477 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1900 to December 1905 (gage heights only August 1901 to January 1903), March to May 1913 (gage heights only), February 1917 to June 1921, October 1950 to current year. Published as "near Susanville" 1900-1905. Discharge records for August to December 1901 and January 1903, published in WSP 300, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 4,225.72 ft (1,287.999 m) above mean sea level. Prior to Oct. 1, 1950, nonrecording gages at several sites in vicinity of old powerplant 0.9 mi (1.4 km) upstream at various datums.

REMARKS.--Records good. Flow regulated by McCoy Flat Reservoir and Hog Flat Reservoir, combined usable capacity, 25,300 acre-ft (31.2 hm^3). Diversions for irrigation of 1,400 acres (567 hm^2) above station.

AVERAGE DISCHARGE.--32 years (water years 1901, 1904-5, 1918-20, 1951-76), 98.4 ft^3/s 2.787 m^3/s), 71,290 acre-ft/yr (87.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,850 ft^3/s (166 m^3/s) Jan. 24, 1970, gage height, 8.89 ft (2.710 m) in gage well, 10.4 ft (3.17 m), from floodmarks, from rating curve extended above 1,000 ft^3/s (28.3 m^3/s) on basis of slope-area measurement at gage height 6.62 ft (2.018 m) and contracted-opening measurement at gage height 8.89 ft (2.710 m); no flow Aug. 15, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 180 ft^3/s (5.10 m^3/s) Feb. 29, gage height, 2.91 ft (0.887 m); minimum daily, 3.2 ft^3/s (0.091 m^3/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	11	29	21	15	15	75	36	161	8.4	4.8	6.7	4.8
2	10	25	21	14	15	51	32	158	8.7	5.1	5.9	4.6
3	11	23	20	13	15	44	30	154	8.1	5.3	5.6	4.4
4	11	22	20	13	14	38	31	150	7.3	5.4	4.8	4.7
5	10	22	37	14	13	35	47	146	6.5	5.4	4.7	4.7
6	27	23	34	15	12	33	51	141	6.4	4.7	4.4	4.2
7	35	25	26	16	13	33	51	138	7.5	4.6	4.8	4.2
8	20	27	23	16	15	42	55	133	7.3	3.9	4.7	4.2
9	16	24	22	16	17	44	53	126	8.0	3.8	4.6	4.3
10	26	26	22	15	17	44	51	114	9.5	3.9	4.6	4.4
11	35	23	20	16	16	44	61	78	13	3.8	4.6	5.3
12	24	24	23	16	18	37	62	43	9.3	4.2	4.8	5.0
13	20	24	20	16	19	34	59	35	8.0	4.3	4.4	5.3
14	18	24	19	16	28	36	56	29	6.8	4.2	6.4	5.1
15	17	42	21	16	21	41	56	26	5.3	4.2	7.4	7.1
16	16	69	21	16	21	46	52	22	5.6	4.2	7.1	8.0
17	15	38	22	16	22	58	50	19	5.2	4.6	6.6	7.6
18	15	26	22	16	25	62	48	18	6.1	4.3	7.4	7.4
19	15	22	23	16	24	49	46	16	5.1	4.7	8.6	7.3
20	15	21	24	17	21	42	47	13	4.6	5.3	7.6	6.9
21	15	20	22	19	19	41	47	13	4.6	3.2	5.8	6.7
22	18	19	21	19	20	42	43	13	4.9	3.9	5.1	6.9
23	17	19	21	18	19	44	42	13	5.0	4.0	5.8	6.6
24	16	20	20	18	19	47	46	14	5.0	4.2	6.2	6.1
25	17	21	19	16	20	45	44	14	4.9	3.9	6.2	7.3
26	37	21	19	18	29	40	109	11	4.9	3.7	5.9	7.4
27	37	22	21	17	35	38	143	8.7	5.0	3.6	5.1	7.3
28	27	20	19	16	65	36	161	8.6	5.1	4.0	5.1	6.9
29	23	18	19	16	128	36	161	8.2	5.1	4.3	4.6	7.3
30	54	19	19	16	---	35	160	7.8	4.8	4.6	4.8	7.4
31	40	---	16	15	---	37	---	8.4	---	4.4	4.7	---
TOTAL	668	758	677	496	715	1329	1930	1839.7	196.0	134.5	175.0	179.4
MEAN	21.5	25.3	21.8	16.0	24.7	42.9	64.3	59.3	6.53	4.34	5.65	5.98
MAX	54	69	37	19	128	75	161	161	13	5.4	8.6	8.0
MIN	10	18	16	13	12	33	30	7.8	4.6	3.2	4.4	4.2
AC-FT	1320	1500	1340	984	1420	2640	3830	3650	389	267	347	356

CAL YR 1975 TOTAL 39282.5 MEAN 108 MAX 648 MIN 9.5 AC-FT 77920
WTR YR 1976 TOTAL 9097.6 MEAN 24.9 MAX 161 MIN 3.2 AC-FT 18050

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSES: Water years 1952 to current year.

COOPERATION.--Records furnished by California Department of Water Resources.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	DIS-CHARGE (CFS)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	HARD-NESS (CA,MG) (MG/L)
OCT										
15...	1210	--	19	159	8.2	10.0	1	10.1	--	--
NOV										
04...	1410	--	24	154	8.3	3.5	2	11.9	--	--
DEC										
03...	1120	--	20	153	7.9	3.0	2	12.3	--	--
JAN										
06...	1415	33	--	159	8.1	2.5	1	11.6	--	--
FEB										
04...	1215	14	--	157	8.3	2.0	1	11.0	--	--
MAR										
10...	0920	--	37	137	7.4	2.5	11	11.3	--	--
APR										
21...	1030	--	45	102	7.6	9.5	2	10.3	--	47
MAY										
18...	1330	--	20	145	8.0	15.0	0	9.1	.6	62
JUN										
06...	1300	--	7.3	159	8.1	18.0	1	9.3	--	68
16...	0820	--	5.4	175	7.5	15.5	1	8.9	--	76
JUL										
06...	1315	--	4.7	188	8.2	25.0	0	9.6	--	85
20...	0810	--	5.0	180	7.9	20.0	0	9.5	.9	87
AUG										
11...	1100	--	4.6	196	8.1	21.0	2	9.8	--	--
17...	1230	--	4.7	190	7.8	15.0	0	10.5	.9	86
SEP										
01...	1215	--	4.8	171	8.1	22.0	4	9.8	--	--
21...	1245	--	4.7	200	8.1	17.0	1	9.8	1.0	88

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)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT										
15...	--	--	--	--	--	--	--	--	--	--
NOV										
04...	--	--	--	--	--	--	--	--	--	--
DEC										
03...	--	--	--	--	--	--	--	--	--	--
JAN										
06...	--	--	--	--	--	--	--	--	--	--
FEB										
04...	--	--	--	--	--	--	--	--	--	--
MAR										
10...	--	--	--	--	--	--	--	--	--	--
APR										
21...	0	--	--	4.0	--	.3	--	66	0	54
MAY										
18...	0	12	7.8	4.6	14	.3	1.4	81	0	66
JUN										
06...	0	--	--	5.5	--	.3	--	97	0	80
16...	0	--	--	6.2	--	.3	--	106	0	87
JUL										
06...	0	--	--	7.2	--	.3	--	122	0	100
20...	0	--	--	6.8	--	.3	--	120	0	98
AUG										
11...	--	--	--	--	--	--	--	--	--	--
17...	0	--	--	6.6	--	.3	--	122	0	100
SEP										
01...	--	--	--	--	--	--	--	--	--	--
21...	1	--	--	6.8	--	.3	--	106	0	87

10356500 SUSAN RIVER AT SUSANVILLE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	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)	DIS-SOLVED 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 PHOS-PHORUS (P) (MG/L)
OCT										
15...	--	--	--	--	--	--	--	--	--	--
NOV										
04...	--	--	--	--	--	--	--	--	--	--
DEC										
03...	--	--	--	--	--	--	--	--	--	--
JAN										
06...	--	--	--	--	--	--	--	--	--	--
FEB										
04...	--	--	--	--	--	--	--	--	--	--
MAR										
10...	--	--	--	--	--	--	--	--	--	--
APR										
21...	--	1.5	--	--	--	.00	.01	.20	.21	.06
MAY										
18...	.0	1.2	97	.13	5.24	.10	--	--	.10	.07
JUN										
06...	--	.0	--	--	--	--	--	--	--	--
16...	--	.0	--	--	--	--	--	--	--	--
JUL										
06...	--	.4	--	--	--	--	--	--	--	--
20...	--	.4	--	--	--	.00	--	--	.20	.05
AUG										
11...	--	--	--	--	--	--	--	--	--	--
17...	--	1.4	--	--	--	--	--	--	--	--
SEP										
01...	--	--	--	--	--	--	--	--	--	--
21...	--	2.2	--	--	--	.01	--	--	.10	.04

DATE	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT									
15...	--	--	--	--	--	--	--	--	--
NOV									
04...	--	--	--	--	--	--	--	--	--
DEC									
03...	--	--	--	--	--	--	--	--	--
JAN									
06...	--	--	--	--	--	--	--	--	--
FEB									
04...	--	--	--	--	--	--	--	--	--
MAR									
10...	--	--	--	--	--	--	--	--	--
APR									
21...	.01	0	0	0	430	0	20	0	--
MAY									
18...	.00	0	--	--	--	--	--	--	2.5
JUN									
06...	--	0	--	--	--	--	--	--	--
16...	--	0	--	--	--	--	--	--	--
JUL									
06...	--	0	--	--	--	--	--	--	--
20...	.04	0	--	--	--	--	--	--	3.4
AUG									
11...	--	--	--	--	--	--	--	--	--
17...	--	0	--	--	--	--	--	--	2.9
SEP									
01...	--	--	--	--	--	--	--	--	--
21...	.04	0	--	--	--	--	--	--	3.4

10358500 WILLOW CREEK NEAR SUSANVILLE, CA

LOCATION.--Lat 40°29'21", long 120°32'10", in SW¼NE¼ sec.5, T.30 N., R.13 E., Lassen County, on left bank 4 mi (6 km) upstream from Peters Valley Creek, and 8 mi (13 km) northeast of Susanville.

DRAINAGE AREA.--90.4 mi^2 (234.1 km^2), excludes that of Eagle Lake Basin.

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

REVISED RECORDS.--WDR CA-75-4: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,836.27 ft (1,474.095 m) above mean sea level, unadjusted.

REMARKS.--Records good. Diversions for irrigation of 5,200 acres (21.0 km^2) above station. Some flow at times enters Willow Creek from Eagle Lake through an abandoned tunnel.

AVERAGE DISCHARGE.--26 years, 34.8 ft^3/s (0.986 m^3/s), 25,210 acre-ft/yr (31.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 816 ft^3/s (23.1 m^3/s) Feb. 1, 1963, gage height, 5.59 ft (1.704 m), from rating curve extended above 540 ft^3/s (15.3 m^3/s); minimum, 8.1 ft^3/s (0.23 m^3/s) Nov. 16, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 52 ft^3/s (1.47 m^3/s) Dec. 31, Mar. 3, gage height, 2.78 ft (0.847 m), no peak above base of 200 ft^3/s (5.66 m^3/s); minimum daily, 10 ft^3/s (0.28 m^3/s) on 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	31	40	37	37	36	34	19	18	11	10	12	13
2	31	39	38	36	37	39	16	17	11	10	11	13
3	31	39	38	37	37	37	18	17	11	10	12	12
4	32	38	38	36	37	37	17	16	11	10	13	13
5	34	38	38	37	34	36	15	15	11	10	13	13
6	37	38	38	38	35	37	15	15	11	10	13	13
7	40	37	37	38	34	39	14	14	10	10	12	14
8	42	38	37	38	36	39	14	15	10	10	13	14
9	43	38	37	39	38	38	15	16	11	11	13	13
10	45	38	37	38	37	37	17	16	11	10	12	13
11	46	38	37	38	37	25	20	16	10	10	12	14
12	46	38	37	38	38	19	21	15	11	10	11	14
13	47	38	37	38	39	18	21	14	11	10	11	15
14	46	38	32	38	40	18	17	13	11	10	11	20
15	44	39	37	38	38	22	15	13	12	10	11	32
16	42	39	36	38	38	29	15	12	13	11	11	36
17	42	38	36	38	38	28	17	12	13	11	11	37
18	41	37	36	38	37	31	20	12	13	12	11	37
19	39	37	36	38	38	38	20	12	12	11	13	36
20	38	37	36	38	37	38	21	12	12	11	13	35
21	38	37	36	38	37	38	19	12	12	11	13	34
22	39	37	37	38	37	36	18	11	11	11	15	33
23	38	37	38	38	37	35	16	11	11	11	16	33
24	38	37	38	38	37	34	15	11	11	11	17	33
25	38	37	39	38	36	34	17	11	10	11	17	31
26	39	37	39	38	36	34	18	12	11	11	17	28
27	39	37	39	38	38	34	20	11	11	11	19	30
28	38	36	39	37	26	32	19	12	11	11	22	32
29	39	31	39	36	19	17	18	12	10	11	18	32
30	40	38	40	36	---	16	18	12	10	11	16	31
31	40	---	35	36	---	18	---	12	---	11	14	---
TOTAL	1223	1126	1154	1165	1044	967	525	417	334	328	423	724
MEAN	39.5	37.5	37.2	37.6	36.0	31.2	17.5	13.5	11.1	10.6	13.6	24.1
MAX	47	40	40	39	40	39	21	18	13	12	22	37
MIN	31	31	32	36	19	16	14	11	10	10	11	12
AC-FT	2430	2230	2290	2310	2070	1920	1040	827	662	651	839	1440

CAL YR 1975 TOTAL 16090 MEAN 44.1 MAX 343 MIN 13 AC-FT 31910
WTR YR 1976 TOTAL 9430 MEAN 25.8 MAX 47 MIN 10 AC-FT 18700

10359300 PINE CREEK NEAR SUSANVILLE, CA

LOCATION.--Lat 40°39'54", long 120°47'25", in NE¼SE¼ sec.1, T.32 N., R.10 E., Lassen County, on right bank 0.3 mi (0.5 km) upstream from Eagle Lake, and 18 mi (29 km) northwest of Susanville.

DRAINAGE AREA.--226 mi^2 (585 km^2).

PERIOD OF RECORD.--October 1960 to September 1966, October 1967 to September 1968, October 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,120 ft (1,561 m), from topographic map. Prior to September 1968, at site 1.0 mi (1.6 km) upstream at different datum.

REMARKS.--No storage or diversion above station except for minor stock ponds.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--14 years (water years 1961-66, 1968, 1970-76), 22.1 ft^3/s (0.626 m^3/s), 16,010 acre-ft/yr (19.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,140 ft^3/s (32.3 m^3/s) May 15, 1975, gage height, 5.45 ft (1.661 m); maximum gage height, 5.60 ft (1.707 m) Jan. 24, 1970; no flow for several months in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 18, 1967, reached a stage of 5.29 ft (1.612 m), discharge, 826 ft^3/s (23.4 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27 ft^3/s (0.76 m^3/s) Feb. 24, gage height, 3.62 ft (1.103 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	20						
2					0	20						
3					0	19						
4					0	19						
5					0	19						
6					0	17						
7					0	9.9						
8					0	0						
9					0	0						
10					0	0						
11					0	4.0						
12					0	3.2						
13					0	1.6						
14					0	1.7						
15					0	.60						
16					0	1.5						
17					0	3.5						
18					0	1.6						
19					0	0						
20					0	0						
21					0	0						
22					0	0						
23					0	0						
24					0	0						
25					0	0						
26					0	0						
27					0	0						
28					7.6	0						
29					24	0						
30					---	0						
31		---			---	0	---		---			---
TOTAL	0	0	0	0	31.6	141.60	0	0	0	0	0	0
MEAN	0	0	0	0	1.09	4.57	0	0	0	0	0	0
MAX	0	0	0	0	24	20	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	63	281	0	0	0	0	0	0

CAL YR 1975	TOTAL	15424.90	MEAN 42.3	MAX 1140	MIN 0	AC-FT	30600	
WTR YR 1976	TOTAL	173.20	MEAN .47	MAX 24	MIN 0	AC-FT	344	

10360900 BIDWELL CREEK BELOW MILL CREEK, NEAR FORT BIDWELL, CA

LOCATION.--Lat 41°52'57", long 120°10'26", in NE¼SE¼ sec.6, T.46 N., R.16 E., Modoc County, on right bank 0.9 mi (1.4 km) downstream from Mill Creek, and 2.0 mi (3.2 km) northwest of Fort Bidwell.

DRAINAGE AREA.--25.6 mi^2 (66.3 km^2).

PERIOD OF RECORD.--October 1960 to current year. Prior to October 1961, published as Bidwell Creek near Fort Bidwell.

REVISED RECORDS.--WDR CA-71-2: 1969-70.

GAGE.--Water-stage recorder. Altitude of gage is 5,000 ft (1,524 m), from topographic map.

REMARKS.--Less than 2 ft^3/s (0.057 m^3/s) diverted upstream for irrigation. No storage above station.

COOPERATION.--Records furnished by the California Department of Water Resources and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--16 years, 22.6 ft^3/s (0.640 m^3/s), 16,370 acre-ft/yr (20.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 682 ft^3/s (19.3 m^3/s) Dec. 24, 1964, gage height, 5.64 ft (1.719 m), from rating curve extended above 105 ft^3/s (2.97 m^3/s) on basis of slope-area measurement of maximum flow; minimum, 1.4 ft^3/s (0.040 m^3/s) Nov. 5, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 108 ft^3/s (3.06 m^3/s) May 15, gage height, 4.17 ft (1.271 m); minimum daily, 4.4 ft^3/s (0.12 m^3/s) Oct. 20, Sept. 14, 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	5.1	6.7	8.2	8.1	7.9	9.3	13	57	47	16	8.9	5.4
2	5.1	7.3	7.6	7.7	7.9	9.0	14	76	44	15	8.0	5.2
3	5.0	8.4	6.7	7.7	8.5	8.7	14	77	42	14	7.9	5.2
4	5.0	8.3	9.8	7.7	8.2	8.2	18	76	39	14	7.3	5.0
5	5.0	8.1	17	7.7	7.7	7.9	25	84	36	13	7.7	4.9
6	5.4	7.8	17	7.3	7.2	8.7	27	78	33	12	7.7	5.0
7	5.9	9.7	12	7.3	7.2	8.7	27	72	34	12	7.5	5.0
8	5.6	7.3	10	7.7	7.7	7.1	30	83	32	12	6.9	4.7
9	5.4	6.6	9.8	7.6	7.9	8.4	27	96	32	11	6.5	4.6
10	6.0	7.1	9.6	7.7	7.5	10	26	99	32	11	6.3	4.6
11	6.1	7.1	9.4	7.2	7.6	12	24	103	31	11	6.1	5.0
12	5.9	6.6	9.3	7.2	6.9	12	23	96	31	11	6.0	4.8
13	6.0	6.1	8.8	6.8	7.4	11	21	95	30	10	5.9	4.6
14	5.8	6.2	9.8	6.9	7.3	11	22	100	29	10	8.8	4.4
15	5.3	10	13	7.1	7.2	11	24	105	27	9.5	13	4.9
16	4.9	11	13	7.5	7.2	13	22	94	26	9.2	14	5.1
17	4.8	9.7	13	7.9	7.2	20	20	84	27	9.9	9.8	5.1
18	4.9	9.2	13	8.2	7.1	22	19	78	27	14	8.9	4.8
19	4.6	9.2	15	8.3	7.0	18	19	73	25	10	8.1	4.7
20	4.4	9.2	17	9.1	6.7	15	27	66	26	9.4	7.3	4.7
21	6.8	8.2	18	8.2	7.3	14	34	62	28	8.9	6.8	4.7
22	7.6	7.7	11	8.7	6.6	14	37	58	27	8.4	7.0	4.7
23	5.8	6.1	7.5	8.5	6.6	14	36	59	23	8.8	7.6	4.6
24	5.5	5.8	7.2	8.5	6.4	14	55	60	21	9.2	6.6	4.5
25	8.2	5.5	7.2	9.2	6.4	13	61	58	20	8.0	6.4	4.6
26	11	5.5	7.7	7.7	8.0	12	44	56	19	7.4	6.3	4.6
27	7.5	5.5	7.3	7.7	9.0	11	35	57	18	7.3	6.2	4.4
28	6.5	5.2	7.2	7.5	10	11	30	61	17	7.2	6.1	4.7
29	6.3	7.2	7.3	7.6	10	11	32	54	17	7.2	5.8	4.7
30	8.0	6.6	7.3	7.7	---	11	39	50	16	7.1	5.8	4.5
31	6.8	---	6.9	7.8	---	13	---	53	---	7.4	5.8	---
TOTAL	186.2	224.9	323.6	241.8	219.6	369.0	845	2320	856	320.9	233.0	143.7
MEAN	6.01	7.50	10.4	7.80	7.57	11.9	28.2	74.8	28.5	10.4	7.52	4.79
MAX	11	11	18	9.2	10	22	61	105	47	16	14	5.4
MIN	4.4	5.2	6.7	6.8	6.4	7.1	13	50	16	7.1	5.8	4.4
AC-FT	369	446	642	480	436	732	1680	4600	1700	637	462	285

CAL YR 1975 TOTAL 8289.1 MEAN 22.7 MAX 178 MIN 4.4 AC-FT 16440
WTR YR 1976 TOTAL 6283.7 MEAN 17.2 MAX 105 MIN 4.4 AC-FT 12460

11341400 SACRAMENTO RIVER NEAR MT SHASTA, CA

LOCATION.--Lat 41°15'56", long 122°18'32", in SE¼SE¼ sec.33, T.40 N., R.4 W., Siskiyou County, on left bank 200 ft (61 m) upstream from Stink Creek, 0.3 mi (0.5 km) upstream from Southern Pacific Railroad bridge, 1.7 mi (2.7 km) downstream from Box Canyon Dam, and 3.3 mi (5.3 km) south of town of Mt Shasta.

DRAINAGE AREA.--135 mi^2 (350 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 2,800 ft (853 m), from topographic map. Prior to July 1, 1966, water-stage recorder at site 500 ft (152 m) upstream at datum 4.26 ft (1.298 m) higher.

REMARKS.--Records good. Flow regulated by Box Canyon Dam 2 mi (3 km) upstream beginning December 1968, capacity, 26,100 acre-ft (32.2 hm^3). See schematic diagram of Pit and McCloud River basins.

AVERAGE DISCHARGE (adjusted for change in contents in Lake Siskiyou).--17 years, 254 ft^3/s (7.193 m^3/s), 184,000 acre-ft/yr (227 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft^3/s (346 m^3/s) Dec. 22, 1964, gage height, 12.6 ft (3.84 m) from floodmarks, present site and datum, from slope-area measurement of maximum flow; minimum, 37 ft^3/s (1.05 m^3/s) Sept. 6, 1962. Maximum discharge since construction of Box Canyon Dam in 1968, 11,500 ft^3/s (326 m^3/s) Jan. 16, 1974, gage height, 10.25 ft (3.124 m) from floodmarks, from rating curve extended above 2,900 ft^3/s (82.1 m^3/s) on basis of flow-over-dam computation of maximum flow; minimum daily, 14 ft^3/s (0.40 m^3/s) Dec. 8-16, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 861 ft^3/s (24.4 m^3/s) Apr. 8, gage height, 4.93 ft (1.503 m); minimum daily, 49 ft^3/s (1.39 m^3/s) Sept. 7-12.

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	131	114	100	101	128	150	403	137	68	52	57
2	61	129	99	105	101	138	132	444	140	68	52	55
3	60	130	99	105	102	135	125	462	140	67	54	53
4	60	129	99	105	102	132	148	468	138	66	53	52
5	60	129	105	104	79	132	172	456	136	66	53	52
6	65	129	109	104	54	128	238	450	136	65	53	52
7	70	112	107	104	54	126	276	448	135	64	54	49
8	71	100	107	104	54	127	703	494	135	63	55	49
9	77	100	107	104	55	126	444	624	118	63	56	49
10	151	101	107	104	55	128	334	667	91	62	54	49
11	148	101	105	104	80	129	364	659	91	61	52	49
12	133	101	107	104	106	118	331	573	91	63	52	49
13	131	100	107	104	108	100	302	553	91	61	52	51
14	131	101	107	104	109	105	268	563	91	58	52	57
15	129	119	117	104	109	110	239	543	91	56	70	51
16	131	115	139	104	109	126	242	540	91	56	78	51
17	130	112	147	105	109	113	235	384	91	59	78	54
18	131	110	147	105	110	96	234	349	75	58	77	53
19	131	117	126	105	112	97	253	351	58	59	78	54
20	131	131	104	105	111	96	325	286	61	58	73	55
21	129	131	104	103	104	94	339	216	68	57	69	53
22	129	131	104	104	108	95	351	215	79	55	66	53
23	129	131	112	104	109	97	362	215	79	55	70	53
24	129	129	128	104	107	97	337	183	76	54	70	52
25	133	129	129	104	108	96	414	130	77	53	68	52
26	132	127	115	104	170	110	386	132	69	53	61	51
27	129	127	104	103	128	123	338	133	69	53	59	50
28	130	125	105	103	123	133	277	136	70	52	59	56
29	133	125	105	102	120	125	281	136	70	52	58	62
30	140	123	105	101	---	128	342	136	69	52	57	60
31	133	---	105	102	---	158	---	136	---	52	56	---
TOTAL	3510	3575	3475	3217	2897	3646	8942	11485	2863	1829	1891	1583
MEAN	113	119	112	104	99.9	118	298	370	95.4	59.0	61.0	52.8
MAX	151	131	147	105	170	158	703	667	140	68	78	62
MIN	60	100	99	100	54	94	125	130	58	52	52	49
AC-FT	6960	7090	6890	6380	5750	7230	17740	22780	5680	3630	3750	3140
MEAN ‡	87.7	107	118	103	110	143	298	368	97.0	57.9	62.1	52.8
AC-FT ‡	5390	6350	7260	6320	6300	8780	17720	22650	5770	3560	3820	3140
†	24540	23800	24170	24110	24660	26210	26190	26060	26150	26080	26150	26150

CAL YR 1975 TOTAL 97278 MEAN 267 MAX 1320 MIN 56 AC-FT 193000 MEAN ‡ 267 AC-FT ‡ 193300
WTR YR 1976 TOTAL 48913 MEAN 134 MAX 703 MIN 49 AC-FT 97020 MEAN ‡ 134 AC-FT ‡ 97100

‡ Adjusted for change in contents in Lake Siskiyou.
† Contents, in acre-feet, at end of month, in Lake Siskiyou.

11341400 SACRAMENTO RIVER NEAR MT SHASTA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.
CHEMICAL ANALYSES: Water years 1970-72.
WATER TEMPERATURES: Water years 1966 to current year.
SEDIMENT RECORDS: Water year 1972.

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), 20.0°C July 25-28, 1974, July 12, 1975; minimum (water years 1966, 1968-76), 1.5°C on several days in 1968 and 1969.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 18.0°C July 8-10, 17, Aug. 21; minimum, 3.5°C Feb. 5, 6, Mar. 2, 5.

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	14.5	11.0	12.5	10.5	8.5	7.5	5.5	4.5	6.5	5.0	5.5	4.5
2	14.0	11.5	12.5	11.0	8.5	7.5	5.5	4.5	6.5	5.0	4.5	3.5
3	14.0	11.5	12.5	11.0	8.5	7.0	5.5	5.5	6.5	5.0	5.0	4.0
4	14.5	11.0	12.5	10.5	8.5	7.5	6.0	5.5	5.0	4.0	5.0	4.0
5	14.0	11.0	12.0	11.0	8.5	7.5	6.0	5.0	4.5	3.5	5.5	3.5
6	13.0	11.5	12.0	11.0	8.5	7.5	6.0	4.5	5.0	3.5	6.0	4.0
7	13.5	10.5	12.0	10.5	8.5	7.0	6.0	5.5	6.0	4.0	6.0	4.0
8	12.5	11.0	11.0	10.0	8.0	7.0	6.0	5.5	6.5	4.5	6.0	4.5
9	12.0	10.5	10.5	8.5	8.0	7.0	6.0	5.0	6.0	4.5	6.5	4.5
10	13.5	11.5	11.0	9.0	8.0	7.0	5.5	4.5	6.0	4.0	7.0	5.0
11	13.0	11.5	10.5	8.5	8.0	6.5	6.0	5.5	6.0	4.0	6.5	4.5
12	13.0	11.5	10.5	8.5	7.0	6.5	5.5	5.0	6.0	4.5	6.5	4.5
13	13.0	11.5	10.5	9.0	7.0	6.5	6.0	5.0	5.5	5.0	6.5	5.0
14	13.0	11.0	10.5	9.5	6.5	6.0	6.5	5.5	5.0	4.5	7.5	5.0
15	13.5	11.5	10.0	9.5	7.0	6.0	6.5	5.0	5.5	4.5	7.5	5.0
16	13.5	11.5	10.0	8.5	7.0	6.5	6.0	5.0	5.5	5.0	7.5	6.0
17	13.5	11.5	9.0	8.0	7.0	6.0	6.0	5.0	6.5	5.0	8.0	6.0
18	13.5	12.0	8.5	8.0	7.0	6.0	6.0	5.0	6.0	4.5	7.5	5.5
19	13.5	11.5	9.0	7.5	7.0	6.0	6.0	4.5	5.5	4.5	7.0	5.0
20	14.0	12.0	9.0	8.5	6.5	5.5	6.0	4.5	5.5	4.5	8.0	5.0
21	13.5	12.0	9.0	8.0	6.5	6.0	6.0	4.5	6.0	4.5	8.0	5.0
22	13.0	12.0	9.0	8.0	7.0	6.0	6.0	4.5	6.0	4.5	7.5	5.5
23	13.0	12.0	9.0	8.0	7.0	6.0	6.0	5.5	6.0	4.5	7.5	5.5
24	13.0	11.5	9.0	8.0	7.0	6.0	6.0	5.0	6.0	4.5	7.5	5.5
25	12.5	11.0	9.0	8.0	6.5	6.0	6.0	4.5	5.5	5.0	8.0	5.0
26	13.0	11.5	9.0	8.0	7.0	6.5	6.0	4.5	6.0	5.0	8.0	5.5
27	12.0	11.5	8.5	7.5	7.0	6.0	6.0	4.5	6.5	5.0	7.5	6.0
28	12.5	11.0	8.0	7.5	7.0	6.5	6.0	4.5	6.5	5.5	8.5	6.0
29	12.0	11.0	8.0	7.0	7.0	6.5	6.0	4.5	5.5	5.0	8.0	6.0
30	12.0	11.0	8.0	7.5	6.5	5.5	6.0	4.5	---	---	9.0	6.0
31	12.0	11.0	---	---	5.5	5.0	6.0	4.5	---	---	7.0	6.0
MONTH	14.5	10.5	12.5	7.0	8.5	5.0	6.5	4.5	6.5	3.5	9.0	3.5

11341400 SACRAMENTO RIVER NEAR MT SHASTA, CA--Continued

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	8.0	6.0	9.0	7.0	12.0	9.0	15.0	10.5	15.5	11.0	16.5	11.5
2	8.5	6.0	9.0	7.5	12.0	9.5	16.5	11.0	16.5	11.0	16.5	12.0
3	8.5	6.0	9.5	7.5	12.0	9.5	15.5	11.5	16.5	11.0	16.0	11.5
4	9.5	6.5	9.0	7.5	12.5	9.0	17.5	11.5	14.5	11.0	16.0	11.0
5	7.0	6.0	9.0	7.0	12.5	9.0	17.5	11.5	16.0	11.0	15.0	11.0
6	6.5	6.0	9.0	7.0	12.5	9.5	17.5	11.5	14.0	10.5	15.5	11.0
7	6.5	6.0	9.5	7.0	12.5	9.0	16.0	12.0	15.5	11.0	13.5	10.5
8	7.0	6.0	9.5	8.5	12.5	9.5	18.0	11.5	16.5	11.0	15.0	10.0
9	6.5	6.0	10.5	9.5	11.5	10.0	18.0	11.0	17.0	11.5	15.0	10.0
10	6.0	6.0	10.0	9.0	12.5	9.5	18.0	11.0	17.0	11.5	14.0	10.5
11	7.0	6.0	9.5	8.5	12.0	10.0	15.0	11.5	17.0	10.5	15.5	11.5
12	7.0	6.0	9.0	8.0	13.0	10.0	17.5	11.5	16.5	11.0	14.5	11.0
13	7.5	6.0	9.5	8.0	13.5	10.0	17.5	11.5	13.5	10.5	14.5	10.5
14	7.5	6.0	9.5	8.5	14.0	9.5	17.5	11.5	14.0	11.5	14.0	10.5
15	7.5	6.0	9.5	8.0	14.5	9.5	17.5	11.5	15.0	13.0	13.5	11.0
16	8.0	6.0	9.5	8.5	15.0	10.5	15.5	11.5	14.5	13.0	13.5	10.5
17	7.0	6.0	11.0	8.5	14.5	10.0	18.0	11.5	14.5	13.0	14.0	10.5
18	8.5	6.5	10.5	8.5	16.0	10.0	17.0	11.5	15.5	13.0	14.5	10.5
19	9.0	6.0	10.0	8.5	16.5	10.5	17.5	12.0	17.0	12.5	14.5	10.5
20	8.0	6.5	11.0	8.5	16.0	10.5	17.5	11.5	17.5	13.0	15.0	10.5
21	7.5	6.5	11.0	8.5	15.0	11.5	17.5	12.0	18.0	12.5	13.5	10.5
22	8.0	7.0	11.0	9.0	16.5	12.0	17.0	11.0	14.0	13.0	14.5	10.5
23	8.5	7.0	11.0	9.0	17.0	12.0	17.0	11.0	17.0	13.0	14.5	10.5
24	8.0	7.0	11.0	9.0	17.5	12.0	17.0	11.5	17.0	12.5	14.5	10.5
25	8.0	6.5	12.0	9.0	17.0	12.5	17.0	11.5	16.5	13.0	14.0	11.0
26	8.0	6.5	12.5	9.0	17.0	11.0	17.5	11.5	15.5	11.0	14.0	10.5
27	8.5	6.5	12.0	9.0	17.5	11.5	17.5	11.0	16.0	10.5	13.0	11.5
28	8.0	6.5	11.5	9.0	17.5	12.0	17.0	11.5	16.5	11.0	15.0	12.5
29	8.5	6.5	11.0	8.5	16.0	11.5	16.0	11.5	16.5	10.5	16.0	12.5
30	9.0	7.0	10.5	9.5	15.5	11.5	16.5	11.0	16.5	11.0	15.5	11.5
31	---	---	11.0	9.5	---	---	16.0	11.0	16.5	11.0	---	---
MONTH	9.5	6.0	12.5	7.0	17.5	9.0	18.0	10.5	18.0	10.5	16.5	10.0

11342000 SACRAMENTO RIVER AT DELTA, CA

LOCATION.--Lat 40°56'23", long 122°24'58", in SW¼NW¼ sec.35, T.36 N., R.5 W, Shasta County, Bureau of Reclamation property, on left bank 0.2 mi (0.3 km) downstream from Dog Creek, 0.6 mi (1.0 km) southeast of Delta, and 2.8 mi (4.5 km) south of Lamoine.

DRAINAGE AREA.--425 mi^2 (1,101 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1944 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 1,075.00 ft (326.660 m) above mean sea level (levels by Bureau of Reclamation).

REMARKS.--Records good. Some regulation since December 1968 by Lake Siskiyou, capacity, 26,100 acre-ft (32.2 hm^3). Some minor diversions for irrigation above station. See schematic diagram of Pit and McCloud River basins.

AVERAGE DISCHARGE.--32 years, 1,180 ft^3/s (33.42 m^3/s), 854,900 acre-ft/yr (1,050 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69,800 ft^3/s (1,980 m^3/s) Jan. 16, 1974, gage height, 27.20 ft (8.291 m), from rating curve extended above 19,000 ft^3/s (538 m^3/s) on basis of slope-area measurements at gage heights, 19.50 ft (5.944 m) in gage well, 20.0 ft (6.10 m) from floodmarks, and 27.20 ft (8.291 m) in gage well, 28.7 ft (8.75 m) from floodmarks; minimum, 141 ft^3/s (3.99 m^3/s) Sept. 3-5, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,740 ft^3/s (163 m^3/s) Apr. 8, gage height, 9.41 ft (2.868 m); minimum daily, 170 ft^3/s (4.81 m^3/s) Sept. 9, 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	247	391	355	314	293	1620	563	1250	433	230	202	184
2	247	378	333	311	293	1230	520	1360	425	228	200	183
3	250	374	326	310	293	979	508	1310	433	226	189	180
4	248	367	397	309	291	852	524	1350	419	224	188	178
5	248	362	925	314	285	775	587	1360	404	218	188	176
6	257	360	910	307	253	731	812	1320	396	216	193	176
7	275	382	587	304	252	713	1910	1320	390	214	199	175
8	273	348	473	323	251	699	4090	1430	386	212	195	172
9	303	338	424	335	251	698	2630	1610	385	209	188	170
10	532	430	393	319	247	700	2320	1640	346	208	184	170
11	444	379	376	315	246	692	2670	1540	338	207	181	173
12	359	355	396	312	285	643	2110	1330	332	209	179	185
13	344	349	364	312	305	598	1720	1320	321	205	179	180
14	337	356	348	312	325	578	1510	1320	308	201	235	179
15	335	928	339	312	343	575	1340	1210	301	197	402	183
16	332	701	357	316	532	621	1210	1150	295	197	262	190
17	331	481	365	317	473	679	1110	1050	291	200	242	188
18	331	420	359	317	447	744	1050	849	286	208	259	186
19	327	392	354	313	570	659	1040	826	247	204	248	181
20	326	405	320	309	469	591	1220	778	245	196	227	180
21	326	390	319	306	421	562	1270	623	262	192	215	178
22	325	381	360	305	392	560	1240	606	286	188	213	177
23	324	373	336	307	374	544	1270	594	275	183	228	177
24	325	366	350	307	362	556	1350	581	260	183	216	176
25	402	364	349	302	856	519	1330	496	255	181	207	175
26	525	361	348	300	3700	502	1210	471	245	179	203	174
27	392	358	329	298	1990	515	1130	465	240	177	196	177
28	382	355	324	299	1500	507	993	455	235	175	192	228
29	367	349	330	298	1660	497	967	446	230	175	189	215
30	618	353	327	295	---	501	1030	445	230	179	187	201
31	442	---	321	295	---	580	---	448	---	177	185	---
TOTAL	10774	12146	12394	9593	17959	21220	41234	30953	9499	6198	6571	5467
MEAN	348	405	400	309	619	685	1374	998	317	200	212	182
MAX	618	928	925	335	3700	1620	4090	1640	433	230	402	228
MIN	247	338	319	295	246	497	508	445	230	175	179	170
AC-FT	21370	24090	24580	19030	35620	42090	81790	61400	18840	12290	13030	10840

CAL YR 1975 TOTAL 456474 MEAN 1251 MAX 12100 MIN 245 AC-FT 905400
WTR YR 1976 TOTAL 184008 MEAN 503 MAX 4090 MIN 170 AC-FT 365000

11342000 SACRAMENTO RIVER AT DELTA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.
CHEMICAL ANALYSES: Water years 1951 to current year.
WATER TEMPERATURES: Water years 1951, 1954-57, 1963 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June to September 1951, October 1953 to September 1957, October 1962 to current year.

INSTRUMENTATION.--Temperature recorder June to September 1951, October 1953 to September 1957, and since October 1962.

REMARKS.--Clock stopped Mar. 9-18, June 19 to July 8; range in temperature, 6.0°C to 8.5°C, and 12.5°C to 20.0°C, respectively.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years, 1951, 1954-57, 1963-76), 29.5°C July 15, 1972; minimum, 0.0°C on several days in 1964, 1967, 1968, and 1973.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 26.5°C July 25-27; minimum, 1.0°C Feb. 6.

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)	HARDNESS (CA,MG) (MG/L)
NOV								
05...	1415	362	126	8.2	11.0	2	11.6	--
JAN								
07...	1400	304	137	8.0	5.0	1	12.5	--
MAR								
11...	1110	692	118	7.4	7.5	0	11.6	49
MAY								
11...	0800	1410	90	7.6	10.0	2	10.6	--
JUL								
07...	1330	216	146	8.2	18.5	1	9.5	--
SEP								
02...	1215	180	159	8.2	23.0	1	10.0	--

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED BORON (B) (UG/L)
NOV								
05...	--	--	--	--	--	--	--	--
JAN								
07...	--	--	--	--	--	--	--	--
MAR								
11...	0	5.9	.4	65	0	53	4.4	0
MAY								
11...	--	--	--	--	--	--	--	--
JUL								
07...	--	--	--	--	--	--	--	--
SEP								
02...	--	--	--	--	--	--	--	--

11342000 SACRAMENTO RIVER AT DELTA, CA--Continued

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	17.5	14.0	10.5	8.5	7.0	6.0	4.0	3.0	7.0	5.0	4.5	3.5
2	16.0	14.5	11.0	9.0	7.5	6.5	3.5	2.5	7.0	5.0	4.0	3.5
3	16.0	13.5	12.0	10.0	7.0	6.0	4.5	3.0	7.0	5.0	5.0	3.5
4	17.0	13.5	11.5	10.0	7.0	6.0	4.5	4.0	5.5	3.5	5.0	3.5
5	17.0	13.5	10.5	9.5	8.0	7.0	5.0	4.5	3.0	1.5	5.5	3.5
6	15.0	13.0	10.5	9.5	8.5	8.0	5.5	4.0	3.0	1.0	4.5	4.0
7	13.5	12.0	10.0	9.5	8.0	7.0	5.0	4.5	4.5	1.5	5.0	4.0
8	12.5	11.0	10.0	8.0	7.5	7.0	5.5	5.0	5.0	3.0	5.0	5.0
9	12.0	10.5	7.5	7.0	7.5	6.5	6.0	5.0	6.0	4.0	7.0	5.0
10	11.0	10.5	8.5	7.0	7.0	6.0	5.5	4.5	5.5	3.5	8.5	6.5
11	13.0	11.0	7.5	6.0	6.5	6.0	5.0	4.5	5.5	3.0	7.5	6.0
12	13.0	11.0	7.5	6.0	6.0	5.0	5.5	5.0	7.5	4.5	7.5	5.0
13	13.5	11.0	8.0	6.0	5.5	4.5	6.0	5.0	5.0	4.0	7.0	6.0
14	13.5	10.5	7.5	6.5	4.5	4.0	6.5	5.5	4.0	3.5	8.5	6.0
15	13.5	11.0	8.5	7.5	5.0	3.5	7.0	5.5	4.0	3.5	9.0	7.0
16	14.0	11.0	8.5	7.0	6.0	4.5	6.0	4.5	4.0	3.5	10.0	8.5
17	13.0	11.5	7.0	5.5	6.0	5.0	6.0	4.5	4.0	4.0	10.5	8.5
18	14.5	11.5	6.0	4.5	6.0	5.0	6.0	4.5	4.5	3.5	10.0	7.5
19	14.5	11.5	5.5	4.5	5.5	5.0	6.5	5.0	5.5	4.0	8.0	6.0
20	14.5	12.0	6.5	5.5	5.0	4.5	6.0	4.5	6.0	3.5	8.0	5.5
21	14.0	12.5	8.0	6.5	4.5	4.0	6.0	4.5	5.0	4.0	9.0	6.5
22	12.5	10.0	7.5	6.5	6.0	4.5	5.5	4.0	5.0	4.0	9.0	7.5
23	10.5	8.5	8.5	6.5	6.5	5.5	5.0	4.5	5.0	4.5	9.0	6.5
24	10.0	8.0	8.5	7.0	6.5	5.5	5.5	4.0	5.0	4.0	9.0	7.0
25	10.0	9.5	8.5	7.0	6.5	5.5	5.5	4.0	5.0	4.5	8.5	6.0
26	10.5	9.0	7.5	6.5	7.0	6.0	5.5	4.0	4.5	4.5	9.0	6.5
27	9.5	9.0	7.5	6.5	7.0	6.5	5.0	4.0	4.5	4.5	8.0	6.0
28	10.5	8.5	7.5	6.0	7.5	6.5	5.5	4.0	4.5	4.5	10.0	7.0
29	10.0	8.5	6.5	5.5	8.0	7.0	5.5	4.0	4.5	4.5	10.0	7.5
30	11.0	9.5	6.0	6.0	7.0	5.0	7.5	5.0	---	---	10.5	8.0
31	10.0	8.5	---	---	5.0	3.5	6.5	5.0	---	---	10.0	8.0
MONTH	17.5	8.0	12.0	4.5	8.5	3.5	7.5	2.5	7.5	1.0	10.5	3.5

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

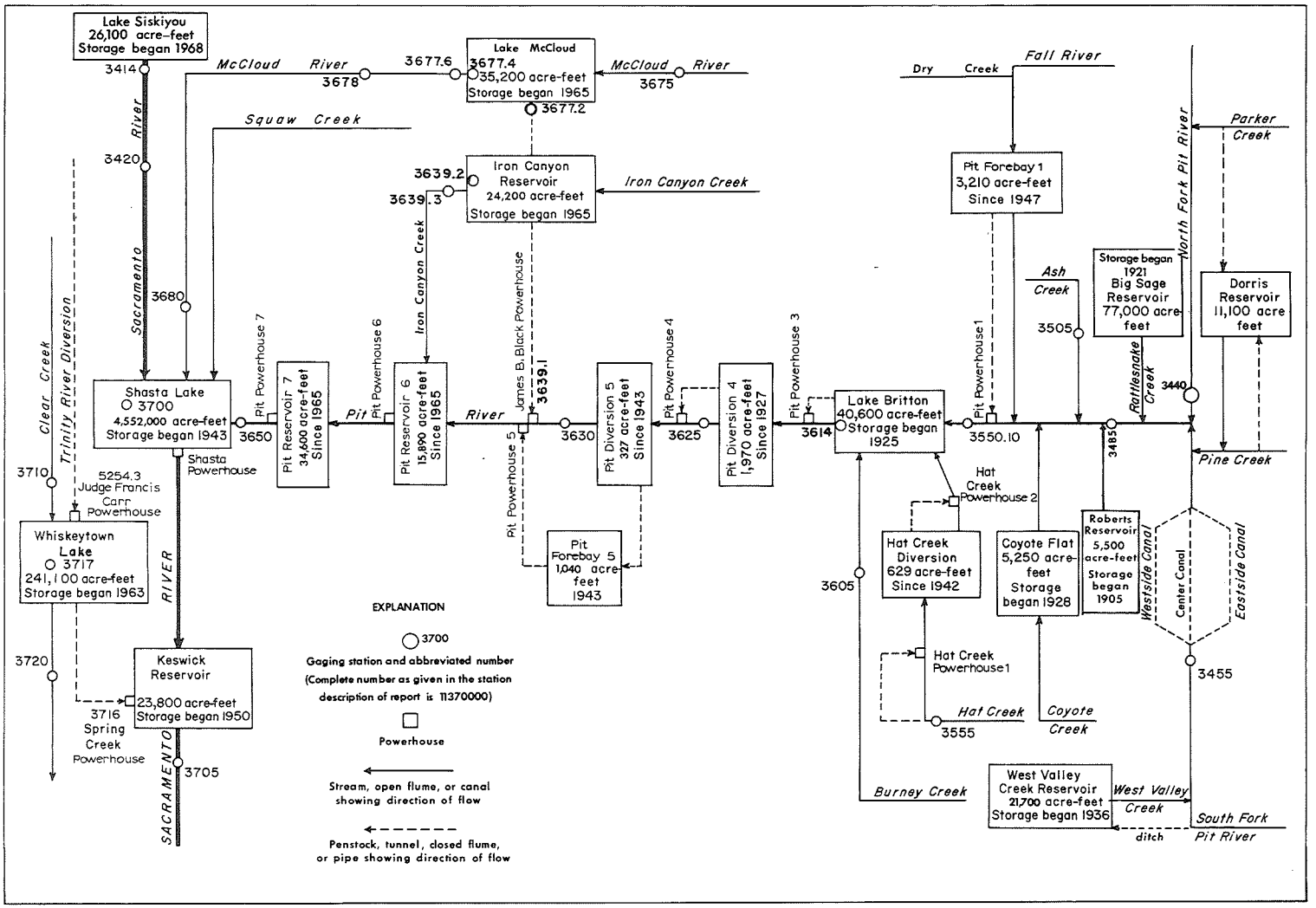

FIGURE 4.--Schematic diagram showing diversions and storage in Pit and McCloud river basins.

11344000 NORTH FORK PIT RIVER AT ALTURAS, CA

LOCATION.--Lat 41°28'56", long 120°32'16", in SE¼NW¼ sec.13, T.42 N., R.12 E., Modoc County, on right bank 10 ft (3 m) downstream from Estes Street bridge in Alturas, and 1.2 mi (1.9 km) upstream from confluence of North and South Forks.

DRAINAGE AREA.--212 mi^2 (549 km^2), excluding Goose Lake basin.

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

GAGE.--Water-stage recorder. Datum of gage is 4,345.00 ft (1,324.356 m) above mean sea level. Since Apr. 10, 1973, a supplementary water-stage recorder for winter periods is located above a concrete weir 0.25 mi (0.40 km) upstream.

REMARKS.--Records good except those for the summer months, which are fair. Flow is regulated by many small irrigation ponds and Dorris Reservoir, capacity, 11,100 acre-ft (13.7 hm^3). Diversions above station for irrigation of about 7,100 acres (28.7 km^2). See schematic diagram of Pit and McCloud River basins.

AVERAGE DISCHARGE.--5 years, 68.5 ft^3/s (1.940 m^3/s), 49,630 acre-ft/yr (61.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,800 ft^3/s (51.0 m^3/s) Feb. 29, 1972, gage height, 11.90 ft (3.627 m), from rating curve extended above 550 ft^3/s (15.6 m^3/s) on basis of estimate of peak discharge by flow-over-dam computation; minimum daily, 0.19 ft^3/s (0.005 m^3/s) Oct. 1-5, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 381 ft^3/s (10.8 m^3/s) Mar. 14, gage height, 11.63 ft (3.545 m); minimum daily, 0.29 ft^3/s (0.008 m^3/s) Sept. 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	1.8	25	15	13	22	67	48	132	26	2.1	.57	1.5
2	1.4	16	21	15	21	75	46	161	24	2.0	.57	.96
3	1.4	18	25	15	23	61	51	150	22	2.0	.52	.76
4	1.7	15	25	16	22	48	73	130	24	2.8	.57	.65
5	1.9	12	27	16	20	38	99	138	19	3.5	.57	2.2
6	2.2	11	34	17	18	39	77	141	16	3.3	.57	5.0
7	3.9	12	25	16	20	33	93	114	18	1.9	.47	3.5
8	6.0	14	20	17	21	34	120	121	20	2.4	.45	2.7
9	6.3	12	18	19	20	43	89	123	23	3.9	.45	1.6
10	6.3	26	18	16	18	83	90	101	48	4.4	.42	1.1
11	6.3	18	17	17	18	133	77	104	39	3.1	.42	.65
12	9.4	13	17	18	20	96	80	94	34	3.3	.42	.58
13	16	14	17	17	20	98	73	90	27	4.0	.39	.35
14	11	14	15	20	23	167	71	96	14	3.4	.40	.29
15	8.3	14	14	20	21	165	89	85	8.1	3.4	.46	.33
16	8.6	18	16	18	20	133	70	75	8.8	3.7	.51	.80
17	7.9	17	16	18	24	140	60	69	8.2	3.2	3.9	1.7
18	11	13	16	18	35	135	73	75	4.9	3.1	2.2	1.8
19	8.5	12	15	20	31	73	74	65	6.7	3.0	1.7	1.4
20	8.1	21	14	20	24	59	105	60	4.5	2.6	1.1	1.2
21	16	14	16	17	23	54	148	54	3.7	2.5	.49	.56
22	15	14	19	17	24	54	149	43	4.0	2.4	2.5	.93
23	17	14	17	19	21	71	145	25	5.0	2.7	6.1	4.1
24	14	15	18	19	20	63	190	17	5.9	3.0	5.4	2.9
25	16	15	18	20	20	61	233	12	5.2	5.6	5.1	3.5
26	17	21	24	20	20	53	157	4.8	4.3	5.1	6.0	4.2
27	19	16	24	19	24	47	130	1.5	4.1	2.4	4.9	2.3
28	32	15	21	20	62	46	95	2.9	3.0	.70	3.6	1.3
29	19	14	18	22	109	43	55	8.3	1.4	.67	1.8	1.2
30	31	15	18	22	---	41	100	18	2.0	.65	.91	1.1
31	18	---	15	21	---	52	---	18	---	.57	1.6	---
TOTAL	342.0	468	593	562	764	2305	2960	2328.5	433.8	87.39	55.06	51.16
MEAN	11.0	15.6	19.1	18.1	26.3	74.4	98.7	75.1	14.5	2.82	1.78	1.71
MAX	32	26	34	22	109	167	233	161	48	5.6	6.1	5.0
MIN	1.4	11	14	13	18	33	46	1.5	1.4	.57	.39	.29
AC-FT	678	928	1180	1110	1520	4570	5870	4620	860	173	109	101

CAL YR 1975 TOTAL 31545.72 MEAN 86.4 MAX 631 MIN .39 AC-FT 62570
WTR YR 1976 TOTAL 10949.91 MEAN 29.9 MAX 233 MIN .29 AC-FT 21720

11345500 SOUTH FORK PIT RIVER NEAR LIKELY, CA

LOCATION.--Lat 41°13'51", long 120°26'10", in NE¼SE¼ sec.11, T.39 N., R.13 E., Modoc County, on left bank 250 ft (76 m) downstream from highway bridge, 1.4 mi (2.3 km) downstream from West Valley Creek, and 3.5 mi (5.6 km) east of Likely.

DRAINAGE AREA.--247 mi^2 (640 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,508 ft (1,374 m) above mean sea level. Prior to Oct. 1, 1931, at site 1,000 ft (305 m) downstream at different datum.

REMARKS.--Records good except those for the winter periods, which are fair. Flow partly regulated by West Valley Creek Reservoir beginning in May 1937, usable capacity, 21,700 acre-ft (26.8 hm^3). Diversions for irrigation of about 3,800 acres (1,538 hm^2) above station. See schematic diagram of Pit and McCloud River basins.

AVERAGE DISCHARGE.--48 years, 79.6 ft^3/s (2.254 m^3/s), 57,670 acre-ft/yr (71.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,620 ft^3/s (45.9 m^3/s) June 2, 1971, gage height, 6.05 ft (1.844 m); minimum, 0.2 ft^3/s (0.006 m^3/s) Feb. 3, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 330 ft^3/s (9.35 m^3/s) Aug. 3, gage height, 3.83 ft (1.167 m); minimum daily, 4.7 ft^3/s (0.13 m^3/s) Feb. 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	120	38	41	33	20	15	15	180	160	126	122	91
2	115	38	45	26	16	18	12	220	135	148	122	113
3	108	41	41	25	11	22	12	214	123	150	126	117
4	109	50	40	29	11	21	15	213	109	149	123	120
5	109	50	52	38	5.5	17	25	227	98	149	92	142
6	134	48	47	45	4.7	16	24	231	87	146	89	157
7	149	42	40	37	7.5	13	22	221	87	124	87	157
8	90	44	38	36	7.0	8.1	29	214	87	99	86	155
9	38	36	38	37	8.7	11	26	222	100	92	84	152
10	38	38	37	37	9.5	16	25	243	121	92	81	151
11	43	38	36	40	9.5	20	24	274	128	93	80	154
12	45	40	38	36	7.3	13	26	280	113	94	86	152
13	47	40	37	34	7.3	15	24	278	106	91	81	150
14	40	38	37	34	10	28	23	277	94	89	89	147
15	39	37	34	35	6.5	48	29	262	85	86	106	127
16	38	40	36	30	5.9	62	28	236	75	89	103	102
17	35	37	38	23	8.1	51	26	220	77	71	95	110
18	34	38	36	21	19	33	34	210	109	62	96	94
19	33	37	38	27	9.9	21	23	191	102	68	95	61
20	33	35	40	29	7.3	16	33	169	98	71	90	59
21	32	34	41	24	8.9	15	59	154	104	73	86	54
22	38	34	39	24	8.1	13	71	139	113	71	89	47
23	36	33	36	21	6.3	12	86	124	102	69	99	52
24	32	34	40	14	5.5	12	104	114	92	71	86	54
25	36	34	39	26	4.9	13	123	114	86	64	82	52
26	48	32	41	33	8.4	12	102	131	81	61	74	50
27	44	33	43	21	11	15	106	165	91	63	68	50
28	38	34	40	19	26	21	126	192	112	76	67	50
29	38	42	41	20	33	23	132	185	107	100	67	51
30	39	39	42	20	---	24	155	182	105	105	68	51
31	38	---	34	20	---	17	---	187	---	106	69	---
TOTAL	1816	1154	1225	894	303.8	641.1	1539	6269	3087	2948	2788	3022
MEAN	58.6	38.5	39.5	28.8	10.5	20.7	51.3	202	103	95.1	89.9	101
MAX	149	50	52	45	33	62	155	280	160	150	126	157
MIN	32	32	34	14	4.7	8.1	12	114	75	61	67	47
AC-FT	3600	2290	2430	1770	603	1270	3050	12430	6120	5850	5530	5990

CAL YR 1975 TOTAL 46640.0 MEAN 128 MAX 641 MIN 20 AC-FT 92510
WTR YR 1976 TOTAL 25686.9 MEAN 70.2 MAX 280 MIN 4.7 AC-FT 50950

11345500 SOUTH FORK PIT RIVER NEAR LIKELY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSES: Water years 1957 to current year.

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

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)	HARDNESS (CA,MG) (MG/L)
OCT								
16...	0750	39	109	7.9	6.0	3	10.1	--
JUN								
03...	0830	133	97	7.6	9.0	6	9.6	41

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED BORON (B) (UG/L)
OCT								
16...	--	--	--	--	--	--	--	--
JUN								
03...	0	4.8	.3	57	0	47	.0	0

11348500 PIT RIVER NEAR CANBY, CA

LOCATION.--Lat 41°24'22", long 120°55'36", in NW¼SW¼ sec.10, T.41 N., R.9 E., Modoc County, on right bank at lower end of Warm Spring Valley, 4 mi (6 km) southwest of Canby.

DRAINAGE AREA.--1,431 mi^2 (3,706 km^2), excluding Goose Lake basin.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1904 to December 1905, May 1929 to current year (1929-31 incomplete).

REVISED RECORDS.--WSP 1445: 1904, 1935(M), 1936, 1937(M). WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,266 ft (1,300 m) above mean sea level. January 1904 to December 1905, nonrecording gage and May 6, 1929, to Sept. 30, 1931, water-stage recorder, at site 100 ft (30 m) upstream at different datum.

REMARKS.--Records excellent. Flow regulated by many small reservoirs, total capacity now, about 144,000 acre-ft (178 hm^3). Diversions for irrigation of about 39,000 acres (158 km^2) above station. See schematic diagram of Pit and McCloud River basins.

AVERAGE DISCHARGE.--46 years (water years 1905, 1932-76), 250 ft^3/s (7.080 m^3/s), 181,000 acre-ft/yr (223 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 13,000 ft^3/s (368 m^3/s) Mar. 8, 1904, gage height, 15.0 ft (4.57 m) site and datum then in use; minimum, 0.1 ft^3/s (0.003 m^3/s) Apr. 29, Aug. 5, Sept. 18, 1934, Aug. 18-21, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 450 ft^3/s (12.7 m^3/s) May 11, gage height, 3.61 ft (1.100 m); minimum daily, 3.4 ft^3/s (0.096 m^3/s) 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	109	149	120	110	85	335	154	147	66	29	8.7	33
2	114	145	116	100	82	312	138	228	31	28	13	49
3	112	104	139	92	82	280	132	288	54	28	36	46
4	103	82	142	91	75	223	123	260	95	27	41	32
5	102	59	141	90	56	179	136	198	70	34	34	31
6	87	50	142	111	76	148	174	251	68	18	14	35
7	94	60	151	117	73	130	153	295	60	8.7	66	39
8	108	92	145	122	73	131	155	316	77	3.4	162	37
9	165	94	138	122	81	151	177	349	62	6.0	148	38
10	245	90	134	122	87	197	145	342	52	8.7	115	35
11	215	85	141	129	80	300	159	349	50	13	99	44
12	156	89	133	109	76	370	154	290	93	18	88	53
13	136	92	119	112	65	321	152	279	208	32	75	54
14	129	82	98	110	67	307	116	275	131	45	76	52
15	134	72	110	114	72	365	110	255	190	45	71	60
16	124	106	113	132	76	395	146	304	121	45	71	87
17	109	185	114	128	76	334	159	328	76	42	73	153
18	108	137	129	124	78	344	174	204	62	37	73	194
19	98	105	143	93	89	327	149	175	64	30	76	211
20	88	98	153	87	95	222	175	149	55	24	78	165
21	84	90	160	82	86	181	188	111	47	22	92	116
22	113	94	136	83	79	151	264	195	43	27	93	85
23	155	96	145	84	77	141	233	154	43	29	86	66
24	105	95	129	90	74	144	231	100	41	24	78	58
25	98	107	127	87	70	144	273	115	39	17	67	59
26	115	110	126	80	74	132	328	95	42	14	52	64
27	119	109	143	77	83	134	315	79	43	14	22	89
28	124	104	153	84	131	133	256	74	37	12	38	85
29	128	80	145	86	239	131	211	61	35	11	49	82
30	136	121	141	84	---	123	112	45	31	7.0	52	73
31	123	---	117	86	---	135	---	47	---	6.9	36	---
TOTAL	3836	2982	4143	3138	2457	6920	5392	6358	2086	705.7	2082.7	2225
MEAN	124	99.4	134	101	84.7	223	180	205	69.5	22.8	67.2	74.2
MAX	245	185	160	132	239	395	328	349	208	45	162	211
MIN	84	50	98	77	56	123	110	45	31	3.4	8.7	31
AC-FT	7610	5910	8220	6220	4870	13730	10700	12610	4140	1400	4130	4410

CAL YR 1975 TOTAL 123308.0 MEAN 338 MAX 1550 MIN 25 AC-FT 244600
WTR YR 1976 TOTAL 42325.4 MEAN 116 MAX 395 MIN 3.4 AC-FT 83950

11348500 PIT RIVER NEAR CANBY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.
CHEMICAL ANALYSES: Water years 1951 to current year.
WATER TEMPERATURES: Water years 1965 to current year.
SEDIMENT RECORDS: Water years 1957-61, 1967-70.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: March 1965 to current year.

INSTRUMENTATION.--Temperature recorder since March 1965.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1965-71, 1973-76), 31.0°C June 28, 1973; minimum (water years 1966, 1968-69, 1971-76), 0.0°C on many days during most years.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.5°C July 26, 27; minimum, 0.0°C Jan. 1.

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)
OCT							
15...	1530	131	293	8.1	--	16	10.7
NOV							
05...	0740	62	315	8.1	7.0	11	9.8
DEC							
03...	0730	145	254	7.9	1.0	14	11.2
JAN							
06...	1600	105	322	8.0	2.0	7	12.1
FEB							
03...	1600	78	256	8.2	6.0	17	11.2
MAR							
10...	1415	188	338	7.8	9.0	45	9.7
APR							
13...	1645	147	219	8.1	12.0	21	10.1
MAY							
12...	1300	279	192	7.8	19.5	23	8.2
JUN							
02...	1545	32	269	8.2	18.0	28	9.9
JUL							
07...	0730	8.2	300	8.2	18.0	18	5.1
AUG							
10...	1445	108	260	8.2	24.0	19	9.9
SEP							
01...	1430	33	252	8.4	23.0	10	10.4

DATE	TIME	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)
JAN										
06...	1600	88	0	33	1.5	158	0	130	15	--
MAY										
12...	1300	64	0	16	.9	104	0	85	4.4	.12

DATE	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)
JAN										
06...	--	--	--	200	--	--	--	--	--	--
MAY										
12...	.80	.11	.10	0	0	10	2100	0	90	0

11348500 PIT RIVER NEAR CANBY, CA--Continued

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	18.0	16.0	8.5	5.0	2.5	0.5	0.5	0.0	---	---	3.5	1.5
2	18.0	16.0	9.0	5.5	---	---	0.5	0.5	---	---	2.5	1.0
3	16.5	15.5	10.0	6.5	---	---	0.5	0.5	5.5	1.5	3.5	0.5
4	17.0	14.5	10.5	7.0	---	---	0.5	0.5	3.5	0.5	4.0	1.0
5	16.5	14.5	9.0	7.0	4.5	3.0	1.0	0.5	1.0	0.5	4.5	1.0
6	15.0	12.5	8.5	7.0	---	---	1.0	0.5	1.0	0.5	6.0	1.5
7	13.0	11.0	8.0	6.5	5.5	3.5	1.0	0.5	2.0	0.5	6.5	2.0
8	11.5	10.0	8.5	6.0	5.0	3.0	1.0	0.5	1.0	0.5	9.5	4.0
9	10.0	9.5	6.0	4.0	5.0	2.5	1.5	0.5	2.0	0.5	9.5	5.0
10	10.5	8.5	4.0	2.5	4.5	2.5	1.0	0.5	2.5	0.5	9.5	5.5
11	11.0	9.5	4.5	1.5	3.0	2.5	1.5	0.5	---	---	8.0	5.0
12	10.0	9.5	5.0	1.5	3.0	2.0	1.0	0.5	---	---	7.5	4.5
13	11.0	9.0	5.5	2.5	2.0	0.5	3.0	0.5	4.0	2.5	7.0	5.5
14	11.0	8.5	5.0	2.5	---	---	4.0	1.5	3.5	2.5	8.5	5.0
15	11.5	9.5	6.0	4.5	---	---	4.5	1.5	3.0	2.0	9.0	6.5
16	12.5	10.0	6.0	5.0	1.0	0.5	5.0	2.5	---	---	10.5	8.0
17	12.5	10.0	5.0	3.0	1.5	0.5	4.5	2.5	4.0	2.0	12.5	9.5
18	13.0	11.0	3.0	1.0	---	---	4.0	2.0	5.5	2.5	11.0	7.5
19	13.5	11.0	1.0	0.5	---	---	2.5	1.0	5.5	2.0	7.5	5.0
20	13.0	11.0	2.5	0.5	1.0	0.5	3.0	0.5	6.0	2.0	8.5	4.5
21	13.5	11.0	3.0	0.5	1.5	0.5	2.5	0.5	6.5	2.0	10.5	5.0
22	11.5	9.0	2.5	0.5	---	---	2.5	0.5	7.5	3.5	10.5	7.0
23	9.0	6.5	3.5	0.5	---	---	2.0	0.5	7.0	3.5	11.0	7.5
24	8.0	5.0	3.5	0.5	2.5	1.0	3.5	1.5	6.0	3.5	10.0	6.5
25	8.0	6.0	3.5	1.0	3.0	2.0	3.0	0.5	5.5	4.0	9.5	5.0
26	7.5	6.0	4.0	1.5	---	---	3.0	0.5	6.5	4.0	9.0	5.5
27	6.5	5.0	4.0	2.5	4.5	3.5	2.5	0.5	7.0	5.0	8.5	4.5
28	8.5	5.0	---	---	4.5	3.0	4.0	1.0	6.0	4.5	9.0	5.0
29	8.5	5.5	---	---	---	---	4.0	1.0	4.0	2.5	10.5	4.5
30	8.0	6.0	---	---	4.0	0.5	4.0	1.0	---	---	12.5	6.5
31	8.0	5.0	---	---	1.0	0.5	4.5	0.5	---	---	10.0	7.0
MONTH	18.0	5.0	10.5	0.5	---	---	5.0	0.0	7.5	0.5	12.5	0.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.5	5.0	18.5	12.5	17.0	12.5	21.5	14.5	22.5	16.5	24.5	17.5
2	11.5	5.5	18.0	13.5	18.5	11.0	22.5	14.5	23.5	16.5	24.5	18.5
3	13.0	7.5	17.5	13.5	18.5	12.5	22.5	15.5	23.5	17.0	24.5	19.0
4	15.0	8.5	17.0	14.0	18.5	13.5	24.0	17.0	22.5	17.5	24.0	17.5
5	12.0	8.0	17.5	14.0	20.0	14.0	24.5	16.5	22.0	17.0	23.5	18.5
6	11.0	8.0	14.5	12.5	19.0	14.5	25.0	17.0	19.5	15.0	22.5	18.0
7	11.5	8.5	16.5	11.5	18.5	15.0	24.5	18.0	19.5	14.0	21.0	15.5
8	11.0	8.5	16.5	14.5	18.5	14.5	25.0	16.0	19.5	16.5	21.0	15.5
9	12.0	7.0	18.5	15.5	15.5	14.0	25.5	17.5	22.0	18.5	21.5	15.0
10	10.5	8.0	18.0	16.0	15.0	13.0	26.0	17.0	23.5	19.5	20.5	15.5
11	11.0	7.0	18.0	14.5	16.5	13.0	25.0	18.5	23.0	19.5	19.5	16.0
12	10.5	7.5	19.0	16.0	16.5	13.0	26.5	18.5	23.5	19.5	19.5	15.0
13	12.5	6.5	20.0	17.5	18.0	13.5	26.0	18.5	21.0	18.5	20.0	15.0
14	14.5	7.5	18.5	17.0	19.0	14.5	26.0	19.5	19.0	17.0	18.0	15.5
15	11.5	8.0	19.0	15.5	20.0	17.0	26.5	20.5	18.5	15.0	15.5	14.0
16	8.5	4.5	19.0	16.5	22.0	17.5	25.0	21.5	16.5	14.5	16.0	13.5
17	8.0	5.0	19.0	15.5	23.0	17.5	24.5	21.0	17.0	13.5	17.0	13.5
18	11.5	6.5	19.0	15.5	24.0	19.0	25.0	20.0	16.5	14.5	18.0	14.5
19	13.5	8.5	18.5	15.0	24.0	19.0	25.5	19.0	19.5	14.5	18.5	15.5
20	15.5	11.5	18.5	13.5	23.0	18.5	26.5	19.0	21.5	16.0	18.5	16.0
21	13.0	11.5	18.5	15.0	21.5	18.5	26.5	18.5	22.5	18.0	19.0	15.5
22	13.0	9.5	19.5	16.0	23.0	16.0	26.5	18.5	20.5	18.5	19.0	15.0
23	13.5	9.5	19.5	15.5	23.0	16.0	24.0	19.0	21.5	17.5	18.5	14.5
24	15.0	11.0	19.0	15.5	24.0	17.0	26.5	19.0	23.0	18.5	19.0	14.0
25	13.0	10.0	20.0	15.0	23.5	17.0	27.0	19.5	22.0	18.5	19.5	14.5
26	9.5	7.5	21.5	16.0	24.0	15.5	27.5	20.0	22.0	17.0	19.0	14.5
27	11.0	6.5	20.5	17.5	24.5	16.0	27.5	20.5	23.0	15.5	19.0	15.5
28	11.5	7.5	20.0	16.0	24.5	16.5	25.5	20.5	23.5	17.0	18.5	15.5
29	14.5	8.5	19.0	14.5	23.5	18.0	24.5	20.5	23.0	18.0	18.5	14.5
30	17.0	11.0	17.0	13.5	22.0	17.0	26.0	18.0	23.5	18.0	17.5	14.5
31	---	---	16.5	12.0	---	---	23.5	17.5	24.0	18.0	---	---
MONTH	17.0	4.5	21.5	11.5	24.5	11.0	27.5	14.5	24.0	13.5	24.5	13.5

11350500 ASH CREEK AT ADIN, CA

LOCATION.--Lat 41°11'54", long 120°56'32", in SE¼SW¼ sec.21, T.39 N., R.9 E., Modoc County, on left bank 300 ft (91 m) upstream from highway bridge at Adin, and 0.4 mi (0.6 km) upstream from Butte Creek.

DRAINAGE AREA.--258 mi^2 (668 km^2).

PERIOD OF RECORD.--March 1904 to December 1905, October 1928 to November 1932, October 1957 to current year. Records of daily discharge for Oct. 19-31, 1928, are in error and should not be used.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,190 ft (1,277 m), estimated, on basis of bench mark 300 ft (91 m) downstream. Prior to Sept. 12, 1957, water-stage recorder or nonrecording gage at sites within 1 mi (2 km) of present site, at different datums.

REMARKS.--Small diversions above station for irrigation. Flow regulated by many small reservoirs, total capacity, 4,732 acre-ft (5.83 hm^3). See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--24 years (water years 1905, 1929-32, 1958-76), 77.6 ft^3/s (2.200 m^3/s), 56,220 acre-ft/yr (69.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,950 ft^3/s (83.5 m^3/s) Jan. 24, 1970, gage height, 14.69 ft (4.478 m) in gage well, 15.24 ft (4.645 m) from floodmarks; no flow for part of Aug. 26, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 441 ft^3/s (12.5 m^3/s) Mar. 9, gage height, 7.46 ft (2.274 m); minimum daily, 16 ft^3/s (0.45 m^3/s) July 9, 10, 14-16.

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	28	44	38	29	33	181	56	63	23	18	26	25
2	28	44	40	32	33	114	53	61	22	19	28	25
3	31	44	39	36	33	80	52	58	22	19	25	26
4	35	42	38	35	32	69	51	55	22	19	24	25
5	36	42	44	36	25	58	53	54	22	18	24	25
6	43	43	43	36	30	59	50	52	23	18	26	25
7	51	48	39	36	35	75	50	44	23	19	26	20
8	41	48	36	37	30	168	51	38	22	19	25	23
9	39	44	36	41	34	208	50	38	26	16	23	24
10	46	49	36	37	32	212	50	40	33	16	22	25
11	50	48	36	36	31	151	50	36	34	17	21	33
12	38	48	38	37	32	113	50	35	28	18	21	36
13	39	48	37	38	34	112	49	33	24	17	21	38
14	35	47	30	41	38	129	50	31	23	16	30	40
15	33	50	35	40	35	142	57	32	22	16	38	67
16	32	58	37	41	36	130	53	30	21	16	28	68
17	33	48	35	42	40	123	53	29	19	24	24	51
18	33	47	35	39	42	115	62	28	19	30	28	39
19	32	42	35	37	39	89	56	27	18	25	27	29
20	33	43	35	35	35	73	53	26	19	19	25	25
21	35	40	35	35	35	67	59	25	22	18	24	25
22	42	36	37	36	35	65	61	25	29	18	26	23
23	48	38	38	37	34	64	68	24	23	19	28	24
24	54	38	39	37	33	62	80	24	20	32	25	22
25	45	37	40	35	34	61	89	24	19	32	24	22
26	58	37	39	34	50	61	69	23	19	23	24	24
27	50	39	41	34	66	60	62	22	19	21	23	26
28	44	38	39	34	339	66	56	22	19	21	23	28
29	53	36	38	35	217	63	51	21	18	23	23	27
30	53	36	37	34	---	56	60	22	17	21	23	29
31	47	---	33	34	---	57	---	23	---	21	23	---
TOTAL	1265	1302	1158	1126	1522	3083	1704	1065	670	628	778	919
MEAN	40.8	43.4	37.4	36.3	52.5	99.5	56.8	34.4	22.3	20.3	25.1	30.6
MAX	58	58	44	42	339	212	89	63	34	32	38	68
MIN	28	36	30	29	25	56	49	21	17	16	21	20
AC-FT	2510	2580	2300	2230	3020	6120	3380	2110	1330	1250	1540	1820

CAL YR 1975 TOTAL 39960 MEAN 109 MAX 673 MIN 14 AC-FT 79260
WTR YR 1976 TOTAL 15220 MEAN 41.6 MAX 339 MIN 16 AC-FT 30190

11355010 PIT RIVER BELOW PIT NO. 1 POWERHOUSE, NEAR FALL RIVER MILLS, CA

LOCATION.--Lat 40°59'00", long 121°30'39", in NE¼NW¼ sec.15, T.36 N., R.4 E., Shasta County, on left bank 0.9 mi (1.4 km) downstream from Pit No. 1 powerhouse and 4 mi (6 km) southwest of Fall River Mills.

DRAINAGE AREA.--3,761 mi^2 (9,741 km^2), corrected, excluding Goose Lake basin.

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

GAGE.--Water-stage recorder. Altitude of gage is 2,840 ft (865.6 m), from topographic map.

REMARKS.--Records good. Flow regulated by many small reservoirs, total usable reservoir capacity, 210,000 acre-ft (259 hm^3), and Pit No. 1 powerplant. Many diversions above station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,280 ft^3/s (92.9 m^3/s) Mar. 1, 1976, gage height, 7.60 ft (2.316 m); minimum daily, 1,010 ft^3/s (28.6 m^3/s) June 29, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1974 reached a stage of 14.8 ft (4.51 m), from floodmarks, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,280 ft^3/s (92.9 m^3/s) Mar. 1, gage height, 7.60 ft (2.316 m); minimum daily, 1,010 ft^3/s (28.6 m^3/s) June 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	1440	1790	1700	1700	1120	3100	1810	1980	1390	1470	1380	1300
2	1710	1760	1690	1670	1570	2840	1730	1780	1430	1330	1440	1380
3	1580	1720	1740	1660	1690	2420	1830	1630	1430	1310	1450	1280
4	1730	1780	1720	1720	1750	2300	1700	1550	1490	1330	1410	1290
5	1800	1750	1810	1700	1670	2170	1720	1540	1400	1370	1380	1300
6	1220	1720	1800	1690	1520	2190	1680	1780	1390	1370	1430	1310
7	1760	1710	1810	1660	1570	2000	1750	1660	1410	1350	1390	1180
8	1690	1750	1780	1700	1660	2010	1780	1610	1400	1290	1290	1370
9	1750	1650	1790	1790	1660	1900	1780	1660	1420	1330	1410	1350
10	1920	1650	1770	1750	1630	2060	1740	1710	1400	1300	1440	1220
11	1890	1780	1760	1640	1590	2150	1790	1680	1470	1230	1380	1120
12	1810	1730	1790	1700	1660	2130	1700	1570	1390	1290	1310	1300
13	1830	1720	1750	1830	1750	2240	1720	1510	1410	1290	1310	1420
14	1880	1710	1680	1790	1670	2210	1780	1680	1420	1220	1370	1280
15	1790	1710	1730	1740	1680	2040	1960	1990	1460	1330	1350	1310
16	1750	1730	1690	1750	1670	2190	1840	1800	1390	1240	1380	1440
17	1750	1760	1670	1730	1620	2120	1570	1640	1450	1340	1400	1420
18	1750	1750	1740	1780	1680	2060	1600	1520	1370	1240	1380	1400
19	1690	1670	1710	1720	1700	2160	1560	1620	1350	1250	1410	1350
20	1710	1780	1700	1720	1700	2080	1530	1520	1320	1240	1400	1340
21	1640	1770	1690	1540	1770	2090	1590	1520	1310	1290	1410	1400
22	1630	1660	1740	1870	1660	1770	1560	1500	1320	1310	1430	1350
23	1640	1790	1760	1710	1680	1930	1590	1510	1330	1330	1450	1360
24	1640	1710	1770	1690	1730	1750	1580	1530	1300	1310	1400	1350
25	1730	1680	1770	1690	1570	1840	1670	1500	1380	1280	1410	1430
26	1760	1660	1760	1690	1520	1860	1700	1450	1350	1350	1350	1400
27	1740	1800	1770	1670	1910	1760	1840	1510	1310	1250	1410	1410
28	1740	1740	1770	1710	2400	1860	1700	1470	1310	1300	1350	1440
29	1720	1670	1740	1680	2990	1760	1660	1320	1010	1330	1360	1330
30	1850	1710	1810	1720	---	1740	1520	1530	1420	1300	1400	1320
31	1830	---	1760	1500	---	1720	---	1440	---	1380	1380	---
TOTAL	53370	51810	54170	52910	49790	64450	50980	49710	41230	40550	43060	40150
MEAN	1722	1727	1747	1707	1717	2079	1699	1604	1374	1308	1389	1338
MAX	1920	1800	1810	1870	2990	3100	1960	1990	1490	1470	1450	1440
MIN	1220	1650	1670	1500	1120	1720	1520	1320	1010	1220	1290	1120
AC-FT	105900	102800	107400	104900	98760	127800	101100	98600	81780	80430	85410	79640

WTR YR 1976 TOTAL 592180 MEAN 1618 MAX 3100 MIN 1010 AC-FT 1175000

11355500 HAT CREEK NEAR HAT CREEK, CA

LOCATION.--Lat 40°41'12", long 121°25'25", in NE¼SE¼ sec.28, T.33 N., R.5 E., Shasta County, on right bank 0.8 mi (1.3 km) northeast of Old Station Post Office, and 8 mi (13 km) southeast of Hat Creek Post Office.

DRAINAGE AREA.--162 mi^2 (420 km^2), hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--July 1926 to September 1929, April 1930 to current year.

REVISED RECORDS.--WSP 1395: 1938. WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,300 ft (1,311 m), from topographic map. July 1926 to April 1928 at site 0.5 mi (0.8 km) upstream at different datum. May 1928 to July 1965 at site 80 ft (24 m) upstream at datum 2.76 ft (0.841 m) higher.

REMARKS.--Records excellent. Diversions for irrigation of 260 acres (1.05 km^2) above station. See schematic diagram of Pit and McCloud River basins.

AVERAGE DISCHARGE.--49 years, 140 ft^3/s (3.965 m^3/s), 101,400 acre-ft/yr (125 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,320 ft^3/s (94.0 m^3/s) Dec. 11, 1937, gage height, 7.75 ft (2.362 m) in gage well, affected by drawdown, site and datum then in use, from rating curve extended above 610 ft^3/s (17.3 m^3/s) on basis of slope-area measurement of maximum flow; minimum, 67 ft^3/s (1.90 m^3/s) Sept. 7, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 229 ft^3/s (6.49 m^3/s) Oct. 26 (1030 hrs), gage height, 3.48 ft (1.061 m), no other peak above base of 220 ft^3/s (6.23 m^3/s); minimum daily, 123 ft^3/s (3.48 m^3/s) Sept. 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	155	160	162	147	155	160	150	154	158	135	138	127
2	155	159	160	146	155	156	150	156	156	133	142	127
3	155	159	159	151	156	155	150	156	155	133	136	127
4	155	159	160	152	154	155	150	158	153	131	136	126
5	155	159	165	155	149	156	151	158	152	132	135	126
6	157	159	162	150	149	157	150	159	152	130	136	126
7	159	166	159	152	155	157	151	156	151	128	136	126
8	157	162	159	155	158	158	151	160	151	130	135	131
9	157	159	159	155	159	157	150	160	152	130	130	132
10	165	161	158	151	154	157	150	164	147	135	127	132
11	164	158	158	155	155	156	149	172	143	137	127	134
12	161	161	158	154	157	155	149	172	142	137	127	133
13	160	161	155	155	157	155	148	178	141	137	127	132
14	159	161	148	155	158	155	149	186	140	137	129	133
15	160	171	151	154	156	155	150	178	139	136	137	141
16	159	176	155	154	158	156	148	177	139	136	132	135
17	160	165	153	154	158	157	149	176	138	136	129	132
18	160	157	153	155	158	159	149	171	138	136	129	131
19	159	157	153	153	157	156	149	168	139	136	128	131
20	159	165	152	152	155	155	149	164	144	131	129	130
21	159	161	154	154	156	155	145	156	146	129	133	127
22	163	162	156	154	157	155	143	153	144	129	133	125
23	159	161	155	155	156	155	143	154	143	129	133	125
24	157	161	155	152	155	154	146	153	143	129	132	125
25	156	161	154	150	157	150	150	152	143	128	132	125
26	194	161	155	154	158	151	147	154	142	130	131	123
27	170	161	156	156	158	150	145	157	141	130	132	123
28	164	160	155	155	166	150	145	158	141	128	133	128
29	162	153	155	155	171	149	144	155	141	129	130	130
30	168	162	155	154	---	150	148	150	137	134	127	130
31	163	---	147	154	---	151	---	159	---	136	127	---
TOTAL	4986	4838	4836	4748	4547	4797	4448	5024	4351	4107	4088	3873
MEAN	161	161	156	153	157	155	148	162	145	132	132	129
MAX	194	176	165	156	171	160	151	186	158	137	142	141
MIN	155	153	147	146	149	149	143	150	137	128	127	123
AC-FT	9890	9600	9590	9420	9020	9510	8820	9970	8630	8150	8110	7680

CAL YR 1975 TOTAL 64274 MEAN 176 MAX 328 MIN 143 AC-FT 127500
WTR YR 1976 TOTAL 54643 MEAN 149 MAX 194 MIN 123 AC-FT 108400

RESERVOIRS IN PIT AND McCLOUD RIVER BASINS, CA

11361400 LAKE BRITTON NEAR BURNEY.--Lat 41°01'20", long 121°40'32", in SW¼SW¼ sec.30, T.37 N., R.3 E., Shasta County, Shasta National Forest, at control house on right bank 200 ft (61 m) upstream from dam on Pit River, 1.1 mi (1.8 km) downstream from Clark Creek, 1.3 mi (2.1 km) northwest of Burney Falls, and 9 mi (14 km) north of Burney. DRAINAGE AREA, 4,607 mi² (11,932 km²). PERIOD OF RECORD, October 1965 to current year. GAGE, remote telemark read once daily. Datum of gage is at mean sea level (levels by Pacific Gas and Electric Co.).

Reservoir is formed by gravity-type concrete dam. Storage began July 15, 1925. Maximum storage, 40,600 acre-ft (50.1 hm³). Record of contents collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project. See schematic diagram of Pit and McCloud River basins.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 20,445 acre-ft (25.2 hm³) Jan. 25, 1970, elevation, 2,761.55 ft (841.720 m); minimum, 572 acre-ft (705,000 m³) Oct. 9, 1976, elevation, 2,744.60 ft (836.554 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 13,940 acre-ft (17.2 hm³) May 31, elevation, 2,756.60 ft (840.212 m); minimum, 572 acre-ft (705,000 m³) Oct. 9, elevation, 2,744.60 ft (836.554 m).

11363920 IRON CANYON RESERVOIR NEAR BIG BEND.--Lat 41°02'41", long 121°58'52", in SW¼SE¼ sec.21, T.37 N., R.1 W., Shasta County, Shasta National Forest, in control house on left bank 500 ft (150 m) upstream from Iron Canyon Dam on Iron Canyon Creek, 3.7 mi (6.0 km) northwest of Big Bend. DRAINAGE AREA, 11.1 mi² (28.7 km²). PERIOD OF RECORD, December 1965 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 a rockfill dam completed in 1965. Capacity is 24,200 acre-ft (29.8 hm³) between elevations 2,525.00 ft (769.620 m), invert of sluice pipe and 2,665.00 ft (812.292 m), crest of spillway. No dead storage. Water is diverted from Lake McCloud through a tunnel to Iron Canyon Reservoir and thence into the Pit River via a powerplant. Record of contents collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project. See schematic diagram of Pit and McCloud River basins.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 22,800 acre-ft (28.1 hm³) July 24, 1968, elevation, 2,662.07 ft (811.399 m); normal minimum since initial operation of reservoir, 2,860 acre-ft (3.53 hm³) May 23, 24, 29, June 2, 7, 9, 14, 23, 24, 1966, elevation, 2,590.00 ft (789.432 m). Reservoir drained for inspection Feb. 10, 1971. Contents reduced to 195 acre-ft (240,000 m³), elevation, 2,540.00 ft (774.192 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 21,656 acre-ft (26.7 hm³) May 31, elevation, 2,659.70 ft (810.677 m); minimum, 3,261 acre-ft (4.02 hm³) Oct. 27, elevation, 2,593.53 ft (790.508 m).

11367740 LAKE McCLOUD NEAR McCLOUD.--Lat 41°08'06", long 122°04'26", in SE¼SW¼ sec.22, T.38 N., R.2 W., Shasta County, Shasta National Forest, on McCloud Dam near spillway on McCloud River, 200 ft (61 m) downstream from Panther Creek, and 8.8 mi (14.1 km) southeast of McCloud. DRAINAGE AREA, 403 mi² (1,044 km²). PERIOD OF RECORD, October 1965 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 a rockfill dam completed in 1965. Capacity, 35,234 acre-ft (43.4 hm³) between elevations 2,471.30 ft (753.252 m), invert of sluice pipe and 2,680.00 ft (816.864 m), maximum operational water surface. No dead storage. Water is diverted from Lake McCloud through a diversion tunnel to Iron Canyon Reservoir and thence into the Pit River. Record of contents collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project. See schematic diagram of Pit and McCloud River basins.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 35,967 acre-ft (44.3 hm³) Jan. 15, 1974, elevation, 2,681.40 ft (817.291 m); minimum since storage pool first filled, 15,700 acre-ft (19.4 hm³) Jan. 22, 1967, elevation, 2,632.60 ft (802.416 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 34,204 acre-ft (42.2 hm³) June 7, 8, elevation, 2,678.00 ft (816.254 m); minimum, 16,207 acre-ft (20.0 hm³) Nov. 30, Dec. 1, elevation, 2,634.32 ft (802.941 m).

MONTHEND ELEVATION AND CONTENTS, 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)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	11361400 LAKE BRITTON			11363920 IRON CANYON RESERVOIR			11367740 LAKE MCCLOUD		
Sept. 30.....	2755.40	12443	--	2641.40	14188	--	2666.50	28662	--
Oct. 31.....	2747.50	3469	-8974	2609.70	5727	-8461	2636.20	16814	-11848
Nov. 30.....	2744.70	668	-2801	2603.80	4694	-1033	2634.32	16207	-607
Dec. 31.....	2748.55	4572	+3904	2607.50	5323	+629	2636.70	16978	+771
CAL YR 1975	--	--	-1462	--	--	+498	--	--	-2191
Jan. 31.....	2749.25	5324	+752	2611.00	5976	+653	2636.30	16847	-131
Feb. 29.....	2754.25	11044	+5720	2618.42	7568	+1592	2648.10	21001	+4154
Mar. 31.....	2749.56	5651	-5393	2615.40	6886	-682	2641.30	18536	-2465
Apr. 30.....	2756.50	13814	+8163	2642.50	14574	+7688	2665.90	28390	+9854
May 31.....	2756.60	13940	+126	2659.70	21565	+7082	2675.00	32696	+4306
June 30.....	2753.60	10267	-3673	2657.20	20502	-1154	2676.40	33394	+698
July 31.....	2754.25	11044	+777	2644.70	15370	-5132	2670.90	30708	-2686
Aug. 31.....	2754.80	11709	+665	2625.70	9397	-5973	2651.90	22463	-8245
Sept. 30.....	2751.75	8110	-3599	2626.50	9612	+215	2646.90	20551	-1912
WTR YR 1976	--	--	-4333	--	--	-4576	--	--	-8111

11362500 PIT RIVER BELOW PIT NO. 4 DAM, CA

LOCATION.--Lat 40°58'25", long 121°46'42" (unsurveyed), T.36 N., R.2 E., Shasta County, Shasta National Forest, on right bank 0.6 mi (1.0 km) downstream from Ruling Creek, 1.3 mi (2.1 km) downstream from Pit No. 4 Dam, and 2.7 mi (4.3 km) downstream from Pit No. 3 powerhouse.

DRAINAGE AREA.--4,648 mi^2 (12,038 km^2), excluding Goose Lake basin.

PERIOD OF RECORD.--May 1922 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as "near Pecks Bridge" April to October 1922, and as "at Lindsay Flat" November 1922 to June 1927.

REVISED RECORDS.--WSP 843: 1935(M). WSP 1315-A: 1928(M). WSP 1931: Drainage area. WDR CA-75-4: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,358 ft (718.7 m), from river-profile map. Prior to November 1922, water-stage recorder at site at Pecks Bridge 7.4 mi (11.9 km) upstream at different datum. November 1922 to June 20, 1927, at site at Lindsay Flat 1.8 mi (2.9 km) upstream at different datum.

REMARKS.--Flow regulated by small reservoirs and powerplants, total usable reservoir capacity, 253,000 acre-ft (312 hm^3). Many diversions above station; diversion to Pit No. 4 powerplant began June 9, 1955. See schematic diagram of Pit and McCloud River basins.

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 (REVISED).--54 years (1923-76), 2,722 ft^3/s (77.09 m^3/s), 1,972,000 acre-ft/yr (2.43 km^3/yr), adjusted for diversion to Pit No. 4 powerplant.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,000 ft^3/s (878 m^3/s) Jan. 25, 1970, gage height, 18.04 ft (5.499 m), from rating curve extended above 17,000 ft^3/s (481 m^3/s); minimum daily, 234 ft^3/s (6.63 m^3/s) Sept. 13, 1953. Minimum daily discharge since diversion to Pit No. 4 powerplant in 1955, 22 ft^3/s (0.62 m^3/s) Dec. 2-4, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,990 ft^3/s (56.4 m^3/s) Nov. 25, gage height, 7.35 ft (2.240 m); minimum daily, 55 ft^3/s (1.56 m^3/s) Mar. 19, 22, 25, 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	121	93	64	64	66	675	99	143	150	152	148	153
2	114	87	64	61	65	606	107	165	154	150	158	153
3	114	87	64	65	62	190	107	156	149	152	151	153
4	116	85	62	65	63	60	105	155	153	152	147	149
5	118	85	60	64	59	78	104	151	150	150	165	153
6	123	83	60	65	67	65	107	147	151	149	152	154
7	114	83	62	64	69	65	102	157	150	152	151	150
8	109	82	63	64	69	68	106	149	149	147	151	150
9	116	82	60	65	70	60	109	141	150	149	150	156
10	113	84	63	64	68	57	102	151	150	158	151	150
11	116	84	62	65	63	56	99	146	148	150	149	151
12	114	84	61	65	65	67	107	155	154	149	149	150
13	126	84	61	65	61	58	102	153	154	153	152	151
14	119	83	60	66	65	58	102	157	151	152	150	154
15	119	85	65	61	70	60	101	155	151	149	158	152
16	113	84	66	61	69	60	100	154	152	149	145	153
17	118	83	66	63	65	58	103	160	149	148	151	153
18	121	83	66	65	62	56	101	157	153	152	149	151
19	118	84	66	65	66	55	100	149	150	151	154	155
20	111	84	66	65	63	58	100	155	148	149	154	154
21	113	85	67	63	65	58	100	154	153	155	152	151
22	113	86	63	63	62	55	104	152	151	160	150	153
23	108	88	64	64	61	57	103	157	152	158	150	152
24	114	84	61	63	64	58	105	153	152	151	151	155
25	116	132	62	63	125	55	103	162	153	154	152	154
26	121	87	63	63	139	55	106	150	152	153	151	160
27	121	84	63	61	76	58	121	165	150	151	152	153
28	119	86	64	64	69	57	150	162	154	149	149	162
29	114	88	64	63	74	56	151	152	151	147	148	154
30	118	86	65	63	---	55	151	156	150	152	156	153
31	123	---	63	63	---	56	---	154	---	149	152	---
TOTAL	3613	2595	1960	1975	2042	3130	3257	4773	4534	4692	4698	4592
MEAN	117	86.5	63.2	63.7	70.4	101	109	154	151	151	152	153
MAX	126	132	67	66	139	675	151	165	154	160	165	162
MIN	108	82	60	61	59	55	99	141	148	147	145	149
AC-FT	7170	5150	3890	3920	4050	6210	6460	9470	8990	9310	9320	9110
MEAN ‡	2749	2696	2581	2555	2535	3124	2449	2361	2190	2061	2173	2227
AC-FT ‡	169000	160400	158700	157100	145800	192100	145700	145200	130300	126700	133600	132500

CAL YR 1975 TOTAL 145351 MEAN 398 MAX 3780 MIN 54 AC-FT 288300 MEAN ‡ 3298 AC-FT ‡ 2388000
WTR YR 1976 TOTAL 41861 MEAN 114 MAX 675 MIN 55 AC-FT 83030 MEAN ‡ 2475 AC-FT ‡ 1797000

‡ Adjusted for diversion to Pit No. 4 powerplant.

11363000 PIT RIVER AT BIG BEND, CA

LOCATION.--Lat 41°01'10", long 121°54'36", in NW¼SW¼ sec.31, T.37 N., R.1 E., Shasta County, on left bank at Big Bend, 0.4 mi (0.6 km) downstream from Nelson Creek, and 1.5 mi (2.4 km) upstream from Kosk Creek.

DRAINAGE AREA.--4,711 mi^2 (12,201 km^2), excluding Goose Lake basin.

PERIOD OF RECORD.--October 1910 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as "at Henderson" 1910-23.

REVISED RECORDS.--WSP 1345: 1911, 1914(M), 1916(M), 1917, 1928, 1935-36(M). WDR CA-75-4: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,674.47 ft (510.378 m) above mean sea level. Prior to Dec. 28, 1912, nonrecording gage and Dec. 28, 1912, to June 21, 1924, water-stage recorder at same site at datum 7.69 ft (2.344 m) higher.

REMARKS.--Flow regulated by many reservoirs and powerplants, total usable reservoir capacity, about 253,000 acre-ft (312 hm^3). Many diversions above station; diversion to Pit No. 5 powerhouse began May 1, 1944. See schematic diagram of Pit and McCloud River basins.

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 (prior to diversion to Pit No. 5 powerplant).--33 years (water years 1911-43), 2,931 ft^3/s (83.0 m^3/s), 2,122,000 acre-ft/yr (2.62 km^3/yr); 33 years (water years 1944-76), 587 ft^3/s (16.62 m^3/s), 425,300 acre-ft/yr (524 hm^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,000 ft^3/s (1,390 m^3/s) Jan. 25, 1970, gage height, 18.17 ft (5.538 m) in gage well, 19.0 ft (5.79 m) from floodmarks, from rating curve extended above 17,000 ft^3/s (481 m^3/s), partly affected by gate operation at Pit No. 4 Dam; minimum daily, 34 ft^3/s (0.96 m^3/s) Mar. 29, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,700 ft^3/s (48.2 m^3/s) Mar. 1, gage height, 8.04 ft (2.451 m); minimum daily, 47 ft^3/s (1.33 m^3/s) Feb. 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	128	98	89	53	48	1350	78	149	125	121	111	111
2	125	98	57	53	48	1290	76	146	126	116	118	113
3	122	90	56	51	55	788	75	138	128	114	118	113
4	122	90	65	50	55	416	72	134	130	113	116	108
5	123	92	122	52	55	136	74	138	119	116	114	103
6	132	95	97	52	50	121	85	141	117	117	112	106
7	129	110	77	52	47	114	88	140	122	113	107	112
8	129	104	71	55	49	108	101	138	128	117	111	119
9	132	101	67	57	49	104	97	136	123	117	114	119
10	147	107	65	53	49	100	93	137	125	111	110	118
11	136	99	63	50	51	95	92	133	127	107	108	117
12	125	102	65	51	50	91	99	130	117	115	113	116
13	129	106	61	52	53	89	97	129	114	113	112	108
14	128	104	58	52	49	88	94	127	120	113	122	109
15	128	135	57	53	54	87	92	133	119	114	126	109
16	125	151	59	53	62	86	88	133	119	115	115	114
17	120	117	57	52	68	87	85	132	119	107	115	107
18	123	107	57	51	81	91	83	132	120	108	128	107
19	129	103	57	51	76	87	82	126	113	110	123	112
20	128	108	55	52	68	83	83	126	113	114	117	109
21	122	105	56	49	65	81	82	125	121	111	110	107
22	117	103	58	52	63	81	82	121	122	115	108	107
23	125	100	55	52	61	80	81	122	121	116	115	111
24	125	100	55	51	60	85	80	127	121	113	115	120
25	131	97	54	50	81	81	80	127	121	113	114	116
26	158	96	53	50	250	80	79	129	115	113	117	119
27	129	96	54	49	367	77	78	125	108	114	115	113
28	134	97	53	50	896	76	77	127	114	111	108	111
29	132	97	51	50	1050	75	76	122	119	115	105	113
30	158	100	54	49	---	75	90	123	120	116	110	118
31	134	---	54	48	---	81	---	124	---	112	112	---
TOTAL	4025	3108	1952	1595	4010	6283	2539	4070	3606	3520	3539	3365
MEAN	130	104	63.0	51.5	138	203	84.6	131	120	114	114	112
MAX	158	151	122	57	1050	1350	101	149	130	121	128	120
MIN	117	90	51	48	47	75	72	121	108	107	105	103
AC-FT	7980	6160	3870	3160	7950	12460	5040	8070	7150	6980	7020	6670

CAL YR 1975 TOTAL 205413 MEAN 563 MAX 4490 MIN 51 AC-FT 407400
WTR YR 1976 TOTAL 41612 MEAN 114 MAX 1350 MIN 47 AC-FT 82540

11363910 JAMES B. BLACK POWERPLANT NEAR BIG BEND, CA

LOCATION.--Lat 40°59'12", long 121°58'35", in SW¼SE¼ sec.9, T.36 N., R.1 W., Shasta County, at powerplant on right bank of Pit River, 5.8 mi (9.3 km) downstream from Big Bend.

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

GAGE.--Recorded output from powerplant turbines.

REMARKS.--Water is diverted from Lake McCloud (station 11367740) at SE¼SW¼ sec.22, T.38 N., R.2 W., to Iron Canyon Reservoir (station 11363920), and then into the penstock for James B. Black powerplant. Records are combined flow of diversion from McCloud River at McCloud Dam plus Iron Canyon Creek.

COOPERATION.--Records furnished by Pacific Gas and Electric Co. in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--10 years, 1,046 ft^3/s (29.62 m^3/s), 757,800 acre-ft/yr (934 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,420 ft^3/s (68.5 m^3/s) July 15, 1966; no flow for several days 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	634	1010	364	808	778	253	382	602	993	1130	1110	852
2	884	825	364	830	1040	1680	487	330	812	1060	1010	916
3	1100	907	716	678	715	1660	65	1080	486	617	1260	671
4	2000	944	1040	745	846	1110	317	988	520	1190	1020	534
5	1990	756	1200	725	761	1350	673	1010	509	707	1140	910
6	2000	977	876	881	670	1010	667	770	725	997	1120	726
7	1950	793	710	699	578	881	616	1020	1380	889	778	883
8	1370	780	914	826	846	1160	658	318	1370	902	892	1050
9	1190	890	880	920	758	959	840	694	752	699	1200	659
10	1260	836	739	666	854	1050	998	926	873	727	1330	635
11	1380	855	860	1040	451	955	273	982	908	263	1060	680
12	1000	669	981	737	292	1050	751	1130	427	685	907	762
13	1330	966	764	741	552	1050	826	1110	370	703	760	894
14	1090	780	853	807	1030	890	759	894	898	771	973	853
15	1070	899	701	818	1230	922	870	567	917	776	917	897
16	1070	839	756	755	1110	959	815	883	764	716	834	662
17	994	735	584	922	595	995	751	527	887	788	1490	1120
18	931	861	824	830	727	626	767	688	670	538	1430	437
19	982	711	791	642	1050	1200	859	515	722	1070	947	813
20	1100	1010	917	599	749	954	813	838	665	1140	1230	805
21	989	804	798	477	780	912	548	897	865	1390	491	739
22	848	795	789	955	775	973	393	478	722	824	1200	840
23	1280	826	745	1010	851	894	551	624	782	1090	985	722
24	937	773	746	797	847	673	768	716	974	457	1070	833
25	1080	905	998	806	760	639	563	496	935	612	1090	461
26	1020	652	814	863	217	1140	570	869	631	685	1170	750
27	914	1050	840	873	1020	962	515	894	166	1040	2280	977
28	481	843	848	665	895	594	685	451	1060	886	740	611
29	694	821	609	723	666	1100	525	227	203	1000	715	989
30	560	864	928	785	---	390	980	34	539	1460	864	754
31	669	---	807	627	---	710	---	35	---	342	744	---
TOTAL	34797	25376	24756	24250	22443	29701	19285	21593	22525	26154	32757	23435
MEAN	1122	846	799	782	774	958	643	697	751	844	1057	781
MAX	2000	1050	1200	1040	1230	1680	998	1130	1380	1460	2280	1120
MIN	481	652	364	477	217	253	65	34	166	263	491	437
AC-FT	69020	50330	49100	48100	44520	58910	38250	42830	44680	51880	64970	46480

CAL YR 1975 TOTAL 399115 MEAN 1093 MAX 2010 MIN 219 AC-FT 791600
WTR YR 1976 TOTAL 307072 MEAN 839 MAX 2280 MIN 34 AC-FT 609100

11363930 IRON CANYON CREEK BELOW IRON CANYON DAM, NEAR BIG BEND, CA

LOCATION.--Lat 41°02'27", long 121°59'02", in NW¼NW¼ sec.28, T.37 N., R.1 W., Shasta County, on left bank 0.2 mi (0.3 km) downstream from Iron Canyon Dam, and 4.2 mi (6.8 km) west of Big Bend.

DRAINAGE AREA.--11.6 mi^2 (30.0 km^2).

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

GAGE.--Water-stage recorder, 60° sharp-crested V-notch weir, and concrete control. Datum of gage is 2,461.52 ft (750.271 m) above mean sea level (levels by Pacific Gas and Electric Co.).

REMARKS.--Flow is regulated by Iron Canyon Dam. There is inter-basin diversion from Lake McCloud (station 11367790) to Iron Canyon Reservoir (station 11363920) and then into a tunnel to James. B. Black powerplant on the Pit River (station 11363910). See schematic diagram of Pit and McCloud River basins.

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.--10 years, 4.39 ft^3/s (0.124 m^3/s), 3,180 acre-ft/yr (3.92 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 391 ft^3/s (11.1 m^3/s) Feb. 1, 1971, gage height, 3.10 ft (0.945 m), from rating curve extended above 65 ft^3/s (1.84 m^3/s) on basis of computation of flow over weir (flow was a result of sluicing at dam); no flow July 15-18, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4.3 ft^3/s (0.12 m^3/s) June 21, gage height, 1.53 ft (0.466 m); minimum daily, 2.6 ft^3/s (0.074 m^3/s) Apr. 14, 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	3.1	3.1	3.1	3.2	3.1	2.9	2.9	2.9	2.9	2.9	2.9	2.9
2	3.1	3.1	3.1	3.1	3.1	2.9	2.9	2.9	2.9	2.9	2.9	2.9
3	3.1	3.1	3.1	3.1	3.1	3.0	2.9	2.9	2.9	2.9	2.9	2.9
4	3.1	3.1	3.1	3.2	3.1	3.0	2.9	2.9	2.9	2.9	2.9	2.9
5	3.4	3.1	3.1	3.1	2.8	3.0	2.9	2.9	2.9	2.9	2.9	2.9
6	3.1	3.1	3.1	3.2	3.1	3.0	2.9	2.9	2.9	2.9	2.9	2.9
7	3.1	3.1	3.1	3.1	3.1	2.9	2.9	2.9	2.9	2.9	2.9	2.9
8	3.1	3.1	3.1	3.1	3.1	2.9	2.9	2.9	2.9	2.9	2.9	2.9
9	3.1	3.2	3.1	3.1	3.1	2.9	2.9	2.9	2.9	2.9	2.9	2.9
10	3.1	3.1	3.1	3.1	3.1	2.9	2.9	2.9	2.9	2.9	2.9	2.9
11	3.1	3.1	2.8	3.1	3.1	2.9	2.9	2.9	2.9	2.9	2.9	3.0
12	3.1	3.1	3.1	3.1	3.1	2.9	2.9	2.9	2.9	2.9	2.9	3.0
13	3.1	3.1	3.1	3.1	3.1	2.9	2.9	2.9	2.9	2.9	2.9	3.0
14	3.1	3.1	3.1	3.1	3.1	2.9	2.6	2.9	2.9	2.9	2.9	3.0
15	2.8	3.1	3.2	3.1	3.1	2.9	2.8	2.9	2.9	2.9	2.9	3.0
16	3.1	3.1	3.1	3.1	3.1	2.9	2.9	2.9	2.9	2.9	2.9	3.0
17	3.1	3.1	3.1	3.1	3.0	2.9	2.9	2.9	2.9	2.9	2.9	3.0
18	3.1	4.2	3.1	3.1	3.0	2.9	2.9	2.9	2.9	2.9	2.9	3.0
19	3.1	3.0	3.1	3.1	3.0	2.9	2.9	2.9	2.9	2.9	2.9	3.0
20	3.1	3.1	3.1	3.1	3.0	2.9	2.9	2.9	2.9	2.9	2.9	3.0
21	3.1	3.1	3.1	3.1	3.0	2.9	2.9	2.9	3.1	2.9	2.9	3.0
22	3.1	3.1	3.1	3.1	3.0	2.9	2.9	2.9	2.9	2.9	2.9	3.0
23	3.1	3.1	3.1	3.1	3.0	2.9	2.9	2.9	2.9	2.9	2.9	3.0
24	3.1	3.1	3.1	3.1	3.0	2.9	2.9	2.9	2.9	2.9	2.7	3.0
25	3.1	3.1	3.1	3.1	3.1	2.9	2.9	2.9	2.7	2.9	2.9	3.0
26	3.1	3.1	3.1	3.1	3.0	2.9	2.9	2.9	2.9	2.9	2.9	3.0
27	3.1	3.1	3.1	3.1	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.0
28	3.1	3.1	3.1	3.1	2.9	2.9	2.6	2.9	2.9	2.9	2.9	3.0
29	3.1	3.1	3.1	3.1	3.0	2.9	2.9	2.9	2.9	2.9	2.9	3.0
30	3.2	3.1	3.1	3.1	---	2.9	2.9	2.9	2.9	2.9	2.9	3.0
31	3.1	---	3.1	3.1	---	2.9	---	2.9	---	2.9	2.9	---
TOTAL	96.2	94.1	95.9	96.4	88.2	90.3	86.3	89.9	87.0	89.9	89.7	89.0
MEAN	3.10	3.14	3.09	3.11	3.04	2.91	2.88	2.90	2.90	2.90	2.89	2.97
MAX	3.4	4.2	3.2	3.2	3.1	3.0	2.9	2.9	3.1	2.9	2.9	3.0
MIN	2.8	3.0	2.8	3.1	2.8	2.9	2.6	2.9	2.7	2.9	2.7	2.9
AC-FT	191	187	190	191	175	179	171	178	173	178	178	177

CAL YR 1975 TOTAL 1135.4 MEAN 3.11 MAX 4.2 MIN 2.8 AC-FT 2250
WTR YR 1976 TOTAL 1092.9 MEAN 2.99 MAX 4.2 MIN 2.6 AC-FT 2170

11365000 PIT RIVER NEAR MONTGOMERY CREEK, CA

LOCATION.--Lat 40°50'36", long 122°00'58", in NW¼SE¼ sec.31, T.35 N., R.1 W., Shasta County, Shasta National Forest, on right bank 0.5 mi (0.8 km) upstream from Potem Creek, 1.9 mi (3.1 km) downstream from Pit No. 7 Dam and powerhouse, and 5.0 mi (8.0 km) west of town of Montgomery Creek.

DRAINAGE AREA.--4,952 mi^2 (12,823 km^2), excluding Goose Lake basin.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1944 to current year (monthly discharge only December 1964 to May 1965). Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,036 ft (315.773 m) above mean sea level (levels by Pacific Gas and Electric Co.). October 1944 to Feb. 17, 1963, at site 1.9 mi (3.1 km) upstream at different datum. Feb. 17, 1963, to May 21, 1965, at site 2.7 mi (4.3 km) upstream at different datum.

REMARKS.--Flow regulated by many reservoirs and powerplants, total usable reservoir capacity, 337,000 acre-ft (416 hm^3). Many diversions above station for irrigation. Diversion from McCloud River to Pit River began December 1965 (station 11367720). See schematic diagram of Pit and McCloud River basins.

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, 73,000 ft^3/s (2,070 m^3/s) Jan. 24, 1970, gage height, 32.36 ft (9.863 m); minimum daily, 30 ft^3/s (0.85 m^3/s) July 12, 27, 1975, result of construction work below Pit No. 7 powerplant.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,000 ft^3/s (317 m^3/s) Feb. 28, gage height, 25.95 ft (7.910 m); minimum daily, 220 ft^3/s (6.23 m^3/s) June 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	3630	3870	2110	3920	1630	8120	3930	5060	5430	4360	1590	3750
2	3490	2860	3160	4270	2410	8100	4490	3880	5410	4090	3870	4150
3	4750	2300	2750	2090	3530	6920	2020	3830	3350	1490	4490	3980
4	5390	3530	3840	1700	3630	6180	2340	3110	4940	2090	3910	1740
5	5150	4440	4650	3490	3670	5930	3720	4370	4200	2190	3710	1400
6	5500	4750	4930	4520	2410	5690	4340	5090	1010	4390	3660	2200
7	6570	4320	4300	4070	1230	5600	4450	4850	220	3300	1460	3390
8	5390	4870	5020	4820	849	4920	4820	3610	4340	4150	2340	4350
9	4510	3860	4250	4260	3180	5540	4800	4330	3740	3630	4330	4090
10	4860	3770	6230	2080	3470	5330	4000	3560	4090	2230	4360	3810
11	5430	3740	4190	2720	3690	4890	1930	4350	4560	590	3750	3270
12	2860	3210	5870	3690	3660	5320	4450	5070	1360	3800	4100	4020
13	3430	4160	2560	4790	4000	5090	5170	4410	842	3400	3040	3140
14	3260	3780	2240	4260	3700	4750	4930	3680	4550	3700	2090	3000
15	4130	4700	2290	4470	3710	4960	5420	5450	3620	3780	2090	2810
16	3770	3930	4630	5170	4780	4770	5060	1030	3800	3460	3260	2300
17	2840	3710	3900	3720	3510	5220	3070	2670	3870	1320	3970	3590
18	4200	4410	4670	3880	3760	4830	1600	3450	3530	1380	5300	1600
19	3270	3870	3650	5150	4340	5260	4070	3740	1620	3940	4560	2470
20	4220	4480	2210	6460	3810	4260	5210	3790	1280	4160	4080	4030
21	3190	3920	4220	3420	3170	3460	4670	4190	4170	3620	1020	2200
22	1890	4620	3560	3410	3790	4700	3670	1960	3550	4560	2500	3160
23	4860	5100	3490	3700	3550	5140	3770	2260	4010	3570	3140	2820
24	4880	4720	4220	3650	3360	4730	3420	3170	3780	787	4300	3410
25	5130	4250	3330	3520	3210	3590	2780	3420	3880	1530	4300	2640
26	5210	4070	4550	3460	6090	4990	3100	4480	1580	3870	4410	2890
27	4740	5490	3010	3490	7880	3140	2880	3490	992	4080	3660	3700
28	5070	4870	1740	3470	8630	2680	2850	3550	4440	3980	1520	2980
29	5100	4540	3960	3480	8790	4420	3080	1520	2330	3680	2020	2820
30	3710	3730	4640	3080	---	4620	3400	1020	4200	4470	3600	3430
31	3430	---	4890	3960	---	4580	---	1750	---	793	2830	---
TOTAL	133860	123870	119060	118170	113439	157730	113440	110140	98694	96390	103260	93140
MEAN	4318	4129	3841	3812	3912	5088	3781	3553	3290	3109	3331	3105
MAX	6570	5490	6230	6460	8790	8120	5420	5450	5430	4560	5300	4350
MIN	1890	2300	1740	1700	849	2680	1600	1020	220	590	1020	1400
AC-FT	265500	245700	236200	234400	225000	312900	225000	218500	195800	191200	204800	184700

CAL YR 1975 TOTAL 1980855 MEAN 5427 MAX 17200 MIN 30 AC-FT 3929000
WTR YR 1976 TOTAL 1381193 MEAN 3774 MAX 8790 MIN 220 AC-FT 2740000

11365000 PIT RIVER NEAR MONTGOMERY CREEK, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951, 1953 to current year.
CHEMICAL ANALYSES: Water years 1951, 1953, 1955 to current year.
WATER TEMPERATURES: Water years, 1951, 1954-57, 1959.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June to September 1951, October 1953 to September 1957, October 1958 to August 1959.

COOPERATION.--Records furnished by California Department of Water Resources.

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)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV									
05...	1010	4420	137	7.7	9.5	3	11.6	--	--
JAN									
07...	1035	3630	147	8.0	7.0	2	11.5	--	--
MAR									
10...	1625	7940	136	7.4	8.0	12	11.1	--	--
MAY									
12...	1000	4290	144	8.0	16.0	4	10.0	57	0
JUL									
07...	1045	2750	142	8.1	19.0	2	10.1	--	--
SEP									
02...	0930	5150	137	7.8	17.0	1	10.1	--	--

DATE	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV									
05...	--	--	--	--	--	--	--	--	--
JAN									
07...	--	--	--	--	--	--	--	--	--
MAR									
10...	--	--	--	--	--	--	--	--	--
MAY									
12...	10	.6	80	0	66	3.0	.01	.10	.05
JUL									
07...	--	--	--	--	--	--	--	--	--
SEP									
02...	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV								
05...	--	--	--	--	--	--	--	--
JAN								
07...	--	--	--	--	--	--	--	--
MAR								
10...	--	--	--	--	--	--	--	--
MAY								
12...	.05	0	0	0	80	0	10	0
JUL								
07...	--	--	--	--	--	--	--	--
SEP								
02...	--	--	--	--	--	--	--	--

11367500 McCLOUD RIVER NEAR McCLOUD, CA

LOCATION.--Lat 41°11'18", long 122°03'52", in NW¼NE¼ sec.34, T.39 N., R.2 W., Siskiyou County, on right bank 0.4 mi (0.6 km) downstream from Angel Creek, and 6 mi (10 km) southeast of McCloud.

DRAINAGE AREA.--358 mi^2 (927 km^2).

PERIOD OF RECORD.--April 1931 to current year.

REVISED RECORDS.--WSP 843: 1936(M). WSP 1445: 1940(M). WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,711.2 ft (826.37 m) above mean sea level (river-profile survey).

REMARKS.--Two small diversions above station for irrigation, and one 22-in (0.56-m) pipeline for town of McCloud and millpond. See schematic diagram of Pit and McCloud River basins.

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, 934 ft^3/s (26.45 m^3/s), 676,700 acre-ft/yr (834 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft^3/s (334 m^3/s) Dec. 21, 1955, gage heights, 9.42 ft (2.871 m) in gage well, 10.7 ft (3.26 m) from floodmarks, from rating curve extended above 8,800 ft^3/s (249 m^3/s) on basis of slope-area measurement of maximum flow; minimum, 524 ft^3/s (14.8 m^3/s) Nov. 23, 24, 1932.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,230 ft^3/s (34.8 m^3/s) Feb. 28, gage height, 2.09 ft (0.637 m), no peak above base of 1,500 ft^3/s (42.5 m^3/s); minimum daily, 739 ft^3/s (20.9 m^3/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	914	906	873	853	828	999	845	886	814	777	764	752
2	916	902	873	851	828	946	841	898	810	777	764	752
3	915	898	873	848	828	910	837	895	814	777	760	752
4	913	898	878	847	826	892	834	891	811	777	758	752
5	912	893	900	847	821	879	836	894	815	774	758	752
6	922	892	941	847	822	872	848	888	810	771	758	752
7	916	897	922	847	822	868	871	883	809	771	758	752
8	913	898	903	848	822	864	915	890	805	771	758	748
9	918	899	895	847	822	862	907	893	806	771	758	745
10	936	902	890	845	821	860	894	896	808	771	758	745
11	930	894	886	841	820	859	890	893	807	771	758	746
12	918	892	886	841	820	853	892	880	803	771	758	746
13	913	892	879	841	822	847	885	878	799	771	758	745
14	911	892	875	841	823	847	875	883	796	768	773	745
15	908	920	873	841	822	846	871	871	796	764	810	747
16	906	932	873	841	826	847	865	862	794	764	775	750
17	905	915	873	841	823	853	860	855	790	767	768	746
18	906	902	868	838	825	877	858	850	790	769	769	745
19	905	895	866	834	831	886	853	841	788	766	765	745
20	903	893	866	834	826	869	853	835	786	764	760	745
21	902	892	867	834	822	861	858	828	785	764	758	745
22	900	891	866	834	821	859	862	826	784	764	763	745
23	898	885	863	834	821	855	874	821	783	764	764	744
24	898	884	860	834	820	857	881	819	783	764	758	744
25	906	879	860	831	834	858	888	821	783	763	757	741
26	914	879	860	829	940	851	882	819	780	759	754	741
27	907	879	860	828	1120	847	879	815	778	758	753	740
28	903	879	860	828	1180	844	875	811	777	758	752	741
29	901	878	860	828	1080	840	873	815	777	759	752	740
30	926	874	855	828	---	835	876	815	777	758	752	739
31	913	---	853	828	---	845	---	815	---	758	752	---
TOTAL	28248	26832	27157	26009	24916	26888	26078	26567	23858	23781	23603	22382
MEAN	911	894	876	839	859	867	869	857	795	767	761	746
MAX	936	932	941	853	1180	999	915	898	815	777	810	752
MIN	898	874	853	828	820	835	834	811	777	758	752	739
AC-FT	56030	53220	53870	51590	49420	53330	51730	52700	47320	47170	46820	44390

CAL YR 1975 TOTAL 390759 MEAN 1071 MAX 1850 MIN 853 AC-FT 775100
WTR YR 1976 TOTAL 306319 MEAN 837 MAX 1180 MIN 739 AC-FT 607600

11367720 McCLOUD-IRON CANYON DIVERSION TUNNEL NEAR McCLOUD, CA

LOCATION.--Lat 41°08'06", long 122°04'26", in SE¼SW¼ sec.22, T.38 N., R.2 W., Shasta County, Shasta National Forest, on left bank of Lake McCloud, 8.8 mi (14.2 km) southeast of McCloud.

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

REVISED RECORDS.--WDR CA-75-4: 1973.

GAGE.--None. Water-stage recorders on Lake McCloud and Iron Canyon Reservoir used to compute record.

REMARKS.--Water is diverted from Lake McCloud (station 11367740) to Iron Canyon Reservoir (station 11363920) and thence into James B. Black powerplant (station 11363910) on the Pit River. Diversion began Dec. 1, 1965. See schematic diagram of Pit and McCloud River basins.

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.--10 years, 1,056 ft^3/s (29.91 m^3/s), 765,100 acre-ft/yr (943 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,890 ft^3/s (53.5 m^3/s) May 20-22, June 1-3, 10, 1967; no flow for several days in 1965-68, 1971.

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	759	835	759	829	773	775	740	734	648	714	761	744
2	770	828	694	831	824	893	707	712	664	745	772	742
3	808	832	714	803	809	986	618	753	661	730	800	726
4	911	846	782	796	812	988	578	781	655	724	801	689
5	1000	819	866	784	805	1030	620	805	648	724	816	699
6	1100	853	871	803	785	1010	637	806	659	743	820	687
7	1190	850	836	788	753	981	650	829	719	751	798	694
8	1200	846	859	800	770	992	675	781	770	759	794	716
9	1190	852	863	816	767	973	714	790	767	750	816	686
10	1200	852	845	788	785	970	761	808	773	739	844	666
11	1220	856	852	834	727	956	719	828	782	711	846	652
12	1170	818	871	815	661	957	734	855	754	704	836	657
13	1180	849	856	799	657	957	758	875	724	709	813	664
14	1170	839	848	799	721	935	764	875	735	706	813	672
15	1140	857	825	800	805	929	782	850	753	714	811	677
16	1110	867	822	794	850	923	791	848	750	714	796	661
17	1080	842	785	818	808	927	790	825	761	711	842	696
18	1040	824	785	821	808	873	793	812	753	706	869	644
19	1030	826	796	791	855	920	799	860	748	705	854	652
20	1030	859	819	758	842	919	800	793	740	727	862	646
21	1020	860	822	714	831	915	776	800	748	775	812	644
22	978	850	826	764	826	915	740	775	743	770	811	655
23	1020	845	825	675	829	903	726	770	743	793	802	646
24	990	832	811	659	835	863	742	759	758	756	809	672
25	987	852	836	819	816	828	732	740	768	734	812	628
26	988	821	836	825	727	870	729	751	753	727	812	639
27	961	855	839	838	818	885	707	756	707	750	804	659
28	860	857	845	811	856	841	721	739	732	757	780	635
29	836	846	802	800	839	874	709	701	692	772	771	666
30	802	859	831	802	---	793	745	642	675	820	776	668
31	793	---	832	770	---	784	---	602	---	766	765	---
TOTAL	31533	25327	25453	24544	22994	28365	21757	24255	21783	22906	25118	20182
MEAN	1017	844	821	792	793	915	725	782	726	739	810	673
MAX	1220	867	871	838	856	1030	800	875	782	820	869	744
MIN	759	818	694	659	657	775	578	602	648	704	761	628
AC-FT	62550	50240	50490	48680	45610	56260	43150	48110	43210	45430	49820	40030

CAL YR 1975 TOTAL 393701 MEAN 1079 MAX 1420 MIN 694 AC-FT 780900
WTR YR 1976 TOTAL 294217 MEAN 804 MAX 1220 MIN 578 AC-FT 583600

11367760 McCLOUD RIVER BELOW McCLOUD DAM, NEAR McCLOUD, CA

LOCATION.--Lat 41°07'44", long 122°04'08", in SW¼NE¼ sec.27, T.38 N., R.2 W., Shasta County, Shasta National Forest, on left bank 0.1 mi (0.2 km) downstream from Lizard Creek, 0.6 mi (1.0 km) downstream from McCloud Dam, and 9 mi (14 km) southeast of McCloud.

DRAINAGE AREA.--404 mi^2 (1,046 km^2).

PERIOD OF RECORD.--April 1966 to current year (low flow only).

GAGE.--Water-stage recorder. Datum of gage is 2,401.76 ft (732.056 m) above mean sea level (levels by Pacific Gas and Electric Co.).

REMARKS.--Flow regulated by Lake McCloud (station 11367740) since November 1965. Most of McCloud River runoff is diverted from reservoir through tunnel to Iron Canyon Reservoir (station 11363920) in Pit River basin. This station records fishwater release. Prior to water year 1974, flow was computed up to 400 ft^3/s (11.3 m^3/s). Because of channel changes, flow is computed only up to 200 ft^3/s (5.66 m^3/s). See schematic diagram of Pit and McCloud River basins.

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

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	---	---	---	158	150	45	140	152	148	157	157	172
2	---	---	---	158	153	44	144	153	149	157	157	179
3	---	---	---	158	158	56	144	141	146	157	158	179
4	---	---	---	158	157	96	146	127	145	157	159	178
5	---	---	---	161	153	112	149	131	151	157	158	178
6	---	---	---	163	153	112	140	134	152	158	156	177
7	---	---	---	163	153	112	128	136	152	158	157	177
8	---	---	---	164	155	130	65	135	153	158	158	177
9	---	---	---	163	155	142	74	138	152	158	158	179
10	187	---	---	163	155	142	78	138	153	158	159	178
11	196	---	---	164	156	142	86	139	152	158	158	179
12	---	---	---	163	157	142	89	140	151	159	158	178
13	---	---	---	163	155	141	91	142	155	159	158	178
14	---	---	---	163	152	141	99	143	155	159	149	177
15	---	193	---	163	152	141	100	144	155	159	121	171
16	---	185	188	163	147	141	106	144	155	159	145	169
17	---	194	177	161	149	140	112	145	155	157	150	172
18	---	199	177	159	145	141	117	146	154	158	151	172
19	---	---	178	160	143	140	124	146	155	159	151	172
20	---	---	173	162	141	140	124	147	155	159	153	172
21	---	---	172	155	135	140	128	147	154	159	156	172
22	---	---	172	153	160	140	129	147	155	158	156	172
23	---	---	172	153	160	139	133	147	155	159	155	172
24	---	---	172	152	160	140	130	147	156	160	155	172
25	---	---	172	152	149	139	130	147	156	160	157	172
26	196	---	172	153	87	139	132	147	156	160	157	172
27	---	---	172	155	44	139	132	147	157	160	157	172
28	---	---	172	153	44	139	134	149	157	160	157	172
29	---	---	172	152	45	142	136	149	157	160	157	172
30	188	---	172	150	---	145	141	149	157	159	158	172
31	---	---	165	150	---	142	---	148	---	160	158	---
TOTAL	---	---	---	4908	4023	3944	3581	4445	4603	4916	4794	5234
MEAN	---	---	---	158	139	127	119	143	153	159	155	174
MAX	---	---	---	164	160	145	149	153	157	160	159	179
MIN	---	---	---	150	44	44	65	127	145	157	121	169
AC-FT	---	---	---	9740	7980	7820	7100	8820	9130	9750	9510	10380

11367800 McCLOUD RIVER AT AH-DI-NA, NEAR McCLOUD, CA

LOCATION.--Lat 41°06'39", long 122°05'42", in NE¼SW¼ sec.33, T.38 N., R.2 W., Shasta County, Shasta National Forest, on right bank at Ah-Di-Na, 1.8 mi (2.9 km) downstream from Squirrel Creek, 3.9 mi (6.3 km) downstream from McCloud Dam, and 9.6 mi (15.4 km) south of McCloud.

DRAINAGE AREA.--427 mi^2 (1,106 km^2).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,160 ft (658 m), from topographic map.

REMARKS.--Flow regulated by Lake McCloud 3.9 mi (6.3 km) upstream (station 11367740) since November 1965. Diversion to Iron Canyon Reservoir (station 11363920) through McCloud River diversion tunnel (station 11367720) started Dec. 1, 1965. See schematic diagram of Pit and McCloud River basins.

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 diversion to Iron Canyon Reservoir and change in contents in Lake McCloud).--12 years, 1,331 ft^3/s (37.69 m^3/s), 964,300 acre-ft/yr (1.19 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge prior to construction of McCloud Dam, 9,660 ft^3/s (274 m^3/s) Dec. 22, 1964, gage height, 9.43 ft (2.874 m), from rating curve extended above 2,500 ft^3/s (70.8 m^3/s); minimum daily, 86 ft^3/s (2.44 m^3/s) Oct. 1-26, 1964. Maximum discharge since construction of McCloud Dam in 1965, 26,400 ft^3/s (748 m^3/s) Jan. 16, 1974, gage height, 13.68 ft (4.170 m) in gage well, 15.38 ft (4.688 m) from floodmarks, from rating curve extended above 8,000 ft^3/s (227 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 41 ft^3/s (1.16 m^3/s) Dec. 18-20, 1971 (caused by valve malfunction at dam).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 21, 1955, reached a stage of 12.5 ft (3.81 m), discharge, 17,800 ft^3/s (504 m^3/s), from rating curve extended above 2,500 ft^3/s (85.0 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,680 ft^3/s (47.6 m^3/s) Dec. 3, gage height, 4.25 ft (1.295 m); minimum daily, 143 ft^3/s (4.05 m^3/s) Mar. 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	216	215	221	164	153	244	172	189	166	168	168	180
2	219	218	220	164	156	174	174	190	166	168	168	188
3	216	217	251	164	161	143	174	179	166	168	167	188
4	218	220	219	164	159	170	175	162	162	168	169	188
5	217	220	225	166	155	176	179	165	168	168	168	188
6	220	221	215	169	156	167	182	168	169	168	169	188
7	216	221	213	169	157	162	189	168	168	168	168	187
8	214	218	215	170	157	175	175	166	169	167	168	187
9	218	218	216	171	158	187	178	169	169	168	167	188
10	217	217	212	169	157	185	177	169	169	168	169	188
11	211	214	215	169	159	184	182	168	168	167	168	188
12	211	215	216	169	160	181	182	167	167	169	166	188
13	213	215	214	169	159	179	175	170	169	169	168	188
14	213	218	212	169	158	178	176	169	170	168	177	187
15	218	225	213	169	157	176	174	170	169	168	171	182
16	221	214	197	169	159	176	173	169	169	168	168	181
17	221	213	185	166	158	178	174	170	168	168	167	182
18	221	213	182	164	162	190	174	170	168	167	170	181
19	221	214	184	164	168	186	179	170	168	169	167	181
20	221	214	180	166	158	182	176	170	168	169	168	181
21	220	215	179	160	151	180	179	169	167	168	168	181
22	218	216	181	157	169	178	179	169	168	168	169	181
23	216	216	180	157	169	176	180	169	168	168	168	181
24	217	215	179	156	169	180	178	169	168	169	167	181
25	223	216	178	156	186	177	176	168	168	169	169	181
26	216	220	178	157	410	175	176	167	168	169	168	181
27	216	221	178	158	285	174	175	167	168	169	169	181
28	216	220	178	157	235	172	176	169	168	169	168	181
29	216	220	178	156	241	173	176	169	168	169	168	181
30	220	220	178	153	---	175	179	169	168	168	169	181
31	216	---	172	153	---	179	---	168	---	169	169	---
TOTAL	6736	6519	6164	5064	5182	5532	5314	5271	5035	5216	5223	5519
MEAN	217	217	199	163	179	178	177	170	168	168	168	184
MAX	223	225	251	171	410	244	189	190	170	169	177	188
MIN	211	213	172	153	151	143	172	162	162	167	166	180
AC-FT	13360	12930	12230	10040	10280	10970	10540	10460	9990	10350	10360	10950
MEAN ‡	1042	1051	1033	953	1044	1053	1068	1023	906	863	845	825
AC-FT ‡	64060	62560	63490	58590	60040	64770	63550	62880	53900	53090	51940	49070

CAL YR 1975 TOTAL 96855 MEAN 265 MAX 1090 MIN 147 AC-FT 192100 MEAN ‡ 1341 AC-FT ‡ 970800
WTR YR 1976 TOTAL 66775 MEAN 182 MAX 410 MIN 143 AC-FT 132400 MEAN ‡ 975 AC-FT ‡ 707900

‡ Adjusted for diversion to Iron Canyon Reservoir and change in contents in Lake McCloud.

11368000 McCLOUD RIVER ABOVE SHASTA LAKE, CA

LOCATION.--Lat 40°57'30", long 122°13'07" (unsurveyed), T.36 N., R.3 W., Shasta County, on right bank just upstream from Shasta Lake, 0.2 mi (0.3 km) downstream from Big Bollibokka Creek, and 11.3 mi (18.2 km) east of Lamoine.

DRAINAGE AREA.--604 mi^2 (1,564 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year. Prior to 1950, published as "above Shasta Reservoir."

REVISED RECORDS.--WSP 1445: 1953(M). WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,100.00 ft (335.280 m) above mean sea level (levels by Bureau of Reclamation).

REMARKS.--Flow partially regulated by Lake McCloud (station 11367740) since Nov. 3, 1965. Diversions to Iron Canyon Reservoir (station 11363920) began Dec. 1, 1965. See schematic diagram of Pit and McCloud River basins.

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 (prior to regulation by Lake McCloud and diversion to Pit River basin).--20 years (water years 1946-65), 1,699 ft^3/s (48.12 m^3/s), 1,230,000 acre-ft/yr (1.52 km^3/yr); 11 years (water years 1966-76), 838 ft^3/s (23.73 m^3/s), 607,100 acre-ft/yr (749 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,500 ft^3/s (1,290 m^3/s) Jan. 16, 1974, gage height, 28.26 ft (8.614 m), from rating curve extended above 15,000 ft^3/s (425 m^3/s) on basis of slope-area measurement of maximum flow; minimum daily, 109 ft^3/s (3.09 m^3/s) Dec. 16-20, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,770 ft^3/s (107 m^3/s) Feb. 26, gage height, 13.92 ft (4.243 m); minimum daily, 212 ft^3/s (6.00 m^3/s) Aug. 12.

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	301	342	338	279	252	1520	342	368	263	229	219	223
2	302	334	331	276	252	1020	331	371	260	229	223	237
3	300	329	365	276	259	735	330	361	265	228	218	237
4	299	327	367	276	254	627	326	335	256	227	218	234
5	299	325	602	278	251	572	332	331	255	226	218	234
6	318	329	584	280	250	523	377	329	256	224	220	233
7	318	362	455	280	252	494	457	324	254	224	222	233
8	308	338	410	291	251	477	1050	322	254	223	221	230
9	328	330	386	302	250	476	886	320	257	225	216	232
10	434	383	369	290	250	461	813	316	256	224	215	233
11	357	355	362	284	251	445	832	309	257	222	214	236
12	320	337	375	283	253	428	774	304	255	224	212	243
13	312	332	356	280	264	416	687	300	252	224	214	238
14	311	336	344	280	275	406	621	299	248	223	270	234
15	319	500	340	280	286	394	570	296	246	222	442	232
16	320	459	333	280	404	386	524	292	244	221	264	243
17	320	383	311	278	371	381	500	291	242	225	248	236
18	323	353	306	274	348	438	481	288	242	229	254	233
19	318	346	304	269	417	415	461	284	239	225	245	232
20	314	345	301	270	366	393	446	282	237	220	238	230
21	316	336	299	269	339	382	438	280	237	219	235	229
22	311	335	324	261	323	376	428	277	238	218	238	229
23	311	332	313	263	321	369	417	276	237	216	245	229
24	309	328	305	260	312	386	410	275	234	217	233	229
25	348	326	301	259	596	371	397	272	233	215	229	227
26	433	329	301	258	2810	359	390	268	232	215	226	227
27	339	329	300	258	1700	353	383	267	231	215	226	228
28	334	326	297	258	1320	347	375	265	230	215	223	236
29	330	323	296	256	1450	338	368	265	230	214	221	231
30	475	329	296	254	---	337	364	269	230	215	222	227
31	368	---	293	252	---	362	---	272	---	214	220	---
TOTAL	10295	10438	10864	8454	14927	14987	15110	9308	7370	6867	7309	6975
MEAN	332	348	350	273	515	483	504	300	246	222	236	233
MAX	475	500	602	302	2810	1520	1050	371	265	229	442	243
MIN	299	323	293	252	250	337	326	265	230	214	212	223
AC-FT	20420	20700	21550	16770	29610	29730	29970	18460	14620	13620	14500	13830

CAL YR 1975 TOTAL 277130 MEAN 759 MAX 6400 MIN 275 AC-FT 549700
WTR YR 1976 TOTAL 122904 MEAN 336 MAX 2810 MIN 212 AC-FT 243800

11368000 MCCLOUD RIVER ABOVE SHASTA LAKE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951, 1953 to current year.
CHEMICAL ANALYSES: Water years 1951, 1953 to current year.
WATER TEMPERATURES: Water years 1951, 1954-59.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June to September 1951, October 1953 to September 1959.

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

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)	HARDNESS (CA,MG) (MG/L)
NOV 05...	1300	326	102	7.7	9.0	3	12.3	--
JAN 07...	1300	280	112	7.9	5.0	1	12.3	--
MAR 11...	1010	446	112	7.3	6.5	0	11.9	54
MAY 11...	0700	309	108	7.8	12.5	1	10.0	--
JUL 07...	1245	226	117	8.0	20.5	0	9.7	--
SEP 02...	1115	237	113	7.8	18.0	1	10.2	--

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED BORON (B) (UG/L)
NOV 05...	--	--	--	--	--	--	--	--
JAN 07...	--	--	--	--	--	--	--	--
MAR 11...	2	4.2	.2	63	0	52	1.0	0
MAY 11...	--	--	--	--	--	--	--	--
JUL 07...	--	--	--	--	--	--	--	--
SEP 02...	--	--	--	--	--	--	--	--

11370000 SHASTA LAKE NEAR REDDING, CA

LOCATION.--Lat 40°43'08", long 122°25'12", in SE¼NW¼ sec.15, T.33 N., R.5 W., Shasta County, in Shasta Dam on Sacramento River near right bank, 2 mi (3 km) downstream from Squaw Creek, and 9.5 mi (15.3 km) north of Redding.

DRAINAGE AREA.--6,421 mi^2 (16,630 km^2), excluding Goose Lake basin.

PERIOD OF RECORD.--November 1942 to current year. Prior to 1950, published as Shasta Reservoir near Redding.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to July 10, 1944, nonrecording gage at various sites near dam at same datum.

REMARKS.--Reservoir is formed by concrete gravity-type dam completed in 1949; regulation began Dec. 30, 1943. Usable capacity, 4,436,300 acre-ft (5.47 km^3) between elevations 737.75 ft (224.866 m), bottom of lowest set of river outlets and 1,067.0 ft (325.22 m), top of flashboard gates on drum-type spillway gates, above mean sea level. Dead storage, 115,700 acre-ft (143 hm^3). Installation of flashboard gates on top of drum gates completed Nov. 12, 1964. Gates increased elevation to 1,067.0 ft (325.22 m), total capacity, 4,552,100 acre-ft (5.61 km^3). All water passes down the Sacramento River, most of which is through powerplant at dam. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 4,550,300 acre-ft (5.61 km^3) May 19, 1967, elevation, 1,066.94 ft (325.203 m); minimum since reservoir first filled, 1,249,900 acre-ft (1.54 km^3) Sept. 11, 1976, elevation, 906.74 ft (276.374 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,562,100 acre-ft (4.39 km^3) Oct. 1, elevation, 1,031.14 ft (314.291 m); minimum, 1,249,900 acre-ft (1.54 km^3) Sept. 11, elevation, 906.74 ft (276.374 m).

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

900	1167900	960	2046900	1010	3051800
910	1291900	970	2226100	1020	3286900
920	1424800	980	2416000	1030	3533500
930	1566200	990	2616600	1050	4063100
940	1717300	1000	2828500	1067	4552100
950	1877000				

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	3562100	3472900	3314200	3032300	2988300	3059600	3164500	3000100	2555900	2117600	1635700	1303200
2	3556000	3470700	3300200	3029600	2984500	3083000	3157300	2986300	2548400	2104100	1621600	1297700
3	3553200	3470200	3284800	3024600	2983800	3097800	3145300	2972500	2536700	2086600	1609800	1292000
4	3551000	3472400	3276100	3017800	2980200	3109400	3132700	2956100	2527000	2069900	1596400	1281400
5	3548400	3476900	3273200	3013700	2976300	3119600	3124100	2940200	2513700	2051700	1582400	1270200
6	3545600	3482700	3267200	3013700	2969800	3129000	3117800	2925800	2494100	2038600	1568000	1259300
7	3545600	3484400	3258600	3011200	2961000	3138300	3117800	2914200	2472500	2024200	1551400	1253200
8	3543900	3483900	3250900	3013000	2951900	3145300	3128000	2899800	2459800	2011700	1535800	1252000
9	3542900	3479700	3240100	3013000	2946500	3151200	3133400	2887700	2447000	1996500	1524500	1251000
10	3545600	3475200	3232700	3008700	2943400	3154900	3139500	2874000	2433000	1980100	1515000	1251500
11	3547400	3469400	3221800	3003200	2940700	3157700	3140600	2862400	2420700	1957900	1502900	1249900
12	3541600	3461000	3213200	2999800	2937100	3163100	3147600	2854300	2403400	1942900	1491000	1251900
13	3536300	3455000	3199700	2999400	2934900	3168300	3155600	2846000	2383200	1928200	1476600	1253200
14	3530700	3448300	3183600	2998700	2932000	3172100	3158900	2835500	2371000	1913500	1466200	1253000
15	3527700	3447800	3167800	2998000	2930400	3176800	3159600	2825300	2357900	1899200	1455200	1252000
16	3523400	3443800	3157000	2997600	2932700	3179800	3158200	2806400	2344500	1884600	1442700	1250600
17	3517600	3436800	3144800	2995500	2931500	3183900	3150900	2791300	2330600	1867500	1430800	1251600
18	3512800	3432100	3135500	2994000	2931500	3186900	3140200	2778400	2315900	1849600	1422900	1251200
19	3507300	3425500	3124800	2993000	2932000	3190700	3133400	2765300	2298500	1835000	1412000	1252500
20	3503700	3419800	3111000	2994900	2932000	3190500	3129900	2750900	2279700	1821600	1404300	1256600
21	3496700	3411400	3104500	2993000	2927800	3190900	3125700	2735800	2266000	1808100	1392100	1257800
22	3488700	3405200	3096700	2991900	2924600	3191400	3119900	2717600	2252000	1795700	1381800	1261900
23	3484400	3399300	3090900	2991900	2920900	3194200	3109400	2700400	2238100	1780300	1372700	1265700
24	3482400	3392400	3085800	2992100	2916900	3194700	3098000	2683600	2225200	1759900	1366500	1270300
25	3483200	3384800	3078600	2991500	2918900	3192100	3084900	2667500	2210500	1741700	1360100	1274000
26	3484200	3373500	3072700	2990800	2953200	3190000	3073800	2655200	2192700	1728000	1354800	1277300
27	3482200	3364700	3064600	2990300	2980200	3186200	3058900	2641500	2173600	1714300	1347000	1282800
28	3479400	3353800	3053600	2990300	3003000	3179600	3044700	2628800	2159800	1701700	1336700	1287400
29	3478200	3341800	3046300	2991000	3035800	3176100	3029400	2607600	2142700	1686900	1325900	1291200
30	3477900	3329700	3040300	2990300	---	3173200	3013700	2587700	2130500	1674000	1318200	1295300
31	3474700	---	3036900	2990800	---	3170200	---	2568100	---	1653700	1309900	---
MAX	3562100	3484400	3314200	3032300	3035800	3194700	3164500	3000100	2555900	2117600	1635700	1303200
MIN	3474700	3329700	3036900	2990300	2916900	3059600	3013700	2568100	2130500	1653700	1309900	1249900
†	1027.66	1021.77	1009.35	1007.32	1009.30	1015.10	1008.33	987.63	964.74	935.87	911.40	910.27
‡	-94800	-145000	-292800	-46100	+45000	+134400	-156500	-445600	-437600	-476800	-343800	-14600
††	5570	3270	2420	2950	2250	5270	6380	12260	11300	11430	6100	5160

CAL YR 1975 ‡ -167100
WTR YR 1976 ‡ -2274700

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
†† Evaporation, in acre-feet.

11370500 SACRAMENTO RIVER AT KESWICK, CA

LOCATION.--Lat 40°36'04", long 122°26'36", in SW¼NW¼ sec.28, T.32 N., R.5 W., Shasta County, on right bank 0.4 mi (0.6 km) upstream from Middle Creek, 0.8 mi (1.3 km) downstream from Keswick Dam, 1.6 mi (2.6 km) downstream from Keswick, and 10 mi (16 km) downstream from Shasta Dam.

DRAINAGE AREA.--6,468 mi^2 (16,752 km^2), excluding Goose Lake basin.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 479.81 ft (146.246 m) above mean sea level. Prior to Oct. 1, 1939, at site 1.5 mi (2.4 km) upstream at datum 20.2 ft (6.16 m) higher and Oct. 1, 1939, to Apr. 30, 1942, at site 1.5 mi (2.4 km) upstream at datum 15.2 ft (4.63 m) higher. Aug. 20, 1960, to July 3, 1973, auxiliary water-stage recorder at city of Redding pumping plant 2.1 mi (3.4 km) downstream.

REMARKS.--Records good. Flow regulated by Shasta Dam beginning Dec. 30, 1943 (station 11370000). Diurnal fluctuations from Shasta powerplant re-regulated by Keswick Reservoir, capacity, 4,170 acre-ft (5.14 hm^3) between normal operations elevations 579.0 ft (176.48 m) and 586.0 ft (178.61 m) and powerplant. No diversion for irrigation between Shasta Dam and station at Keswick. Since December 1963, water is released from Whiskeytown Lake (station 11371700) at lat 40°37'03", long 122°31'31", through a tunnel to Spring Creek powerplant (station 11371600) and then into Keswick Reservoir. See schematic diagram of Pit and McCloud River basins.

AVERAGE DISCHARGE (adjusted for change in contents in and evaporation from Shasta Lake and transbasin diversion into Keswick Reservoir).--38 years, 8,651 ft^3/s (245.0 m^3/s), 6,268,000 acre-ft/yr (7,728 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 186,000 ft^3/s (5,270 m^3/s) Feb. 23, 1940, gage height, 47.2 ft (14.39 m) site and datum then in use, from rating curve extended above 75,000 ft^3/s (2,120 m^3/s) on basis of peak discharge at Kennet plus 4,000 ft^3/s (113 m^3/s) estimated inflow; minimum observed, 2,730 ft^3/s (77.3 m^3/s) Aug. 22, 1939. Maximum discharge since construction of Shasta Dam in 1944, 81,400 ft^3/s (2,310 m^3/s) Apr. 1, 1974, gage height, 31.92 ft (9.729 m); maximum gage height, 32.22 ft (9.821 m) Jan. 24, 1970; minimum discharge, 154 ft^3/s (4.36 m^3/s) May 15, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,200 ft^3/s (402 m^3/s) May 5, gage height, 16.17 ft (4.929 m); minimum daily, 4,180 ft^3/s (118 m^3/s) Mar. 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	8620	8680	11300	7880	6940	5450	8180	12900	12200	13400	13400	10100
2	8610	7520	11400	6580	6960	4220	9370	12800	12500	13400	13400	10100
3	8700	6280	11400	6360	7470	4180	9550	12900	12500	13500	13400	10000
4	8750	6080	11400	6330	7830	4220	9500	12800	13200	13500	13500	10200
5	8770	6050	11400	6380	7950	4240	9310	13700	13500	13500	13500	10200
6	8720	6640	11400	6350	7910	4240	9370	13500	13500	13600	13400	10100
7	8720	8270	11400	6410	7510	4280	9370	13300	13500	13500	13200	9160
8	8730	9920	11400	6360	7450	4300	9440	12800	13500	13500	13300	8100
9	8700	11400	11400	6470	7460	5480	8290	11800	13500	13600	12600	7980
10	8730	11400	11400	6380	6990	6420	7320	12000	13500	13500	12100	7180
11	8700	11400	11300	6350	6920	6290	7170	12000	13400	13500	12400	6910
12	8710	11500	11400	6400	6950	6400	7260	11900	13500	13500	12900	6900
13	8730	11500	11400	6380	6930	6340	7110	11900	13500	13500	12900	6840
14	8740	11500	11400	6390	6970	6360	7170	11400	13400	13400	13000	6810
15	8740	11500	11300	6390	6990	6320	8150	11600	13300	13400	12900	6810
16	8710	11400	11300	6510	7080	6190	9450	11400	13400	13500	12900	6240
17	8710	11500	11400	6450	6920	6260	9340	11500	13500	13500	12900	5590
18	8630	11400	10400	6430	6470	6380	9420	11400	13500	13500	12900	5530
19	8590	11500	10500	6420	6490	6230	9540	11500	13500	13500	12800	5520
20	8560	11400	10400	6470	6550	6270	9390	11900	13500	13400	11100	5410
21	8650	11400	8830	6470	7410	6250	9440	11900	13500	13500	11000	4760
22	8540	11500	8660	5960	7560	6240	10200	12000	13500	13500	11100	4400
23	8620	11400	8600	6000	7450	6260	11000	11900	13500	13400	10700	4620
24	8600	11400	8680	5890	7440	6330	11000	12000	13500	13600	10100	4450
25	8660	11500	8840	5940	7440	6430	11000	11700	13500	13500	10200	4320
26	8750	11400	8990	5860	7160	7230	11100	11400	13500	13400	10100	4370
27	8740	11400	9050	5980	5620	7230	11900	10900	13500	13500	10100	4340
28	8770	11400	9080	6360	5460	7210	12100	11000	13500	13500	10100	4320
29	8730	11500	9150	6440	5680	7310	12800	11800	13500	13500	10200	4310
30	8720	11400	8870	6850	---	7250	12900	11900	13400	13500	10100	4240
31	8750	---	7950	6880	---	7280	---	12000	---	13400	10100	---
TOTAL	269400	311140	321400	198320	203960	185090	287140	373500	400800	418000	372300	199810
MEAN	8690	10370	10370	6397	7033	5971	9571	12050	13360	13480	12010	6660
MAX	8770	11500	11400	7880	7950	7310	12900	13700	13500	13600	13500	10200
MIN	8540	6050	7950	5860	5460	4180	7110	10900	12200	13400	10100	4240
AC-FT	534400	617100	637500	393400	404600	367100	569500	740800	795000	829100	738500	396300
MEAN ‡	5534	5232	5256	4923	6817	7354	6826	4887	3590	3259	3825	3794
AC-FT ‡	340300	311300	323200	302700	392100	452200	406200	300500	213600	200400	235200	225800

CAL YR 1975 TOTAL 4125410 MEAN 11300 MAX 37300 MIN 5990 AC-FT 8183000 MEAN ‡ 9191 AC-FT ‡6654000
WTR YR 1976 TOTAL 3540860 MEAN 9674 MAX 13700 MIN 4180 AC-FT 7023000 MEAN ‡ 5102 AC-FT ‡3704000

‡ Adjusted for change in contents and evaporation from Shasta Lake and transbasin diversion into Keswick Reservoir.

11370500 SACRAMENTO RIVER AT KESWICK, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSES: Water years 1951 to current year. Published as "near Keswick" in 1951 and 1953; as "at Keswick Dam, near Keswick" in 1968-69.

COOPERATION.--Records furnished by California Department of Water Resources.

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)
OCT							
17...	1110	8790	100	7.2	11.0	2	8.8
NOV							
17...	1330	11000	106	7.1	7.0	2	9.5
DEC							
09...	0930	10800	125	7.3	11.0	2	9.5
JAN							
14...	1335	6390	133	7.7	9.5	2	11.9
FEB							
11...	1145	6920	119	7.3	9.0	2	11.3
MAR							
11...	1300	6310	124	7.3	11.0	2	11.3
APR							
22...	1045	10100	125	7.4	10.5	2	10.9
MAY							
20...	1015	12100	125	7.6	11.0	2	10.5
JUN							
11...	0850	13600	118	7.4	11.0	2	10.2
JUL							
23...	1030	13700	125	7.2	12.0	0	9.7
AUG							
24...	1315	10100	129	7.0	19.0	4	8.6
SEP							
07...	1100	8410	126	7.0	18.0	5	8.2

DATE	TIME	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)
JAN										
14...	1335	48	0	7.6	.5	72	0	59	2.5	.08
APR										
22...	1045	48	0	7.6	.5	71	0	58	3.0	.07
AUG										
24...	1315	47	0	7.5	.5	67	0	55	2.6	.10

DATE	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)
JAN										
14...	.10	.03	.02	0	--	--	--	--	--	--
APR										
22...	.10	.02	.02	0	0	10	60	0	10	10
AUG										
24...	.00	.04	.03	0	--	--	--	--	--	--

11371000 CLEAR CREEK AT FRENCH GULCH, CA

LOCATION.--Lat 40°41'42", long 122°38'08", unsurveyed, Shasta County, on right bank 1,200 ft (366 m) downstream from French Gulch, 0.3 mi (0.5 km) south of town of French Gulch, and 15 mi (24 km) northwest of Redding.

DRAINAGE AREA.--115 mi^2 (298 km^2).

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

REVISED RECORDS.--WSP 1285: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,320.60 ft (402.519 m) above mean sea level. Prior to Dec. 28, 1959, water-stage recorder at datum 3.00 ft (0.914 m) higher. Control partially destroyed January 1974.

REMARKS.--Records excellent. No large diversion above station. See schematic diagram of Pit and McCloud River basins.

AVERAGE DISCHARGE.--26 years, 221 ft^3/s (6.259 m^3/s), 160,100 acre-ft/yr (197 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,600 ft^3/s (413 m^3/s) Jan. 16, 1974, gage height, 14.99 ft (4.569 m), from rating curve extended above 5,200 ft^3/s (147 m^3/s) on basis of slope-area measurement of peak flow; minimum, 3.9 ft^3/s (0.11 m^3/s) Sept. 6-8, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 873 ft^3/s (24.7 m^3/s) Feb. 26, gage height, 5.84 ft (1.780 m), no peak above base of 1,500 ft^3/s (42.5 m^3/s); minimum daily, 7.8 ft^3/s (0.22 m^3/s) July 28, 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	14	46	38	36	27	372	58	99	39	15	8.9	11
2	14	41	36	34	27	293	56	97	38	15	13	11
3	15	37	35	36	27	225	54	91	37	15	12	11
4	15	35	47	34	27	186	53	87	36	15	12	10
5	15	34	205	36	25	165	54	83	34	14	13	9.9
6	16	34	218	35	26	153	66	81	33	13	14	9.7
7	19	41	129	34	28	150	193	76	33	13	16	9.7
8	20	38	92	38	27	150	668	75	33	12	15	9.8
9	32	36	75	49	27	149	515	76	33	12	13	9.4
10	69	55	66	42	26	149	515	72	35	11	11	9.1
11	43	51	58	40	26	142	683	67	34	11	10	10
12	34	44	61	39	26	132	581	64	33	11	9.2	12
13	30	41	52	38	28	125	460	61	30	11	9.6	12
14	27	42	48	37	34	110	380	60	26	11	17	11
15	26	103	45	36	40	101	336	58	25	10	34	10
16	25	116	44	36	91	97	295	55	24	10	22	13
17	25	71	42	36	89	99	258	51	23	11	21	14
18	25	57	40	35	75	106	228	52	21	12	29	14
19	24	50	39	34	87	99	207	51	20	12	31	12
20	24	48	38	34	79	89	199	50	19	11	22	11
21	24	45	38	33	70	81	193	48	20	10	19	11
22	24	43	48	32	63	78	185	47	22	10	18	11
23	25	42	43	31	58	75	167	46	21	9.6	20	11
24	25	40	41	31	54	75	152	45	20	9.2	19	11
25	58	38	40	30	87	72	142	44	18	8.9	16	10
26	105	38	40	30	635	69	132	42	17	8.5	15	11
27	53	38	40	29	463	66	125	40	17	8.2	15	12
28	44	37	39	29	375	64	117	39	16	7.8	13	25
29	40	36	39	29	361	61	110	40	15	7.8	12	23
30	76	36	38	28	---	58	101	41	16	8.5	12	17
31	60	---	37	28	---	60	---	42	---	8.5	11	---
TOTAL	1046	1413	1851	1069	3008	3851	7283	1880	788	342.0	502.7	361.6
MEAN	33.7	47.1	59.7	34.5	104	124	243	60.6	26.3	11.0	16.2	12.1
MAX	105	116	218	49	635	372	683	99	39	15	34	25
MIN	14	34	35	28	25	58	53	39	15	7.8	8.9	9.1
AC-FT	2070	2800	3670	2120	5970	7640	14450	3730	1560	678	997	717

CAL YR 1975 TOTAL 90052.0 MEAN 247 MAX 4390 MIN 13 AC-FT 178600
WTR YR 1976 TOTAL 23395.3 MEAN 63.9 MAX 683 MIN 7.8 AC-FT 46400

11525430 JUDGE FRANCIS CARR POWERPLANT NEAR FRENCH GULCH, CA

LOCATION.--Lat 40°38'49", long 122°37'34", Shasta County, at powerplant 1.6 mi (2.6 km) downstream from Mill Creek, and 3.8 mi (6.1 km) south of French Gulch.

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

GAGE.--Recorded powerplant output.

REMARKS.--Water is diverted from Trinity River at NW¼SE¼ sec.8, T.33 N., R.8 W., through a tunnel to powerplant and then into Whiskeytown Lake (station 11371700). See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records furnished by Bureau of Reclamation, rounded to Geological Survey standards.

AVERAGE DISCHARGE.--13 years, 1,719 ft^3/s (48.68 m^3/s), 1,245,000 acre-ft/yr (1.54 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,910 ft^3/s (111 m^3/s) Feb. 11, 1970; no flow for several days in many 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	1500	1490	174	309	1910	520	381	0	125	2620	2630	2630
2	1550	1490	233	357	2030	590	256	0	2580	2620	2640	2630
3	1430	2610	381	309	2100	416	262	4.0	2710	2620	2710	2620
4	1560	2600	689	260	2010	424	261	0	2620	2620	2630	2620
5	1560	2600	198	341	1100	395	271	0	2620	2620	2630	2630
6	777	2600	191	417	1050	341	261	0	2620	2620	2630	2620
7	1580	2600	486	432	933	321	384	0	2630	2620	2640	2620
8	1600	2590	421	431	925	421	348	0	2760	2620	2640	2800
9	1600	2590	424	361	947	383	368	2.0	2630	2620	2630	2640
10	1600	2590	344	303	505	855	267	0	2630	2620	2640	2640
11	1600	2590	427	320	524	813	263	0	2720	2620	2640	2630
12	1600	2680	364	359	537	1930	0	283	2650	2630	2630	2620
13	1600	2590	325	381	484	2030	0	909	2630	2630	2640	2630
14	1600	2590	399	436	560	2050	0	1010	2630	2720	2630	2630
15	1600	2590	409	410	478	2070	0	114	2800	2630	2410	2630
16	1500	2580	467	336	598	2000	0	0	2670	2630	2630	2620
17	1500	2640	369	374	549	1510	0	0	2630	2620	2630	2630
18	1600	2580	363	331	541	1460	0	0	2630	2630	2630	2630
19	1500	2580	368	353	541	1480	0	0	2630	2640	2630	2630
20	1500	2580	403	441	545	1480	0	0	2630	2630	2620	2630
21	1500	2580	417	418	567	1480	0	0	2630	2640	2620	2640
22	1500	2580	495	1080	551	1480	1250	0	2630	2630	2620	2630
23	1600	2580	341	945	560	1480	0	0	2740	2620	2620	2630
24	1600	2590	287	960	568	756	0	0	2730	2630	2620	2630
25	1600	2580	327	1030	577	769	0	0	2630	2630	2620	2630
26	1520	485	406	1100	691	341	0	0	2630	2630	2620	2630
27	1140	336	407	1200	369	330	0	0	2630	2630	2630	2630
28	1600	295	401	2140	392	326	0	0	2630	2630	2630	2630
29	1210	242	447	2150	458	340	0	0	2630	2630	2630	2620
30	1600	167	431	1900	---	277	0	0	2720	2640	2630	2630
31	1530	---	304	1880	---	311	---	0	---	2630	2630	---
TOTAL	46757	64195	11698	22064	23600	29379	4572	2322.0	77145	81520	81380	79030
MEAN	1508	2140	377	712	814	948	152	74.9	2572	2630	2625	2634
MAX	1600	2680	689	2150	2100	2070	1250	1010	2800	2720	2710	2800
MIN	777	167	174	260	369	277	0	0	125	2620	2410	2620
AC-FT	92740	127300	23200	43760	46810	58270	9070	4610	153000	161700	161400	156800

CAL YR 1975 TOTAL 555606.00 MEAN 1522 MAX 3450 MIN 0 AC-FT 1102000
WTR YR 1976 TOTAL 523662.00 MEAN 1431 MAX 2800 MIN 0 AC-FT 1039000

11371600 SPRING CREEK POWERPLANT AT KESWICK, CA

LOCATION.--Lat 40°37'41", long 122°27'59", in NE¼SE¼ sec.18, T.32 N., R.5 W., Shasta County, at powerplant on Spring Creek, 0.4 mi (0.6 km) northwest of Keswick, and 4.9 mi (7.9 km) northwest of Redding.

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

GAGE.--Discharge computed from powerplant output.

REMARKS.--Water is released from Whiskeytown Lake (station 11371700) at lat 40°37'03", long 122°31'31", through a tunnel to powerplant and then into Keswick Reservoir. See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records furnished by Bureau of Reclamation, rounded to Geological Survey standards.

AVERAGE DISCHARGE.--12 years, 2,133 ft^3/s (60.41 m^3/s), 1,545,000 acre-ft/yr (1.90 km^2).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,700 ft^3/s (133 m^3/s) Jan. 21, 1971; no flow for many days in 1974-76.

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	1510	2510	87	412	2500	859	0	0	40	2750	2490	2620
2	1450	2600	97	537	2040	1300	0	0	2860	2740	2710	2660
3	1450	3500	79	431	2040	925	0	4.0	2850	2810	2650	2630
4	1450	3520	670	383	1840	781	0	0	2430	2720	2780	2680
5	1480	3520	462	280	1210	785	2.0	0	2410	2630	2620	2760
6	1140	3520	758	408	1220	782	0	4.0	2380	2970	2630	2830
7	1460	3530	608	422	1330	777	2.0	292	2640	2670	2740	2750
8	1500	3520	608	545	1050	782	0	0	2650	2630	2780	2800
9	1500	3520	555	459	1070	787	0	4.0	2640	2560	2640	2720
10	2390	3560	401	498	521	1070	0	0	2640	2580	2630	2640
11	2410	3520	538	467	636	939	133	219	2630	2480	2620	2650
12	1240	3550	424	392	585	2000	1100	306	2700	2500	2620	2740
13	1460	3180	575	455	586	2040	1640	1050	2650	2500	2610	2670
14	1650	3530	155	512	683	2040	766	1560	2790	2490	2900	2660
15	1640	3540	162	458	557	2040	215	0	2780	2530	3550	2680
16	1640	3540	277	394	605	2040	257	0	2710	2420	2600	2720
17	1860	3550	240	416	644	1090	0	0	2770	3100	2610	2680
18	1980	3550	310	473	734	974	0	72	2770	2920	2630	2810
19	1880	3460	293	404	693	982	0	0	2780	2970	2620	2740
20	1600	2760	299	415	756	983	0	0	2770	2680	2810	2750
21	1640	2510	314	323	728	1060	295	0	2620	2520	3420	2700
22	1570	2570	182	986	776	997	1250	0	2630	2450	3170	2770
23	1560	2500	589	937	691	990	245	0	2720	2490	2680	2700
24	1740	2550	550	1090	761	226	151	0	2920	2610	2420	2690
25	1710	2890	390	996	788	270	0	0	2820	2680	2410	2710
26	1720	640	488	1080	1470	0	0	4.0	2580	2720	2430	2680
27	1840	558	394	1050	1750	0	0	0	2670	2730	2410	2730
28	1610	542	374	2200	895	0	93	0	2560	2620	2440	2740
29	1710	456	412	2190	896	0	230	0	2970	2660	2610	2630
30	2520	2.0	389	2090	---	0	295	0	2830	2630	2640	2680
31	2480	---	378	2280	---	0	---	0	---	2620	2650	---
TOTAL	52790	82698.0	12058	23983	30055	27519	6674.0	3515.0	78210	82380	83520	81220
MEAN	1703	2757	389	774	1036	888	222	113	2607	2657	2694	2707
MAX	2520	3560	758	2280	2500	2040	1640	1560	2970	3100	3550	2830
MIN	1140	2.0	79	280	521	0	0	0	40	2420	2410	2620
AC-FT	104700	164000	23920	47570	59610	54580	13240	6970	155100	163400	165700	161100

CAL YR 1975 TOTAL 725917.00 MEAN 1989 MAX 4310 MIN 0 AC-FT 1440000
WTR YR 1976 TOTAL 564622.00 MEAN 1543 MAX 3560 MIN 0 AC-FT 1120000

11371700 WHISKEYTOWN LAKE NEAR IGO, CA

LOCATION.--Lat 40°37'03", long 122°31'31", unsurveyed, Shasta County, at outlet works to Spring Creek powerplant on Clear Creek, 1.8 mi (2.9 km) downstream from Whiskey Creek, and 7.8 mi (12.6 km) northeast of Igo.

DRAINAGE AREA.--200 mi^2 (518 km^2).

PERIOD OF RECORD.--May 1963 to current year. Prior to October 1964 published as Whiskeytown Reservoir near Igo.

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

REMARKS.--Reservoir is formed by earth- and rockfill dam. Storage began in May 1963. Capacity, 241,100 acre-ft (297 hm^3) between elevations 1,100.00 ft (335.280 m), minimum operating level and 1,210.00 ft (368.808 m), crest of spillway. No dead storage. Transbasin water enters the reservoir through Judge Francis Carr powerplant (station 11525430) and is released through Spring Creek tunnel to Spring Creek powerplant (station 11371600) and Keswick Reservoir. Records, including extremes, represent contents at 2400 hours. See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 253,100 acre-ft (312 hm^3) Mar. 30, 1974, elevation, 1,213.69 ft (369.933 m); minimum since reservoir was first filled, 159,000 acre-ft (196 hm^3) Oct. 25, 1970, elevation, 1,181.48 ft (360.115 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 239,900 acre-ft (296 hm^3) Aug. 14, elevation, 1,209.63 ft (368.695 m); minimum, 201,400 acre-ft (248 hm^3) Dec. 13, elevation, 1,197.04 ft (364.858 m).

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

1015	714	1080	15100
1020	994	1100	27500
1030	1800	1120	46700
1040	3060	1140	74000
1050	4900	1180	155300
1060	7420	1220	274400

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	235700	228800	201900	203300	202900	204100	221700	238500	237000	237800	239000	238900
2	236000	226800	202200	203000	203200	204000	222300	238600	236600	237600	238900	238900
3	236000	225300	202700	202800	203600	203600	222900	238800	236400	237400	239100	239000
4	236300	223700	203000	202600	204200	203400	223600	239000	237000	237300	238900	239000
5	236400	222100	203000	202900	204100	203100	224300	239100	237500	237500	239000	238900
6	235600	220600	202300	203000	203900	202700	225100	239200	238200	236900	239100	238400
7	235900	219100	202300	203100	203200	202300	227200	238800	238300	236800	239000	238600
8	236200	217500	202100	203100	203100	202000	230800	238900	238700	236800	238900	238700
9	237400	215900	202000	203100	203000	201700	233100	239100	238900	237000	238900	238700
10	236700	214500	201900	202800	203100	201800	235500	239200	238900	237200	239000	238700
11	235200	212900	201900	202600	202900	202000	237800	238900	239300	237600	239000	238800
12	236100	211500	201900	202600	203000	202500	237300	238900	239400	237800	239200	238700
13	236500	210700	201400	202500	202900	203000	235400	238900	239500	238300	239400	238800
14	236500	209100	201900	202500	203100	203600	234800	238000	239200	238900	239900	238700
15	236500	208000	202400	202500	203100	204200	235200	238300	239400	239100	237800	238900
16	236300	206600	202900	202500	203600	204700	235400	238300	239400	239600	238000	238900
17	235800	205200	203200	202500	203700	205900	236100	238200	239200	238800	238200	238900
18	235200	203600	203200	202300	203700	207300	236600	238100	239100	238300	238400	238800
19	234600	202100	203400	202300	203700	208600	237100	238000	238900	237700	238600	238600
20	234500	202000	203600	202400	203500	209900	237500	237900	238700	237600	238400	238600
21	234400	202500	203900	202700	203400	211000	237400	237800	238800	237800	237100	238500
22	234300	202700	204700	203000	203200	212300	238000	237700	238900	238200	236200	238300
23	234500	203200	204200	203100	203200	213500	237800	237600	239000	238500	236200	238300
24	234300	203500	203700	203000	202900	214900	237900	237600	238700	238700	236700	238300
25	234900	203100	203500	203100	203400	216100	238200	237500	238400	238600	237200	238300
26	235000	202900	203400	203400	204700	216900	238400	237400	238600	238500	237600	238200
27	233800	202500	203500	203800	203300	217700	238700	237300	238600	238300	238200	238400
28	234100	202000	203500	204200	203300	218500	238700	237200	238700	238400	238600	238400
29	233500	201500	203600	204500	203800	219300	238500	237000	238200	238400	238700	238600
30	232300	201800	203700	204400	---	220000	238200	236900	238000	238400	238800	238600
31	230700	---	203500	203800	---	220800	---	236900	---	238500	238800	---
MAX	237400	228800	204700	204500	204700	220800	238700	239200	239500	239600	239900	239000
MIN	230700	201500	201400	202300	202900	201700	221700	236900	236400	236800	236200	238200
†	1206.72	1197.17	1197.76	1197.86	1197.85	1203.53	1209.09	1208.68	1209.02	1209.19	1209.28	1209.22
‡	-4900	-28900	+1700	+300	0	+17000	+17400	-1300	+1100	+500	+300	-200
††	500	210	150	210	200	460	730	1690	1800	2080	1290	1100

CAL YR 1975 ‡ +1100
WTR YR 1976 ‡ +3000

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
†† Evaporation, in acre-feet.

11372000 CLEAR CREEK NEAR IGO, CA

LOCATION.--Lat 40°30'48", long 122°31'23", unsurveyed, Shasta County, on left bank at highway bridge on Redding-Igo Road 1.0 mi (1.6 km) northeast of Igo, 8.3 mi (13.4 km) southwest of Redding, and 10.4 mi (16.7 km) upstream from mouth.

DRAINAGE AREA.--228 mi^2 (590 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1345: Drainage area. WSP 1395: 1941(M).

GAGE.--Water-stage recorder. Datum of gage is 672.99 ft (205.127 m) above mean sea level.

REMARKS.--Records good. Flow regulated by Whiskeytown Lake since May 1963 (station 11371700). Transbasin diversion from Trinity River through Judge Francis Carr powerplant to Whiskeytown Lake began in April 1963 (station 11525430). Diversions from Whiskeytown Lake to Spring Creek powerplant (station 11371600) began in December 1963. See schematic diagram of Pit and McCloud River basins.

AVERAGE DISCHARGE (adjusted for change in contents and diversions in and out of Whiskeytown Lake).--36 years, 460 ft^3/s (13.03 m^3/s), 333,300 acre-ft/yr (411 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,500 ft^3/s (694 m^3/s) Dec. 21, 1955, gage height, 13.75 ft (4.191 m); minimum, 8.6 ft^3/s (0.24 m^3/s) Sept. 4, 6, 7, 1950. Maximum discharge since contruction of Whiskeytown Dam in 1963, 9,940 ft^3/s (282 m^3/s) Dec. 22, 1964, gage height, 9.23 ft (2.813 m); minimum daily, 37 ft^3/s (1.05 m^3/s) many days in August and September 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,630 ft^3/s (46.2 m^3/s) Feb. 26, gage height, 5.52 ft (1.682 m); minimum daily, 44 ft^3/s (1.25 m^3/s) Oct. 1-6.

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	44	100	95	97	52	251	59	64	54	54	51	51
2	44	98	95	80	52	160	58	67	54	52	51	52
3	44	97	95	51	52	138	58	63	52	52	51	51
4	44	95	109	51	52	135	58	62	52	52	51	51
5	44	95	168	51	52	123	58	63	52	52	53	51
6	44	95	134	52	52	112	61	61	52	51	51	52
7	45	97	114	52	52	106	80	60	52	51	52	51
8	45	96	107	54	52	101	310	59	52	51	52	51
9	53	96	104	55	52	93	268	59	54	49	50	51
10	74	99	100	52	52	85	174	58	54	49	50	51
11	53	96	102	52	52	78	183	64	52	49	50	52
12	48	95	104	52	52	74	147	56	52	51	50	52
13	46	95	101	52	53	70	124	56	60	51	51	52
14	46	95	99	52	58	68	108	61	55	51	81	52
15	45	113	99	52	68	66	99	55	51	49	73	53
16	45	113	99	51	110	64	92	55	60	51	54	54
17	45	104	99	52	78	64	88	56	52	52	54	53
18	45	100	98	52	67	63	84	55	51	51	56	52
19	45	98	97	52	68	61	80	55	51	52	55	52
20	45	99	97	52	63	60	77	54	51	51	56	52
21	45	98	99	52	60	59	75	54	51	51	52	52
22	45	97	101	52	58	58	74	54	52	51	52	52
23	45	96	99	52	58	58	72	54	51	49	52	52
24	45	95	100	52	58	58	70	54	52	49	52	52
25	59	95	99	52	142	59	69	54	52	49	52	52
26	76	95	99	54	777	61	68	54	52	49	52	52
27	52	95	99	54	207	61	67	54	51	49	51	53
28	50	95	99	53	138	61	66	55	52	49	51	57
29	50	95	99	52	552	60	65	54	52	49	50	54
30	92	95	99	52	---	59	65	54	55	50	51	53
31	70	---	99	52	---	60	---	54	---	50	51	---
TOTAL	1573	2932	3208	1691	3239	2626	2957	1778	1583	1566	1658	1565
MEAN	50.7	97.7	103	54.5	112	84.7	98.6	57.4	52.8	50.5	53.5	52.2
MAX	92	113	168	97	777	251	310	67	60	54	81	57
MIN	44	95	95	51	52	58	58	54	51	49	50	51
AC-FT	3120	5820	6360	3350	6420	5210	5870	3530	3140	3110	3290	3100
MEAN ‡	176	232	145	125	340	309	473	102	139	120	148	141
AC-FT ‡	10850	13830	8930	7690	19530	19010	28170	6290	8300	7370	9110	8370

CAL YR 1975	TOTAL	43178	MEAN 118	MAX	2500	MIN 43	AC-FT	85640	MEAN ‡	602	AC-FT ‡	435500
WTR YR 1976	TOTAL	26376	MEAN 72.1	MAX	777	MIN 44	AC-FT	52320	MEAN ‡	203	AC-FT ‡	147400

‡ Adjusted for change in contents and evaporation from Whiskeytown Lake, diversion from Trinity River through Judge Francis Carr powerplant, and diversion to Spring Creek powerplant, furnished by Bureau of Reclamation.

11372000 CLEAR CREEK NEAR IGO, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958 to current year.
CHEMICAL ANALYSES: Water years 1958-66.
WATER TEMPERATURES: Water years 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: March 1965 to current year.

INSTRUMENTATION.--Temperature recorder since March 1965.

REMARKS.--Clock stopped Oct. 7-14; range in temperature, 12.0°C to 13.5°C.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 21.0°C July 1, 1967; minimum, 2.0°C sometime during periods Jan. 3 to Feb. 1, 1968, and Jan. 13 to Feb. 6, 1975.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 20.0°C on several days during July; minimum, 4.5°C Mar. 2.

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	14.5	13.5	12.5	11.0	8.5	8.0	5.5	5.0	8.5	8.0	9.0	8.0
2	14.5	14.0	13.0	11.5	8.5	7.5	5.5	5.0	9.0	8.0	8.0	4.5
3	14.5	13.5	12.5	11.5	8.5	7.5	5.5	5.5	9.0	8.5	8.0	5.0
4	14.5	13.5	12.5	11.5	8.5	7.5	6.0	5.0	9.0	7.0	8.0	6.0
5	15.0	13.5	12.0	11.0	9.0	8.5	6.5	6.0	7.0	6.0	8.5	6.5
6	14.5	13.5	12.0	11.5	9.5	9.0	6.5	5.5	7.5	6.0	8.5	6.5
7	---	---	12.0	12.0	9.0	8.0	6.5	5.5	8.0	7.0	8.5	7.0
8	---	---	12.0	10.0	9.0	8.0	6.5	6.5	8.5	8.0	10.0	8.5
9	---	---	11.0	10.0	9.0	7.5	7.0	6.0	9.0	8.0	10.0	8.5
10	---	---	10.5	10.0	8.5	7.0	6.0	5.5	8.5	7.5	10.0	8.5
11	---	---	10.0	9.0	8.5	7.5	6.0	6.0	8.5	7.5	10.0	9.0
12	---	---	10.0	9.0	8.0	7.5	6.0	6.0	9.5	8.0	9.5	8.0
13	---	---	10.0	9.0	7.5	7.0	6.5	6.0	9.0	8.5	9.5	8.5
14	---	---	10.5	9.5	7.0	6.5	7.0	6.5	8.5	8.0	10.5	8.5
15	13.5	13.0	10.5	10.5	7.5	7.0	7.0	6.0	8.0	7.5	10.5	9.0
16	14.0	12.5	10.5	10.0	8.0	7.0	7.0	6.5	8.5	8.0	11.5	10.5
17	13.5	13.0	10.0	8.5	7.5	6.5	7.0	6.5	9.0	8.5	12.5	10.5
18	14.0	12.5	9.0	7.5	7.5	6.0	7.0	6.5	9.0	8.5	12.5	10.0
19	14.0	13.0	9.0	8.0	7.5	7.0	7.5	6.5	9.5	8.5	10.0	9.0
20	14.5	13.0	9.0	8.5	7.0	6.5	7.0	6.0	8.5	8.0	11.0	9.0
21	14.0	13.5	9.0	8.0	7.5	6.5	7.0	6.0	8.5	7.5	11.5	9.5
22	13.5	12.0	9.5	8.5	8.0	7.5	7.0	6.5	9.0	8.0	11.5	10.0
23	12.5	11.5	9.5	8.5	8.0	7.5	7.5	6.5	9.0	8.5	11.0	9.5
24	12.5	11.0	10.0	9.0	7.5	7.0	8.0	7.0	9.0	8.5	12.0	10.0
25	12.5	12.0	10.0	8.5	8.0	7.0	7.5	6.5	9.0	9.0	11.0	9.0
26	12.5	12.0	8.5	8.0	7.5	7.0	7.5	7.0	10.0	9.0	11.5	9.5
27	12.5	12.0	8.5	7.5	7.5	7.0	7.5	7.0	10.0	9.5	11.0	9.0
28	12.0	11.5	8.0	7.5	7.5	6.5	7.5	7.0	10.0	9.5	12.0	10.0
29	12.0	11.0	8.0	7.0	7.5	7.0	8.5	7.5	10.0	9.5	12.0	10.0
30	12.5	11.5	8.0	8.0	7.5	6.5	8.5	7.5	---	---	12.5	10.5
31	12.0	11.0	---	---	6.5	5.5	8.5	8.0	---	---	13.5	11.0
MONTH	---	---	13.0	7.0	9.5	5.5	8.5	5.0	10.0	6.0	13.5	4.5

11372000 CLEAR CREEK NEAR IGO, CA--Continued

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

11374000 COW CREEK NEAR MILLVILLE, CA

LOCATION.--Lat 40°30'19", long 122°13'56", in NE¼NW¼ sec.32, T.31 N., R.3 W., Shasta County, on right bank 2.9 mi (4.7 km) upstream from mouth, 4.2 mi (6.8 km) southwest of Millville, and 4.3 mi (6.9 km) downstream from Little Cow Creek.

DRAINAGE AREA.--425 mi^2 (1,100 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1949 to current year.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 408.3 ft (124.44 m) above mean sea level.

REMARKS.--Records good. Numerous small diversions above station for irrigation.

AVERAGE DISCHARGE.--27 years, 691 ft^3/s (19.57 m^3/s), 500,600 acre-ft/yr (617 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,200 ft^3/s (1,280 m^3/s) Dec. 27, 1951, gage height, 21.55 ft (6.568 m); minimum daily, 0.80 ft^3/s (0.023 m^3/s) Aug. 13, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1937 or 1940 reached a stage of 23.8 ft (7.25 m) from floodmarks. Probable backwater effect from high flows on the Sacramento River.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10,000 ft^3/s (283 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 28	1045	10000	283	10.01	3.051
Feb. 29	1030	*14100	399	11.54	3.517

Minimum daily discharge, 6.4 ft^3/s (0.18 m^3/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	46	289	151	156	127	3310	295	280	91	22	8.7	20
2	53	221	152	153	128	2240	244	275	91	22	13	24
3	53	191	148	153	129	2240	224	273	83	21	15	25
4	57	175	158	154	123	1430	220	262	79	21	21	27
5	57	168	2010	156	118	978	216	258	77	21	19	27
6	57	165	1600	157	116	754	231	237	62	20	15	27
7	111	181	556	152	125	629	284	235	60	18	20	22
8	112	216	391	153	125	561	1720	242	54	17	20	20
9	103	178	314	220	125	494	1080	246	55	17	20	18
10	270	174	275	207	125	444	662	242	65	16	13	22
11	412	182	248	176	120	406	636	238	70	15	13	26
12	231	165	353	168	121	369	1420	221	81	16	13	37
13	162	160	306	164	125	345	1030	209	84	15	12	37
14	138	157	246	155	154	333	688	205	77	15	50	34
15	134	291	221	157	218	318	574	193	62	15	330	48
16	127	1210	213	154	846	305	497	181	47	14	170	63
17	120	464	208	153	1040	302	448	172	37	13	72	65
18	122	311	197	149	503	314	424	168	36	13	80	62
19	118	248	190	145	418	336	394	154	34	12	122	51
20	112	235	184	144	327	287	383	142	32	12	88	48
21	116	226	181	142	259	273	371	135	32	11	71	46
22	125	203	231	141	227	263	365	115	34	10	66	43
23	122	188	234	141	208	260	360	115	32	9.8	71	41
24	116	176	203	141	195	260	348	114	30	9.8	65	42
25	136	167	192	138	359	293	342	107	29	9.8	56	39
26	898	164	184	136	1390	252	323	98	27	10	42	37
27	358	164	180	135	1900	242	303	88	26	8.6	35	39
28	218	160	175	134	6250	233	298	76	26	7.8	34	48
29	183	154	172	136	10000	224	285	73	25	7.4	31	54
30	1680	151	169	133	---	216	279	79	23	6.4	20	52
31	554	---	163	130	---	227	---	88	---	6.6	21	---
TOTAL	7101	7134	10205	4733	25901	19138	14944	5521	1561	432.2	1626.7	1144
MEAN	229	238	329	153	893	617	498	178	52.0	13.9	52.5	38.1
MAX	1680	1210	2010	220	10000	3310	1720	280	91	22	330	65
MIN	46	151	148	130	116	216	216	73	23	6.4	8.7	18
AC-FT	14080	14150	20240	9390	51370	37960	29640	10950	3100	857	3230	2270

CAL YR 1975	TOTAL	243162.0	MEAN 666	MAX 11800	MIN 45	AC-FT	482300	
WTR YR 1976	TOTAL	99440.9	MEAN 272	MAX 10000	MIN 6.4	AC-FT	197200	

11374000 COW CREEK NEAR MILLVILLE, CA--Continued

LOCATION.--Temperature recorder 2.6 mi (4.2 km) upstream from gaging station.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-71, 1973 to current year.
CHEMICAL ANALYSES: Water years 1959-66.
WATER TEMPERATURES: Water years 1966-71, 1973 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1965 to September 1971, October 1972 to current year.

INSTRUMENTATION.--Temperature recorder October 1965 to September 1971, and since October 1972.

REMARKS.--Prior to Sept. 14, 1973, at gaging station 4.2 mi (6.8 km) downstream.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1966-67, 1969-71, 1973-76), 35.5°C July 25, 1976; minimum, 0.0°C Dec. 14, 15, 1967, Jan. 10, 11, 1968.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 35.5°C July 25; minimum, 1.5°C Feb. 5.

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	18.5	12.5	9.0	9.5	6.0	6.0	3.5	10.5	7.0	8.5	7.0
2	23.5	19.0	13.0	9.5	9.0	6.0	5.0	3.0	10.5	6.5	7.0	2.5
3	22.5	18.0	14.0	10.5	8.5	6.0	5.5	4.0	10.0	6.5	10.0	3.5
4	23.0	17.5	14.0	10.5	7.0	6.0	6.0	4.5	8.5	5.5	10.0	5.0
5	22.5	17.0	13.0	11.0	6.5	6.0	7.5	5.0	5.0	1.5	12.0	5.5
6	20.5	17.0	14.0	11.5	11.5	6.5	7.5	5.0	4.5	2.0	12.5	6.5
7	18.0	13.5	14.5	12.5	11.0	7.0	6.5	4.5	7.5	3.0	11.5	7.0
8	18.0	15.0	14.5	10.5	11.0	6.5	6.5	5.5	8.5	5.5	14.5	8.5
9	16.5	14.5	12.0	9.5	10.5	7.0	9.0	5.5	10.0	6.5	15.0	8.5
10	14.5	12.0	11.5	9.5	9.5	6.5	7.5	4.0	9.5	6.5	15.0	9.0
11	16.0	12.0	11.5	8.0	8.0	6.0	6.0	5.0	9.5	5.5	15.0	9.0
12	16.5	12.5	11.5	8.0	8.5	5.0	6.5	5.5	11.5	7.5	15.0	8.5
13	18.0	13.0	11.5	8.0	8.0	5.5	7.5	4.0	9.5	7.5	14.0	9.0
14	18.0	14.0	10.5	9.0	7.0	4.5	8.0	4.5	8.5	7.0	16.0	9.0
15	18.5	13.5	10.0	9.5	7.0	4.0	8.0	5.0	9.0	6.0	16.0	10.0
16	19.0	14.0	13.0	9.0	10.0	6.0	9.0	6.0	8.0	6.0	17.0	12.5
17	17.5	14.5	10.5	8.0	9.0	6.0	9.0	6.0	8.5	5.5	18.0	13.0
18	19.0	15.0	8.5	6.5	9.0	5.5	10.0	7.0	10.0	7.5	15.5	12.0
19	19.5	15.5	8.5	6.0	9.0	6.0	9.5	7.0	12.0	7.0	15.0	9.5
20	20.5	16.5	8.5	7.0	9.5	5.5	9.0	5.5	11.0	5.5	15.5	9.5
21	18.5	15.5	9.0	4.5	9.5	6.5	9.0	5.0	10.5	6.0	17.0	10.5
22	16.5	13.5	9.0	6.0	11.5	8.0	8.5	5.5	10.5	6.5	13.5	11.5
23	14.5	11.5	9.5	5.5	11.0	7.0	7.5	6.0	10.0	7.0	15.0	9.5
24	14.0	10.5	10.5	7.5	10.5	7.0	8.0	4.5	10.0	6.5	13.5	10.5
25	12.0	11.5	11.5	9.0	9.5	7.0	7.5	4.5	9.5	8.5	15.0	8.0
26	14.0	9.5	9.5	8.0	9.5	7.0	7.5	4.0	10.5	8.5	14.0	10.0
27	13.5	11.0	10.0	7.5	10.0	6.5	7.5	4.0	10.0	8.0	14.0	8.5
28	14.0	10.5	8.0	6.0	11.5	8.5	8.0	4.5	10.0	7.5	16.5	10.0
29	12.5	9.5	6.5	5.0	11.0	9.0	8.0	5.0	9.5	7.5	16.5	10.5
30	13.0	9.5	7.0	6.0	9.0	7.5	10.0	5.5	---	---	18.5	11.0
31	12.5	9.5	---	---	7.5	5.0	9.5	6.5	---	---	15.5	12.0
MONTH	24.0	9.5	14.5	4.5	11.5	4.0	10.0	3.0	12.0	1.5	18.5	2.5

11374000 COW CREEK NEAR MILLVILLE, CA--Continued

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	15.0	9.0	23.0	15.5	---	---	26.0	18.5	31.5	25.0	31.0	21.5
2	16.5	9.0	22.5	15.5	24.0	18.5	27.0	18.5	32.0	24.5	29.5	22.0
3	15.5	10.5	24.0	16.0	25.5	18.5	27.0	20.5	30.5	24.5	29.0	23.0
4	17.0	10.0	23.0	17.0	26.0	19.0	29.0	21.0	32.5	24.5	29.0	22.0
5	15.0	11.5	24.5	17.5	26.0	19.5	30.0	22.0	28.5	23.5	28.0	24.5
6	13.0	10.5	22.0	15.5	26.0	20.0	30.0	22.5	26.5	22.0	27.5	22.5
7	12.0	10.5	25.5	17.0	25.0	19.5	28.5	23.0	28.5	20.5	25.0	20.5
8	10.5	8.5	25.0	18.5	26.0	19.0	30.5	22.5	29.5	22.0	26.5	21.0
9	14.0	8.5	26.5	18.5	26.0	20.0	31.5	24.0	31.0	22.5	27.5	22.0
10	11.5	10.0	25.0	19.5	26.0	19.0	31.0	24.0	31.0	24.0	26.0	22.0
11	14.0	8.5	23.5	17.5	23.5	19.0	28.5	24.0	30.5	24.0	24.0	22.5
12	13.5	9.0	28.0	18.0	27.0	19.5	30.5	22.0	30.5	23.0	25.0	22.0
13	15.5	8.0	27.0	19.5	25.5	20.0	31.5	22.5	26.5	22.0	26.0	21.0
14	17.5	10.0	25.5	19.5	26.0	18.5	32.0	23.5	21.5	19.5	26.5	22.5
15	16.5	11.5	25.5	17.5	27.5	19.0	32.0	24.0	20.5	17.5	25.0	21.5
16	16.0	8.5	25.5	18.5	28.5	20.5	31.0	25.0	21.0	17.0	22.5	21.5
17	14.5	9.5	24.5	17.5	29.5	21.0	31.0	24.5	20.0	18.5	24.0	20.0
18	18.0	9.5	25.0	17.5	30.0	22.0	32.0	24.5	20.5	17.5	25.0	20.5
19	20.5	11.5	23.5	17.5	29.0	22.5	32.0	24.5	25.0	16.0	26.0	21.5
20	21.0	13.5	23.5	17.0	27.5	22.0	32.5	25.0	28.0	20.0	25.0	21.5
21	17.5	14.5	26.0	18.5	28.5	21.0	32.0	24.0	28.5	21.5	24.0	19.5
22	20.5	13.5	26.0	19.5	27.5	20.5	32.0	24.0	26.0	22.0	24.0	21.5
23	20.0	13.5	25.0	20.0	27.5	19.5	32.5	25.0	27.5	20.5	24.0	21.5
24	20.5	14.5	25.5	19.5	28.5	21.0	33.0	25.0	28.0	21.0	24.0	21.5
25	19.0	13.5	27.5	19.5	30.0	22.0	35.5	25.5	28.0	21.0	24.5	20.5
26	19.0	12.0	---	---	29.5	21.0	34.0	26.5	26.0	19.5	24.0	21.0
27	20.0	12.5	---	---	30.5	22.0	33.5	26.5	27.5	19.5	23.5	22.5
28	21.0	13.5	---	---	30.0	22.5	32.0	26.5	28.0	20.5	23.5	22.0
29	21.5	13.5	---	---	27.0	22.5	32.0	26.5	29.0	20.5	25.5	22.5
30	22.5	14.5	---	---	27.0	20.0	32.0	26.0	29.0	21.0	26.0	23.0
31	---	---	---	---	---	---	30.5	25.0	29.5	21.0	---	---
MONTH	22.5	8.0	28.0	15.5	30.5	18.5	35.5	18.5	32.5	16.0	31.0	19.5

11375700 NORTH FORK COTTONWOOD CREEK NEAR IGO, CA

LOCATION.--Lat 40°26'32", long 122°32'57", in SE¼NW¼ sec.21, T.30 N., R.6 W., Shasta County, near right bank on downstream side of bridge on Gas Point Road, 1.2 mi (1.9 km) downstream from Huling Creek, 4.4 mi (7.1 km) south of Igo, and 4.5 mi (7.2 km) upstream from Middle Fork.

DRAINAGE AREA.--88.7 mi^2 (229.7 km^2).

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

REVISED RECORDS.--WSP 1931: 1960(M).

GAGE.--Water-stage recorder. Altitude of gage is 630 ft (192 m), from topographic map.

REMARKS.--Some storage for irrigation above station in Rainbow Lake, capacity, 4,800 acre-ft (5.92 hm^3). Some flow diverted upstream to Clear Creek basin by Happy Valley Irrigation Canal.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--20 years, 171 ft^3/s (4.843 m^3/s), 123,900 acre-ft/yr (153 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft^3/s (312 m^3/s) Dec. 22, 1964, gage height, 39.45 ft (12.024 m) in gage well 41.7 ft (12.71 m), from floodmarks, from rating curve extended above 4,400 ft^3/s (125 m^3/s) on basis of slope-area measurement of maximum flow; minimum daily, 0.80 ft^3/s (0.023 m^3/s) July 23-25, 1968, Aug. 27-29, Sept. 1, 1972.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 21, 1955, reached a peak discharge of 14,300 ft^3/s (405 m^3/s) by slope-area measurement at site 1.2 mi (1.9 km) upstream (above Huling Creek) adjusted for intervening drainage area.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,250 ft^3/s (35.4 m^3/s) Feb. 29, gage height, 32.33 ft (9.854 m); minimum daily, 6.9 ft^3/s (0.20 m^3/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	7.4	53	33	41	30	301	63	83	17	13	11	12
2	6.9	37	33	33	30	255	57	80	17	13	11	11
3	7.0	34	32	33	30	302	56	78	15	13	11	11
4	7.2	34	47	37	28	245	55	75	15	13	12	10
5	7.4	32	180	39	28	182	53	71	15	13	11	10
6	7.7	27	111	38	28	153	61	68	15	13	12	10
7	9.7	36	74	36	30	136	95	64	15	13	12	11
8	10	34	58	41	30	130	344	61	15	13	12	10
9	26	29	60	47	30	117	221	60	15	12	11	9.7
10	67	40	82	39	30	109	199	58	15	12	11	9.8
11	16	34	79	38	30	103	209	55	15	12	11	10
12	16	32	80	40	32	100	181	51	15	12	11	12
13	14	35	50	39	34	103	158	48	15	12	10	11
14	14	35	46	37	34	100	143	44	15	11	90	14
15	14	74	44	36	87	96	136	40	15	11	49	14
16	13	78	43	36	131	93	126	40	14	11	14	31
17	12	56	41	34	134	92	119	37	14	12	14	37
18	13	54	41	33	75	91	115	34	14	12	24	33
19	13	46	39	32	72	88	112	33	14	12	24	30
20	13	51	38	31	60	86	112	28	14	12	15	31
21	13	44	41	30	55	81	111	29	14	12	14	26
22	14	45	51	29	50	80	112	29	14	11	14	23
23	14	43	52	30	48	78	107	29	14	11	14	29
24	14	36	52	29	48	77	102	30	13	11	14	23
25	38	34	49	28	124	76	101	26	13	11	13	20
26	98	34	46	28	892	74	99	25	13	11	13	18
27	43	35	46	32	348	72	92	22	13	10	13	19
28	36	34	44	32	244	71	90	16	13	11	13	58
29	36	32	43	32	534	69	89	17	13	11	14	39
30	133	32	43	32	---	67	86	20	13	11	13	29
31	68	---	41	30	---	67	---	21	---	10	13	---
TOTAL	801.3	1220	1719	1072	3326	3694	3604	1372	432	365	524	611.5
MEAN	25.8	40.7	55.5	34.6	115	119	120	44.3	14.4	11.8	16.9	20.4
MAX	133	78	180	47	892	302	344	83	17	13	90	58
MIN	6.9	27	32	28	28	67	53	16	13	10	10	9.7
AC-FT	1590	2420	3410	2130	6600	7330	7150	2720	857	724	1040	1210

CAL YR 1975	TOTAL	66998.0	MEAN 184	MAX 2370	MIN 4.0	AC-FT	132900
WTR YR 1976	TOTAL	18740.8	MEAN 51.2	MAX 892	MIN 6.9	AC-FT	37170

11375810 COTTONWOOD CREEK NEAR OLINDA, CA

LOCATION.--Lat 40°23'06", long 122°28'31", in SE¼NW¼ sec.7, T.29 N., R.5 W., Shasta County, on left bank 1.0 mi (1.6 km) downstream from Dutch Gulch, and 5.5 mi (8.8 km) southwest of Olinda.

DRAINAGE AREA.--395 mi^2 (1,023 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 515 ft (157 m), from topographic map.

REMARKS.--Records good except those for the summer months, which are fair. Numerous pumping diversions above station.

AVERAGE DISCHARGE.--5 years, 477 ft^3/s (13.51 m^3/s), 345,600 acre-ft/yr (426 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,900 ft^3/s (1,050 m^3/s) Jan. 16, 1974, gage height, 21.44 ft (6.535 m) from rating curve extended above 11,000 ft^3/s (312 m^3/s) on basis of slope-area measurement of peak flow; no flow Aug. 30, Sept. 7, 8, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,500 ft^3/s (127 m^3/s) Feb. 26 (1300 hrs), gage height, 10.55 ft (3.216 m), no other peak above base of 3,000 ft^3/s (85.0 m^3/s); minimum daily, 0.25 ft^3/s (0.007 m^3/s) July 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	16	137	84	88	66	1050	126	149	32	12	3.0	12
2	15	108	86	79	68	768	122	143	29	13	3.0	10
3	14	93	85	83	67	864	120	141	28	12	2.4	6.4
4	14	82	89	84	65	751	118	135	25	12	9.2	5.5
5	15	74	384	86	64	521	120	131	23	11	8.1	5.5
6	16	75	571	88	62	414	125	126	24	10	7.5	3.0
7	18	76	323	84	67	349	150	122	25	9.8	16	2.1
8	23	84	227	85	70	321	507	121	22	9.8	7.9	3.0
9	33	77	175	101	69	285	481	121	21	10	4.6	2.7
10	194	85	179	104	66	260	351	122	25	10	3.1	3.2
11	126	107	163	95	66	242	514	116	33	9.4	2.9	3.4
12	91	91	179	94	65	225	413	114	27	8.4	2.4	3.6
13	75	87	135	95	68	218	349	109	23	7.4	2.3	4.5
14	58	86	120	92	78	208	312	108	19	6.5	47	7.4
15	44	163	112	90	142	197	288	105	18	6.1	241	16
16	37	412	109	88	231	189	275	102	18	5.1	58	32
17	28	226	105	87	240	188	259	98	16	6.3	36	43
18	26	156	101	84	160	188	247	93	15	7.0	44	43
19	25	129	98	85	147	189	234	90	16	9.1	64	37
20	24	125	95	83	140	176	228	83	16	9.7	46	39
21	25	118	94	81	126	168	223	79	14	5.7	33	36
22	26	108	113	80	118	162	220	71	12	.25	29	30
23	26	102	108	78	112	158	203	69	11	1.7	29	28
24	27	94	105	78	108	155	192	67	12	4.0	27	32
25	37	90	102	77	147	158	189	61	12	6.0	22	28
26	239	91	99	75	2400	150	183	57	11	5.5	20	28
27	158	90	97	75	1410	147	172	49	11	4.0	21	28
28	115	88	96	73	1040	142	167	45	11	2.8	19	50
29	155	86	94	71	1390	138	164	43	12	2.8	18	43
30	270	84	93	70	---	134	156	36	11	2.8	16	40
31	190	---	90	73	---	130	---	38	---	2.8	14	---
TOTAL	2160	3424	4511	2606	8852	9245	7208	2944	572	222.95	856.4	625.3
MEAN	69.7	114	146	84.1	305	298	240	95.0	19.1	7.19	27.6	20.8
MAX	270	412	571	104	2400	1050	514	149	33	13	241	50
MIN	14	74	84	70	62	130	118	36	11	.25	2.3	2.1
AC-FT	4280	6790	8950	5170	17560	18340	14300	5840	1130	442	1700	1240

CAL YR 1975	TOTAL	206438.00	MEAN	566	MAX	6970	MIN	14	AC-FT 409500
WTR YR 1976	TOTAL	43226.65	MEAN	118	MAX	2400	MIN	.25	AC-FT 85740

11375810 COTTONWOOD CREEK NEAR OLINDA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971, 1973 to current year.
CHEMICAL ANALYSES: Water year 1971.
WATER TEMPERATURES: Water years 1973 to current year.
PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: February 1973 to current year.
INSTRUMENTATION.--Temperature recorder since February 1973.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 30.5°C Aug. 24, 25, 1975; minimum, 3.0°C Nov. 29, 1973, Jan. 11, 1975.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 30.0°C July 27; minimum recorded, 3.5°C Feb. 5, 6.

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	25.5	20.0	15.0	11.0	---	---			---	---	---	---
2	24.0	20.0	15.5	11.5	---	---			---	---	7.0	4.0
3	24.5	19.5	17.0	12.0	---	---			---	---	7.5	4.0
4	25.5	19.0	17.0	12.0	7.0	6.0			---	---	8.0	5.0
5	24.5	19.0	15.0	12.5	9.0	7.0			7.0	3.5	8.5	6.0
6	22.5	18.0	14.0	11.5	11.0	9.0			7.5	3.5	10.0	6.5
7	21.0	16.0	13.5	12.5	9.5	7.0			9.5	4.5	10.0	8.0
8	19.0	16.5	13.5	10.0	9.5	6.5			10.0	6.0	12.0	9.0
9	17.5	15.0	10.0	8.5	9.5	7.0			11.0	6.5	12.5	9.5
10	16.0	13.0	11.5	8.0	8.5	6.0			11.0	5.5	12.5	10.0
11	18.0	14.5	10.5	7.5	8.0	6.0			10.5	5.0	13.0	10.5
12	19.0	14.0	10.0	8.0	8.0	5.5			12.0	7.5	12.5	10.0
13	20.0	14.5	10.5	8.0	7.0	4.5			9.5	8.0	12.0	10.0
14	20.5	14.0	---	---	7.5	4.5			8.5	7.5	13.0	10.0
15	20.5	14.5	---	---	7.0	4.5			9.0	7.0	13.5	10.5
16	21.0	14.5	---	---	7.0	4.5			9.0	7.5	14.5	12.0
17	19.0	15.0	---	---	---	---			11.0	8.0	15.5	13.0
18	21.0	15.5	---	---	---	---			11.0	8.5	14.5	12.5
19	21.0	15.0	---	---	---	---			13.0	8.0	12.5	10.0
20	22.0	16.0	---	---	---	---			11.0	6.5	13.0	10.0
21	19.5	16.5	---	---	---	---			10.5	6.5	14.0	10.5
22	18.0	14.0	---	---	---	---			10.5	7.0	13.0	11.5
23	17.5	12.0	---	---	---	---			10.5	7.0	13.0	10.5
24	16.5	11.5	---	---	---	---			---	---	12.5	11.0
25	15.0	13.5	---	---	---	---			---	---	13.0	9.5
26	14.5	11.5	---	---	---	---			---	---	13.0	10.5
27	14.5	11.0	---	---	---	---			---	---	12.0	9.5
28	15.0	11.0	---	---	---	---			---	---	14.0	10.0
29	14.0	10.5	---	---	---	---			---	---	14.5	11.0
30	15.5	12.0	---	---	---	---			---	---	15.5	11.5
31	14.5	10.5	---	---	---	---			---	---	14.5	12.5
MONTH	25.5	10.5	---	---	---	---			---	---	15.5	4.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.5	10.5	22.0	15.5	23.5	16.5	25.5	20.0	25.5	24.5	27.0	22.0
2	14.5	10.0	20.5	15.0	23.5	18.0	26.5	21.5	25.0	24.0	27.0	23.0
3	14.0	11.0	22.5	15.0	24.5	18.0	26.5	22.5	24.0	23.0	26.5	23.5
4	15.0	11.0	21.5	16.5	25.0	18.5	27.5	23.0	23.5	22.0	26.0	23.0
5	14.0	11.5	22.5	17.0	25.0	19.5	28.0	24.0	23.5	21.5	26.0	23.5
6	13.0	11.0	21.5	16.0	25.0	19.5	28.0	24.0	23.0	20.0	25.5	22.0
7	11.5	11.0	24.0	15.5	24.5	19.5	27.5	24.0	24.5	21.0	24.5	21.0
8	11.0	10.0	24.0	18.5	24.5	19.0	28.0	24.5	25.5	22.0	24.0	20.5
9	13.0	10.0	25.0	18.5	22.5	20.0	28.0	24.5	25.5	22.0	24.0	21.5
10	11.5	10.0	24.5	19.5	23.5	18.5	27.5	25.0	26.0	23.0	23.5	21.5
11	13.0	9.0	23.5	17.5	23.0	19.0	27.5	24.5	26.0	23.0	23.0	21.5
12	13.0	10.0	25.5	18.0	25.5	20.5	25.5	22.5	25.5	22.5	22.0	21.0
13	15.5	8.5	26.0	19.5	25.0	20.0	26.5	23.5	25.5	22.0	22.5	20.0
14	17.0	10.5	25.0	19.0	25.0	19.5	26.5	24.0	22.0	18.0	23.0	21.0
15	14.5	11.5	25.0	18.0	26.5	20.5	26.5	24.0	21.5	17.5	23.0	21.0
16	15.0	8.0	25.0	18.5	27.0	21.5	27.0	24.5	22.5	18.5	22.0	20.5
17	15.0	10.5	24.5	17.5	27.5	22.0	27.0	25.0	21.5	19.5	22.5	19.0
18	17.0	11.0	24.5	18.0	27.5	22.5	27.0	24.5	21.0	19.5	23.0	20.0
19	19.0	12.0	24.0	17.5	28.0	23.0	27.5	25.5	25.0	18.0	23.5	21.0
20	20.0	13.5	24.0	17.0	27.0	23.0	27.5	25.5	27.5	20.5	23.5	20.5
21	16.0	13.5	24.5	17.5	27.0	22.0	27.5	25.0	28.0	22.5	23.0	20.0
22	19.0	13.0	25.0	18.0	27.0	22.0	28.0	25.5	25.5	23.0	22.5	20.0
23	18.5	13.0	24.5	18.5	27.0	22.0	28.0	26.0	28.5	21.5	23.0	20.0
24	19.5	14.0	25.0	19.5	27.5	22.5	28.0	26.0	28.5	22.0	24.0	21.5
25	18.0	12.0	25.5	18.5	28.5	23.5	29.0	27.0	27.5	22.0	23.0	21.0
26	18.0	11.5	27.0	19.5	27.5	23.0	29.5	27.5	25.5	20.0	23.0	21.0
27	19.0	12.0	25.5	19.0	27.5	23.0	30.0	28.0	26.5	21.0	22.5	21.5
28	19.5	13.0	24.5	17.5	27.5	23.5	29.5	27.5	26.5	21.5	22.5	21.0
29	19.5	13.0	22.5	17.5	26.0	23.0	28.0	26.5	26.5	21.5	22.0	20.5
30	20.5	14.0	21.5	18.0	25.0	21.0	27.5	26.0	27.0	21.5	22.5	21.0
31	---	---	22.0	17.5	---	---	26.5	25.0	27.0	22.0	---	---
MONTH	20.5	8.0	27.0	15.0	28.5	16.5	30.0	20.0	28.5	17.5	27.0	19.0

11375820 SOUTH FORK COTTONWOOD CREEK NEAR COTTONWOOD, CA

LOCATION.--Lat 40°18'59", long 122°26'52", in SW¼SE¼ sec.32, T.29 N., R.5 W., Tehama County, on right bank 15 ft (5 m) downstream from highway bridge, 0.7 mi (1.1 km) upstream from Dry Fork, and 10.3 mi (16.6 km) southwest of Cottonwood.

DRAINAGE AREA.--217 mi^2 (562 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 525 ft (160 m), from topographic map. October 1962 to Dec. 22, 1964, at site 85 ft (26 m) upstream at different datum.

REMARKS.--Small diversion above station.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--14 years, 228 ft^3/s (6.457 m^3/s), 165,200 acre-ft/yr (204 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,700 ft^3/s (530 m^3/s) Jan. 16, 1974, gage height, 14.05 ft (4.282 m); no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 994 ft^3/s (28.2 m^3/s) Feb. 26, gage height, 4.08 ft (1.244 m); minimum daily, 1.3 ft^3/s (0.037 m^3/s) Sept. 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	2.4	71	45	38	25	433	68	81	27	4.7	2.8	3.9
2	2.8	55	45	36	24	283	66	88	25	4.8	30	3.5
3	3.5	47	46	36	24	198	66	90	24	4.9	28	3.2
4	4.0	41	46	39	24	155	65	87	22	4.8	23	2.8
5	5.0	38	65	38	23	122	65	88	22	4.8	16	2.5
6	5.9	36	172	38	22	104	69	90	20	4.7	14	2.4
7	7.4	35	136	37	20	93	77	87	19	4.6	14	2.1
8	9.4	39	101	36	24	89	126	87	19	4.4	14	2.1
9	16	44	86	37	24	86	142	96	19	4.4	11	1.9
10	81	40	76	44	23	81	110	102	19	4.2	10	1.8
11	61	51	70	41	23	78	151	98	19	4.1	9.4	1.8
12	33	47	69	38	21	76	114	91	19	3.9	8.2	1.8
13	30	44	66	38	22	71	100	84	17	4.0	7.8	1.6
14	23	45	60	37	23	68	96	86	15	3.8	9.7	1.5
15	21	77	56	37	30	65	98	83	13	3.7	11	1.4
16	21	274	55	36	29	65	100	74	12	3.3	11	1.5
17	20	154	53	35	34	69	97	68	10	3.0	12	1.5
18	20	102	50	34	43	80	94	64	9.6	2.7	15	1.3
19	20	80	48	33	39	85	92	59	9.1	2.4	20	3.2
20	19	71	46	32	41	80	92	55	8.3	2.2	19	3.9
21	18	69	46	31	37	75	100	50	8.0	5.4	15	3.9
22	18	63	49	31	34	74	102	46	8.1	5.7	12	3.8
23	17	60	48	30	34	72	103	43	7.5	5.3	12	3.5
24	16	57	44	29	33	72	102	40	6.9	5.2	10	3.3
25	17	53	44	29	31	72	105	39	6.5	4.8	9.4	3.1
26	40	53	43	27	263	72	104	36	5.8	4.4	8.5	3.1
27	99	51	43	27	556	70	98	33	5.5	4.0	7.0	3.1
28	54	50	44	27	420	68	91	31	5.1	3.8	6.0	4.3
29	42	48	43	26	373	66	86	29	4.6	3.7	5.4	4.9
30	56	46	42	26	---	65	82	29	4.6	3.1	5.0	5.0
31	117	---	40	25	---	63	---	28	---	2.8	4.5	---
TOTAL	899.4	1941	1877	1048	2319	3150	2861	2062	410.6	127.6	380.7	83.7
MEAN	29.0	64.7	60.5	33.8	80.0	102	95.4	66.5	13.7	4.12	12.3	2.79
MAX	117	274	172	44	556	433	151	102	27	5.7	30	5.0
MIN	2.4	35	40	25	20	63	65	28	4.6	2.2	2.8	1.3
AC-FT	1780	3850	3720	2080	4600	6250	5670	4090	814	253	755	166

CAL YR 1975 TOTAL 95672.2 MEAN 262 MAX 3780 MIN 2.0 AC-FT 189800
WTR YR 1976 TOTAL 17160.0 MEAN 46.9 MAX 556 MIN 1.3 AC-FT 34040

11375970 COTTONWOOD CREEK AT COTTONWOOD, CA

LOCATION.--Lat 40°22'35", long 122°16'57", in SW¼SE¼ sec.11, T.29 N., R.4 W., Shasta County, at bridge on U.S. Highway 99 business route, 0.7 mi (1.1 km) south of Cottonwood.

DRAINAGE AREA.--836 mi^2 (2,165 km^2).

PERIOD OF RECORD.--
CHEMICAL ANALYSES: Water years 1951 to current year. Prior to 1975 water year published as station 11376000 Cottonwood Creek near Cottonwood.

REMARKS.--Records of discharge given for Cottonwood Creek near Cottonwood (station 11376000).

COOPERATION.--Records furnished by California Department of Water Resources.

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)
OCT 17...	0910	210	194	7.2	15.5	3	9.5
NOV 17...	1105	469	272	7.7	8.0	7	11.0
DEC 09...	0845	346	295	7.8	8.0	2	10.3
JAN 14...	0950	149	291	7.7	6.0	0	12.5
FEB 11...	1000	96	287	7.7	8.0	1	12.3
MAR 11...	1015	408	272	7.6	11.0	3	10.2
APR 22...	0900	387	229	7.8	14.0	2	9.9
MAY 20...	0830	196	196	7.6	16.0	2	10.3
JUN 11...	0800	166	150	8.2	15.5	2	9.6
JUL 23...	0830	44	196	7.2	23.0	2	9.5
AUG 24...	0900	157	212	7.2	21.0	38	9.4
SEP 07...	0845	56	207	7.2	18.0	9	9.1

DATE	TIME	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)
JAN 14...	0950	129	11	18	.7	144	0	118	18	--
APR 22...	0900	98	1	9.2	.4	118	0	97	8.4	.02
JUN 11...	0800	65	0	6.8	.4	80	0	66	3.5	--

DATE	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)
JAN 14...	--	--	--	0	--	--	--	--	--	--
APR 22...	.20	.02	.01	0	0	0	100	0	10	0
JUN 11...	--	--	--	0	--	--	--	--	--	--

11376000 COTTONWOOD CREEK NEAR COTTONWOOD, CA

LOCATION.--Lat 40°23'14", long 122°14'15", in NE¼NE¼ sec.7, T.29 N., R.3 W., Shasta County, on left bank 2.2 mi (3.5 km) east of Cottonwood, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--927 mi^2 (2,401 km^2).

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1345: 1943, 1944(M), 1946-47, 1949(M), 1951-52. WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 364.0 ft (110.95 m) above mean sea level (levels by Corps of Engineers). Prior to July 26, 1963, at site 100 ft (30 m) downstream on right bank at datum 3.59 ft (1.094 m) higher. July 26, 1963, to Sept. 13, 1972, at site 350 ft (107 m) downstream on right bank. Sept. 21, 1967, to Jan. 14, 1968, supplementary gage at a site 1,550 ft (472 m) downstream on right bank at datum 2.35 ft (0.716 m) higher.

REMARKS.--Records good. Small diversions for irrigation above station. At times during irrigation season, Cottonwood Creek receives water above station from Sacramento River by way of Anderson-Cottonwood Canal.

AVERAGE DISCHARGE.--36 years, 856 ft^3/s (24.24 m^3/s), 620,200 acre-ft/yr (765 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,000 ft^3/s (1,980 m^3/s) Jan. 16, 1974, gage height, 20.15 ft (6.142 m); minimum, 15 ft^3/s (0.42 m^3/s) for several days in September 1945.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,220 ft^3/s (91.2 m^3/s) Feb. 26, gage height, 8.99 ft (2.740 m), no peak above base of 7,100 ft^3/s (201 m^3/s); minimum daily, 38 ft^3/s (1.08 m^3/s) July 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	93	285	142	148	101	1850	231	320	138	58	43	103
2	83	214	141	141	98	1250	223	298	137	62	49	88
3	70	173	145	133	98	1130	208	292	130	59	84	81
4	74	152	161	139	96	1180	205	286	120	57	68	66
5	96	140	274	142	93	893	204	300	112	54	68	66
6	118	133	697	143	93	678	214	286	119	50	88	63
7	138	130	544	143	91	581	272	277	121	47	79	62
8	147	132	408	139	95	524	586	274	105	48	56	61
9	175	142	336	151	98	481	723	288	97	57	58	56
10	290	135	305	167	98	433	539	302	131	54	65	55
11	414	160	283	165	96	397	710	292	162	53	60	58
12	230	171	285	156	93	373	628	288	131	54	51	64
13	165	154	267	152	93	357	546	278	107	55	50	61
14	178	149	228	149	98	341	508	263	90	57	62	68
15	228	173	209	145	152	326	492	245	89	53	278	64
16	225	580	199	142	198	316	471	239	88	52	204	94
17	210	469	190	138	317	310	456	262	77	46	188	108
18	198	342	182	135	248	317	411	231	75	47	185	123
19	192	278	175	133	214	323	380	206	78	45	207	161
20	182	248	170	131	210	310	377	196	80	44	226	124
21	165	235	165	127	197	288	395	189	66	45	210	103
22	133	213	179	123	180	274	402	177	57	38	182	100
23	109	197	186	118	170	264	392	177	51	42	168	109
24	142	183	176	118	164	261	362	174	60	48	157	91
25	202	170	171	116	160	257	347	171	57	41	157	90
26	291	167	167	113	1430	344	351	156	53	40	160	93
27	381	163	164	109	2250	334	338	148	52	43	163	117
28	246	158	164	109	1720	325	330	180	55	45	170	140
29	185	153	161	109	1690	298	334	167	56	51	165	143
30	281	147	158	106	---	280	329	152	55	44	144	125
31	393	---	152	103	---	252	---	144	---	47	122	---
TOTAL	6034	6146	7184	4143	10641	15547	11964	7258	2749	1536	3967	2737
MEAN	195	205	232	134	367	502	399	234	91.6	49.5	128	91.2
MAX	414	580	697	167	2250	1850	723	320	162	62	278	161
MIN	70	130	141	103	91	252	204	144	51	38	43	55
AC-FT	11970	12190	14250	8220	21110	30840	23730	14400	5450	3050	7870	5430

CAL YR 1975 TOTAL 401243 MEAN 1099 MAX 17800 MIN 66 AC-FT 795900
WTR YR 1976 TOTAL 79906 MEAN 218 MAX 2250 MIN 38 AC-FT 158500

11376550 BATTLE CREEK BELOW COLEMAN FISH HATCHERY, NEAR COTTONWOOD, CA

LOCATION.--Lat 40°23'54", long 122°08'43", in SW¼NE¼ sec.1, T.29 N., R.3 W., Shasta County, U.S. Fish and Wildlife service land, on right bank 3.7 mi (6.0 km) downstream from Spring Branch, 5.7 mi (9.2 km) upstream from mouth, and 7.0 mi (11.3 km) east of Cottonwood.

DRAINAGE AREA.--357 mi^2 (925 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1961 to current year. October 1940 to September 1961 at site 0.6 mi (1.0 km) upstream published as "near Cottonwood"; low-flow records not equivalent owing to Coleman Fish Hatchery diversion.

GAGE.--Water-stage recorder. Altitude of gage is 415 ft (126 m), from topographic map.

REMARKS.--Records good. Flow regulated by four small powerplants, several small reservoirs, and Coleman Fish Hatchery. Coleman Fish Hatchery diverts 50 ft^3/s (1.42 m^3/s) to 90 ft^3/s (2.55 m^3/s) which is returned above the station. Ten ft^3/s (0.28 m^3/s) diverted at times above station for irrigation. Maximum flows considered equivalent to former station, Battle Creek near Cottonwood.

AVERAGE DISCHARGE.--15 years, 528 ft^3/s (14.95 m^3/s), 382,500 acre-ft/yr (472 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,300 ft^3/s (688 m^3/s) Jan. 24, 1970, gage height, 14.75 ft (4.496 m), from rating curve extended above 4,200 ft^3/s (119 m^3/s) on basis of slope-area measurement of peak flow; minimum since 1961, 52 ft^3/s (1.47 m^3/s) Aug. 8, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 15.8 ft (4.82 m) Dec. 11, 1937, from floodmarks at former site and datum, discharge, 35,000 ft^3/s (991 m^3/s) by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,780 ft^3/s (107 m^3/s) Feb. 29 (2200 hrs), gage height, 5.91 ft (1.801 m), no other peak above base of 2,500 ft^3/s (70.8 m^3/s); minimum daily, 231 ft^3/s (6.54 m^3/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	263	409	363	344	327	1240	400	388	333	270	240	238
2	259	390	360	341	332	950	395	410	318	271	243	231
3	261	379	364	344	330	922	382	410	321	269	241	235
4	262	379	367	351	327	646	378	413	318	267	242	236
5	260	378	750	356	323	546	375	413	313	264	241	236
6	275	373	637	357	314	511	375	413	309	261	241	235
7	316	385	446	352	311	494	391	413	309	259	243	235
8	304	430	409	357	315	483	661	422	305	261	242	243
9	302	386	395	392	313	472	535	423	309	259	239	249
10	355	392	387	376	311	431	470	419	315	258	238	251
11	523	389	380	365	305	455	470	422	317	257	237	250
12	396	379	510	363	276	438	659	415	312	259	235	257
13	355	379	419	362	280	430	541	416	300	258	237	254
14	340	379	386	360	301	427	472	429	294	257	250	252
15	337	415	372	356	312	422	476	419	288	250	280	265
16	333	724	377	356	328	416	456	405	286	252	300	284
17	332	469	375	358	377	395	424	399	288	249	272	278
18	331	408	371	353	355	410	425	391	289	252	277	274
19	328	389	366	350	367	445	430	380	294	252	279	271
20	323	393	366	347	351	425	426	373	294	250	271	270
21	323	379	363	344	337	398	427	367	299	250	269	269
22	333	373	440	343	333	388	414	355	293	250	266	267
23	332	371	406	342	331	385	414	349	284	242	268	252
24	327	369	382	340	328	382	407	345	281	241	263	245
25	339	366	375	338	328	412	427	344	279	238	258	245
26	695	364	368	333	368	393	416	343	273	237	257	246
27	513	364	367	334	505	382	404	339	273	237	257	245
28	414	368	365	337	762	380	399	341	266	236	245	264
29	391	361	365	336	1860	378	394	338	273	242	238	268
30	629	356	364	334	---	375	388	338	269	239	237	266
31	496	---	358	334	---	390	---	335	---	238	234	---
TOTAL	11247	11896	12553	10855	11607	15221	13231	11967	8902	7825	7840	7611
MEAN	363	397	405	350	400	491	441	386	297	252	253	254
MAX	695	724	750	392	1860	1240	661	429	333	271	300	284
MIN	259	356	358	333	276	375	375	335	266	236	234	231
AC-FT	22310	23600	24900	21530	23020	30190	26240	23740	17660	15520	15550	15100

CAL YR 1975 TOTAL 205735 MEAN 564 MAX 2720 MIN 259 AC-FT 408100
WTR YR 1976 TOTAL 130755 MEAN 357 MAX 1860 MIN 231 AC-FT 259400

11376550 BATTLE CREEK BELOW COLEMAN FISH HATCHERY, NEAR COTTONWOOD, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.
CHEMICAL ANALYSES: Water years 1962-66.
WATER TEMPERATURES: Water years 1966 to current year.
SEDIMENT RECORDS: Water years 1962-70.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1965 to current year.

INSTRUMENTATION.--Temperature recorder since December 1965.

COOPERATION.--Temperature record furnished by U.S. Fish and Wildlife Service.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.0°C July 20, 1971, July 23, 24, 1975; minimum, 2.0°c Dec. 23, 24, 1968.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.0°C July 26; minimum, 4.5°C Mar. 2, 3.

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	15.5	14.0	11.0	9.5	9.5	8.0	7.0	5.5	10.0	9.0	6.5	5.5
2	15.5	14.0	11.5	9.5	9.5	8.5	6.0	5.5	10.0	8.5	6.0	4.5
3	15.0	13.5	12.0	10.5	9.0	8.0	6.5	5.5	10.0	8.5	8.5	4.5
4	15.5	13.5	12.0	10.5	9.0	8.5	7.0	6.0	10.0	8.0	8.5	5.0
5	15.5	13.0	11.0	10.0	10.5	9.0	8.5	6.5	8.0	5.5	9.0	6.0
6	15.0	13.0	11.5	10.5	10.0	9.0	8.0	6.5	6.5	5.5	9.5	6.5
7	13.5	11.0	11.0	11.0	9.5	8.0	8.0	6.5	8.5	6.5	9.5	7.0
8	12.0	11.0	11.5	9.5	9.5	8.5	8.5	8.0	9.0	8.0	11.0	9.0
9	12.0	11.0	9.5	8.0	9.5	8.5	9.0	8.0	10.0	8.5	11.5	8.5
10	12.0	11.0	10.0	8.5	9.0	8.0	8.0	6.5	10.0	7.0	12.0	9.0
11	13.0	11.0	9.0	8.0	8.5	8.0	8.0	7.0	9.0	7.0	11.0	9.5
12	12.0	10.5	9.0	7.0	8.5	7.0	8.0	7.0	10.0	8.5	10.5	8.5
13	13.5	11.0	9.5	8.0	8.0	6.5	8.5	7.0	10.0	8.5	10.5	9.0
14	13.5	11.0	9.5	8.5	6.5	5.5	8.5	7.0	9.5	8.5	12.0	9.0
15	13.5	11.0	10.5	9.5	7.0	5.5	9.5	8.0	9.0	8.5	13.0	9.5
16	13.5	11.0	11.0	8.5	8.5	6.5	9.5	8.5	9.0	8.5	13.5	11.0
17	13.0	11.5	8.5	7.0	8.5	7.0	9.5	8.5	9.5	9.0	14.0	11.5
18	14.0	12.0	7.0	6.0	8.0	6.5	9.5	8.5	10.0	9.5	13.5	10.5
19	14.0	11.5	7.0	6.0	8.5	7.0	9.0	7.0	10.0	8.5	11.0	8.5
20	14.5	12.0	8.0	7.0	8.0	6.5	9.0	7.0	9.5	7.0	11.0	8.5
21	14.0	12.0	8.0	6.5	8.0	6.5	9.0	7.0	9.0	7.0	12.0	9.0
22	13.5	11.5	8.5	7.0	9.0	8.0	9.0	7.0	9.5	8.0	11.5	10.0
23	14.0	9.5	9.0	7.0	8.5	7.0	8.5	8.0	9.5	8.5	11.5	9.5
24	10.5	9.0	9.5	8.0	8.5	8.0	8.5	7.0	9.5	8.0	11.5	10.0
25	10.5	10.0	10.0	9.0	8.5	8.0	8.0	6.5	9.5	9.0	10.5	8.0
26	13.0	10.5	9.5	8.5	9.0	8.5	8.5	6.5	10.5	9.5	10.5	9.0
27	11.0	9.5	9.5	9.0	9.5	8.5	9.0	7.0	10.5	8.5	10.5	8.5
28	10.5	9.5	9.0	6.5	10.0	8.5	9.5	7.0	10.0	9.5	12.0	9.0
29	10.5	9.0	6.5	6.0	10.0	9.0	9.5	8.0	9.5	6.0	12.0	9.5
30	12.0	10.0	8.5	6.5	9.0	6.0	10.0	8.5	---	---	13.5	10.0
31	11.0	9.0	---	---	7.0	5.5	10.0	8.5	---	---	13.0	9.5
MONTH	15.5	9.0	12.0	6.0	10.5	5.5	10.0	5.5	10.5	5.5	14.0	4.5

11376550 BATTLE CREEK BELOW COLEMAN FISH HATCHERY, NEAR COTTONWOOD, CA--Continued

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

11377100 SACRAMENTO RIVER ABOVE BEND BRIDGE, NEAR RED BLUFF, CA

LOCATION.--Lat 40°17'19", long 122°11'08", in NW¼NE¼ sec.15, T.28 N., R.3 W., Tehama County, on left bank 2.7 mi (4.3 km) upstream from Bend Bridge, and 8.1 mi (13.0 km) northeast of Red Bluff.

DRAINAGE AREA.--8,900 mi^2 (23,050 km^2), excluding Goose Lake basin.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--1879-88 annual observed maximums only, published in WSP 1315-A. January 1892 to current year. Monthly discharges only for some periods and yearly estimates for some incomplete years, published in WSP 1315-A. Published as "at Red Bluff" 1894-96, as "at Jellys Ferry" 1895-1902, and as "near Red Bluff" 1903-68.

REVISED RECORDS.--WSP 861: 1904, 1907, 1909, 1914-15, 1927-28. WSP 1315-A: 1941(M), 1916(M), 1918(M). WSP 1931: Drainage area. WDR CA-69-2: 1965.

GAGE.--Water-stage recorder. Datum of gage is 285.77 ft (87.103 m) above mean sea level. See WSP 2131 for history of changes prior to September 1968.

REMARKS.--Records excellent. Flow regulated by Shasta Lake (station 11370000) since Dec. 30, 1943. Diversions, in addition to those on tributaries, for irrigation of 22,000 acres (8,900 hm^2) between stations at Keswick and above Bend Bridge. Transbasin diversions from Trinity River to Whiskeytown Lake via Judge Francis Carr powerplant (station 11525430) started in April 1963.

AVERAGE DISCHARGE (prior to transbasin diversion from Trinity River).--71 years (water years 1892-1962), 11,400 ft^3/s (323 m^3/s), 8,253,000 acre-ft/yr (10.2 km^3/yr); 14 years (water years 1963-76), 14,090 ft^3/s (399.0 m^3/s), 10,210,000 acre-ft/yr (12.6 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 291,000 ft^3/s (8,240 m^3/s) Feb. 28, 1940, gage height, 38.9 ft (11.86 m) site and datum then in use, from rating curve extended above 170,000 ft^3/s (4,810 m^3/s) on basis of velocity-area studies; minimum (water years 1892-1976), 2,000 ft^3/s (56.6 m^3/s) Mar. 29, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28,800 ft^3/s (816 m^3/s) Feb. 29, gage height, 12.93 ft (3.941 m); minimum daily, 4,870 ft^3/s (138 m^3/s) Oct. 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	8980	10100	11900	8810	7650	17100	8780	13900	12500	13700	13600	10300
2	9040	9210	12100	8100	7660	11200	9690	13700	12900	13600	13600	10400
3	9060	8080	12100	7390	7910	11800	10200	13800	12900	13600	13600	10300
4	9180	7600	12200	7310	8340	10000	10200	13700	13300	13700	13700	10400
5	9160	7530	14000	7310	8450	8410	10100	14400	13900	13700	13700	10500
6	9200	7490	15800	7350	8480	7530	10200	14500	13900	13700	13700	10400
7	9250	8560	13300	7320	8200	7040	10300	14200	13900	13700	13600	9750
8	9250	10100	12800	7370	8030	6840	13500	13800	13900	13700	13500	8680
9	9290	11600	12500	7520	8080	7200	12500	13000	13800	13700	13300	8210
10	9840	12200	12400	7480	7830	7910	10100	12800	13900	13800	12200	7750
11	10700	12100	12300	7370	7600	8110	9740	12800	14000	13700	12600	7250
12	9970	12200	12700	7370	7580	8140	10700	12800	13900	13700	12900	7160
13	9630	12200	12600	7340	7620	8050	10300	12700	13900	13700	13100	7140
14	9530	12200	12400	7350	7650	7990	9390	12400	13900	13600	13300	7040
15	9580	12400	12200	7330	7920	7920	9720	12300	13600	13600	14600	7040
16	9510	14100	12200	7380	8460	7830	10700	12200	13700	13600	13700	6770
17	9490	13000	12200	7420	9420	7740	11000	12300	13800	13600	13600	6540
18	9440	12600	11700	7330	8170	7880	10800	12200	13900	13700	13500	6100
19	9340	12400	11300	7310	7810	7860	10700	12100	13800	13700	13600	6070
20	9310	12400	11300	7340	7600	7730	10700	12400	13900	13800	12300	6020
21	9330	12300	10400	7340	8120	7720	10600	12500	13800	13600	11700	5700
22	9240	12300	9670	7050	8430	7630	11100	12500	13800	13600	11700	5160
23	9130	12200	9700	6960	8390	7650	11900	12500	13800	13600	11600	5130
24	9170	12200	9610	6810	8300	7590	12100	12500	13800	13600	10700	5070
25	9330	12200	9610	6860	8340	7680	12000	12400	13800	13700	10700	4870
26	11100	12200	9850	6800	11200	8100	12000	12000	13700	13600	10600	4870
27	10400	12200	9870	6810	12600	8400	12600	11600	13700	13600	10400	4870
28	9920	12200	9910	7030	16200	8320	12900	11600	13700	13600	10400	5040
29	9760	12200	9980	7210	22700	8260	13500	12100	13700	13600	10400	5090
30	12100	12100	9900	7440	---	8120	13800	12400	13700	13600	10400	5010
31	10800	---	9080	7590	---	8120	---	12500	---	13600	10400	---
TOTAL	299030	340170	357580	227400	264740	261870	331820	396600	410800	423300	386700	214630
MEAN	9646	11340	11530	7335	9129	8447	11060	12790	13690	13650	12470	7154
MAX	12100	14100	15800	8810	22700	17100	13800	14500	14000	13800	14600	10500
MIN	8980	7490	9080	6800	7580	6840	8780	11600	12500	13600	10400	4870
AC-FT	593100	674700	709300	451000	525100	519400	658200	786700	814800	839600	767000	425700

CAL YR 1975 TOTAL 5147150 MEAN 14100 MAX 69300 MIN 7330 AC-FT 10210000
WTR YR 1976 TOTAL 3914640 MEAN 10700 MAX 22700 MIN 4870 AC-FT 7765000

11377100 SACRAMENTO RIVER ABOVE BEND BRIDGE, NEAR RED BLUFF CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: March 1970 to current year.
INSTRUMENTATION.--Temperature recorder since March 1970.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1971-73, 1975-76), 19.0°C on several days in 1976; minimum, 4.0°C Dec. 17, 1972, Jan. 9, 10, 1973.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 19.0°C on several days during August and September; minimum, 7.0°C Feb. 5, Mar. 3, 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	14.0	12.5	12.5	11.5	11.0	11.0	10.5	10.5	9.5	9.0	9.0	8.0
2	13.5	12.5	12.5	12.0	12.0	11.0	10.5	10.5	9.5	8.5	8.0	8.0
3	13.5	12.5	12.5	12.0	11.5	11.5	10.5	10.5	9.5	9.0	8.0	7.0
4	13.5	12.5	12.5	12.5	11.5	11.5	10.5	10.5	9.5	8.0	8.5	7.0
5	14.0	12.5	12.5	12.0	11.5	11.5	10.0	9.5	8.0	7.0	9.0	8.5
6	14.0	12.5	12.0	12.0	11.5	11.5	9.5	9.0	8.0	7.5	9.5	9.0
7	13.0	11.5	12.0	12.0	11.5	11.5	9.5	9.5	9.0	8.0	9.5	9.5
8	13.0	12.0	12.0	11.5	11.5	11.5	9.5	9.5	9.0	9.0	11.0	9.5
9	13.0	12.0	11.5	11.5	11.5	11.5	9.5	9.5	9.5	9.0	11.0	11.0
10	12.5	12.0	11.5	11.5	11.5	11.5	9.5	9.5	9.0	8.5	11.0	10.5
11	13.0	12.5	11.5	11.5	11.5	11.5	9.5	9.5	9.0	8.5	11.0	10.5
12	13.0	12.5	12.0	11.5	11.5	11.5	9.5	9.5	9.5	9.0	10.5	10.0
13	13.0	13.0	11.5	11.5	11.5	11.5	9.5	9.5	9.5	9.5	10.5	10.0
14	13.0	13.0	11.5	11.5	11.5	11.5	9.5	9.5	9.5	9.5	11.0	9.5
15	13.5	12.5	12.0	11.5	11.5	11.5	9.5	9.5	9.0	9.0	11.0	10.0
16	13.5	12.5	12.0	12.0	11.5	11.5	9.5	9.5	9.0	8.5	11.0	10.5
17	13.5	12.5	12.0	12.0	11.5	11.5	9.5	9.5	9.0	8.5	12.0	11.0
18	13.5	12.5	12.0	12.0	11.5	11.5	10.0	9.5	9.0	9.0	12.0	11.0
19	13.5	12.5	12.0	11.5	11.5	11.5	10.0	9.5	8.5	8.5	11.0	10.5
20	14.0	12.5	11.5	11.5	11.5	11.5	9.5	9.0	8.5	8.5	10.5	10.0
21	13.5	13.5	11.5	11.5	11.5	11.5	9.5	9.0	8.5	8.5	11.0	10.5
22	13.5	12.0	11.5	11.5	11.5	11.5	9.5	9.0	8.5	8.5	11.0	10.0
23	12.5	11.5	11.5	11.5	11.0	11.0	9.5	9.0	8.5	8.5	10.5	10.0
24	12.5	11.5	11.5	11.5	11.0	11.0	9.0	8.5	8.5	8.5	10.5	10.0
25	12.5	12.0	12.0	11.5	11.0	11.0	9.0	8.5	8.5	8.5	10.5	9.5
26	13.0	12.0	12.0	11.0	11.0	10.5	9.0	8.5	9.0	8.5	10.5	10.0
27	12.5	11.5	11.5	11.5	10.5	10.0	9.0	8.5	9.5	9.5	10.0	9.0
28	12.5	11.5	11.5	11.0	10.0	10.0	9.0	8.5	9.5	9.5	10.5	10.0
29	12.5	11.5	11.5	11.0	10.0	10.0	9.0	8.5	9.5	9.0	10.5	10.5
30	13.0	12.0	11.5	11.0	10.0	10.0	9.5	9.0	---	---	10.5	10.5
31	12.5	11.5	---	---	10.0	10.0	9.5	9.0	---	---	10.5	10.5
MONTH	14.0	11.5	12.5	11.0	12.0	10.0	10.5	8.5	9.5	7.0	12.0	7.0

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

11378800 RED BANK CREEK NEAR RED BLUFF, CA

LOCATION.--Lat 40°05'25", long 122°24'45", in NE¼SE¼ sec.22, T.26 N., R.5 W., Tehama County, on road bridge near left bank 0.1 mi (0.2 km) downstream from unnamed tributary, 1.8 mi (2.9 km) southeast of town of Red Bank, and 11 mi (18 km) southwest of Red Bluff.

DRAINAGE AREA.--93.5 mi^2 (242.2 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 470 ft (143 m), from topographic map.

REMARKS.--Some small storage ponds and possibly some diversions for irrigation upstream.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--17 years, 46.8 ft^3/s (1.325 m^3/s), 33,910 acre-ft/yr (41.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,730 ft^3/s (276 m^3/s) Jan. 5, 1965, gage height, 10.06 ft (3.066 m); no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 396 ft^3/s (11.2 m^3/s) Apr. 10, gage height, 5.26 ft (1.603 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	10	.90	1.9				
2					0	10	.80	1.8				
3					0	11	.90	1.6				
4					0	16	.80	1.4				
5					0	12	.80	1.2				
6					0	9.4	.90	1.0				
7					0	7.8	1.2	1.0				
8					0	7.0	37	.80				
9					0	5.8	22	.70				
10					0	4.7	47	.60				
11					0	4.1	92	.40				
12					0	3.6	27	.20				
13					0	3.3	16	.10				
14					0	3.1	12	.10				
15					0	2.8	9.2	0				
16					.10	2.5	7.9	0				
17					0	2.4	6.2	0				
18					0	2.4	5.0	0				
19					0	1.9	4.5	0				
20					0	1.9	4.0	0				
21					0	1.9	3.6	0				
22					0	1.9	3.5	0				
23					0	1.7	3.1	0				
24					0	1.7	3.3	0				
25					.10	1.6	2.5	0				
26					1.3	1.5	2.4	0				
27					12	1.4	2.3	0				
28					8.4	1.3	2.2	0				
29					8.1	1.1	1.9	0				
30					---	1.0	2.0	0				
31		---			---	1.0	---	0	---			---
TOTAL	0	0	0	0	30.00	137.8	322.90	12.80	0	0	0	0
MEAN	0	0	0	0	1.03	4.45	10.8	.41	0	0	0	0
MAX	0	0	0	0	12	16	92	1.9	0	0	0	0
MIN	0	0	0	0	0	1.0	.80	0	0	0	0	0
AC-FT	0	0	0	0	60	273	640	25	0	0	0	0

CAL YR 1975	TOTAL	22916.90	MEAN 62.8	MAX 2120	MIN 0	AC-FT	45460	
WTR YR 1976	TOTAL	503.50	MEAN 1.38	MAX 92	MIN 0	AC-FT	999	

11379000 ANTELOPE CREEK NEAR RED BLUFF, CA

LOCATION.--Lat 40°12'14", long 122°07'02", in Rio De Los Berrendos Grant, Tehama County, on right bank 1.8 mi (2.9 km) upstream from diversion dam of Los Molinos Mutual Water Co., 6.5 mi (10.5 km) east of Red Bluff, and 9.7 mi (15.6 km) upstream from mouth.

DRAINAGE AREA.--123 mi^2 (319 km^2).

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1315-A: 1949(M). WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 360 ft (110 m), from topographic map. Prior to Sept. 18, 1954, at site 0.6 mi (1.0 km) downstream at different datum. Sept. 18, 1954, to July 9, 1969, at datum 2.00 ft (0.610 m) higher.

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

AVERAGE DISCHARGE.--36 years, 151 ft^3/s (4.276 m^3/s), 109,400 acre-ft/yr (135 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,200 ft^3/s (487 m^3/s) Jan. 23, 1970, gage height, 17.95 ft (5.471 m) from rating curve extended above 6,000 ft^3/s (170 m^3/s) on basis of slope-area measurement at gage height 15.96 ft (4.865 m), present datum; minimum, 8.2 ft^3/s (0.23 m^3/s) Oct. 27, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached a stage of about 22 ft (6.7 m) from floodmarks, at former site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 769 ft^3/s (21.8 m^3/s) Feb. 29, gage height, 6.84 ft (2.085 m), no peak above base of 2,200 ft^3/s (62.3 m^3/s); minimum daily, 31 ft^3/s (0.88 m^3/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	47	70	54	50	47	303	65	67	46	35	33	33
2	47	63	54	49	47	183	62	69	45	35	35	33
3	47	60	54	49	47	164	59	71	45	35	35	33
4	47	58	52	49	47	150	59	72	45	35	34	33
5	47	57	95	50	47	140	59	73	44	35	34	33
6	50	57	135	50	46	106	60	73	43	34	34	34
7	62	56	83	49	46	94	69	72	43	34	34	34
8	54	59	70	49	47	89	329	75	42	34	33	34
9	56	56	64	69	47	83	172	75	42	34	32	34
10	78	58	61	66	47	78	127	74	46	34	32	34
11	102	58	59	59	46	73	136	73	46	33	32	34
12	83	56	63	57	46	70	118	70	45	34	32	34
13	62	55	64	56	46	67	118	69	44	34	32	34
14	59	55	59	55	65	65	100	68	42	33	38	34
15	57	59	55	52	63	64	90	66	41	33	50	36
16	56	102	56	52	67	64	85	63	40	33	44	38
17	55	79	57	51	89	62	80	60	39	34	39	38
18	55	67	55	50	71	64	77	58	39	34	41	39
19	55	62	53	50	68	70	73	56	39	33	43	38
20	53	62	52	49	66	64	71	55	38	33	38	39
21	52	61	52	49	60	62	70	53	38	33	36	39
22	53	60	60	49	57	61	70	52	38	33	38	39
23	54	58	60	49	53	61	70	51	38	32	39	39
24	54	57	57	48	51	61	69	50	37	32	37	39
25	54	55	55	47	51	64	73	50	36	32	35	39
26	80	55	55	47	78	61	70	48	35	32	35	39
27	84	56	54	47	139	59	70	46	35	32	34	39
28	66	57	52	47	153	59	69	46	35	31	34	39
29	61	55	52	47	429	59	68	46	34	32	33	38
30	97	54	52	47	---	58	67	46	34	32	32	39
31	95	---	50	47	---	60	---	46	---	32	32	---
TOTAL	1922	1817	1894	1585	2166	2718	2705	1893	1214	1032	1110	1088
MEAN	62.0	60.6	61.1	51.1	74.7	87.7	90.2	61.1	40.5	33.3	35.8	36.3
MAX	102	102	135	69	429	303	329	75	46	35	50	39
MIN	47	54	50	47	46	58	59	46	34	31	32	33
AC-FT	3810	3600	3760	3140	4300	5390	5370	3750	2410	2050	2200	2160

CAL YR 1975 TOTAL 60411 MEAN 166 MAX 2030 MIN 46 AC-FT 119800
WTR YR 1976 TOTAL 21144 MEAN 57.8 MAX 429 MIN 31 AC-FT 41940

11379500 ELDER CREEK NEAR PASKENTA, CA

LOCATION.--Lat 40°01'29", long 122°30'31", in SE¼NW¼ sec.14, T.25 N., R.6 W., Tehama County, on left bank 2.5 mi (4.0 km) downstream from South Fork Elder Creek, 8.2 mi (13.2 km) northwest of Flournoy, and 10 mi (19 km) north of Paskenta.

DRAINAGE AREA.--92.9 mi^2 (241 km^2).

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

REVISED RECORDS.--WSP 1515: 1956. WSP 1931: Drainage area. WDR CA-70-2: 1967(P). WDR CA-75-4: 1966-67(P), 1969-71(P), 1973(P).

GAGE.--Water-stage recorder. Datum of gage is 718.1 ft (218.88 m) above mean sea level. Prior to Aug. 13, 1965, water-stage recorder at site 300 ft (91 m) downstream at datum 5.13 ft (1.564 m) lower.

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

AVERAGE DISCHARGE.--28 years, 101 ft^3/s (2.860 m^3/s), 73,170 acre-ft/yr (90.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft^3/s (331 m^3/s) Feb. 24, 1958, gage height, 13.90 ft (4.237 m) site and datum then in use, from rating curve extended above 3,500 ft^3/s (99.1 m^3/s) on basis of slope-area measurements at gage heights 10.97 ft (3.344 m) and 13.90 ft (4.237 m); no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 648 ft^3/s (18.4 m^3/s) Apr. 10, gage height, 3.84 ft (1.170 m), no peak above base of 1,200 ft^3/s (34.0 m^3/s); minimum daily, 0.32 ft^3/s (0.009 m^3/s) July 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	3.1	14	10	9.6	8.1	97	17	25	6.4	1.5	.43	.55
2	3.1	12	10	9.1	8.1	69	16	26	6.1	1.4	.55	.51
3	3.4	11	10	10	8.1	76	16	25	5.8	1.4	1.4	.53
4	3.4	9.9	11	10	7.6	64	16	24	5.8	1.5	1.2	.49
5	3.4	9.6	21	11	7.6	46	16	24	5.5	1.4	1.2	.46
6	3.6	9.6	27	10	7.2	36	17	23	5.3	1.2	1.6	.46
7	4.2	9.6	20	10	7.6	32	36	22	5.3	1.1	2.5	.44
8	4.3	9.9	16	11	8.1	31	200	20	5.2	1.0	2.2	.38
9	8.9	9.6	15	12	8.1	28	76	21	5.4	.88	1.9	.38
10	43	12	14	11	7.8	26	144	19	6.1	.82	1.4	.40
11	13	12	13	11	7.6	25	114	17	6.5	.78	1.2	.64
12	12	10	16	11	7.8	23	72	15	6.1	.83	1.9	.98
13	9.5	9.9	14	10	8.0	22	57	14	5.1	.71	1.2	.91
14	8.3	10	12	10	9.8	21	45	13	4.0	.63	8.0	.82
15	7.5	29	12	10	13	21	43	12	3.4	.55	4.5	.86
16	7.1	40	12	10	11	21	39	11	3.0	.49	2.6	1.8
17	7.0	21	11	10	14	25	35	11	2.7	1.3	2.3	2.8
18	7.1	16	11	9.6	11	28	34	11	2.6	1.8	3.6	2.1
19	6.5	14	11	9.1	13	26	34	10	2.4	1.3	4.3	1.7
20	6.1	14	11	9.1	12	23	36	9.6	2.3	.91	2.8	1.6
21	6.2	13	11	9.1	11	21	38	8.9	2.4	.75	2.2	1.5
22	6.2	12	14	9.1	10	20	37	8.5	2.7	.63	2.2	1.4
23	6.2	12	12	9.1	10	20	36	8.4	2.7	.46	2.1	1.3
24	6.5	11	12	9.1	10	20	35	8.3	2.0	.37	1.9	1.3
25	7.3	11	11	8.6	12	19	35	8.1	1.8	.32	1.7	1.3
26	26	11	11	8.6	144	18	31	7.1	1.5	.34	1.4	1.3
27	16	11	11	8.6	116	18	29	6.7	1.5	.40	1.1	1.4
28	11	10	11	8.6	87	17	27	6.2	1.4	.37	.95	3.0
29	10	10	11	8.6	116	17	25	6.4	1.2	.37	.82	2.8
30	32	10	11	8.1	---	16	24	6.8	1.3	.40	.69	2.2
31	21	---	10	8.1	---	17	---	6.7	---	.40	.64	---
TOTAL	312.9	394.1	402	299.1	701.5	943	1380	434.7	113.5	26.31	62.48	36.31
MEAN	10.1	13.1	13.0	9.65	24.2	30.4	46.0	14.0	3.78	.85	2.02	1.21
MAX	43	40	27	12	144	97	200	26	6.5	1.8	8.0	3.0
MIN	3.1	9.6	10	8.1	7.2	16	16	6.2	1.2	.32	.43	.38
AC-FT	621	782	797	593	1390	1870	2740	862	225	52	124	72

CAL YR 1975 TOTAL 44068.90 MEAN 121 MAX 3670 MIN 3.0 AC-FT 87410
WTR YR 1976 TOTAL 5105.90 MEAN 14.0 MAX 200 MIN .32 AC-FT 10130

11381500 MILL CREEK NEAR LOS MOLINOS, CA

LOCATION.--Lat 40°03'17", long 122°01'23", in NE¼NW¼ sec.6, T.25 N., R.1 W., Tehama County, on right bank 4.5 mi (7.2 km) northeast of Los Molinos, and 5.5 mi (8.8 km) upstream from mouth.

DRAINAGE AREA.--131 mi^2 (339 km^2).

PERIOD OF RECORD.--September 1909 to August 1913 (fragmentary), October 1928 to current year.

REVISED RECORDS.--WSP 1315-A: 1929(M). WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 385 ft (117 m), from topographic map. Prior to September 1913, nonrecording gage at site 0.3 mi (0.5 km) downstream at different datum.

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

AVERAGE DISCHARGE.--48 years (water years 1929-76), 304 ft^3/s (8.609 m^3/s), 220,200 acre-ft/yr (272 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD (water years 1929-76): Maximum discharge, 36,400 ft^3/s (1,030 m^3/s) Dec. 11, 1937, gage height, 23.4 ft (7.13 m) from floodmarks, from rating curve extended above 14,000 ft^3/s (396 m^3/s) on basis of step-backwater computation and slope-area measurement of peak flow; minimum, 49 ft^3/s (1.39 m^3/s) Dec. 13, 1932.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,810 ft^3/s (51.3 m^3/s) Feb. 29, gage height, 5.75 ft (1.753 m), no peak above base of 2,400 ft^3/s (68.0 m^3/s); minimum daily, 86 ft^3/s (2.44 m^3/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	118	178	143	142	120	755	186	249	175	111	94	90
2	118	167	150	139	120	472	177	273	170	110	102	89
3	118	160	151	137	120	379	176	277	167	110	100	88
4	117	156	149	137	122	323	175	285	164	110	97	88
5	117	153	259	138	119	281	186	289	161	108	97	87
6	121	151	277	140	116	253	189	291	159	108	96	87
7	142	184	213	139	119	234	198	280	156	108	99	87
8	128	197	190	138	119	225	429	308	153	107	97	86
9	131	165	179	167	122	216	297	309	154	107	95	87
10	229	164	173	153	117	213	273	311	157	105	93	87
11	256	159	167	145	114	213	274	317	157	105	92	92
12	190	153	181	140	115	198	257	300	151	105	93	98
13	157	151	174	139	117	195	256	305	142	105	95	93
14	148	151	164	137	148	193	226	324	136	103	114	91
15	145	180	156	137	144	198	218	298	134	102	170	122
16	143	372	156	135	148	201	207	276	134	102	131	120
17	142	238	156	136	172	213	194	270	132	101	111	98
18	141	198	151	137	162	228	194	250	132	101	110	93
19	140	179	151	135	165	222	189	238	130	102	113	91
20	139	175	148	132	157	201	199	225	129	100	104	90
21	136	172	148	128	147	198	209	216	131	99	100	88
22	143	165	155	128	142	198	208	208	128	99	103	88
23	138	162	154	127	133	198	215	206	124	97	106	88
24	132	159	151	127	129	198	225	208	120	97	100	88
25	133	156	151	125	130	210	254	202	118	97	97	87
26	310	156	148	125	264	193	231	198	116	97	96	87
27	252	156	148	125	490	187	218	197	115	95	95	88
28	187	156	148	125	709	184	210	187	114	92	93	91
29	168	149	152	125	1230	182	203	183	110	94	93	89
30	213	143	154	125	---	179	219	181	109	94	92	88
31	213	---	150	120	---	186	---	180	---	93	90	---
TOTAL	4965	5205	5147	4183	6010	7526	6692	7841	4178	3164	3168	2746
MEAN	160	174	166	135	207	243	223	253	139	102	102	91.5
MAX	310	372	277	167	1230	755	429	324	175	111	170	122
MIN	117	143	143	120	114	179	175	180	109	92	90	86
AC-FT	9850	10320	10210	8300	11920	14930	13270	15550	8290	6280	6280	5450

CAL YR 1975 TOTAL 124033 MEAN 340 MAX 2490 MIN 117 AC-FT 246000
WTR YR 1976 TOTAL 60825 MEAN 166 MAX 1230 MIN 86 AC-FT 120600

11382000 THOMES CREEK AT PASKENTA, CA

LOCATION.--Lat 39°53'16", long 122°31'41", in SE¼SW¼ sec.34, T.24 N., R.6 W., Tehama County, on left bank 1.2 mi (1.9 km) downstream from Digger Creek, and 1.0 mi (1.6 km) downstream from highway bridge at Paskenta.

DRAINAGE AREA.--194 mi^2 (502 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1920 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to 1943, published as Thomas Creek at Paskenta.

REVISED RECORDS.--WSP 1345: 1923, 1924-28(M), 1938, 1940(M). WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 720 ft (219 m), from topographic map. Prior to June 20, 1942, nonrecording gage and water-stage recorder at several sites about 1.5 mi (2.4 km) upstream at different datums, June 21, 1942, to Sept. 30, 1959, water-stage recorder at site 1.4 mi (2.3 km) upstream at datum 732.85 ft (223.373 m) and Oct. 1, 1959, to Oct. 9, 1974, at datum 731.10 ft (222.839 m) above mean sea level.

REMARKS.--Records good. No storage or large diversions above station.

AVERAGE DISCHARGE.--56 years, 289 ft^3/s (8.184 m^3/s), 209,400 acre-ft/yr (258 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,800 ft^3/s (1,070 m^3/s) Dec. 22, 1964, gage height, 11.4 ft (3.47 m) from floodmarks, present site and datum, from rating curve extended above 6,000 ft^3/s (170 m^3/s) on basis of slope-area measurement of peak flow; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,410 ft^3/s (68.3 m^3/s) Feb. 26 (1730 hrs), gage height, 5.63 ft (1.716 m), no other peak above base of 1,800 ft^3/s (51.0 m^3/s); minimum daily, 3.5 ft^3/s (0.099 m^3/s) Aug. 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	5.0	84	48	55	33	771	136	208	48	11	3.7	5.4
2	5.5	62	51	52	32	487	126	224	47	11	3.5	5.2
3	5.6	52	52	53	31	363	125	203	47	9.6	6.7	4.8
4	6.8	45	52	52	30	282	121	205	45	9.3	8.2	4.8
5	7.6	51	272	51	30	239	129	208	43	9.5	8.2	4.5
6	8.7	33	332	50	25	213	129	214	41	9.2	8.4	4.5
7	9.5	41	195	44	26	204	140	192	38	7.9	9.7	4.5
8	9.6	83	150	45	28	203	238	211	37	7.3	8.1	4.3
9	11	63	131	59	28	198	185	222	37	6.9	6.9	4.1
10	13	81	115	61	28	212	212	209	37	6.9	6.6	4.1
11	17	75	103	54	27	226	186	182	38	6.8	5.5	4.1
12	18	57	103	53	25	224	164	166	37	6.2	4.8	4.1
13	18	57	93	49	25	212	160	168	35	5.8	4.5	4.1
14	18	59	86	47	32	211	178	170	32	5.4	15	4.1
15	18	650	78	47	41	217	217	146	28	5.3	13	4.1
16	17	596	75	47	37	230	202	132	23	4.9	21	9.2
17	17	246	72	46	103	277	187	118	22	4.5	21	11
18	16	157	69	48	80	304	200	104	20	8.0	20	11
19	15	115	66	46	85	260	211	95	19	12	33	10
20	14	105	65	45	76	220	262	89	19	11	21	8.0
21	13	92	63	43	65	210	268	80	19	7.2	16	6.7
22	13	82	65	41	62	200	252	78	18	5.8	14	6.2
23	12	78	63	41	61	192	253	74	17	4.9	12	5.9
24	12	72	58	40	59	180	263	75	16	4.5	11	5.5
25	13	69	58	40	59	178	277	78	14	4.2	11	5.0
26	245	65	57	38	1150	164	236	70	13	4.0	9.5	5.0
27	129	62	62	36	1140	156	212	65	12	3.9	8.3	4.8
28	61	60	64	35	963	146	192	60	12	3.9	7.2	5.0
29	52	55	63	35	962	136	178	53	11	3.9	6.7	5.0
30	241	51	62	34	---	135	183	51	11	3.9	6.1	4.9
31	147	---	58	33	---	152	---	46	---	3.7	5.8	---
TOTAL	1188.3	3398	2881	1420	5343	7402	5822	4196	836	208.4	336.4	169.9
MEAN	38.3	113	92.9	45.8	184	239	194	135	27.9	6.72	10.9	5.66
MAX	245	650	332	61	1150	771	277	224	48	12	33	11
MIN	5.0	33	48	33	25	135	121	46	11	3.7	3.5	4.1
AC-FT	2360	6740	5710	2820	10600	14680	11550	8320	1660	413	667	337

CAL YR 1975 TOTAL 143925.5 MEAN 394 MAX 4610 MIN 4.4 AC-FT 285500
WTR YR 1976 TOTAL 33201.0 MEAN 90.7 MAX 1150 MIN 3.5 AC-FT 65850

11382000 THOMES CREEK AT PASKENTA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958 to current year.
CHEMICAL ANALYSES: Water years 1959 to current year.
WATER TEMPERATURES: Water years 1962 to current year.
SEDIMENT RECORDS: Water years 1963-73.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1961 to current year.
SEDIMENT RECORDS: October 1962 to September 1973.

INSTRUMENTATION.--Temperature recorder since October 1961.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 36.5°C Aug. 2, 4, 1974; minimum, 0.0°C on several days during most years.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 33.5°C July 26, 27; minimum, 3.5°C on several days during November to February.

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)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT									
20...	0820	14	394	8.0	16.0	0	9.9	--	--
NOV									
18...	1000	160	151	8.4	4.0	4	12.1	--	--
DEC									
08...	1030	150	158	7.8	8.0	5	11.1	--	--
JAN									
15...	1000	47	220	8.1	6.0	1	13.0	--	--
FEB									
10...	0945	28	272	8.3	6.5	1	12.4	--	--
MAR									
09...	0930	198	165	8.2	8.0	8	11.8	--	--
APR									
15...	1100	230	174	7.8	12.0	6	10.6	--	--
MAY									
24...	0915	66	173	8.0	18.0	1	9.5	--	--
JUN									
18...	0845	19	252	8.1	24.0	0	9.0	109	17
JUL									
26...	0830	4.0	321	8.0	29.0	0	8.8	--	--
AUG									
19...	0945	34	323	8.0	21.5	2	10.3	--	--
SEP									
17...	0830	10	--	8.2	19.0	--	9.8	--	--

DATE	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)
OCT									
20...	--	--	--	--	--	--	--	--	--
NOV									
18...	--	--	--	--	--	--	--	--	--
DEC									
08...	--	--	--	--	--	--	--	--	--
JAN									
15...	--	--	--	--	--	--	--	--	--
FEB									
10...	--	--	--	--	--	--	--	--	--
MAR									
09...	--	--	--	--	--	--	--	--	--
APR									
15...	--	--	--	--	--	--	--	--	--
MAY									
24...	--	--	--	--	--	--	--	--	--
JUN									
18...	7.2	.3	112	0	92	8.0	.00	.01	100
JUL									
26...	--	--	--	--	--	--	--	--	--
AUG									
19...	--	--	--	--	--	--	--	--	--
SEP									
17...	--	--	--	--	--	--	--	--	--

11382000 THOMES CREEK AT PASKENTA, CA--Continued

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	27.0	19.5	13.5	9.0	8.0	5.0	5.0	3.5	10.5	7.0	---	---
2	24.5	19.5	14.0	9.0	7.5	5.0	4.5	3.5	11.5	7.0	---	---
3	24.5	18.0	15.5	10.5	7.5	5.0	5.5	4.0	11.0	7.0	---	---
4	25.0	17.5	15.5	11.0	6.0	5.5	5.5	4.0	8.5	6.0	---	---
5	25.0	17.5	13.5	11.0	7.0	6.0	6.5	5.0	6.5	4.0	---	---
6	20.5	16.5	14.0	11.0	8.5	6.0	6.0	4.5	6.0	3.5	---	---
7	21.5	14.5	13.5	11.5	8.5	6.0	6.5	4.5	8.0	5.0	---	---
8	18.0	14.5	11.5	9.0	8.5	6.0	6.0	5.0	9.0	6.5	---	---
9	16.0	14.0	9.0	7.5	8.0	5.5	7.0	5.5	10.5	6.5	---	---
10	18.5	14.0	10.0	8.0	7.5	5.0	6.5	5.0	10.5	6.0	12.0	7.5
11	17.0	14.5	9.5	7.0	6.5	5.5	6.0	5.0	10.5	5.5	11.5	7.5
12	18.0	13.5	10.0	7.0	7.0	5.5	7.5	6.0	12.0	7.0	11.5	6.5
13	19.0	13.5	10.0	7.0	6.0	4.5	7.5	5.5	9.0	7.5	12.0	7.0
14	20.0	14.0	9.5	7.5	5.0	3.5	7.5	5.0	9.5	7.5	13.5	7.5
15	20.5	14.5	9.0	8.5	5.5	3.5	8.5	5.5	---	---	13.0	8.0
16	21.0	14.5	9.5	7.0	7.5	4.0	9.0	6.0	---	---	13.0	9.5
17	19.0	14.5	7.5	5.5	6.5	4.5	9.0	6.0	---	---	14.5	10.0
18	20.5	15.5	6.5	4.5	6.5	4.0	9.5	6.0	---	---	13.0	8.5
19	20.5	14.5	6.5	4.0	6.5	4.5	8.5	5.0	---	---	11.5	8.0
20	21.5	15.5	7.5	5.5	6.0	4.0	8.0	5.0	---	---	13.0	7.5
21	21.5	15.5	7.5	5.0	5.5	4.5	8.0	5.0	---	---	14.0	8.0
22	18.0	13.0	7.0	5.0	6.5	5.0	8.0	5.0	---	---	14.0	9.0
23	16.0	11.5	8.0	5.0	7.5	5.0	7.5	5.5	---	---	13.0	8.5
24	16.0	11.0	9.0	5.0	7.0	5.0	8.5	5.5	---	---	13.0	9.5
25	15.0	12.5	8.5	6.5	7.0	5.0	8.0	5.0	---	---	13.5	8.0
26	13.5	10.0	8.5	5.5	8.0	6.0	7.5	5.0	---	---	14.0	8.5
27	13.0	9.5	7.0	5.0	8.0	6.0	7.5	5.0	---	---	12.5	8.0
28	14.0	9.5	6.0	4.0	9.0	6.0	8.5	5.0	---	---	15.0	9.0
29	13.0	9.5	5.5	3.5	9.0	6.5	8.5	5.5	---	---	16.0	9.5
30	12.0	10.0	6.0	4.5	7.5	5.5	10.0	6.0	---	---	17.0	10.5
31	12.5	8.5	---	---	5.5	4.0	10.5	6.5	---	---	15.0	11.5
MONTH	27.0	8.5	15.5	3.5	9.0	3.5	10.5	3.5	---	---	---	---

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.5	9.5	19.5	12.5	23.5	16.0	27.5	18.0	31.0	22.5	32.0	22.0
2	15.5	9.0	17.5	11.5	24.5	16.5	28.0	19.0	31.0	22.5	32.0	22.5
3	14.0	9.5	19.5	11.5	25.0	17.0	27.5	20.0	28.0	21.5	31.5	22.0
4	16.5	9.5	19.0	13.0	25.5	17.0	29.5	20.5	29.0	21.5	31.0	22.0
5	13.0	11.0	19.5	13.5	25.5	18.0	30.5	21.5	28.0	21.0	29.5	22.5
6	12.5	10.5	18.5	12.5	25.5	18.0	30.0	22.0	25.5	20.0	28.5	21.0
7	11.5	11.0	21.0	13.5	25.0	18.0	29.5	21.5	28.5	20.0	27.0	18.5
8	13.0	10.5	21.0	14.5	25.0	17.0	31.0	22.0	29.0	20.5	29.0	19.0
9	12.0	9.5	21.5	14.5	22.0	19.0	31.0	22.5	30.0	21.5	30.0	19.5
10	11.0	9.0	21.0	14.5	23.0	17.0	31.5	23.0	30.5	22.0	28.0	20.0
11	11.0	8.0	20.0	13.5	24.0	17.0	29.0	22.5	30.5	22.5	22.0	20.0
12	11.5	8.0	22.5	14.0	26.5	19.0	30.0	21.0	31.0	22.0	26.0	19.5
13	13.5	7.5	23.5	15.5	25.0	19.0	31.0	21.5	25.0	21.5	28.5	18.5
14	15.5	8.5	22.0	16.0	25.5	17.0	31.5	22.5	22.5	19.5	28.0	19.5
15	14.0	10.0	22.5	14.5	27.5	19.5	32.0	22.5	24.0	17.5	25.0	18.0
16	13.5	8.0	23.0	15.0	28.0	20.5	31.5	23.5	23.5	17.5	20.5	19.0
17	14.0	8.5	22.5	14.5	29.5	20.5	31.5	23.0	21.0	18.0	25.5	17.5
18	15.5	9.0	22.5	15.0	29.5	21.5	31.0	23.0	21.0	18.0	26.0	18.5
19	16.5	10.0	23.0	15.0	29.5	21.0	31.0	23.0	26.0	17.5	27.0	19.0
20	17.0	11.0	22.0	14.5	28.5	21.0	31.0	23.5	29.0	19.5	26.0	18.0
21	14.5	11.0	23.5	15.0	28.5	20.0	31.5	23.0	29.5	21.5	26.0	17.5
22	16.5	10.5	23.5	16.0	28.0	20.5	31.5	22.5	27.0	22.0	26.5	18.0
23	16.5	11.0	23.5	16.0	27.0	19.5	31.0	23.5	29.5	20.0	26.0	17.5
24	17.5	11.5	24.0	17.0	28.5	19.5	32.5	23.0	30.0	21.0	26.5	17.5
25	14.5	9.5	23.5	17.0	28.5	21.0	33.0	24.0	29.0	21.0	26.5	18.0
26	15.0	9.0	26.0	17.5	29.0	20.5	33.5	24.0	28.0	19.5	26.0	17.5
27	16.0	9.5	25.0	19.0	30.5	20.5	33.5	25.0	28.5	19.5	21.5	19.0
28	16.5	9.5	23.0	15.5	30.5	22.0	29.5	24.5	30.0	20.5	24.0	19.0
29	17.5	9.5	21.5	16.0	28.0	20.5	32.0	24.0	30.5	21.0	26.5	18.0
30	18.5	11.5	21.5	16.5	27.5	18.5	31.5	23.0	31.0	21.0	26.5	19.0
31	---	---	23.5	16.5	---	---	29.5	22.5	31.5	21.0	---	---
MONTH	18.5	7.5	26.0	11.5	30.5	16.0	33.5	18.0	31.5	17.5	32.0	17.5

11383500 DEER CREEK NEAR VINA, CA

LOCATION.--Lat 40°00'51", long 121°56'50", in NW¼NE¼ sec.23, T.25 N., R.1 W., Tehama County, on left bank 0.5 mi (0.8 km) upstream from diversion dam, and 7.9 mi (12.7 km) northeast of Vina.

DRAINAGE AREA.--208 mi^2 (539 km^2).

PERIOD OF RECORD.--October 1911 to December 1915, March 1920 to December 1937, January 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1315-A: 1940-42(M). WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 479.5 ft (146.15 m) above mean sea level (river-profile survey). Prior to Oct. 9, 1928, nonrecording gage at site 0.8 mi (1.3 km) downstream at different datum. Oct. 9, 1928, to Jan. 19, 1939, water-stage recorder at present site at datum 2.64 ft (0.805 m) higher.

REMARKS.--Records good except those for period of no gage-height record, which are fair. No storage or large diversions above station.

AVERAGE DISCHARGE.--58 years, 318 ft^3/s (9.006 m^3/s), 230,400 acre-ft/yr (284 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,800 ft^3/s (674 m^3/s) Dec. 10, 1937, gage height, 19.2 ft (5.85 m) present datum, from floodmarks, from rating curve extended above 9,200 ft^3/s (261 m^3/s) on basis of velocity-area studies; minimum, 43 ft^3/s (1.22 m^3/s) Dec. 13, 1932.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,640 ft^3/s (46.4 m^3/s) Feb. 29, gage height, 5.61 ft (1.710 m), no peak above base of 2,500 ft^3/s (70.8 m^3/s); minimum daily, 82 ft^3/s (2.32 m^3/s) on several days during 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	115	162	135	128	114	756	179	163	108	88	84	83
2	115	150	139	125	114	472	167	165	106	87	100	83
3	115	143	142	122	114	358	163	165	105	90	93	83
4	115	139	138	121	114	305	162	160	104	90	87	83
5	115	136	248	120	112	268	165	160	103	88	86	83
6	120	137	269	122	105	244	167	160	102	88	87	83
7	148	144	212	121	110	230	183	152	102	88	88	82
8	128	167	175	121	114	225	397	152	101	88	86	82
9	128	144	162	145	120	222	304	158	105	87	85	82
10	252	148	157	133	116	217	264	154	108	87	84	82
11	233	144	152	126	112	213	280	146	110	87	83	86
12	171	140	162	126	112	198	249	141	105	87	83	90
13	147	138	159	124	116	190	235	139	101	87	83	87
14	136	138	148	122	142	188	211	135	99	87	97	86
15	131	152	142	122	137	190	206	131	98	87	131	119
16	129	320	140	124	132	192	202	125	97	87	114	117
17	127	238	140	127	155	200	187	125	96	85	97	95
18	127	188	138	124	157	211	185	122	95	85	97	91
19	125	169	135	123	163	205	185	122	93	85	100	90
20	123	158	132	120	149	188	179	119	93	85	94	88
21	124	150	132	119	139	182	179	118	95	85	90	88
22	130	147	135	118	134	181	179	117	92	85	93	87
23	134	144	136	118	131	180	179	115	92	84	96	87
24	126	141	135	119	129	183	177	114	91	83	91	87
25	127	140	134	116	127	200	179	113	91	83	89	87
26	251	141	132	114	181	183	175	110	91	83	88	87
27	241	142	131	114	415	176	171	108	91	83	87	87
28	170	142	132	114	617	172	167	108	90	82	85	90
29	151	138	135	116	1150	170	163	108	90	84	85	89
30	182	132	138	115	---	166	163	108	90	83	82	88
31	201	---	135	114	---	171	---	110	---	83	83	---
TOTAL	4637	4672	4700	3773	5531	7236	6002	4123	2944	2661	2828	2652
MEAN	150	156	152	122	191	233	200	133	98.1	85.8	91.2	88.4
MAX	252	320	269	145	1150	756	397	165	110	90	131	119
MIN	115	132	131	114	105	166	162	108	90	82	82	82
AC-FT	9200	9270	9320	7480	10970	14350	11900	8180	5840	5280	5610	5260

CAL YR 1975 TOTAL 137089 MEAN 376 MAX 2880 MIN 115 AC-FT 271900
WTR YR 1976 TOTAL 51759 MEAN 141 MAX 1150 MIN 82 AC-FT 102700

NOTE.--No gage-height record Nov. 12 to Jan. 7.

11384000 BIG CHICO CREEK NEAR CHICO, CA

LOCATION.--Lat 39°46'35", long 121°45'10", in Arroyo Chico Grant, Butte County, on right bank 1.8 mi (2.9 km) upstream from golf clubhouse in Bidwell Park, 2.6 mi (4.2 km) upstream from Lindo Channel, and 7 mi (11 km) northeast of Chico.

DRAINAGE AREA.--72.4 mi^2 (187.5 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1930 to current year. Prior to October 1952, published as Chico Creek near Chico.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 300 ft (91 m), from topographic map. Prior to Oct. 1, 1955, at site 0.6 mi (1.0 km) downstream at different datum.

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

AVERAGE DISCHARGE.--46 years, 146 ft^3/s (4.135 m^3/s), 105,800 acre-ft/yr (130 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,580 ft^3/s (271 m^3/s) Jan. 5, 1965, gage height, 15.36 ft (4.682 m); minimum, 10 ft^3/s (0.28 m^3/s) Dec. 11, 1932, Aug. 15, 1939, Sept. 18, 1947.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 812 ft^3/s (23.0 m^3/s) Feb. 29, gage height, 4.48 ft (1.366 m), no peak above base of 1,600 ft^3/s (45.3 m^3/s); minimum daily, 17 ft^3/s (0.48 m^3/s) July 27, 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	27	51	41	33	32	376	36	34	23	23	21	21
2	24	48	36	33	33	216	38	34	22	24	20	21
3	24	45	42	33	32	143	36	31	24	24	20	22
4	27	44	53	32	32	116	37	28	25	24	21	23
5	29	42	119	31	28	97	35	31	25	22	22	23
6	28	41	103	32	27	88	35	31	25	21	22	23
7	41	44	71	33	27	83	41	31	25	20	24	24
8	34	54	55	32	27	80	142	31	26	20	24	24
9	38	46	42	49	30	76	134	30	25	20	24	22
10	84	41	39	41	30	70	116	30	26	19	23	22
11	69	39	39	37	30	64	136	30	26	20	22	23
12	45	37	47	35	30	58	124	29	27	21	26	22
13	37	37	43	34	32	53	114	28	26	21	28	23
14	33	37	39	34	44	49	97	27	25	20	31	23
15	32	53	36	35	45	47	83	26	25	20	46	23
16	32	122	38	33	57	45	75	25	24	21	38	23
17	31	79	36	33	87	43	66	25	25	23	27	22
18	33	59	32	31	67	42	60	25	25	22	29	22
19	31	47	34	31	59	45	54	25	23	20	31	22
20	34	43	34	31	55	40	50	26	23	21	30	23
21	27	40	33	31	55	40	46	25	25	21	29	23
22	29	41	40	32	54	39	45	23	25	21	29	22
23	27	42	38	32	52	39	43	22	25	21	28	22
24	29	44	35	33	48	39	40	23	25	20	25	22
25	32	40	32	32	50	42	37	23	24	20	24	22
26	55	35	33	30	71	39	36	26	24	20	22	23
27	64	31	34	30	142	38	35	26	23	17	23	22
28	47	37	34	30	134	38	35	26	24	18	24	22
29	45	37	34	29	367	37	32	25	22	19	23	22
30	76	36	33	31	---	36	33	26	22	17	22	22
31	66	---	34	31	---	35	---	25	---	20	22	---
TOTAL	1230	1392	1359	1024	1777	2253	1891	847	734	640	800	673
MEAN	39.7	46.4	43.8	33.0	61.3	72.7	63.0	27.3	24.5	20.6	25.8	22.4
MAX	84	122	119	49	367	376	142	34	27	24	46	24
MIN	24	31	32	29	27	35	32	22	22	17	20	21
AC-FT	2440	2760	2700	2030	3520	4470	3750	1680	1460	1270	1590	1330

CAL YR 1975 TOTAL 57840 MEAN 158 MAX 2650 MIN 23 AC-FT 114700
WTR YR 1976 TOTAL 14620 MEAN 39.9 MAX 376 MIN 17 AC-FT 29000

11384000 BIG CHICO CREEK NEAR CHICO, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSES: Water years 1953-69, 1975 to current year.

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

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)
NOV 17...	1325	77	148	7.7	6.0	2	12.6
JAN 16...	1150	33	208	7.9	8.0	0	11.9
MAR 10...	1100	71	155	7.6	9.0	1	15.5
MAY 25...	0945	23	216	8.0	19.0	0	9.9
JUL 21...	1230	20	230	8.2	26.0	0	9.8
SEP 17...	1200	22	--	8.4	19.5	--	10.1

DATE	TIME	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)
JAN 16...	1150	77	0	13	.6	106	0	87	11	--
MAY 25...	0945	77	0	17	.8	110	0	90	12	.02

DATE	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO, PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)
JAN 16...	--	--	--	100	--	--	--	--	--	--
MAY 25...	.20	.03	.00	200	0	0	50	0	10	0

11384600 LITTLE STONY CREEK ABOVE EAST PARK RESERVOIR, NEAR LODOGA, CA

LOCATION.--Lat 39°17'48", long 122°32'22", in NE¼SW¼ sec.28, T.17 N., R.6 W., Colusa County, on left bank 1.1 mi (1.8 km) upstream from county bridge on Lodoga-Stonyford Road, 1.4 mi (2.3 km) downstream from Frenzel Creek, and 2.8 mi (4.5 km) southwest of Lodoga.

DRAINAGE AREA.--45.6 mi^2 (118.1 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 1,300 ft (396 m), from topographic map.

REMARKS.--Records good. No known storage or diversions above station.

AVERAGE DISCHARGE.--10 years, 62.3 ft^3/s (1.764 m^3/s), 45,140 acre-ft/yr (55.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft^3/s (113 m^3/s) Jan. 23, 1970, gage height, 11.39 ft (3.472 m), from rating curve extended above 1,500 ft^3/s (42.5 m^3/s); no flow at times in 1972 and 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 97 ft^3/s (2.75 m^3/s) Feb. 29, gage height, 3.77 ft (1.149 m), no peak above base of 1,000 ft^3/s (28.3 m^3/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	.47	4.3	4.0	4.7	3.6	45	8.8	12	3.7	.64	0	0
2	.50	3.7	4.0	4.5	3.6	32	8.6	12	3.5	.78	0	0
3	.49	3.5	4.0	4.7	3.6	25	8.5	11	3.4	.87	0	0
4	.48	3.3	4.2	4.7	3.5	22	8.4	11	3.3	.72	0	0
5	.52	3.2	7.6	4.8	3.5	20	8.2	11	3.1	.55	0	0
6	.56	3.1	8.1	4.7	3.5	19	8.4	10	3.0	.45	0	0
7	.66	3.2	6.3	4.7	3.6	18	13	10	2.9	.29	0	0
8	.91	3.3	5.6	4.7	3.7	18	38	9.6	2.8	.18	0	0
9	3.9	3.3	5.2	5.4	3.7	18	21	9.5	3.2	.10	0	0
10	12	5.2	4.9	5.1	3.5	17	22	8.9	4.8	.07	0	0
11	5.1	4.7	5.1	4.9	3.4	16	22	8.4	5.6	.04	0	0
12	5.1	4.0	5.7	4.9	3.4	15	22	8.0	4.0	0	0	0
13	3.5	3.8	5.2	4.8	3.5	15	33	7.5	3.3	0	0	0
14	2.9	3.8	4.8	4.7	4.1	14	26	7.1	2.6	0	0	0
15	2.6	10	4.7	4.7	5.2	14	23	6.9	2.3	0	0	0
16	2.4	13	4.7	4.7	5.0	14	21	6.6	2.0	0	0	0
17	2.4	7.0	4.7	4.5	6.0	13	19	6.4	1.8	0	0	0
18	2.3	5.4	4.5	4.4	5.1	14	19	6.4	1.7	0	.24	0
19	2.1	4.8	4.4	4.4	9.6	13	18	6.3	1.4	0	1.2	0
20	2.0	5.0	4.4	4.1	8.2	12	18	5.8	1.4	0	.94	0
21	2.0	4.7	4.8	4.0	6.4	12	18	5.4	1.4	0	.51	0
22	1.9	4.4	8.7	4.0	5.8	11	17	5.3	1.6	0	.53	.05
23	2.1	4.2	6.4	4.0	5.4	11	16	5.0	1.2	0	.73	.04
24	2.2	4.1	5.7	4.0	5.1	11	15	5.0	.90	0	.67	0
25	2.6	4.0	5.3	3.8	6.6	11	15	4.7	.90	0	.43	0
26	6.1	4.0	5.1	3.8	29	10	14	4.4	.80	0	.23	0
27	4.9	4.2	5.0	3.8	37	10	14	4.0	.70	0	.06	0
28	3.7	4.1	5.1	3.7	28	9.8	14	3.9	.58	0	0	.09
29	3.5	4.0	5.0	3.8	51	9.4	13	4.0	.46	0	0	.51
30	7.9	4.0	4.9	3.7	---	9.1	13	4.0	.48	0	0	.57
31	5.8	---	4.9	3.6	---	9.1	---	3.8	---	0	0	---
TOTAL	93.59	139.3	163.0	136.3	263.6	487.4	514.9	223.9	68.82	4.69	5.54	1.26
MEAN	3.02	4.64	5.26	4.40	9.09	15.7	17.2	7.22	2.29	.15	.18	.042
MAX	12	13	8.7	5.4	51	45	38	12	5.6	.87	1.2	.57
MIN	.47	3.1	4.0	3.6	3.4	9.1	8.2	3.8	.46	0	0	0
AC-FT	186	276	323	270	523	967	1020	444	137	9.3	11	2.5

CAL YR 1975	TOTAL	19813.65	MEAN 54.3	MAX 854	MIN .45	AC-FT	39300	
WTR YR 1976	TOTAL	2102.30	MEAN 5.74	MAX 51	MIN 0	AC-FT	4170	

11384600 LITTLE STONY CREEK ABOVE EAST PARK RESERVOIR, NEAR LODOGA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1967 to current year.

INSTRUMENTATION.--Temperature recorder since May 1967.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 33.5°C July 15, 1972; minimum, 0.0°C Dec. 21-23, 1968, Jan. 28 to Feb. 1, 1975.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 29.5°C July 15; minimum, 0.5°C Jan. 2.

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	20.5	17.0	11.5	8.5	7.0	4.5	2.5	1.0	9.0	6.0	8.5	5.5
2	19.5	16.5	12.0	9.0	7.5	6.0	1.5	0.5	9.5	6.5	6.5	3.0
3	20.0	16.0	13.0	10.0	7.0	5.5	3.0	1.0	9.5	6.0	8.5	3.5
4	19.5	15.5	12.5	10.0	7.5	5.0	4.0	1.0	7.5	5.5	8.0	4.0
5	19.0	15.0	12.0	9.5	9.0	7.5	6.0	4.0	6.0	3.0	8.5	3.5
6	18.5	16.5	11.0	9.0	8.5	7.5	4.5	2.5	5.0	2.5	9.5	4.5
7	16.5	13.5	13.0	11.0	8.0	6.5	5.0	3.0	7.0	3.0	10.0	5.0
8	15.5	12.5	12.0	9.0	7.5	6.0	6.5	3.0	8.0	5.5	12.0	8.5
9	15.0	13.0	9.0	6.0	7.0	6.0	6.5	5.5	9.0	6.0	12.0	7.0
10	15.5	12.5	9.0	7.5	7.0	6.0	6.0	4.0	8.0	4.5	12.5	7.5
11	15.0	13.0	8.5	6.0	6.5	5.0	6.5	4.5	8.0	3.5	12.5	8.5
12	14.5	11.5	7.5	5.0	7.0	5.5	6.0	5.0	9.5	5.5	12.0	7.0
13	15.0	11.5	8.0	5.5	5.5	3.5	5.5	4.5	9.0	6.5	11.5	7.0
14	16.0	12.0	8.5	6.5	3.5	2.0	6.5	4.5	8.5	6.0	13.0	8.0
15	16.5	12.5	11.5	8.5	3.5	1.5	7.0	5.0	9.5	6.5	13.5	8.5
16	16.5	12.5	11.0	8.5	5.0	3.0	7.5	5.5	10.0	8.0	14.5	10.5
17	16.0	12.5	8.5	5.5	5.0	3.5	7.5	5.5	11.0	9.0	16.0	11.0
18	17.0	14.0	6.0	3.5	4.5	3.0	7.0	5.0	10.5	7.0	14.0	10.5
19	16.5	12.0	6.0	3.5	4.5	3.0	6.5	4.0	10.0	7.5	12.5	7.5
20	17.0	12.5	7.0	5.5	4.0	2.5	6.0	3.5	9.5	5.5	13.0	7.5
21	16.0	12.5	6.0	4.0	5.0	2.5	6.5	3.5	9.0	5.0	14.0	7.5
22	15.0	11.0	6.5	4.0	6.0	5.0	6.0	4.0	9.5	6.5	14.5	9.0
23	12.0	9.0	7.0	4.5	6.5	5.0	7.0	4.5	10.0	7.0	12.5	8.5
24	12.0	8.5	7.0	5.0	5.5	4.0	6.0	4.0	10.0	5.5	13.5	9.5
25	12.0	10.0	8.0	6.5	6.0	4.0	5.5	2.5	10.0	8.5	13.0	7.0
26	13.0	11.0	8.0	6.0	6.5	5.0	6.0	2.5	12.0	9.0	12.5	7.5
27	11.0	9.0	8.0	5.5	7.0	6.0	6.0	3.0	12.0	9.5	10.5	6.0
28	11.0	8.0	6.5	3.0	7.0	5.0	6.5	3.0	12.0	10.0	14.5	8.0
29	11.0	7.0	4.5	1.5	7.5	6.0	7.0	4.0	11.0	8.0	15.0	8.5
30	12.5	10.5	6.0	3.5	7.0	3.5	8.0	5.0	---	---	16.0	9.0
31	11.5	8.5	---	---	3.5	1.5	8.5	5.5	---	---	15.5	10.5
MONTH	20.5	7.0	13.0	1.5	9.0	1.5	8.5	0.5	12.0	2.5	16.0	3.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.5	7.5	21.0	14.0	22.5	14.0	25.0	17.0	---	---	---	---
2	14.5	6.5	20.5	13.5	22.5	14.0	26.0	18.0	---	---	---	---
3	11.0	8.0	21.5	13.5	24.0	15.0	26.5	19.0	---	---	---	---
4	15.5	7.5	21.5	15.5	24.0	15.0	27.5	20.0	---	---	---	---
5	12.5	11.0	22.5	16.0	24.5	16.0	27.5	19.5	---	---	---	---
6	13.0	10.0	20.5	15.0	24.0	16.0	28.0	21.5	---	---	---	---
7	11.5	10.0	22.5	15.0	23.5	16.0	27.0	20.5	---	---	---	---
8	12.0	9.0	23.0	16.0	23.5	15.5	28.5	21.5	---	---	---	---
9	12.5	7.5	24.0	17.0	20.5	18.0	28.0	21.5	---	---	---	---
10	11.5	9.5	23.0	16.0	20.0	16.0	28.0	22.5	---	---	---	---
11	9.5	7.0	22.5	15.0	22.0	14.5	27.5	22.5	---	---	---	---
12	10.5	6.5	24.0	16.0	24.5	17.0	28.0	21.5	---	---	---	---
13	12.0	6.5	25.0	16.5	24.5	17.0	28.5	21.5	---	---	---	---
14	15.0	8.0	24.0	17.0	25.5	17.0	28.5	21.5	---	---	---	---
15	15.0	10.5	24.5	16.0	26.5	17.0	29.5	22.5	---	---	---	---
16	13.5	7.5	24.0	15.5	27.5	19.0	---	---	---	---	---	---
17	13.0	8.5	23.0	13.5	28.0	18.5	---	---	---	---	---	---
18	16.0	9.5	23.0	15.0	28.5	20.0	---	---	---	---	---	---
19	17.5	10.5	23.0	15.0	27.5	18.5	---	---	23.0	17.0	---	---
20	18.5	12.0	22.5	14.5	27.0	19.5	---	---	24.5	18.5	22.0	18.5
21	16.0	12.0	23.0	14.5	26.5	20.0	---	---	24.5	20.0	21.5	18.0
22	18.5	12.0	22.5	14.5	26.5	18.0	---	---	22.5	21.0	21.5	18.0
23	18.5	13.0	23.5	15.0	26.0	19.0	---	---	24.5	19.0	21.5	17.5
24	18.5	14.0	22.5	16.0	27.5	20.0	---	---	25.0	20.0	22.0	17.5
25	16.5	11.0	23.5	15.5	27.5	19.5	---	---	24.5	19.5	22.0	17.5
26	16.0	10.0	25.0	15.5	27.0	19.0	---	---	23.5	19.0	21.5	17.5
27	15.5	10.5	24.5	16.5	27.5	19.0	---	---	24.0	18.5	19.5	18.0
28	15.5	10.5	22.5	13.5	28.0	20.0	---	---	24.5	19.0	19.5	18.5
29	19.0	11.0	20.5	14.5	26.5	19.5	---	---	26.0	19.0	20.5	17.5
30	20.0	13.0	21.0	15.5	25.5	17.5	---	---	---	---	21.5	18.5
31	---	---	22.5	15.0	---	---	---	---	---	---	---	---
MONTH	20.0	6.5	25.0	13.5	28.5	14.0	---	---	---	---	---	---

RESERVOIRS IN STONY CREEK BASIN, CA

11385100 EAST PARK RESERVOIR NEAR STONYFORD.--Lat 39°21'24", long 122°30'53", in SW¼NE¼ sec.3, T.17 N., R.6 W., Colusa County, near south side of spillway section on East Park Dam on Little Stony Creek, 1.9 mi (3.1 km) southeast of Stonyford. DRAINAGE AREA, 98.2 mi^2 (254.3 km^2). PERIOD OF RECORD, October 1969 to current year. GAGE, nonrecording gage read once daily. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Reservoir is formed by a concrete arch-type dam. Storage began in 1910. Capacity, 48,211 acre-ft (59.4 hm^3) between elevations 1,131.68 ft (344.936 m), invert of sluice pipe and 1,198.18 ft (365.205 m), crest of spillway. Capacity increased to 50,889 acre-ft (62.7 hm^3) with the addition of flashboards to an elevation of 1,199.68 ft (365.662 m). Dead storage, 279 acre-ft (344,000 m^3). Records of contents furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 53,500 acre-ft (66.0 hm^3) Mar. 30, 1974, elevation, 1,201.10 ft (366.095 m); minimum, 280 acre-ft (345,000 m^3) Aug. 8 to Oct. 31, 1972, elevation, 1,131.68 ft (344.936 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 14,990 acre-ft (18.5 hm^3) Apr. 2, elevation, 1,172.30 ft (357.317 m); minimum, 1,100 acre-ft (1.36 hm^3) Oct. 8, 9, elevation, 1,140.91 ft (347.749 m).

11386100 STONY GORGE RESERVOIR NEAR ELK CREEK.--Lat 39°35'09", long 122°31'54", in NE¼SE¼ sec.16, T.20 N., R.6 W., Glenn County, on south end of Stony Gorge Dam on Stony Creek, 1.3 mi (2.1 km) southeast of Elk Creek. DRAINAGE AREA, 301 mi^2 (780 km^2). PERIOD OF RECORD, October 1969 to current year. GAGE, nonrecording gage read once daily. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Reservoir is formed by slab and buttress-type dam. Storage began in 1928. Capacity, 50,383 acre-ft (62.1 hm^3) between elevations, 728.0 ft (221.89 m), top of low intake and 841.0 ft (256.34 m), crest of spillway. No dead storage. Records of contents furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 54,630 acre-ft (67.4 hm^3) Mar. 26, 1971, elevation, 844.20 ft (257.312 m); minimum, 3,810 acre-ft (4.70 hm^3) Nov. 6, 1971, elevation, 779.20 ft (237.500 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 31,240 acre-ft (38.5 hm^3) Mar. 31, Apr. 1, elevation, 824.30 ft (251.247 m); minimum, 5,990 acre-ft (7.39 hm^3) Aug. 4, 5, elevation, 786.10 ft (239.603 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)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	11381500 EAST PARK RESERVOIR			11386100 STONY GORGE RESERVOIR		
Sept. 30.....	1140.68	1070	--	813.50	21560	--
Oct. 31.....	1143.28	1470	--	812.40	20700	--
Nov. 30.....	1151.22	3350	+1880	815.09	22860	+2160
Dec. 31.....	1155.69	4940	+1590	817.36	24950	+2090
CAL YR 1975.....	--	--	-5980	--	--	+3310
Jan. 31.....	1158.15	6000	+1060	819.30	26500	+1550
Feb. 29.....	1163.00	8500	+2500	822.12	29120	+2620
Mar. 31.....	1172.15	14870	+6370	824.30	31240	+2120
Apr. 30.....	1146.30	2060	-12810	816.54	24070	-7170
May 31.....	1146.30	2060	0	787.60	6540	-17530
June 30.....	1145.89	1970	-90	789.40	7240	+700
July 31.....	1145.70	1930	-40	786.70	6210	-1030
Aug. 31.....	1145.46	1880	-50	789.25	7180	+970
Sept. 30.....	1145.06	1800	-80	790.54	7700	+520
WTR YR 1976.....	--	--	+730	--	--	-13860

11387000 STONY CREEK NEAR FRUTO, CA

LOCATION.--Lat 39°40'18", long 122°31'01", in SW¼SE¼ sec.15, T.21 N., R.6 W., Glenn County, on right bank 0.3 mi (0.5 km) downstream from Grindstone Creek, and 6.5 mi (10.5 km) northwest of Fruto.

DRAINAGE AREA.--597 mi^2 (1,546 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1901 to October 1912, October 1960 to current year.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 600 ft (183 m), from topographic map. Prior to Oct. 6, 1912, nonrecording gage at site 1.0 mi (1.6 km) downstream at different datum.

REMARKS.--Records fair. Many diversions above station for irrigation. Flow regulated by Stony Gorge Reservoir (station 11386100) 6.9 mi (11.1 km) upstream since 1928, and by East Park Reservoir (station 11385100) since 1910, combined usable capacity, 100,700 acre-ft (124 hm^3).

AVERAGE DISCHARGE (unadjusted).--27 years, 662 ft^3/s (18.74 m^3/s), 479,600 acre-ft/yr (591 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,200 ft^3/s (1,140 m^3/s) Dec. 23, 1964, gage height, 15.94 ft (4.858 m) in gage well, 16.1 ft (4.91 m), from floodmarks; no flow July 5-13, Oct. 25, 26, 1901.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,080 ft^3/s (30.6 m^3/s) Feb. 26, gage height, 5.19 ft (1.582 m); minimum daily, 0.19 ft^3/s (0.005 m^3/s) Sept. 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	66	56	16	24	18	609	274	483	24	5.5	2.6	2.5
2	66	30	31	21	18	390	447	503	22	5.4	2.5	1.9
3	66	24	29	22	18	296	456	511	21	5.4	8.9	2.3
4	66	21	26	22	18	243	467	510	20	5.5	5.8	1.9
5	64	20	96	22	17	207	472	505	20	5.4	4.3	1.3
6	63	18	109	23	17	188	472	504	20	5.0	6.2	.37
7	63	17	67	23	16	177	483	493	19	4.0	5.6	.83
8	63	37	53	22	16	174	594	501	19	3.7	3.8	.91
9	71	27	46	32	17	169	555	505	18	3.2	3.6	.84
10	94	30	41	38	17	162	553	508	21	3.1	3.1	.75
11	78	42	37	33	16	159	566	489	21	3.0	2.8	1.0
12	73	31	38	32	16	154	552	482	19	2.7	2.7	1.9
13	73	26	37	33	16	146	558	478	18	2.8	2.4	1.7
14	72	25	33	30	20	144	568	477	16	2.8	2.7	1.0
15	70	101	28	28	26	144	569	472	15	2.6	3.0	1.3
16	68	148	29	28	43	141	544	460	14	2.4	8.9	2.6
17	66	70	29	28	86	145	526	432	13	2.4	10	5.8
18	65	48	28	28	65	143	539	475	13	2.4	9.6	6.5
19	64	38	27	26	68	141	535	465	12	3.0	11	4.4
20	64	36	25	24	59	132	545	460	12	3.0	9.9	3.1
21	64	34	24	23	50	132	548	397	11	2.4	8.2	2.1
22	63	31	28	23	45	129	539	241	11	2.9	8.0	2.0
23	63	29	27	23	43	130	541	111	10	3.3	19	2.0
24	63	26	28	22	40	125	540	44	9.2	2.4	15	1.4
25	58	21	28	22	40	136	535	33	8.6	2.4	10	.19
26	103	20	28	21	553	129	520	31	8.1	2.4	8.4	.20
27	77	19	29	20	621	125	514	30	7.1	2.4	6.7	.40
28	58	19	29	19	510	122	504	26	5.8	2.4	5.9	1.9
29	53	18	28	19	782	120	498	25	5.2	2.4	5.0	2.0
30	86	17	28	19	---	119	486	25	5.4	2.4	3.7	2.0
31	80	---	26	18	---	119	---	25	---	2.6	3.3	---
TOTAL	2143	1079	1128	768	3271	5450	15500	10701	438.4	101.3	202.6	57.09
MEAN	69.1	36.0	36.4	24.8	113	176	517	345	14.6	3.27	6.54	1.90
MAX	103	148	109	38	782	609	594	511	24	5.5	19	6.5
MIN	53	17	16	18	16	119	274	25	5.2	2.4	2.4	.19
AC-FT	4250	2140	2240	1520	6490	10810	30740	21230	870	201	402	113

CAL YR 1975	TOTAL	243345.00	MEAN 667	MAX 12400	MIN 16	AC-FT	482700		
WTR YR 1976	TOTAL	40839.39	MEAN 112	MAX 782	MIN .19	AC-FT	81000		

11387000 STONY CREEK NEAR FRUTO, 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: December 1970 to current year.
INSTRUMENTATION.--Temperature recorder since Dec. 1, 1970.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1971-73, 1975-76), 33.5°C Aug. 9, 1972; minimum (water years 1972-73, 1975-76), 0.0°C on several days in 1972 and 1973.
EXTREMES FOR CURRENT YEAR:
WATER TEMPERATURES: Maximum, 31.5°C on several days during June to August; minimum, 0.5°C Jan. 2.

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	24.5	18.5	17.0	10.0	---	---	6.0	2.0	12.5	5.5	8.5	6.5
2	23.5	18.0	---	---	---	---	6.5	0.5	13.0	4.0	7.0	4.5
3	23.5	18.0	---	---	11.0	5.5	7.0	3.0	13.5	3.5	9.0	5.0
4	24.0	16.5	---	---	9.0	6.0	7.0	2.5	9.5	2.5	9.5	5.0
5	23.5	17.0	---	---	9.0	8.5	8.0	4.0	7.0	1.5	10.0	3.0
6	21.5	16.5	---	---	11.0	8.0	8.0	2.5	7.0	1.5	11.5	4.0
7	20.5	14.5	---	---	11.5	7.0	8.0	3.5	12.5	2.5	11.5	4.5
8	18.0	15.0	---	---	11.5	7.0	7.0	3.0	11.5	5.5	14.0	7.5
9	17.5	15.0	---	---	11.5	6.5	8.5	5.0	12.5	5.0	14.5	6.5
10	19.5	15.0	---	---	11.0	6.0	8.0	3.5	13.0	4.0	14.5	7.0
11	18.5	16.0	---	---	8.0	6.5	6.5	5.0	12.5	2.5	14.5	7.5
12	19.5	14.0	---	---	10.0	6.0	9.0	5.0	14.5	5.5	14.5	6.5
13	20.0	14.5	---	---	8.5	4.5	9.0	4.5	11.0	6.5	14.5	7.0
14	20.5	14.5	---	---	7.5	3.0	9.5	4.5	10.5	6.0	16.0	7.5
15	20.5	14.5	11.5	8.5	8.0	2.5	10.5	5.0	12.0	7.5	16.0	8.0
16	20.5	14.5	11.5	7.0	10.5	4.5	11.0	5.0	9.5	8.0	16.0	10.0
17	19.5	15.0	9.5	5.5	9.5	4.5	11.0	5.5	11.0	7.5	17.5	10.5
18	20.5	16.5	8.5	4.5	9.0	3.5	11.0	5.0	12.0	7.0	14.5	8.5
19	19.5	14.0	9.0	5.0	8.5	3.5	10.5	4.5	12.0	7.0	14.5	7.0
20	21.0	15.5	10.0	6.0	8.0	3.0	10.0	3.0	12.0	4.5	15.5	6.5
21	20.0	15.0	6.5	3.5	7.5	3.5	10.0	3.0	11.5	4.5	16.5	7.0
22	17.5	13.5	7.5	3.0	9.0	6.0	10.0	3.0	11.0	6.0	14.5	9.0
23	15.5	11.5	8.0	3.0	10.5	5.5	9.5	4.5	11.5	7.0	15.0	7.5
24	16.5	11.0	---	---	9.5	4.5	10.0	3.0	13.0	5.5	14.5	8.5
25	16.0	14.0	---	---	9.0	4.5	10.0	2.0	11.0	8.5	15.0	6.5
26	15.5	12.5	---	---	10.0	6.5	10.0	2.5	9.5	7.5	14.5	7.0
27	15.0	11.0	---	---	10.5	6.5	10.0	2.0	10.5	8.5	13.0	6.5
28	15.5	11.5	---	---	12.0	6.0	10.5	2.5	11.5	9.0	17.0	8.0
29	15.0	11.0	---	---	11.5	7.0	10.5	2.5	10.5	8.5	17.0	8.0
30	17.5	12.5	---	---	9.5	5.0	12.5	3.5	---	---	18.5	8.5
31	15.5	10.0	---	---	6.5	2.5	13.0	4.5	---	---	16.5	9.5
MONTH	24.5	10.0	---	---	12.0	2.5	13.0	0.5	14.5	1.5	18.5	3.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.0	7.0	19.5	12.5	27.5	16.0	28.5	16.5	29.5	22.0	31.0	20.0
2	14.5	7.5	18.5	13.0	27.5	17.0	29.5	18.0	29.5	20.5	30.5	20.5
3	13.0	8.0	19.5	13.5	28.0	16.5	29.5	19.0	27.5	19.5	30.5	20.5
4	14.5	8.5	19.5	14.0	27.0	16.5	31.0	19.5	29.5	20.0	30.0	20.0
5	11.0	9.5	19.5	12.5	27.0	15.5	31.5	19.5	29.0	20.0	28.5	21.0
6	13.0	9.5	---	---	27.0	16.5	31.5	20.5	26.0	19.0	28.5	20.0
7	11.5	10.5	21.5	14.0	26.5	16.0	30.0	20.0	29.5	19.0	27.5	18.5
8	14.5	10.0	21.5	15.0	26.5	16.0	31.0	21.0	30.5	20.0	28.5	18.0
9	16.0	11.0	22.0	15.5	22.0	17.5	31.0	19.5	31.5	20.5	29.0	17.5
10	13.0	10.0	22.0	15.5	24.0	15.5	31.5	21.0	31.0	21.0	27.0	18.5
11	14.5	10.5	21.5	15.5	26.0	15.5	29.0	21.0	30.5	21.5	21.5	20.5
12	15.0	10.0	23.0	16.5	28.5	17.0	30.5	19.5	31.0	21.0	27.0	19.5
13	16.0	10.0	24.0	16.5	25.5	16.5	31.5	20.0	24.5	20.5	28.0	18.5
14	16.5	10.5	23.0	17.0	26.5	15.5	31.0	20.5	25.5	20.5	27.5	19.0
15	13.5	9.5	24.0	17.0	29.0	16.5	30.5	21.0	25.5	18.0	24.5	17.5
16	15.5	10.5	25.0	18.0	29.0	17.5	30.0	22.0	23.5	17.5	21.5	19.0
17	16.5	11.0	24.5	18.0	30.5	18.0	29.5	21.5	21.5	17.5	26.5	17.0
18	16.5	11.0	24.5	18.5	30.5	19.0	30.5	21.5	22.0	18.5	27.5	18.0
19	17.5	11.5	24.5	18.5	30.0	18.0	31.5	22.0	28.5	18.0	27.0	19.0
20	18.0	11.5	24.0	18.5	29.5	18.5	31.0	22.0	30.0	19.0	26.0	17.5
21	16.0	11.5	26.0	19.0	29.5	18.5	30.5	21.5	29.5	20.0	25.5	17.0
22	17.5	11.5	27.0	19.0	29.0	18.5	31.0	20.5	26.0	20.5	25.5	17.5
23	17.5	12.0	26.5	17.0	27.5	18.5	30.5	22.5	29.0	19.0	25.0	17.0
24	17.5	10.5	27.0	17.5	29.5	18.0	30.0	21.0	30.0	19.5	24.0	16.5
25	16.0	10.5	27.0	17.5	30.0	19.0	30.0	21.5	29.0	19.5	23.5	16.0
26	16.0	11.5	29.0	17.5	30.5	19.0	29.0	21.5	28.0	18.0	23.0	15.5
27	17.5	12.0	28.0	18.0	31.5	18.0	29.5	22.0	29.0	18.0	21.5	18.5
28	18.0	12.0	27.0	15.5	31.0	19.5	27.0	22.5	30.0	19.0	24.0	19.0
29	18.5	12.5	24.0	15.5	28.0	19.0	30.5	23.0	30.0	19.5	25.0	17.0
30	18.5	13.0	25.0	17.0	28.5	17.0	29.5	22.0	31.0	19.5	25.0	18.5
31	---	---	27.5	17.5	---	---	27.5	21.5	31.0	19.5	---	---
MONTH	18.5	7.0	29.0	12.5	31.5	15.5	31.5	16.5	31.5	17.5	31.0	15.5

11387990 SOUTH DIVERSION CANAL NEAR ORLAND, CA

LOCATION.--Lat 39°48'36", long 122°19'45", in SE¼NE¼ sec.32, T.23 N., R.4 W., Tehama County, on left bank 0.4 mi (0.6 km) downstream from Black Butte Dam, and 8.2 mi (13.2 km) northwest of Orland.

PERIOD OF RECORD.--July 1955 to current year. Prior to October 1961, published as an adjustment to Stony Creek at Black Butte damsite, near Orland.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 372.64 ft (113.581 m) above mean sea level. Prior to Oct. 23, 1956, at site 0.5 mi (0.8 km) upstream at different datum. Oct. 23, 1956, to Sept. 30, 1960, at present site and datum. Oct. 1, 1960, to Sept. 30, 1961, at datum 1.00 ft (0.305 m) lower.

REMARKS.--Records good. Canal diverts from Black Butte Lake at right end of Black Butte Dam; water is used for irrigation. A pump with a capacity of 6 ft^3/s (0.17 m^3/s) diverted water at times above station and was included in the canal record prior to Mar. 1, 1970. Total diverted during the current year was 728 acre-ft (0.898 hm^3).

AVERAGE DISCHARGE.--21 years, 106 ft^3/s (3.002 m^3/s), 76,800 acre-ft/yr (94.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 320 ft^3/s (9.06 m^3/s) May 8, 1969; 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	192	2.0	1.7	1.0	89	1.5	173	199	70	88	48	143
2	197	3.2	1.7	1.0	75	1.3	182	198	69	85	68	119
3	175	2.8	2.2	1.0	85	1.0	184	158	61	89	117	102
4	162	2.7	1.9	1.0	84	1.0	185	142	53	50	139	87
5	157	3.1	1.7	1.0	78	1.0	151	134	71	50	131	93
6	155	6.7	1.9	1.0	45	1.0	129	113	50	77	124	81
7	122	2.7	2.0	1.0	2.5	1.0	98	100	41	109	86	82
8	115	2.0	1.4	11	1.3	1.0	24	72	74	109	52	77
9	134	2.7	1.3	6.3	1.1	1.0	1.7	52	110	130	71	88
10	99	2.8	1.3	1.1	1.1	1.8	2.2	32	111	138	78	102
11	76	2.4	1.0	1.1	1.2	2.1	2.2	99	107	127	80	101
12	60	3.9	.90	1.1	1.8	1.6	2.3	121	106	114	93	50
13	55	.60	.80	1.1	1.0	1.0	2.3	133	80	87	57	75
14	15	1.1	.80	1.1	.60	1.1	2.4	152	86	72	50	124
15	2.7	3.5	.80	1.1	.60	1.3	2.5	146	93	76	16	150
16	26	3.2	.80	.70	.90	1.1	2.8	122	107	79	2.6	128
17	31	1.8	1.0	1.2	1.1	1.5	2.8	93	90	60	49	104
18	11	1.7	1.0	1.2	1.1	1.3	2.8	86	88	42	62	113
19	4.0	1.6	1.0	1.1	1.1	1.5	2.8	107	85	46	39	113
20	4.0	1.9	.80	1.3	1.5	1.5	1.9	101	72	88	58	107
21	4.3	2.0	.80	1.3	1.5	1.3	1.1	84	90	131	69	87
22	4.0	1.9	.80	1.3	1.5	3.4	2.3	61	81	158	4.0	114
23	42	1.1	1.2	1.3	1.5	1.9	2.4	34	131	159	2.3	135
24	56	1.6	1.1	1.2	1.5	1.5	2.4	56	152	161	42	129
25	30	1.7	1.1	1.1	1.4	18	2.1	102	130	154	69	128
26	5.8	1.5	1.3	1.1	1.3	50	40	133	108	116	97	110
27	3.8	2.2	1.2	1.1	1.3	67	104	142	93	93	113	95
28	5.2	1.7	1.1	80	1.3	78	155	144	82	66	111	94
29	1.4	1.7	1.1	113	1.4	88	188	142	93	67	102	73
30	1.0	1.8	1.1	111	---	120	196	135	99	66	104	48
31	.30	---	1.1	109	---	154	---	92	---	58	128	---
TOTAL	1946.50	69.60	37.90	457.80	485.60	608.7	1848.0	3485	2683	2945	2261.9	3052
MEAN	62.8	2.32	1.22	14.8	16.7	19.6	61.6	112	89.4	95.0	73.0	102
MAX	197	6.7	2.2	113	89	154	196	199	152	161	139	150
MIN	.30	.60	.80	.70	.60	1.0	1.1	32	41	42	2.3	48
AC-FT	3860	138	75	908	963	1210	3670	6910	5320	5840	4490	6050

CAL YR 1975	TOTAL	40383.00	MEAN 111	MAX 291	MIN .10	AC-FT	80100	
WTR YR 1976	TOTAL	19881.00	MEAN 54.3	MAX 199	MIN .30	AC-FT	39430	

11387995 BLACK BUTTE LAKE NEAR ORLAND, CA

LOCATION.--Lat 39°48'50", long 122°20'12", in SE¼SW¼ sec.29, T.23 N., R.4 W., Tehama County, in control tower in right abutment of main dam on Stony Creek, 8 mi (13 km) northwest of Orland.

DRAINAGE AREA.--736 mi^2 (1,906 km^2).

PERIOD OF RECORD.--October 1963 to current year. Prior to October 1971, published as Black Butte Reservoir near Orland.

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

REMARKS.--Reservoir is formed by seven earthfill dams. Storage began Oct. 28, 1963. Usable capacity, 143,607 acre-ft (177 hm^3) between elevations 414.6 ft (126.37 m) minimum operating level, and 473.5 ft (144.32 m) spillway crest, above mean sea level. Additional storage of 10,000 acre-ft (12.3 hm^3) is not available for release. South Diversion Canal (station 11397990) diverts at right end of dam. Water is released down Stony Creek for irrigation. Records, including extremes, represent total contents at 2400 hours.

COOPERATION.--Records of contents furnished by Corps of Engineers, not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 149,700 acre-ft (185 hm^3) June 8, 9, 1967, elevation, 471.19 ft (143.619 m); minimum since initial season of operation, 9,420 acre-ft (11.6 hm^3) Oct. 27, 1964, elevation, 413.83 ft (126.135 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 67,627 acre-ft (83.4 hm^3) May 23, elevation, 450.89 ft (137.431 m); minimum, 20,688 acre-ft (25.5 hm^3) Sept. 30, elevation, 428.19 ft (130.512 m).

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

413	6282	450	65126
415	7551	460	96558
420	11500	470	135472
430	23222	480	182008
440	40852		

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	32028	27252	26092	25223	23048	28181	31956	57292	64406	53491	41460	31778
2	31424	27252	26045	25177	22789	29231	32261	57626	64048	53098	41040	31265
3	30862	27172	25982	25147	22503	29808	32603	57988	63746	52730	40603	30896
4	30392	27107	25935	25055	22191	30272	32930	58429	63499	52511	40065	30600
5	29842	27059	25935	25055	21882	30618	33313	58846	63226	52292	39777	30306
6	29316	26963	26139	25040	21673	30896	33773	59344	63117	51976	39368	30031
7	28878	26883	26233	24979	21549	31142	34500	59923	62981	51590	39003	29689
8	28412	26771	26249	24994	21466	31371	35712	60506	62709	51205	38720	29349
9	28247	26708	26233	24994	21397	31600	36874	61280	62383	50679	38398	28895
10	28082	26628	26233	24933	21355	31778	38078	62032	62005	50156	38078	28429
11	27902	26549	26233	24948	21314	31938	39307	62600	61763	49614	37780	28017
12	27706	26565	26201	24948	21273	32117	40313	63144	61333	49168	37463	27755
13	27543	26612	26217	24948	21246	32261	41502	63664	60825	48725	37207	27397
14	27495	26628	26139	24948	21218	32405	42542	64075	60426	48307	37109	26899
15	27511	26628	26060	24964	21204	32549	43554	64489	60029	47914	36913	26406
16	27414	26851	26029	24964	21191	32694	44670	64904	59580	47616	36795	25998
17	27349	26883	25998	24964	21232	32784	45646	65321	59213	47341	36620	25655
18	27284	26883	25966	24918	21300	32893	46772	65851	58925	47158	36426	25300
19	27236	26883	25920	24918	21424	33021	47868	66327	58481	46863	36251	24964
20	27220	26835	25842	24903	21507	33075	48981	66806	58169	46500	36058	24615
21	27188	26803	25810	24887	21562	33203	50038	67287	57859	46049	35789	24254
22	27172	26755	25795	24872	21590	33277	51085	67570	57600	45468	35636	23779
23	26947	26676	25717	24842	21646	33350	52170	67627	57009	44957	35521	23222
24	26803	26580	25686	24827	21673	33405	53171	67570	56473	44450	35254	22717
25	26755	26533	25640	24796	21757	33442	54159	67287	56066	43837	35027	22191
26	26755	26485	25578	24781	22517	33368	55057	66891	55611	43316	34650	21729
27	26755	26375	25547	24766	24105	33258	55661	66440	55283	42885	34275	21383
28	26819	26296	25500	24449	25331	33094	56218	65963	54832	42520	33736	21095
29	26963	26249	25423	24120	26851	32875	56600	65516	54383	42243	33258	20810
30	27075	26170	25362	23720	---	32621	56932	65126	53911	41988	32802	20688
31	27204	---	25285	23368	---	32207	---	64738	---	41713	32351	---
MAX	32028	27252	26249	25223	26851	33442	56932	67627	64406	53491	41460	31778
MIN	26755	26170	25285	23368	21191	28181	31956	57292	53911	41713	32351	20688
†	432.60	431.95	431.38	430.60	432.38	435.54	446.93	449.86	445.73	440.41	435.62	428.19
‡	-5490	-1034	-807	-1917	+3483	+5356	+24725	+7806	-10827	-12198	-9362	-11663
††	675	398	251	311	248	610	883	2103	2395	2080	1292	986

CAL YR 1975 ‡ +746
WTR YR 1976 ‡ -12005

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
†† Evaporation, in acre-feet.
NOTE.--Computed from revised capacity table put into use Oct. 1, 1975.

11388000 STONY CREEK BELOW BLACK BUTTE DAM, NEAR ORLAND, CA

LOCATION.--Lat 39°49'07", long 122°19'26", in NW¼SW¼ sec.28, T.23 N., R.4 W., Tehama County, on left bank 200 ft (61 m) downstream from road bridge, 0.6 mi (1.0 km) downstream from Black Butte Dam, 8.1 mi (13.0 km) northwest of Orland.

DRAINAGE AREA.--737 mi^2 (1,909 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1955 to current year. Prior to October 1962, published as Stony Creek at Black Butte damsite, near Orland.

GAGE.--Water-stage recorder and grouted rock control. Datum of gage is 366.02 ft (111.563 m) above mean sea level (levels by Corps of Engineers). Prior to Dec. 12, 1960, water-stage recorder at site 0.6 mi (1.0 km) upstream at different datum. Dec. 12, 1960, to Nov. 30, 1963, nonrecording gage at bridge 200 ft (61 m) upstream at datum 4.04 ft (1.231 m) higher.

REMARKS.--Records good. Many diversions above station for irrigation. Flow regulated by Black Butte Lake (station 11387995), East Park Reservoir (station 11385100), usable capacity, 50,900 acre-ft (62.8 hm^3), and Stony Gorge Reservoir (station 11386100), usable capacity, 50,400 acre-ft (62.1 hm^3). Prior to October 1956, figures of daily discharge included water diverted to South Diversion Canal, which diverts 0.6 mi (1.0 km) above station.

AVERAGE DISCHARGE (adjusted for diversion to South Diversion Canal since 1956 and for change in contents in and evaporation from Black Butte Lake since 1964).--21 years, 642 ft^3/s (18.18 m^3/s), 465,100 acre-ft/yr (573 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,300 ft^3/s (1,030 m^3/s) Feb. 24, 1958, gage height, 11.82 ft (3.603 m) site and datum then in use, from rating curve extended above 7,500 ft^3/s (212 m^3/s) on basis of slope-area measurement of maximum flow; no flow many days in 1956, 1957, 1962. Maximum discharge since construction of Black Butte Dam in 1964, 19,400 ft^3/s (549 m^3/s) Dec. 25, 1964, gage height, 10.41 ft (3.174 m); no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 157 ft^3/s (4.45 m^3/s) Oct. 5, gage height, 3.36 ft (1.024 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	137	47	52	49	76	32	89	114	69	100	67	101
2	132	49	52	49	64	31	80	116	70	88	71	98
3	131	49	52	49	59	30	98	116	64	65	85	76
4	125	49	62	49	66	30	106	125	58	51	83	52
5	145	49	57	43	74	30	121	131	52	41	79	31
6	142	49	53	29	74	30	131	120	35	41	80	29
7	136	51	53	29	63	30	112	98	30	55	78	52
8	140	52	53	29	51	30	34	85	30	72	79	81
9	131	52	53	29	38	30	.40	77	51	86	73	101
10	113	51	53	29	33	29	0	56	62	100	65	109
11	97	51	51	29	31	29	0	66	55	110	49	96
12	92	21	50	29	31	30	0	59	62	100	47	87
13	91	0	50	29	30	30	0	50	86	105	60	78
14	68	7.8	50	29	30	30	0	58	98	107	76	90
15	58	49	50	29	30	30	0	70	86	84	73	86
16	63	50	50	30	30	30	0	84	77	70	44	78
17	62	51	50	29	30	30	0	88	76	60	30	54
18	60	51	50	29	30	29	0	88	70	44	34	51
19	59	51	50	30	30	30	0	72	66	56	25	41
20	59	51	50	30	30	30	0	64	53	67	33	43
21	59	51	50	30	30	30	0	73	45	69	38	70
22	59	51	50	29	30	29	0	68	35	74	41	108
23	64	52	49	29	30	31	0	53	51	75	46	119
24	64	52	50	29	30	31	0	43	65	84	52	113
25	51	52	50	29	30	31	0	50	57	92	38	104
26	60	52	50	29	30	40	13	65	65	106	44	99
27	65	52	50	29	30	50	49	68	78	107	75	74
28	36	52	49	68	30	65	64	69	85	90	99	58
29	.10	52	49	83	31	70	82	80	96	55	111	43
30	0	52	49	81	---	71	102	87	97	36	120	28
31	7.4	---	49	81	---	88	---	75	---	53	96	---
TOTAL	2506.50	1398.8	1586	1194	1171	1136	1081.40	2468	1924	2343	1991	2250
MEAN	80.9	46.6	51.2	38.5	40.4	36.6	36.0	79.6	64.1	75.6	64.2	75.0
MAX	145	52	62	83	76	88	131	131	98	110	120	119
MIN	0	0	49	29	30	29	0	43	30	36	25	28
AC-FT	4970	2770	3150	2370	2320	2250	2140	4900	3820	4650	3950	4460

CAL YR 1975 TOTAL 219680.30 MEAN 602 MAX 7020 MIN 0 AC-FT 435700 MEAN ‡ 734 AC-FT ‡ 531500
WTR YR 1976 TOTAL 21049.70 MEAN 57.5 MAX 145 MIN 0 AC-FT 41750 MEAN ‡ 112 AC-FT ‡ 81410

‡ Adjusted for diversion to South Diversion Canal near Orland and for change in contents in and evaporation from Black Butte Lake.

11388000 STONY CREEK BELOW BLACK BUTTE DAM, NEAR ORLAND, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958 to current year.
CHEMICAL ANALYSES: Water years 1958 to current year. Published as "at damsite" in 1959-64.
WATER TEMPERATURES: Water years 1969 to current year.
SEDIMENT RECORDS: Water years 1958-59, 1961-62.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1969 to current year.

INSTRUMENTATION.--Temperature recorder since June 1969.

REMARKS.--Temperature probe above water level Oct. 28-31, Nov. 12, 13, Apr. 11-26.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1969-72, 1974-76), 29.0°c, recorded, July 29, 1971; minimum (water years 1972-76), 3.5°C Jan. 3, 4, Feb. 2, Dec. 9, 1972, Jan. 10, 1974.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.5°C July 29, 30; minimum, 4.5°C Feb. 11.

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)
JAN 15...	1330	29	344	8.3	9.0	13	13.3
MAR 09...	1215	30	332	8.0	11.0	30	11.5
MAY 25...	0815	52	353	7.8	17.0	11	9.2
JUL 26...	1030	114	365	7.8	26.0	17	10.2
SEP 17...	1015	45	--	8.0	21.0	--	9.3

DATE	TIME	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)
MAY 25...	0815	149	12	16	.6	167	0	137	17	.02

DATE	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)
MAY 25...	.40	.06	.01	200	0	10	690	0	10	0

11388000 STONY CREEK BELOW BLACK BUTTE DAM, NEAR ORLAND, CA--Continued

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	24.5	22.0	16.0	12.0	10.0	8.5	8.0	6.0	---	---	11.0	7.5
2	24.0	21.5	16.0	12.0	10.5	8.0	8.5	6.0	---	---	8.0	5.0
3	24.0	21.5	16.5	12.5	10.0	7.5	8.0	6.5	---	---	10.5	7.0
4	23.5	21.0	16.0	12.0	9.0	8.0	7.5	6.0	---	---	---	---
5	23.5	20.5	14.5	12.0	9.0	8.5	8.0	6.0	---	---	---	---
6	22.0	20.5	15.0	12.5	10.5	8.5	8.5	5.5	6.5	5.0	---	---
7	22.5	20.0	13.5	12.5	10.5	8.0	8.0	6.0	7.0	5.0	---	---
8	20.5	19.5	15.0	11.0	10.5	8.5	7.0	5.5	7.5	5.5	---	---
9	19.5	18.5	12.5	10.5	10.0	8.0	8.0	6.0	8.5	5.0	---	---
10	19.5	18.0	14.5	11.0	10.0	8.5	8.0	5.0	9.0	5.0	---	---
11	19.0	16.5	13.0	10.0	8.5	8.5	6.5	6.0	8.5	4.5	---	---
12	19.5	16.0	---	---	10.0	8.0	8.0	6.0	9.0	5.5	---	---
13	19.5	16.0	---	---	9.5	7.5	8.5	5.5	7.0	5.5	---	---
14	20.0	16.0	15.5	9.0	9.0	7.0	8.5	5.5	7.5	5.5	---	---
15	20.0	16.0	11.5	11.0	9.5	7.5	9.5	6.0	8.5	6.5	---	---
16	20.0	15.5	13.0	10.0	10.0	7.5	9.0	5.5	7.0	6.5	---	---
17	19.5	16.0	11.5	9.0	9.5	7.5	---	---	8.5	6.5	---	---
18	19.5	16.0	11.0	8.5	9.5	7.5	---	---	10.5	6.5	---	---
19	19.5	15.5	10.5	9.0	9.5	7.0	---	---	10.0	6.0	---	---
20	20.5	16.0	10.0	8.5	9.0	7.0	---	---	10.0	6.0	---	---
21	20.0	16.0	10.5	8.0	8.5	7.0	---	---	11.0	6.0	---	---
22	18.0	14.5	10.5	8.5	9.0	7.5	---	---	10.0	6.5	---	---
23	17.5	14.0	11.0	8.5	9.0	7.5	---	---	10.0	7.0	---	---
24	17.0	14.0	11.0	8.5	9.0	7.0	---	---	11.0	6.5	---	---
25	15.5	13.0	10.5	9.0	8.5	7.0	---	---	9.5	7.5	---	---
26	16.5	13.5	10.5	8.5	8.5	7.5	---	---	12.0	8.0	---	---
27	17.0	13.0	10.0	8.0	9.0	7.5	---	---	11.0	8.5	---	---
28	---	---	9.5	7.5	10.0	7.5	---	---	11.5	9.0	---	---
29	---	---	9.5	7.5	9.5	7.5	---	---	10.5	8.0	---	---
30	---	---	9.5	8.0	9.0	7.0	---	---	---	---	---	---
31	---	---	---	---	8.5	6.5	---	---	---	---	---	---
MONTH	24.5	13.0	16.5	7.5	10.5	6.5	---	---	12.0	4.5	---	---

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

11389000 SACRAMENTO RIVER AT BUTTE CITY, CA

LOCATION.--Lat 39°27'28", long 121°59'35", in SE¼NE¼ sec.32, T.19 N., R.1 W., Glenn County, on left bank 100 ft (30 m) upstream from highway bridge, 0.5 mi (0.8 km) south of Butte City, and at mile 115.8 (186.3 km) upstream from Sacramento.

DRAINAGE AREA.--12,081 mi^2 (31,290 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1921 to September 1938 (low-water periods only), October 1938 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 2.92 ft (0.890 m) below mean sea level. Prior to December 1930, at site 0.5 mi (0.8 km) upstream at same datum.

REMARKS.--Records good. Natural flow affected by storage reservoirs, power developments, diversions for irrigation and return flow from irrigated areas. During floods, overbank flow into Butte basin occurs upstream from left (east) bank levee. The combined overbank flow and tributary runoff then flows south on the east bank floodplain into the Butte Sink and Sutter Bypass. Maximum overbank flood flows at the latitude of Butte City are as follows: CURRENT YEAR (Butte Creek at State Highway 162): Maximum discharge, 1,260 ft^3/s (35.7 m^3/s) Mar. 3, gage height, 75.46 ft (23.00 m). PERIOD OF RECORD (water years 1970-76): Maximum discharge, 17,200 ft^3/s (487 m^3/s) Jan. 24, 1970, gage height, 82.0 ft (24.99 m). CURRENT YEAR (combined overbank flow): Maximum discharge, 1,260 ft^3/s (35.7 m^3/s) Mar. 3. PERIOD OF RECORD (water years 1970-76): Maximum discharge, 74,300 ft^3/s (2,100 m^3/s) Jan. 25, 1970.

AVERAGE DISCHARGE.--38 years (water years 1939-76), 13,410 ft^3/s (379.8 m^3/s), 9,716,000 acre-ft/yr (12.0 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (water years 1940-76), 170,000 ft^3/s (4,810 m^3/s) Feb. 7, 1942 gage height, 96.87 ft (29.526 m); minimum recorded, 1,050 ft^3/s (29.7 m^3/s) July 15, 25, 26, 1931, gage height, 67.49 ft (20.571 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,300 ft^3/s (773 m^3/s) Mar. 1, gage height, 77.85 ft (23.729 m); minimum daily, 4,490 ft^3/s (127 m^3/s) Sept. 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	8740	11100	12500	9860	7650	24700	7200	10700	9820	10200	10300	8020
2	8790	10300	12400	9480	7700	18100	7500	10800	9820	10200	10500	8100
3	8820	9600	12500	9060	7660	14700	8130	10800	10100	10200	10500	8160
4	8870	8720	12600	8350	7790	14100	8790	10800	10100	10200	10500	8180
5	8990	8190	12700	8170	8130	12200	8980	10700	10300	10300	10500	8210
6	8940	8000	15200	8110	8290	10500	9010	11100	10700	10300	10600	8330
7	9080	7900	16000	8080	8380	9230	8890	11500	10900	10300	10700	8400
8	9120	8680	14100	8030	8370	8500	9490	11500	11000	10400	10800	8070
9	9180	9950	13500	8070	8200	8020	14100	11200	11000	10400	10800	7240
10	9780	11300	13200	8150	8150	7950	12600	10800	11000	10400	10600	6760
11	10500	12000	13000	8190	7950	8450	10600	10500	11100	10500	9690	6410
12	11100	12000	12900	8070	7660	8620	10200	10500	11200	10500	9770	6030
13	10400	12100	13200	8020	7590	8620	10200	10500	11300	10500	9920	6000
14	9970	12100	13100	8000	7670	8510	10300	10400	11300	10400	10100	5990
15	9770	12300	12900	7960	7760	8390	9110	10100	11200	10400	10600	6070
16	9770	12900	12800	7940	7970	8300	8910	9890	10900	10400	12100	6140
17	9690	14600	12700	7930	8310	8160	9330	9870	10800	10400	11500	6190
18	9680	13300	12700	7990	9290	8070	9570	9780	10800	10500	11200	5920
19	9580	12800	12200	7880	8680	8140	9280	9690	10800	10500	11300	5550
20	9230	12600	11900	7830	8190	8120	8860	9650	10800	10600	11300	5380
21	9450	12600	11800	7770	7820	7900	8540	9700	10900	10600	10600	5300
22	9430	12700	11200	7760	7560	7790	8230	9900	10800	10600	10100	5140
23	9330	12500	10500	7620	7790	7610	8470	9950	10600	10500	9910	4740
24	9240	12400	10400	7400	7840	7480	9040	9970	10600	10500	9710	4740
25	9290	12300	10200	7330	7640	7370	9420	10000	10600	10500	9130	4720
26	9580	12400	10200	7240	7450	7270	9300	9960	10500	10600	8790	4590
27	11100	12600	10300	7160	10500	7290	9270	9510	10400	10500	8610	4490
28	10600	12500	10300	7090	12700	7530	9440	8970	10400	10400	8420	4590
29	10100	12500	10300	7170	16800	7510	9780	8830	10300	10400	8310	4690
30	10100	12500	10400	7310	---	7390	10300	9200	10200	10400	8290	5090
31	11900	---	10300	7420	---	7240	---	9650	---	10300	8180	---
TOTAL	300120	345440	378000	246440	247490	293760	282840	316420	320240	322900	313330	187240
MEAN	9681	11510	12190	7950	8534	9476	9428	10210	10670	10420	10110	6241
MAX	11900	14600	16000	9860	16800	24700	14100	11500	11300	10600	12100	8400
MIN	8740	7900	10200	7090	7450	7240	7200	8830	9820	10200	8180	4490
AC-FT	595300	685200	749800	488800	490900	582700	561000	627600	635200	640500	621500	371400

CAL YR 1975 TOTAL 5713510 MEAN 15650 MAX 84700 MIN 7900 AC-FT 11330000
WTR YR 1976 TOTAL 3554220 MEAN 9711 MAX 24700 MIN 4490 AC-FT 7050000

11389000 SACRAMENTO RIVER AT BUTTE CITY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955-67, 1969 to current year.
CHEMICAL ANALYSES: Water years 1955-66.
WATER TEMPERATURES: Water years 1955-58, 1960-67, 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1955 to June 1963.
WATER TEMPERATURES: May 1955 to September 1958, October 1959 to September 1967, July 1969 to current year.

INSTRUMENTATION.--Temperature recorder May 1955 to September 1958, October 1959 to September 1967, and since July 1969.

REMARKS.--Clock stopped May 4-17, Aug. 18-26; range in temperature, 14.0°C to 18.0°C, and 18.0°C to 22.5°C, respectively.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 24.0°C June 2, 3, 5, 7, 1960; minimum (water years 1956-57, 1960-62, 1964-67, 1970-76), 0.0°C Jan. 2-5, 1960.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 22.5°C Aug. 29, 30; minimum, 7.0°C Feb. 6, 7.

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	17.0	16.5	13.5	13.0	11.0	10.0	9.0	8.5	10.0	10.0	10.0	9.5
2	17.0	16.5	13.5	13.0	11.5	11.0	8.5	8.0	10.5	10.0	9.5	8.0
3	17.0	16.0	14.0	13.0	11.5	11.5	8.5	8.0	10.5	10.0	8.0	7.0
4	16.5	16.0	14.0	13.5	11.5	11.0	8.5	8.5	10.5	9.5	7.5	7.0
5	16.5	16.0	13.5	13.5	11.5	11.0	9.0	8.5	9.5	8.0	9.0	7.0
6	16.5	16.0	13.5	13.5	12.0	11.5	9.0	9.0	8.0	7.0	10.0	8.5
7	16.5	15.5	13.5	13.0	12.0	11.5	9.5	9.0	7.5	7.0	10.5	9.5
8	16.0	15.0	13.0	12.5	12.0	11.5	9.5	9.5	8.5	7.5	11.5	10.5
9	15.0	14.0	12.5	11.5	11.5	11.5	9.5	9.5	10.0	8.5	12.5	11.5
10	14.0	13.5	11.5	10.5	11.5	11.5	10.0	9.5	10.0	9.5	12.5	12.0
11	14.0	13.5	11.0	10.5	11.5	11.0	10.0	9.5	10.0	10.0	12.5	12.0
12	14.5	14.0	11.0	10.5	11.0	10.5	9.5	9.5	10.5	10.0	12.5	11.5
13	14.5	14.0	11.0	11.0	11.0	10.0	9.5	9.0	10.5	10.0	12.5	12.0
14	15.0	14.0	11.5	11.0	10.0	9.5	9.5	9.5	10.0	10.0	12.5	12.0
15	15.0	14.5	11.5	11.0	9.5	9.0	9.5	9.0	10.0	10.0	12.5	12.0
16	15.0	14.5	12.0	11.5	10.0	9.0	10.0	9.5	10.0	9.5	13.0	12.5
17	15.5	14.5	11.5	10.5	10.5	10.0	10.0	10.0	10.0	9.5	14.0	13.0
18	15.5	15.0	10.5	9.5	10.5	10.5	10.5	10.0	10.5	10.0	14.0	12.5
19	15.5	15.0	10.0	9.5	10.5	10.0	10.0	10.0	11.0	10.0	13.5	12.5
20	16.0	15.0	10.5	10.0	10.5	10.0	10.0	10.0	10.5	10.0	13.0	12.0
21	16.0	15.5	10.5	10.0	11.0	10.0	10.0	10.0	10.5	10.0	13.0	12.0
22	16.0	15.0	11.0	10.5	10.5	10.0	10.0	10.0	10.5	10.0	13.0	12.5
23	15.0	13.5	11.0	10.5	10.5	10.5	10.0	10.0	10.5	10.0	13.0	12.0
24	13.5	12.5	11.5	11.0	10.5	10.5	10.0	10.0	10.5	10.0	13.0	12.0
25	13.0	13.0	11.5	11.0	10.5	10.0	10.0	9.5	10.5	10.0	12.0	11.0
26	13.0	13.0	11.5	11.0	10.5	10.0	9.5	9.0	11.0	10.0	12.0	11.5
27	13.0	13.0	11.5	11.5	10.5	10.0	9.5	9.0	11.0	10.5	12.0	11.0
28	13.0	12.5	11.5	10.5	10.5	10.0	9.5	9.0	11.5	11.0	12.5	11.0
29	13.0	12.5	10.5	10.0	11.0	10.5	9.5	9.0	11.5	10.5	12.5	12.0
30	13.5	13.0	10.0	9.5	11.0	10.5	9.5	9.0	---	---	13.5	12.5
31	13.5	12.5	---	---	10.5	9.0	10.0	9.5	---	---	13.5	13.0
MONTH	17.0	12.5	14.0	9.5	12.0	9.0	10.5	8.0	11.5	7.0	14.0	7.0

11389000 SACRAMENTO RIVER AT BUTTE CITY, CA--Continued

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	13.0	11.5	16.0	13.5	17.5	15.5	18.5	17.0	20.5	19.0	22.0	21.0
2	12.5	11.5	15.5	14.0	17.0	15.5	19.0	17.0	21.0	19.5	22.0	21.0
3	12.5	12.0	16.0	14.0	17.0	15.0	19.0	17.0	20.0	19.0	22.5	21.0
4	12.5	11.5	---	---	17.5	15.5	20.0	18.0	20.5	19.0	22.5	21.0
5	13.0	12.0	---	---	18.0	16.0	20.0	18.0	21.0	19.0	22.0	21.0
6	12.0	11.5	---	---	17.5	16.0	20.0	18.0	20.5	19.0	22.0	21.0
7	12.0	11.5	---	---	17.0	15.5	20.0	18.5	21.0	19.0	22.0	20.0
8	12.0	11.5	---	---	17.5	15.5	20.0	18.0	21.0	19.0	21.0	20.0
9	12.0	11.0	---	---	18.0	16.5	20.5	18.5	21.5	19.5	21.0	19.5
10	12.0	11.5	---	---	18.0	17.0	20.5	18.5	22.0	20.0	21.0	20.5
11	12.5	11.0	---	---	17.5	16.0	20.0	18.5	22.0	20.0	20.5	19.5
12	13.0	12.0	---	---	18.0	16.5	20.0	18.0	22.0	20.0	20.5	19.5
13	13.5	12.0	---	---	18.0	16.5	20.0	18.0	21.0	20.0	21.0	19.5
14	14.0	12.5	---	---	18.0	16.0	20.5	18.0	20.0	19.0	21.5	20.5
15	14.0	13.0	---	---	18.5	17.0	20.5	18.5	19.0	18.0	21.0	20.0
16	13.5	12.0	---	---	19.0	17.0	21.0	18.5	19.0	17.5	20.0	19.5
17	14.0	12.5	---	---	19.5	17.5	20.5	19.0	19.0	18.0	20.5	19.0
18	14.5	13.0	17.0	15.0	20.0	18.0	21.0	19.0	---	---	20.5	19.5
19	15.0	13.0	17.0	15.0	20.0	18.0	20.5	19.0	---	---	21.0	20.0
20	15.5	14.0	17.0	15.0	19.5	18.0	21.0	19.0	---	---	21.0	20.0
21	15.5	14.5	17.0	15.0	19.5	17.5	21.0	19.0	---	---	21.0	20.0
22	15.5	14.5	17.5	15.5	19.0	17.5	21.0	19.0	---	---	21.0	20.0
23	15.5	14.5	17.5	15.5	19.0	17.0	21.5	19.5	---	---	20.5	19.5
24	16.0	14.5	17.0	15.5	19.5	17.5	21.5	19.5	---	---	21.0	19.5
25	15.5	13.0	18.0	16.0	20.0	18.0	21.5	19.5	---	---	21.0	19.5
26	14.0	12.0	18.0	16.0	20.0	18.0	22.0	20.0	---	---	21.0	19.5
27	14.5	12.5	18.5	16.5	20.0	18.0	22.0	20.0	22.0	20.0	20.0	19.0
28	15.0	13.0	17.5	16.0	20.0	18.0	21.0	20.0	22.0	20.0	20.0	19.0
29	15.5	13.5	17.5	15.5	19.5	18.0	21.0	19.5	22.5	21.0	20.5	19.0
30	15.5	14.0	16.5	15.5	19.5	17.5	21.0	19.0	22.5	21.0	20.5	19.0
31	---	---	17.0	15.0	---	---	20.0	19.0	22.0	21.0	---	---
MONTH	16.0	11.0	---	---	20.0	15.0	22.0	17.0	---	---	22.5	19.0

11389470 COLUSA WEIR SPILL TO BUTTE BASIN NEAR COLUSA, CA

LOCATION.--Lat 39°14'11", long 121°59'33", in NW¼SE¼ sec.17, T.16 N., R.1 W., Colusa County, on left bank downstream end of Colusa weir 1.7 mi (2.7 km) northeast of Colusa Post Office.

PERIOD OF DAILY RECORD.--
SEDIMENT RECORDS.--December 1972 to current year (flood periods only).

REMARKS.--Colusa weir diverts flood flows from the Sacramento River into Butte Basin to reduce downstream flooding.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,020 mg/L Jan. 17, 1974.
TOTAL-SEDIMENT DISCHARGE: Maximum daily, 414,000 tons (376,000 tonnes) Jan. 17, 1974.

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

11389500 SACRAMENTO RIVER AT COLUSA, CA

LOCATION.--Lat 39°12'51", long 121°59'57", at north end of Jimeno Grant, Colusa County, on right bank just downstream from highway bridge at Colusa, and at mile 89.4 (143.8 km) upstream from Sacramento.

DRAINAGE AREA.--12,096 mi^2 (31,329 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1921 to October 1939 (low-water periods only), June 1940 to current year.

REVISED RECORDS.--WSP 1345: 1952.

GAGE.--Water-stage recorder. Datum of gage is 2.95 ft (0.899 m) below mean sea level. Prior to December 1930, water-stage recorder in center fender pier 50 ft (15 m) upstream from bridge at same datum.

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs, power development, bypassing for flood control, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--36 years (water years 1941-76), 11,620 ft^3/s (329.1 m^3/s), 8,419,000 acre-ft/yr (10.4 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (water years 1941-76), 49,000 ft^3/s (1,390 m^3/s) Feb. 8, 1942, gage height, 69.20 ft (21.092 m); minimum discharge recorded, 820 ft^3/s (23.2 m^3/s) July 25, 26, 1931, gage height, 34.79 ft (10.604 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23,900 ft^3/s (677 m^3/s) Mar. 2, gage height, 55.65 ft (16.962 m); minimum daily, 4,430 ft^3/s (125 m^3/s) Sept. 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	8450	11800	12900	9830	7350	20100	6590	10200	9560	9410	9960	7730
2	8640	10500	12800	9370	7420	21700	6840	10300	9570	9440	10000	7790
3	8570	9810	12800	9060	7380	16300	7460	10300	9840	9540	10000	7890
4	8630	8770	13000	8240	7410	14500	8180	10300	9940	9530	10000	7940
5	8640	8040	13100	7980	7700	13300	8400	10300	10000	9760	10100	7980
6	8700	7750	13900	7870	7910	10900	8510	10600	10600	9650	10100	8250
7	8780	7640	16600	7850	8030	9480	8390	11100	10800	9610	10300	8340
8	8800	7900	15200	7790	8020	8490	9140	11100	10800	9700	10400	8080
9	8900	9090	14300	7850	7850	7850	12400	10900	10800	9860	10300	7340
10	9240	10600	13900	7900	7820	7670	13200	10500	10800	9850	10200	6900
11	9930	11700	13500	7990	7720	8110	11100	10100	10900	9900	9380	6400
12	10600	12000	13400	7830	7360	8310	10400	10100	10900	9860	9210	6100
13	10400	12100	13500	7760	7320	8340	10200	10200	11000	9890	9410	5850
14	9910	12200	13600	7750	7370	8230	10600	10100	11100	9890	9790	5800
15	9550	12400	13300	7700	7490	8070	9300	9930	11000	9940	10100	5850
16	9500	12700	13200	7730	7720	7960	8820	9660	10700	9890	11200	6010
17	9440	14300	13100	7720	8080	7780	9040	9700	10500	10100	10900	6100
18	9430	14100	13100	7810	9330	7620	9410	9570	10400	10200	10700	5970
19	9380	13400	12900	7670	8670	7610	9150	9470	10400	10000	10800	5490
20	9310	13100	12200	7590	7870	7620	8670	9460	10400	9980	11000	5320
21	9170	13000	12000	7560	7440	7360	8300	9470	10500	9910	10600	5240
22	9140	13100	11600	7510	7250	7270	7920	9720	10400	9960	9870	5080
23	9070	13000	10600	7360	7650	7090	8010	9790	10200	9980	9820	4860
24	8970	12900	10300	7070	7520	6930	8380	9810	10000	9970	9370	4680
25	8930	12800	10200	7010	7220	6800	8930	9890	10100	10000	8920	4660
26	8960	13000	10100	6890	7030	6680	8820	9860	9990	10200	8500	4530
27	10100	12900	10200	6800	8610	6660	8840	9470	9710	10100	8380	4430
28	10800	12900	10200	6690	13100	6960	8990	8970	9760	9750	8120	4530
29	10000	12900	10200	6760	14700	6900	9330	8640	9750	9870	8010	4630
30	9850	12900	10300	6950	---	6780	9710	8810	9440	9870	7990	5030
31	10700	---	10300	7070	---	6620	---	9310	---	9820	7920	---
TOTAL	290490	349300	386300	238960	236340	285990	273030	307630	309860	305430	301350	184800
MEAN	9371	11640	12460	7708	8150	9225	9101	9924	10330	9853	9721	6160
MAX	10800	14300	16600	9830	14700	21700	13200	11100	11100	10200	11200	8340
MIN	8450	7640	10100	6690	7030	6620	6590	8640	9440	9410	7920	4430
AC-FT	576200	692800	766200	474000	468800	567300	541600	610200	614600	605800	597700	366600

CAL YR 1975 TOTAL 5250100 MEAN 14380 MAX 40900 MIN 7500 AC-FT 10410000
WTR YR 1976 TOTAL 3469480 MEAN 9479 MAX 21700 MIN 4430 AC-FT 6882000

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-66, 1972 to current year.
CHEMICAL ANALYSES: Water years 1959-66, 1972.
SEDIMENT RECORDS.--Water years 1973 to current year (flood periods only).

PERIOD OF DAILY RECORD.--
SEDIMENT RECORDS: December 1972 to current year (flood periods only).

REMARKS.--Total-sediment discharge tabulated only on days of spill over Colusa Weir. Total-sediment is determined by summing suspended and computed unmeasured loads.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS (water years 1973, 1975-76): Maximum daily mean, 1,040 mg/L Mar. 8, 1975.
SEDIMENT DISCHARGE (water years 1973, 1975-76): Maximum daily, 103,000 tons (93,400 tonnes) Feb. 14, 1975.

EXTREMES FOR CURRENT YEAR.--No flood flows occurred during the year.

11389950 LITTLE BUTTE CREEK AT MAGALIA, CA

LOCATION.--Lat 39°48'38", long 121°35'00", in NW¼NE¼ sec.36, T.23 N., R.3 E., Butte County, on left bank 1,000 ft (305 m) downstream from Magalia Dam, and 0.4 mi (0.6 km) northwest of Magalia.

DRAINAGE AREA.--11.4 mi^2 (29.5 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 2,160 ft (658 m), from topographic map.

REMARKS.--Records fair prior to Apr. 1, poor thereafter. Flow regulated by Paradise Reservoir, capacity, 6,430 acre-ft (7.93 hm^3) and Magalia Reservoir, capacity, 3,540 acre-ft (4.36 hm^3). Diversions occur above Magalia Reservoir through a 30-inch (76-cm) pipeline into Pacific Gas and Electric Co.'s Toadtown Canal when Magalia Reservoir is spilling. Diversion is made from Magalia Reservoir for the municipal supply of Paradise.

AVERAGE DISCHARGE (unadjusted).--8 years, 17.3 ft^3/s (0.500 m^3/s), 12,530 acre-ft/yr (15.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,180 ft^3/s (33.4 m^3/s) Jan. 24, 1970, gage height, 6.47 ft (1.972 m); minimum daily, 0.01 ft^3/s (<0.001 m^3/s) Sept. 25, 1974, and many days in 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9.6 ft^3/s (0.27 m^3/s) Feb. 29, gage height, 2.36 ft (0.719 m); minimum daily, 0.01 ft^3/s (<0.001 m^3/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	.20	.18	.18	.12	.16	.62	.20	.01	.03	.02	.04	.01
2	.10	.15	.22	.12	.07	.58	.18	.01	.03	.03	.04	.01
3	.18	.13	.23	.12	.08	.54	.04	.01	.03	.03	.05	.01
4	.23	.15	.50	.10	.10	.50	.03	.02	.02	.03	.05	.01
5	.19	.14	.85	.10	.09	.40	.05	.03	.02	.03	.04	.01
6	.13	.16	.23	.10	.09	.33	.04	.02	.02	.03	.04	.01
7	.10	.20	.18	.09	.09	.26	.40	.02	.03	.02	.04	.01
8	.10	.22	.27	.09	.10	.23	.71	.03	.03	.01	.04	.01
9	.23	.27	.17	.29	.10	.21	.23	.01	.03	.01	.03	.01
10	.53	.26	.16	.12	.10	.20	.36	.01	.03	.01	.03	.01
11	.15	.17	.14	.11	.13	.20	.22	.01	.03	.01	.03	.01
12	.13	.18	.36	.10	.15	.18	.27	.01	.03	.01	.04	.01
13	.13	.16	.19	.10	.23	.18	.19	.01	.03	.01	.04	.01
14	.13	.13	.18	.09	.23	.17	.19	.01	.03	.01	.04	.01
15	.13	.74	.18	.09	.38	.16	.19	.01	.03	.01	.04	.01
16	.13	.32	.19	.09	.55	.17	.17	.01	.03	.01	.03	.01
17	.14	.33	.20	.09	.27	.18	.18	.01	.03	.01	.03	.01
18	.15	.32	.22	.09	.26	.23	.18	.01	.03	.01	.03	.01
19	.14	.30	.20	.09	.26	.23	.13	.01	.02	.01	.02	.01
20	.16	.30	.20	.09	.28	.19	.14	.01	.02	.01	.02	.01
21	.17	.30	.20	.12	.26	.17	.12	.01	.02	.01	.02	.01
22	.17	.30	.21	.12	.27	.12	.10	.01	.02	.01	.02	.01
23	.22	.27	.16	.14	.24	.13	.07	.01	.02	.01	.02	.01
24	.26	.20	.16	.15	.20	.17	.01	.01	.03	.02	.01	.01
25	.26	.22	.16	.12	.33	.20	.01	.01	.02	.02	.01	.01
26	.37	.26	.16	.15	.37	.19	.01	.01	.02	.02	.01	.01
27	.26	.26	.13	.17	.32	.20	.01	.01	.02	.02	.01	.02
28	.26	.24	.13	.11	.28	.18	.01	.01	.02	.02	.01	.03
29	.31	.18	.15	.12	2.2	.19	.02	.02	.02	.03	.01	.03
30	.82	.16	.15	.14	---	.20	.04	.03	.02	.04	.01	.04
31	.19	---	.12	.17	---	.20	---	.03	---	.04	.01	---
TOTAL	6.67	7.20	6.78	3.70	8.19	7.71	4.50	.43	.76	.56	.86	.38
MEAN	.22	.24	.22	.12	.28	.25	.15	.014	.025	.018	.028	.013
MAX	.82	.74	.85	.29	2.2	.62	.71	.03	.03	.04	.05	.04
MIN	.10	.13	.12	.09	.07	.12	.01	.01	.02	.01	.01	.01
AC-FT	13	14	13	7.3	16	15	8.9	.9	1.5	1.1	1.7	.8
†	404	245	261	271	276	350	363	644	727	894	667	522

CAL YR 1975 TOTAL 4337.67 MEAN 11.9 MAX 273 MIN .10 AC-FT 8600
WTR YR 1976 TOTAL 47.74 MEAN .13 MAX 2.2 MIN .01 AC-FT 95

† Diversion, in acre-feet, from Magalia Reservoir, furnished by Paradise Irrigation District.

11390000 BUTTE CREEK NEAR CHICO, CA

LOCATION.--Lat 39°43'34", long 121°42'28", in NW¼NW¼ sec.36, T.22 N., R.2 E., Butte County, on right bank 0.7 mi (1.1 km) downstream from Little Butte Creek, and 7.5 mi (12.1 km) east of Chico.

DRAINAGE AREA.--147 mi^2 (381 km^2).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1445: 1953(M). WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 320 ft (98 m), from topographic map. Prior to Aug. 13, 1944, water-stage recorder at site 0.4 mi (0.6 km) upstream at different datum.

REMARKS.--Records excellent. Flow slightly regulated by storage in Magalia Reservoir, capacity, 3,540 acre-ft (4.36 hm^3) and since 1957 by Paradise Reservoir, capacity, 6,430 acre-ft (7.93 hm^3). Diversions above station for irrigation and domestic use of about 7,000 acre-ft (8.63 hm^3) annually. Butte Creek receives water above station from West Branch Feather River by way of Toadtown Canal.

AVERAGE DISCHARGE (unadjusted).--46 years, 409 ft^3/s (11.58 m^3/s), 296,300 acre-ft/yr (365 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,200 ft^3/s (600 m^3/s) Dec. 22, 1964, gage height, 14.12 ft (3.304 m), from rating curve extended above 8,900 ft^3/s (252 m^3/s) on basis of slope-area measurement at gage height 13.35 ft (4.069 m); minimum, 10 ft^3/s (0.28 m^3/s) Nov. 29, 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,260 ft^3/s (35.7 m^3/s) Feb. 29, gage height, 3.14 ft (0.957 m), no peak above base of 2,700 ft^3/s (76.5 m^3/s); minimum daily, 65 ft^3/s (1.84 m^3/s) Sept. 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	164	188	162	152	138	733	247	270	162	114	95	103
2	165	173	160	159	138	484	233	273	158	113	96	103
3	169	163	159	159	138	417	231	274	151	117	95	102
4	169	159	170	156	141	365	229	276	153	115	96	102
5	159	153	359	156	137	333	238	274	150	114	96	101
6	146	152	325	155	130	317	246	270	147	112	105	101
7	115	161	249	152	142	311	258	264	146	111	111	101
8	107	196	219	153	141	307	430	266	145	110	110	100
9	97	164	205	195	148	301	375	266	150	108	108	99
10	168	190	194	177	142	299	372	263	157	106	105	98
11	195	188	187	166	137	295	379	258	161	106	104	107
12	181	169	211	164	137	283	378	253	153	107	104	110
13	173	163	202	159	145	272	367	234	147	105	105	108
14	164	160	186	158	209	269	338	238	140	103	130	120
15	162	224	183	154	210	266	334	225	133	102	179	171
16	157	408	170	156	221	267	325	213	131	102	153	182
17	156	301	180	155	262	271	311	206	129	101	125	153
18	161	235	174	153	228	276	304	198	126	98	126	145
19	158	206	170	150	230	286	300	192	124	98	129	109
20	146	202	166	147	215	272	295	187	126	96	119	87
21	153	194	166	148	195	266	286	182	125	98	114	85
22	135	185	182	146	185	263	301	177	122	97	122	83
23	129	178	179	146	177	261	293	173	115	97	125	82
24	131	173	172	146	170	264	290	170	110	95	111	80
25	135	171	170	143	176	273	290	167	124	94	119	78
26	263	168	168	142	240	259	284	162	125	93	110	75
27	264	173	167	141	443	252	281	156	122	93	110	71
28	186	172	165	141	416	245	278	153	122	93	108	67
29	166	161	166	141	768	241	270	150	122	95	107	65
30	276	163	166	140	---	236	268	159	119	94	106	65
31	243	---	160	139	---	245	---	185	---	93	104	---
TOTAL	5193	5693	5892	4749	6159	9429	9031	6714	4095	3180	3527	3053
MEAN	168	190	190	153	212	304	301	217	137	103	114	102
MAX	276	408	359	195	768	733	430	276	162	117	179	182
MIN	97	152	159	139	130	236	229	150	110	93	95	65
AC-FT	10300	11290	11690	9420	12220	18700	17910	13320	8120	6310	7000	6060
‡	3520	3910	3880	3090	3530	6490	6620	6020	4260	2280	2920	2420

CAL YR 1975 TOTAL 163748 MEAN 449 MAX 3680 MIN 97 AC-FT 324800
WTR YR 1976 TOTAL 66715 MEAN 182 MAX 768 MIN 65 AC-FT 132300

‡ Toadtown Canal diversion, in acre-feet, from West Branch Feather River, furnished by Pacific Gas and Electric Co.

11390000 BUTTE CREEK NEAR CHICO, 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 1962 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1961 to current year.

INSTRUMENTATION.--Temperature recorder since November 1961.

REMARKS.--Clock stopped Aug. 8 to Sept. 1; range in temperature, 15.0°C to 20.5°C.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1962-64, 1966-76), 26.0°C July 21, 22, 1966; minimum, 1.0°C Dec. 14, 15, 1967.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 24.0°C July 26, 27; minimum, 3.0°C Jan. 2, 3, Feb. 7, Mar. 3.

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)
NOV 17...	1230	298	93	7.3	6.0	1	12.4
JAN 16...	1230	156	118	7.8	7.5	0	12.5
MAR 10...	1215	301	98	7.6	8.5	1	12.0
MAY 25...	1015	167	99	7.8	16.0	1	10.4
JUL 21...	1145	96	120	8.0	22.0	0	10.0
SEP 17...	1245	150	--	8.4	16.0	--	10.8

DATE	TIME	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)
JAN 16...	1230	54	0	4.2	.2	69	0	57	2.0	--
MAY 25...	1015	44	0	4.3	.3	59	0	48	1.3	.00

DATE	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)
JAN 16...	--	--	--	0	--	--	--	--	--	--
MAY 25...	.10	.01	.00	0	0	0	160	0	10	0

11390000 BUTTE CREEK NEAR CHICO, CA-Continued

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	16.0	14.0	10.0	8.0	6.0	4.5	4.5	3.5	7.5	6.0	7.0	5.5
2	15.5	14.0	10.5	8.5	7.0	5.5	4.0	3.0	7.5	6.0	5.5	4.0
3	15.5	14.0	10.5	9.0	7.0	5.5	4.5	3.0	7.5	6.0	5.5	3.0
4	15.5	14.0	10.5	9.0	7.5	6.0	5.0	3.5	7.0	5.5	5.5	4.0
5	15.0	13.5	10.0	9.0	8.5	7.5	5.5	5.0	5.5	4.5	6.0	4.0
6	15.0	14.0	11.0	10.0	8.5	8.0	6.0	5.0	4.5	3.5	6.0	4.0
7	14.5	13.0	11.0	10.0	8.0	7.0	5.5	4.5	4.5	3.0	7.0	5.0
8	13.0	11.5	10.5	9.5	9.0	7.5	6.0	4.5	5.5	4.0	8.0	6.0
9	12.0	11.0	9.5	8.0	8.5	8.0	7.0	5.5	7.0	5.0	8.0	6.0
10	13.0	11.5	8.5	7.5	8.5	7.5	6.0	5.0	6.5	5.0	8.5	6.5
11	13.0	11.5	8.0	7.0	8.0	6.5	5.5	5.0	6.5	4.5	8.5	6.5
12	12.0	10.5	7.5	6.0	7.0	5.5	6.0	5.0	7.0	5.0	8.0	6.0
13	12.0	10.0	8.0	6.5	5.5	4.5	6.0	5.0	6.5	5.5	8.0	6.0
14	11.5	10.0	8.0	7.0	5.0	4.0	6.0	5.0	7.0	6.5	9.0	6.5
15	12.0	10.0	10.0	7.5	6.0	4.0	7.0	5.0	7.0	6.0	9.0	7.0
16	12.0	10.5	10.0	9.0	6.0	5.0	7.0	5.5	6.0	5.5	9.5	8.0
17	12.0	10.5	9.0	7.0	6.0	5.0	7.5	6.0	7.5	6.0	10.5	8.5
18	12.5	11.0	7.0	5.5	6.0	5.0	7.0	5.5	8.5	7.0	9.5	8.5
19	12.5	11.0	6.0	5.0	6.0	5.0	6.5	5.0	8.5	7.0	8.5	7.0
20	15.0	11.0	7.0	5.5	6.0	5.0	6.5	5.0	7.0	5.0	8.0	6.0
21	14.0	12.0	6.5	5.5	7.0	6.0	6.5	5.0	6.0	4.5	9.0	6.5
22	13.5	11.5	6.5	5.5	7.0	6.0	6.0	4.5	6.5	4.5	8.5	7.0
23	12.0	10.0	6.5	5.5	7.0	6.0	5.5	4.5	6.0	5.0	9.5	7.5
24	11.0	8.5	7.0	6.0	7.0	6.0	5.5	4.5	7.0	4.5	9.0	7.5
25	10.0	9.0	7.0	6.0	6.0	6.0	5.0	3.5	6.0	5.5	8.5	6.0
26	10.5	9.5	7.0	6.0	7.0	6.5	5.0	3.5	6.5	5.5	8.0	6.0
27	10.5	9.5	7.0	6.5	7.0	7.0	5.5	4.0	7.5	6.5	8.5	6.0
28	10.0	8.5	6.5	5.0	7.5	7.0	6.0	4.5	8.0	7.5	9.0	6.5
29	10.0	8.0	5.0	4.0	8.5	7.0	6.5	5.0	7.5	7.0	9.0	7.0
30	10.0	9.5	4.5	4.0	8.5	5.0	7.0	5.0	---	---	10.0	7.0
31	10.0	8.5	---	---	8.0	4.0	7.0	5.5	---	---	9.5	8.0
MONTH	16.0	8.0	11.0	4.0	9.0	4.0	7.5	3.0	8.5	3.0	10.5	3.0

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

11390500 SACRAMENTO RIVER BELOW WILKINS SLOUGH, NEAR GRIMES, CA

LOCATION.--Lat 39°00'36", long 121°49'25", in NW¼NE¼ sec.2, T.13 N., R.1 E., Colusa County, on right bank 1,200 ft (366 m) downstream from Wilkins Slough, 5.8 mi (9.3 km) southeast of Grimes, and at mile 62.9 (101.2 km) upstream from Sacramento.

DRAINAGE AREA.--12,926 mi^2 (33,478 km^2).

PERIOD OF RECORD.--August 1931 to September 1938 (low-water periods only), October 1938 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1965, published as "below Wilkins Slough."

GAGE.--Water-stage recorder. Datum of gage is 3.00 ft (0.914 m) below mean sea level.

REMARKS.--Records excellent. Natural flow of stream affected by storage reservoirs, power development, bypassing for flood control, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--38 years (water years 1939-76), 10,230 ft^3/s (289.7 m^3/s), 7,412,000 acre-ft/yr (9.14 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (water years 1939-76), 29,400 ft^3/s (833 m^3/s) Jan. 19, 1974, gage height, 50.08 ft (15.264 m); maximum gage height, 52.75 ft (16.078 m) Mar. 1, 1940; minimum discharge, 100 ft^3/s (2.83 m^3/s) Aug. 1, 1931, gage height, 14.20 ft (4.328 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,200 ft^3/s (600 m^3/s) Mar. 2, gage height, 43.33 ft (13.207 m); minimum daily, 4,670 ft^3/s (132 m^3/s) Sept. 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	8990	11500	12600	10500	7510	16600	6020	8010	8140	7940	9020	7480
2	8870	10900	12500	10000	7600	20500	6060	8390	8150	7980	9150	7510
3	8920	10400	12500	9770	7550	17100	6660	8540	8240	8150	9220	7610
4	8960	9650	12600	9180	7550	14600	7300	8290	8430	8260	9260	7760
5	9030	8890	12700	8750	7760	13600	7720	8180	8430	8400	9290	7830
6	9080	8440	13000	8610	7960	11700	7860	8460	8770	8430	9370	8020
7	9090	8250	15300	8570	8090	10200	7830	8930	9140	8450	9470	8290
8	9170	8260	15300	8520	8120	9220	8260	9040	9270	8510	9650	8340
9	9200	9100	14300	8540	7970	8450	10000	9050	9250	8570	9670	7840
10	9350	10200	13800	8580	7740	8080	12400	8910	9280	8580	9580	7260
11	9800	11300	13500	8660	7540	8170	11500	8550	9330	8660	9200	6940
12	10400	11800	13300	8590	7110	8380	10200	8540	9370	8710	8650	6630
13	10500	11900	13100	8500	6970	8510	9690	8670	9480	8630	8720	6370
14	10100	12000	13300	8480	7030	8480	9970	8670	9530	8560	9050	6370
15	9800	12100	13200	8450	7190	8300	9260	8700	9510	8580	9320	6390
16	9650	12300	12900	8470	7510	8070	8340	8460	9270	8530	9970	6460
17	9610	13200	12800	8470	7850	7880	8100	8470	8870	8670	10300	6570
18	9570	13900	12800	8500	8620	7760	8350	8370	8640	8730	10100	6570
19	9550	13300	12700	8460	8830	7720	8140	8320	8590	8760	10200	6300
20	9500	12900	12200	8420	8160	7670	7550	8250	8540	8740	10400	5880
21	9400	12700	12000	8490	7610	7490	6910	8320	8480	8770	10400	5690
22	9370	12700	11900	8490	7050	7280	6400	8440	8460	8890	9720	5390
23	9330	12700	11300	8410	7250	7010	6070	8530	8300	8860	9510	5240
24	9240	12600	10900	8100	7410	6760	6190	8520	8320	8820	8940	5000
25	9200	12500	10700	7920	7080	6660	6810	8560	8320	8800	8720	4870
26	9240	12500	10600	7750	6800	6540	6930	8600	8300	8900	8380	4740
27	9670	12600	10600	7570	7130	6370	6770	8420	8140	8930	8230	4670
28	10700	12600	10700	7350	10900	6600	6710	8030	8060	8830	7950	4730
29	10400	12600	10700	7220	12500	6560	7140	7540	8140	8920	7700	4860
30	10100	12600	10700	7230	---	6390	7450	7500	7970	8950	7590	5040
31	10200	---	10700	7210	---	6180	---	7890	---	8930	7580	---
TOTAL	295990	346390	385200	261760	228390	284830	238590	261150	260720	267440	284310	192650
MEAN	9548	11550	12430	8444	7876	9188	7953	8424	8691	8627	9171	6422
MAX	10700	13900	15300	10500	12500	20500	12400	9050	9530	8950	10400	8340
MIN	8870	8250	10600	7210	6800	6180	6020	7500	7970	7940	7580	4670
AC-FT	587100	687100	764000	519200	453000	565000	473200	518000	517100	530500	563900	382100

CAL YR 1975 TOTAL 4777910 MEAN 13090 MAX 27800 MIN 8250 AC-FT 9477000
WTR YR 1976 TOTAL 3307420 MEAN 9037 MAX 20500 MIN 4670 AC-FT 6560000

11390500 SACRAMENTO RIVER BELOW WILKINS SLOUGH, NEAR GRIMES, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1966 to current year.
INSTRUMENTATION.--Temperature recorder since October 1966.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 22.0°C June 23, 1970, June 29, 1973, and several days in 1976; minimum, 4.0°C Dec. 26, 1968.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 22.0°C on several days during September; minimum, 6.5°C Feb. 6-8.

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	17.5	16.5	12.5	12.0	9.5	9.0	9.5	8.5	9.0	8.5	11.0	9.5
2	17.5	16.5	13.0	12.5	10.5	9.5	8.0	7.5	9.0	8.5	9.5	8.5
3	17.5	16.5	13.0	12.5	11.0	10.5	8.0	8.0	9.5	9.0	8.5	7.5
4	17.0	16.5	13.5	12.5	11.0	11.0	8.0	8.0	9.5	9.0	7.5	7.0
5	17.0	16.5	13.5	13.5	11.0	11.0	8.5	8.0	9.0	7.5	7.5	7.0
6	17.0	16.5	13.5	13.5	11.0	11.0	8.5	8.0	7.5	6.5	9.0	7.5
7	17.0	16.0	13.5	13.5	11.5	11.0	9.0	8.5	6.5	6.5	10.0	9.0
8	16.0	15.5	13.5	13.0	11.0	11.0	9.0	9.0	7.0	6.5	11.0	10.0
9	15.5	14.5	13.0	12.0	11.0	11.0	9.0	8.5	8.0	7.0	11.5	11.0
10	14.5	14.0	12.0	11.0	11.0	11.0	9.0	8.5	8.5	8.0	12.5	11.5
11	14.5	13.5	11.5	10.5	11.5	11.0	9.0	8.5	9.0	9.0	12.5	12.0
12	14.5	14.0	11.0	10.5	11.0	10.5	9.0	8.5	9.5	9.0	12.5	12.0
13	14.5	14.0	11.0	10.5	10.5	10.0	8.5	8.5	10.0	9.5	12.5	12.0
14	15.0	14.0	11.0	10.5	10.0	9.5	8.5	8.5	9.5	9.0	12.5	12.0
15	15.0	14.5	11.0	10.5	9.5	9.0	8.5	8.5	9.0	9.0	12.5	12.5
16	15.5	14.5	11.0	11.0	9.0	9.0	9.0	8.5	9.5	9.0	13.0	12.5
17	15.5	14.5	11.0	10.5	9.5	9.0	9.5	9.0	9.0	9.0	13.5	13.0
18	15.5	15.0	10.5	9.0	10.0	9.5	9.5	9.5	9.5	9.0	14.0	13.5
19	15.5	15.0	9.0	9.0	10.0	10.0	9.5	9.0	10.0	9.5	13.5	13.0
20	16.0	15.0	9.5	9.0	10.0	10.0	9.5	9.0	9.5	9.5	13.0	12.5
21	16.0	15.5	10.0	9.5	10.0	10.0	9.5	9.0	9.5	9.5	12.5	12.0
22	16.5	15.5	10.0	10.0	10.5	10.0	9.5	9.0	10.0	9.5	13.0	12.5
23	15.5	14.0	10.0	10.0	10.0	9.5	9.5	9.0	10.0	9.5	13.0	12.5
24	14.0	13.0	10.5	10.0	10.0	10.0	9.0	8.5	9.5	9.5	12.5	12.0
25	13.0	13.0	10.5	10.0	10.0	10.0	9.0	8.5	10.0	9.5	12.0	11.5
26	13.5	13.0	11.0	10.5	10.0	10.0	9.0	8.5	10.0	9.5	12.0	11.0
27	13.5	12.5	11.0	10.5	10.0	9.5	8.5	8.5	11.0	10.0	11.5	11.0
28	12.5	12.0	11.0	10.0	10.0	9.5	8.0	7.5	11.0	11.0	11.5	11.5
29	12.5	12.0	10.0	9.0	10.5	10.0	8.0	7.5	11.5	11.0	12.0	11.5
30	13.0	12.5	9.0	9.0	10.5	10.5	8.0	8.0	---	---	12.5	12.0
31	13.0	12.0	---	---	10.5	9.5	8.5	8.0	---	---	13.5	12.5
MONTH	17.5	12.0	13.5	9.0	11.5	9.0	9.5	7.5	11.5	6.5	14.0	7.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.0	12.0	16.0	15.0	16.5	16.0	18.5	18.0	20.0	19.5	22.0	21.5
2	12.5	11.5	16.0	15.0	17.0	16.5	18.0	17.5	20.0	19.5	22.0	21.5
3	12.0	12.0	16.0	15.0	16.5	16.0	18.0	17.5	20.0	19.5	22.0	21.5
4	12.5	12.0	16.0	15.0	17.0	16.0	18.5	17.5	19.5	19.0	22.0	21.5
5	12.5	12.0	16.0	15.5	17.5	16.5	19.0	18.0	19.5	19.0	22.0	21.0
6	12.0	12.0	16.0	15.5	17.5	17.0	19.5	19.0	20.0	19.5	22.0	21.0
7	12.0	12.0	16.0	15.0	17.0	16.5	20.0	19.0	19.5	19.0	21.5	21.0
8	12.0	11.5	16.5	15.5	16.5	16.0	20.0	19.0	20.0	19.5	21.0	20.0
9	12.0	11.5	17.0	16.0	17.0	16.5	20.0	19.0	2.0	19.5	21.0	20.0
10	12.0	11.5	17.5	16.5	17.5	16.5	20.0	19.5	21.0	20.0	21.0	20.5
11	12.0	11.5	17.5	16.5	17.5	16.5	20.0	19.5	21.0	20.5	21.0	20.5
12	12.5	11.5	17.0	16.0	17.0	16.5	20.0	19.5	21.5	21.0	20.5	20.0
13	13.0	12.5	17.5	17.0	17.5	17.0	20.0	19.0	21.5	20.5	20.0	19.5
14	13.5	13.0	17.0	16.5	18.0	17.5	20.0	19.0	20.5	19.5	20.5	20.0
15	14.0	13.5	17.5	16.5	18.0	17.5	20.0	19.5	19.5	18.5	21.0	20.0
16	14.0	13.0	18.0	17.0	18.0	17.0	20.0	19.5	18.5	18.0	20.5	20.0
17	13.5	13.0	18.0	17.5	18.5	17.5	20.5	19.5	18.0	17.5	20.0	19.5
18	14.0	13.5	17.5	17.0	19.0	18.0	20.5	20.0	18.5	18.0	20.0	19.5
19	14.5	13.5	17.5	17.0	19.0	18.5	20.5	20.0	18.5	18.0	20.0	19.5
20	15.0	14.5	17.5	17.0	19.0	18.0	20.5	20.0	19.5	18.5	20.0	19.0
21	15.5	15.0	17.5	16.5	18.5	18.0	20.5	20.0	20.5	19.5	20.0	19.0
22	15.5	15.0	17.5	17.0	18.5	18.0	20.5	20.0	21.5	20.5	20.0	18.5
23	16.0	15.5	17.5	17.0	18.5	18.0	20.5	20.0	21.0	20.5	20.0	18.5
24	16.0	15.5	17.5	17.0	18.5	17.5	20.5	20.0	21.0	20.5	---	---
25	16.0	15.0	17.5	17.0	19.0	18.0	21.0	20.0	21.0	20.5	---	---
26	15.0	13.5	18.0	17.0	19.0	18.5	21.0	20.5	21.0	21.0	---	---
27	14.0	13.0	18.5	17.5	19.0	18.0	21.0	20.5	21.0	20.5	---	---
28	14.5	13.5	18.5	18.0	19.0	18.5	21.0	20.5	21.0	20.5	---	---
29	15.0	14.0	18.5	17.5	19.0	18.5	21.0	20.0	21.0	20.5	---	---
30	15.5	14.5	17.5	17.0	18.5	18.0	20.5	20.0	21.5	21.0	---	---
31	---	---	17.0	16.0	---	---	20.0	19.5	21.5	21.0	---	---
MONTH	16.0	11.5	18.5	15.0	19.0	16.0	21.0	17.5	21.5	17.5	---	---

11390650 SACRAMENTO RIVER ABOVE COLUSA TROUGH, AT KNIGHTS LANDING, CA

LOCATION.--Lat 38°48'18", long 121°43'22", in NW¼ sec.14, T.11 N., R.2 E., Yolo County, on right bank, 0.25 mi (0.40 km) upstream from Colusa Drain, 0.35 mi (0.56 km) upstream from State Highway 24 bridge at Knights Landing, and approximately 0.3 mi (0.5 km) upstream from gaging station.

PERIOD OF RECORD.--
CHEMICAL ANALYSES: July 1960 to current year.

REMARKS.--Records of discharge given for Sacramento River at Knights Landing (station 11391000).

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

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)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT									
22...	1350	9530	129	7.8	15.0	10	9.5	--	--
NOV									
24...	1640	12200	126	7.6	11.0	5	11.8	--	--
DEC									
18...	1415	12500	141	7.5	10.0	5	11.7	--	--
JAN									
21...	1315	8910	164	7.4	9.5	6	10.7	--	--
FEB									
19...	1400	9110	151	7.6	10.0	9	10.7	--	--
MAR									
24...	1400	7320	159	7.6	12.5	7	10.2	--	--
APR									
27...	1330	6400	150	7.5	15.0	8	10.1	55	0
MAY									
27...	1300	9100	157	7.7	20.0	8	9.2	--	--
JUN									
22...	1200	8180	138	7.5	20.0	10	9.2	--	--
JUL									
28...	1200	9060	139	7.5	22.5	10	9.3	--	--
AUG									
25...	1215	10500	178	7.4	23.0	10	9.4	--	--
SEP									
23...	1300	5930	167	7.8	21.0	13	9.2	--	--

DATE	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL NONFILTRABLE RESIDUE (MG/L)	DISSOLVED NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)
OCT									
22...	--	--	--	--	--	--	64	.13	.10
NOV									
24...	--	--	--	--	--	--	48	.18	.10
DEC									
18...	--	--	--	--	--	--	29	.15	.20
JAN									
21...	--	--	--	--	--	--	16	.11	.20
FEB									
19...	--	--	--	--	--	--	44	.16	.10
MAR									
24...	--	--	--	--	--	--	24	.12	.10
APR									
27...	9.5	.6	74	0	61	5.4	50	.04	.40
MAY									
27...	--	--	--	--	--	--	37	.04	.30
JUN									
22...	--	--	--	--	--	--	43	--	.10
JUL									
28...	--	--	--	--	--	--	24	.04	.00
AUG									
25...	--	--	--	--	--	--	32	.13	.00
SEP									
23...	--	--	--	--	--	--	27	.11	.20

11390650 SACRAMENTO RIVER ABOVE COLUSA TROUGH, AT KNIGHTS LANDING, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORTHO, PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT									
22...	.10	.02	--	--	--	--	--	--	--
NOV									
24...	.05	.02	--	--	--	--	--	--	--
DEC									
18...	.08	.01	--	--	--	--	--	--	--
JAN									
21...	.11	.03	--	--	--	--	--	--	--
FEB									
19...	.06	.02	--	--	--	--	--	--	--
MAR									
24...	.15	.02	--	--	--	--	--	--	--
APR									
27...	.09	.02	0	0	10	60	0	20	10
MAY									
27...	.11	.01	--	--	--	--	--	--	--
JUN									
22...	.11	.02	--	--	--	--	--	--	--
JUL									
28...	.12	.02	--	--	--	--	--	--	--
AUG									
25...	.09	.03	--	--	--	--	--	--	--
SEP									
23...	.13	.02	--	--	--	--	--	--	--

11390655 SOUTH FORK WILLOW CREEK NEAR FRUTO, CA

LOCATION.--Lat 39°32'28", long 122°23'19", in SW¼SE¼ sec.35, T.20 N., R.5 W., Glenn County, on right bank 150 ft (46 m) downstream from county road bridge, and 4.5 mi (7.2 km) southeast of Fruto.

DRAINAGE AREA.--38.9 mi^2 (100.8 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 375 ft (114 m), from topographic map.

REMARKS.--No flow since June 5, 1974. No known regulation or diversion above station.

AVERAGE DISCHARGE.--13 years, 5.37 ft^3/s (0.152 m^3/s), 3,890 acre-ft/yr (4.80 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,620 ft^3/s (103 m^3/s) Feb. 7, 1973, gage height, 12.58 ft (3.834 m), from rating curve extended above 1,000 ft^3/s (28.3 m^3/s) on basis of slope-area measurement of peak flow; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR: No flow entire year.

11390660 WALKER CREEK AT ARTOIS, CA

LOCATION.--Lat 39°37'32", long 122°11'45", in SW¼SW¼ sec.34, T.21 N., R.3 W., Glenn County, on left bank 500 ft (152 m) upstream from county road bridge, and 0.3 mi (0.5 km) north of Artois.

DRAINAGE AREA.--60.4 mi^2 (156.4 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 156.4 ft (47.67 m) above mean sea level (levels by Corps of Engineers).

REMARKS.--Records good. Several small storage ponds above station for irrigation.

AVERAGE DISCHARGE.--11 years, 21.0 ft^3/s (0.595 m^3/s), 15,210 acre-ft/yr (18.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,660 ft^3/s (160 m^3/s) Feb. 7, 1973, gage height, 11.69 ft (3.563 m), from rating curve extended above 1,800 ft^3/s (51.0 m^3/s) on basis of contracted-opening measurement at gage height 11.69 ft (3.563 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 84 ft^3/s (2.38 m^3/s) Oct. 10, gage height, 3.74 ft (1.140 m), no peak above base of 600 ft^3/s (16.9 m^3/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	14	.96		0	3.8	.66	0					
2	12	.92		0	1.9	1.6	0					
3	13	.78		0	1.7	2.9	0					
4	16	.50		0	1.0	1.5	0					
5	25	.36		0	.47	1.3	.78					
6	25	.25		0	.27	.96	1.1					
7	27	.15		0	.09	.68	.85					
8	33	.05		0	0	.52	2.8					
9	25	0		0	0	.34	1.8					
10	58	0		0	0	.22	.96					
11	62	0		0	0	.11	.82					
12	33	0		0	0	.01	.62					
13	22	0		0	0	0	.37					
14	18	0		0	.51	0	.18					
15	15	0		0	.63	0	.05					
16	10	.15		0	.49	0	0					
17	6.7	.49		0	.93	.06	0					
18	6.2	.12		0	.87	.04	0					
19	7.6	0		0	.73	.21	0					
20	4.3	0		0	.37	.08	0					
21	3.0	0		0	.26	0	0					
22	2.2	0		0	1.4	.13	0					
23	1.5	0		0	2.0	.07	0					
24	1.1	0		0	3.9	.02	0					
25	4.1	0		0	3.7	0	0					
26	8.0	0		0	2.4	.10	0					
27	9.1	0		0	1.9	0	0					
28	4.2	0		0	1.7	.14	0					
29	2.1	0		0	1.1	.03	0					
30	1.7	0		1.0	---	0	0					
31	1.2	---		5.9	---	0	---		---			---
TOTAL	471.0	4.73	0	6.9	32.12	11.68	10.33	0	0	0	0	0
MEAN	15.2	.16	0	.22	1.11	.38	.34	0	0	0	0	0
MAX	62	.96	0	5.9	3.9	2.9	2.8	0	0	0	0	0
MIN	1.1	0	0	0	0	0	0	0	0	0	0	0
AC-FT	934	9.4	0	14	64	23	20	0	0	0	0	0

CAL YR 1975 TOTAL 8456.63 MEAN 23.2 MAX 654 MIN 0 AC-FT 16770
WTR YR 1976 TOTAL 536.76 MEAN 1.47 MAX 62 MIN 0 AC-FT 1060

11390672 STONE CORRAL CREEK NEAR SITES, CA

LOCATION.--Lat 39°17'18", long 122°18'00", in NW¼NW¼ sec.34, T.17 N., R.4 W., Colusa County, on left bank at road bridge, 2.4 mi (3.9 km) southeast of Sites.

DRAINAGE AREA.--38.2 mi^2 (98.9 km^2).

PERIOD OF RECORD.--March 1958 to September 1964, October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 180 ft (55 m), from topographic map.

REMARKS.--No flow since June 1, 1975. No known diversion or regulation above station. Figures for calendar year 1975 are as follows: Total, 1,090.9 ft^3/s (30.9 m^3/s); mean, 2.99 ft^3/s (0.084 m^3/s); maximum, 333 ft^3/s (9.43 m^3/s); minimum, zero ft^3/s (zero m^3/s); runoff, 2,160 acre-ft (2.66 hm^3).

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by Geological Survey.

AVERAGE DISCHARGE.--17 years (water years 1959-64, 1966-76), 6.04 ft^3/s (0.171 m^3/s), 4,380 acre-ft/yr (5.40 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,430 ft^3/s (154 m^3/s) Feb. 6, 1973, gage height, 16.45 ft (5.014 m), from rating curve extended above 1,200 ft^3/s (34.0 m^3/s) on basis of slope-conveyance study at gage height 13.0 ft (3.96 m) and a slope-area measurement at 16.45 ft (5.014 m); no flow for several months in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 13.0 ft (3.96 m) from floodmarks, discharge, 1,940 ft^3/s (54.9 m^3/s) from slope-conveyance study.

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

11390700 COLUSA TROUGH NEAR COLUSA, CA

LOCATION.--Lat 39°11'43", long 122°03'34", in SE¼NE¼ sec.34, T.15 N., R.2 W., Colusa County, at gaging station 3 mi (5 km) west of Colusa, on State Highway 20, and 6 mi (10 km) northeast of Williams.

PERIOD OF RECORD.--
CHEMICAL ANALYSES: Water years 1953 to current year.

COOPERATION.--Records furnished by California Department of Water Resources.

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)
OCT							
22...	0805	202	775	7.6	16.0	16	7.7
NOV							
24...	0940	338	594	8.1	9.0	31	11.3
DEC							
18...	0800	167	795	8.2	6.0	17	11.0
JAN							
21...	0930	448	928	8.0	8.0	55	10.2
FEB							
19...	0850	81	1110	8.0	9.0	30	9.9
MAR							
24...	0915	386	470	7.8	12.0	60	9.3
APR							
27...	0900	143	766	7.9	14.0	52	9.5
MAY							
27...	0740	418	--	8.0	22.0	--	6.7
JUN							
22...	0730	207	835	7.6	22.0	13	5.8
JUL							
28...	0800	435	670	7.5	25.0	19	6.8
AUG							
25...	0735	974	546	7.4	21.0	24	7.9
SEP							
23...	0800	622	519	8.4	20.0	45	8.0

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)
OCT											
22...	0805	202	220	0	84	2.5	290	0	238	40	--
FEB											
19...	0850	81	281	22	148	3.8	316	0	259	74	--
MAR											
24...	0915	386	136	0	46	1.7	181	0	148	24	--
APR											
27...	0900	143	168	46	94	3.2	149	0	122	59	.54
JUN											
22...	0730	207	212	0	105	3.1	263	0	216	52	--

DATE	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT											
22...	--	--	--	--	300	--	--	--	--	--	--
FEB											
19...	--	--	--	--	400	--	--	--	--	--	--
MAR											
24...	--	--	--	--	100	--	--	--	--	--	--
APR											
27...	2.9	.30	.12	.37	200	0	10	560	0	110	20
JUN											
22...	--	--	--	--	400	--	--	--	--	--	--

11391000 SACRAMENTO RIVER AT KNIGHTS LANDING, CA

LOCATION (REVISED).--Lat 38°48'11", long 121°42'55", in NW¼NE¼ sec.14, T.11 N., R.2 E., Sutter County, on left bank 1,000 ft (305 m) downstream from State Highway 24 bridge at Knights Landing, 13.1 mi (21.1 km) upstream from Feather River, and at mile 34.0 (54.7 km) upstream from Sacramento.

DRAINAGE AREA.--14,541 mi^2 (37,661 km^2).

PERIOD OF RECORD.--April 1921 to October 1939 (low-water periods only), June 1940 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 2.93 ft (0.893 m) below mean sea level. April 1921 to Dec. 9, 1930, in fender pier of railroad bridge at same datum. Water-stage recorder for station at Verona was used as auxiliary gage for this station January 1941 to June 1945. Since Aug. 16, 1945, auxiliary water-stage recorder 6.0 mi (9.7 km) downstream from base gage.

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs, power developments, bypassing for flood control, diversions for irrigation, and considerable return flow from irrigated areas.

AVERAGE DISCHARGE.--36 years (water years 1941-76), 10,960 ft^3/s (310.4 m^3/s), 7,941,000 acre-ft/yr (9.79 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (water years 1940-76), 30,800 ft^3/s (872 m^3/s) Jan. 26, 1970, gage height, 40.86 ft (12.454 m); maximum gage height, 41.83 ft (12.750 m) Feb. 8, 1942, backwater from Feather River and Sutter Bypass; minimum discharge recorded, 250 ft^3/s (7.08 m^3/s) July 23, 1931, gage height, 7.80 ft (2.377 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 22,000 ft^3/s (623 m^3/s) Mar. 2; minimum daily, 5,190 ft^3/s (147 m^3/s) Sept. 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	9190	11100	12100	10800	7500	16400	6650	7470	8120	7380	9260	8140
2	9070	11600	12100	10400	7680	22000	6460	8000	8280	7440	9530	8200
3	8910	10900	12000	10100	7680	20300	6580	8230	8410	7610	9640	8390
4	8980	10100	11900	9740	7530	17200	7080	8080	8510	7790	9810	8540
5	9120	9090	11900	9090	7640	15500	7580	7790	8490	8000	9960	8710
6	9150	8500	11800	8830	7980	13400	7330	8190	8750	8080	10200	8920
7	9170	8230	13700	8760	8140	11500	7670	9660	9180	8190	10500	9280
8	9520	8120	15300	8720	8280	10300	8050	9550	9320	8250	10900	9590
9	9230	8580	14300	8670	8250	9190	9310	9330	9280	8300	11200	9200
10	9430	9950	13900	8700	8080	8630	10900	9410	9230	8490	11000	8590
11	9990	11500	13600	8840	7730	8570	12900	9560	9530	8480	10700	8120
12	10900	12000	13200	8850	7450	8610	11300	9850	9670	8680	9920	7890
13	11400	12100	12900	8750	7180	8930	10400	10100	10000	8590	9530	7550
14	10900	12200	12900	8690	7190	9080	10400	9870	10000	8530	9870	7500
15	10400	12200	12900	8700	7330	8860	10100	9770	9790	8570	10300	7600
16	10100	12500	12800	8690	7530	8590	8890	9690	9460	8480	10800	7700
17	9930	13100	12700	8710	7940	8310	8160	9440	9080	8640	11800	7810
18	9870	14300	12500	8840	8170	8150	8080	9200	8640	8950	11500	7850
19	9910	14000	12600	8900	8980	8130	8250	8920	8380	9160	11500	7590
20	9830	13400	12300	8860	8660	8110	7750	8650	8210	8850	11900	6980
21	9690	12900	12000	8950	8080	8040	7140	8870	8150	8720	12100	6730
22	9600	12500	12000	9110	7560	7830	6650	8970	8140	9140	11600	6270
23	9550	12500	11500	8930	7090	7530	6600	9170	8000	9200	11300	5950
24	9440	12100	11000	8780	7420	7270	6550	9190	7940	9200	10800	5790
25	9310	12100	10600	8400	7440	7210	6500	9310	7920	9080	10400	5570
26	9510	12000	10500	8200	7310	7030	6450	9250	7820	9230	9880	5410
27	9380	11900	10400	8020	7210	6910	6400	9110	7660	9240	9390	5230
28	10300	12100	10700	7800	9560	6920	6350	8560	7550	9010	8880	5190
29	10900	12100	10700	7670	12800	7200	6590	7840	7580	9040	8460	5230
30	10600	12100	11000	7580	---	7050	6940	7580	7480	9030	8330	5390
31	10200	---	10900	7480	---	6810	---	7740	---	9120	8160	---
TOTAL	303480	345770	378700	272560	231390	309560	240010	276350	258570	266470	319120	220910
MEAN	9790	11530	12220	8792	7979	9986	8000	8915	8619	8596	10290	7364
MAX	11400	14300	15300	10800	12800	22000	12900	10100	10000	9240	12100	9590
MIN	8910	8120	10400	7480	7090	6810	6350	7470	7480	7380	8160	5190
AC-FT	602000	685800	751200	540600	459000	614000	476100	548100	512900	528500	633000	438200

CAL YR 1975 TOTAL 4883050 MEAN 13380 MAX 28600 MIN 8120 AC-FT 9686000
WTR YR 1976 TOTAL 3422890 MEAN 9352 MAX 22000 MIN 5190 AC-FT 6789000

RESERVOIRS IN FEATHER RIVER BASIN, CA

11391370 FRENCHMAN LAKE.--Lat 39°53'36", long 120°11'17", in NW¼NE¼ sec.33, T.24 N., R.16 E., Plumas County, in valve chamber at center of toe of Frenchman Dam on Little Last Chance Creek, 5.4 mi (8.7 km) upstream from the confluence with Middle Fork Feather River, and 7.1 mi (11.4 km) north of Chilcoot. DRAINAGE AREA, 81.1 mi^2 (210.0 km^2). PERIOD OF RECORD, October 1966 to current year in reports of Geological Survey. November 1961 to September 1966 published in reports of California Department of Water Resources. GAGE, water-stage recorder in valve house at center of toe of Frenchman Dam. Datum of gage is at mean sea level.

Reservoir is formed by rockfill dam completed in 1961. Capacity, 53,626 acre-ft (66.1 hm^3), between elevations 5,517 ft (1,681.6 m), invert of intake and 5,588 ft (1,703.2 m), crest of spillway. Dead storage, 1,840 acre-ft (2.27 hm^3). Records, including extremes, represent total contents at 2400 hours. Records of contents furnished by California Department of Water Resources.

EXTREMES FOR PERIOD 1966 TO CURRENT YEAR.--Maximum contents, 59,093 acre-ft (72.9 hm^3) May 22, 1967, elevation, 5,590.28 ft (1,703.917 m); minimum, 14,566 acre-ft (18.0 hm^3) Sept. 30, 1976, elevation, 5,551.20 ft (1,692.006 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 29,032 acre-ft (35.8 hm^3) Oct. 1, elevation, 5,567.83 ft (1,697.074 m); minimum, 14,566 acre-ft (18.0 hm^3) Sept. 30, elevation, 5551.20 ft (1692.006 m).

11391490 LAKE DAVIS.--Lat 39°53'03", long 120°28'31", in NW¼SW¼ sec.1, T.23 N., R.13 E., Plumas County, in control house on left abutment of Grizzly Valley Dam on Big Grizzly Creek, 5.3 mi (8.5 km) north of Portola. DRAINAGE AREA, 44.0 mi^2 (114.0 km^2). PERIOD OF RECORD, November 1966 to current year. GAGE, water-stage recorder in control house on Grizzly Valley Dam. Datum of gage is at mean sea level.

Reservoir is formed by earth- and rockfill dam completed in 1967. Capacity, 84,040 acre-ft (104 hm^3) between elevations, 5,700 ft (1,737.4 m), top of low-level intake and 5,775 ft (1,760.2 m), crest of spillway. Dead storage, 108 acre-ft (133,000 m^3). Records, including extremes, represent total contents at 2400 hours. Records of contents furnished by California Department of Water Resources.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 92,818 acre-ft (114 hm^3) May 13, 14, 1969, elevation, 5,777.05 ft (1,760.845 m); minimum since reservoir first filled, 60,339 acre-ft (74.4 hm^3) Jan. 31, 1975, elevation, 5,768.49 ft (1,758.236 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 72,829 acre-ft (89.8 hm^3) Oct. 11, elevation, 5,772.02 ft (1,759.132 m); minimum, 60,541 acre-ft (74.6 hm^3) Sept. 29, 30, elevation, 5,768.55 ft (1,758.254 m).

11401120 ANTELOPE LAKE.--Lat 40°10'48", long 120°36'25", in SE¼SE¼ sec.22, T.27 N., R.12 E., Plumas County, on right bank at spillway of Antelope Dam on Indian Creek, 1.3 mi (2.1 km) south of Boulder Creek Guard Station, 12.3 mi (19.8 km) northeast of Genesee, and 14.3 mi (23.0 km) northeast of Taylorsville. DRAINAGE AREA, 68.6 mi^2 (177.7 km^2). PERIOD OF RECORD, October 1966 to current year in reports of Geological Survey, November 1963 to September 1966 published in reports of California Department of Water Resources. GAGE, water-stage recorder in control house at toe of Antelope Dam. Datum of gage is at mean sea level.

Reservoir is formed by a rockfill dam. Storage began November 1963. Capacity, 22,566 acre-ft (27.8 hm^3) between elevations 4,950 ft (1,508.8 m), lip of intake tower and 5,002 ft (1,524.6 m), crest of spillway. Records, including extremes, represent contents at 2400 hours. Records of contents furnished by California Department of Water Resources.

EXTREMES FOR PERIOD 1966 TO CURRENT YEAR.--Maximum contents, 25,010 acre-ft (30.8 hm^3) Jan. 23, 1970, elevation, 5,004.55 ft (1,525.387 m); minimum since reservoir first filled, 400 acre-ft (493,000 m^3) Oct. 13, 1971, elevation, 4,951.50 ft (1,509.217 m), caused by draining lake for removal of nongame fish. Normal minimum since reservoir first filled, 1,418 acre-ft (1.75 hm^3) Sept. 30, 1976, elevation, 4,960.50 ft (1,511.960 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 23,015 acre-ft (28.4 hm^3) Apr. 25, elevation, 5,002.48 ft (1,524.756 m); minimum, 1,418 acre-ft (1.75 hm^3) Sept. 30, elevation, 4,960.50 ft (1,511.960 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)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	11391370	FRENCHMAN LAKE		11391490	LAKE DAVIS		11401120	ANTELOPE LAKE	
Sept. 30.....	5567.95	29158	--	5771.94	72532	--	4999.22	20059	--
Oct. 31.....	5563.99	25157	-4001	5771.86	72235	-297	4999.35	20173	+114
Nov. 30.....	a5564.23	25309	+233	5771.70	71644	-591	4999.56	20357	+184
Dec. 31.....	5564.66	25810	+420	5771.50	70909	-735	4999.73	20507	+150
CAL YR 1975....	--	--	-12151	--	--	+2254	--	--	+465
Jan. 31.....	a5565.10	26243	+433	5771.43	70652	-257	4999.79	20560	+53
Feb. 29.....	a5565.71	26851	+608	5771.66	71497	+845	5000.28	20995	+435
Mar. 31.....	5566.38	27529	+678	5771.87	72273	+776	5001.43	22039	+1044
Apr. 30.....	5565.07	26213	-1316	5771.66	71497	-776	5002.42	22959	+920
May 31.....	a5560.76	22148	-4065	5771.04	69233	-2264	5001.52	22121	-833
June 30.....	5557.02	18944	-3204	5770.30	66582	-2651	5006.06	20799	-1322
July 31.....	5554.43	16904	-2040	5769.48	63711	-2871	4992.88	14987	-5812
Aug. 31.....	5552.20	15265	-1639	5768.92	61791	-1920	a4981.50	8054	-6933
Sept. 30.....	a5551.20	14566	-699	5768.55	60541	-1250	a4960.50	1418	-6636
WTR YR 1976....	--	--	-14592	--	--	-11991	--	--	-18641

a Estimated.

NOTE.--CORRECTION: Headings for Frenchman Lake and Lake Davis in WDR CA-75-4 report were reversed.

11391400 LITTLE LAST CHANCE CREEK BELOW FRENCHMAN DAM, NEAR CHILCOOT, CA

LOCATION.--Lat 39°53'36", long 120°11'17", in SW¼NE¼ sec.33, T.24 N., R.16 E., Plumas County, Plumas National Forest, in valve house at toe of Frenchman Dam, 7.1 mi (11.4 km) northwest of Chilcoot.

DRAINAGE AREA.--81.1 mi^2 (210.0 km^2).

PERIOD OF RECORD.--October 1958 to current year. Prior to October 1969, published as Little Last Chance Creek near Chilcoot.

GAGE.--Water-stage recorder and steel-lipped Cipolletti weir. Datum of release gage is 5,480.00 ft (1,670.304 m). October 1958 to September 1967, at site 1.9 mi (3.1 km) downstream at different datum.

REMARKS.--Flow regulated by Frenchman Reservoir beginning Nov. 7, 1961, usable capacity, 53,580 acre-ft (66.1 hm^3). Records since October 1967 are combined flow of release from Frenchman Dam and flow over spillway.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE (unadjusted).--18 years, 22.0 ft^3/s (0.623 m^3/s), 21,010 acre-ft/yr (25.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 784 ft^3/s (22.2 m^3/s) Feb. 8, 1960, gage height, 5.56 ft (1.695 m), previous site and datum, from rating curve extended above 310 ft^3/s (8.78 m^3/s); no flow Oct. 23, 1959, July 24-27, 29, Aug. 4, 1961. Maximum discharge since construction of Frenchman Dam in 1961, 544 ft^3/s (15.4 m^3/s) May 23, 1967; no flow Apr. 10, 1973, and many days in 1976.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 117 ft^3/s (3.31 m^3/s) June 8; 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	71	5.0					0	77	44	42	24	19
2	78	5.0					0	77	40	28	24	19
3	78	5.0					0	77	40	25	24	19
4	78	5.0					0	77	40	25	24	19
5	78	1.7					0	77	72	11	24	19
6	78	0					0	49	88	5.0	54	19
7	78	0					0	21	88	8.2	69	19
8	78	0					0	21	117	14	60	17
9	78	0					0	21	76	14	53	16
10	78	0					0	21	36	14	47	16
11	78	0					0	21	21	14	43	14
12	77	0					0	21	17	26	43	12
13	77	0					0	26	14	31	43	12
14	77	0					0	28	14	31	43	8.2
15	77	0					0	28	30	31	32	2.9
16	77	0					0	28	50	36	19	2.9
17	77	0					0	28	54	38	14	2.7
18	77	0					0	88	92	38	14	2.7
19	77	0					0	109	104	29	7.2	2.7
20	77	0					1.4	109	71	24	5.0	2.7
21	76	0					43	109	41	47	5.0	2.4
22	76	0					56	109	37	55	5.0	2.2
23	76	0					82	109	20	55	3.8	2.2
24	63	0					99	87	14	34	3.1	2.7
25	53	0					105	80	14	21	3.1	3.2
26	53	0					104	96	14	23	3.1	3.2
27	53	0					104	104	14	24	3.1	3.2
28	24	0					104	79	14	24	3.1	3.2
29	5.0	0					70	56	46	24	3.1	3.2
30	5.0	0			---		69	56	57	24	12	3.2
31	5.0	---			---		---	55	---	24	17	---
TOTAL	2033.0	21.7	0	0	0	0	837.4	1944	1379	839.2	727.6	273.5
MEAN	65.6	.72	0	0	0	0	27.9	62.7	46.0	27.1	23.5	9.12
MAX	78	5.0	0	0	0	0	105	109	117	55	69	19
MIN	5.0	0	0	0	0	0	0	21	14	5.0	3.1	2.2
AC-FT	4030	43	0	0	0	0	1660	3860	2740	1660	1440	542

CAL YR 1975 TOTAL 19509.50 MEAN 53.5 MAX 157 MIN 0 AC-FT 38700
WTR YR 1976 TOTAL 8055.40 MEAN 22.0 MAX 117 MIN 0 AC-FT 15980

11391460 BERRY CREEK NEAR SATTLEY, CA

LOCATION.--Lat 39°36'04", long 120°25'23", in SW¼NE¼ sec.9, T.20 N., R.14 E., Sierra County, on right bank 1.0 mi (1.6 km) south of Sattley, and 3.2 mi (5.1 km) northwest of Sierraville.

DRAINAGE AREA.--7.54 mi^2 (19.53 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 5,000 ft (1,520 m), from topographic map.

REMARKS.--Records good. Some minor diversions at times upstream. Data for period 1954-67 at same site published by California Department of Water Resources as Miller Creek near Sattley.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 125 ft^3/s (3.54 m^3/s) Nov. 12, 1973, gage height, 3.80 ft (1.158 m); minimum daily, 3.6 ft^3/s (0.10 m^3/s) July 26-31, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 46 ft^3/s (1.30 m^3/s) Oct. 26, gage height, 2.79 ft (0.850 m), no peak above base of 80 ft^3/s (2.27 m^3/s); minimum daily, 3.6 ft^3/s (0.10 m^3/s), July 26-31.

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	6.9	7.8	6.0	4.9	3.9	4.5	5.4	14	6.6	3.8	3.9	3.8
2	6.9	7.6	5.8	4.9	3.9	4.0	5.5	13	6.4	3.8	3.9	3.8
3	6.8	7.4	5.8	5.0	4.0	3.9	5.9	13	6.4	3.8	3.8	3.8
4	6.8	7.4	5.8	5.0	4.0	3.9	6.3	13	6.3	3.8	3.8	3.8
5	6.8	7.3	6.1	5.0	4.0	3.9	6.6	13	6.2	3.8	3.8	3.8
6	11	7.0	5.9	4.9	3.9	3.8	6.3	12	6.2	3.7	3.8	3.8
7	9.2	9.6	5.7	4.7	3.9	3.8	6.6	14	5.8	3.9	3.8	3.8
8	8.0	7.5	5.6	4.7	3.9	3.8	6.7	14	5.8	4.1	3.8	3.8
9	7.8	6.9	5.6	4.7	4.0	3.8	6.5	14	6.6	4.1	3.8	3.8
10	12	7.0	5.6	4.6	3.9	3.9	6.5	15	6.4	4.0	3.8	3.8
11	11	6.9	5.6	4.5	3.9	3.9	6.5	15	6.1	4.0	3.7	5.8
12	9.7	6.9	5.6	4.5	3.9	3.9	6.3	14	5.9	4.0	3.7	4.3
13	9.2	6.8	5.6	4.5	3.9	3.9	6.1	15	5.7	4.0	3.7	4.1
14	9.0	6.7	5.5	4.5	3.9	4.2	6.6	15	5.5	4.0	5.5	4.1
15	9.1	6.9	5.5	4.5	3.9	4.3	6.7	13	5.2	3.8	8.1	4.2
16	9.0	14	5.5	4.5	4.0	4.7	6.1	12	5.1	3.8	4.4	4.3
17	8.9	7.5	5.5	4.5	3.9	5.3	6.1	11	5.1	3.9	4.3	4.1
18	8.7	6.7	5.4	4.4	3.9	5.4	6.9	10	4.9	3.8	4.8	4.1
19	8.2	6.6	5.4	4.3	3.8	5.0	8.0	9.8	4.7	3.8	4.8	4.1
20	7.2	6.6	5.3	4.4	3.8	5.1	9.9	9.3	4.6	3.7	4.3	4.0
21	7.2	6.5	5.4	4.3	3.8	4.7	10	8.9	4.6	3.7	4.1	4.0
22	7.9	6.3	5.4	4.3	3.8	5.0	11	8.6	4.5	3.7	4.4	3.9
23	7.3	6.3	5.3	4.3	3.8	5.3	11	8.4	4.4	3.7	4.3	3.9
24	7.0	6.3	5.4	4.3	3.8	5.3	12	8.1	4.4	3.7	4.1	3.9
25	7.2	6.3	5.4	4.3	3.8	5.1	11	8.0	4.3	3.7	3.9	3.9
26	26	6.3	5.4	4.2	3.8	4.9	9.5	7.7	4.2	3.6	3.8	3.9
27	10	6.3	5.4	4.1	3.7	5.0	8.6	7.6	4.0	3.6	3.8	3.9
28	8.4	6.3	5.2	4.2	4.6	5.0	8.8	7.4	4.0	3.6	3.7	3.9
29	8.0	6.2	5.2	4.2	5.6	5.0	10	7.3	3.9	3.6	3.7	3.9
30	8.9	6.2	5.1	4.0	---	5.4	12	7.0	3.9	3.6	3.7	3.9
31	8.1	---	4.9	3.9	---	5.9	---	7.0	---	3.6	3.7	---
TOTAL	278.2	214.1	170.9	139.1	115.0	141.6	235.4	345.1	157.7	117.7	128.7	120.2
MEAN	8.97	7.14	5.51	4.49	3.97	4.57	7.85	11.1	5.26	3.80	4.15	4.01
MAX	26	14	6.1	5.0	5.6	5.9	12	15	6.6	4.1	8.1	5.8
MIN	6.8	6.2	4.9	3.9	3.7	3.8	5.4	7.0	3.9	3.6	3.7	3.8
AC-FT	552	425	339	276	228	281	467	685	313	233	255	238

CAL YR 1975 TOTAL 5431.7 MEAN 14.9 MAX 82 MIN 4.9 AC-FT 10770
WTR YR 1976 TOTAL 2163.7 MEAN 5.91 MAX 26 MIN 3.6 AC-FT 4290

11391500 BIG GRIZZLY CREEK AT GRIZZLY VALLEY DAM, NEAR PORTOLA, CA

LOCATION.--Lat 39°53'00", long 120°28'29", in NW¼SW¼ sec.1, T.23 N., R.13 E., Plumas County, at Grizzly Valley Dam on Big Grizzly Creek, 5.3 mi (8.5 km) north of Portola.

DRAINAGE AREA.--44.0 mi^2 (114.0 km^2).

PERIOD OF RECORD.--October 1925 to September 1932, October 1950 to September 1953, June 1954 to September 1967, October 1968 to current year. Prior to October 1952, published as Grizzly Creek near Portola, October 1952 to September 1953, June 1954 to September 1967, published as Big Grizzly Creek near Portola.

REVISED RECORDS.--WSP 1315-A: 1930(M). WSP 1931: Drainage area at former site.

GAGE.--Water-stage recorder and Cipolletti weir. Altitude of gage is 5,700 ft (1,740 m), from topographic map. Supplementary water-stage recorder in control house on Grizzly Valley Dam and concrete spillway. Prior to October 1968 at site 1.4 mi (2.3 km) downstream at different datum.

REMARKS.--Flow regulated by Lake Davis (station 11391490) completed in December 1966. Diversions for irrigation of about 400 acres (162 hm^2) above station and domestic water supply via Grizzly Valley pipeline.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE (prior to regulation by Lake Davis).--22 years (water years 1926-32, 1951-53, 1955-66), 38.2 ft^3/s (1.082 m^3/s), 27,680 acre-ft/yr (34.1 hm^3/yr); 9 years (water years 1967, 1969-76), 32.0 ft^3/s (0.906 m^3/s) 23,180 acre-ft/yr (28.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,080 ft^3/s (116 m^3/s) Feb. 1, 1963, gage height, 8.03 ft (2.448 m) site and datum then in use, from rating curve extended above 600 ft^3/s (17 m^3/s) on basis of slope-area measurement of peak flow; maximum gage height, 9.54 ft (2.908 m) former site and datum, Mar. 26, 1928; no flow Jan. 22 or 23, 1962. Maximum discharge since construction of Grizzly Valley Dam in 1966, 253 ft^3/s (7.16 m^3/s) May 13, 1969 (includes flow through spillway); no flow many days in September and October 1969.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 43 ft^3/s (1.22 m^3/s) June 12; minimum daily, 4.7 ft^3/s (0.13 m^3/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	13	15	15	15	7.6	8.0	12	12	12	12	12	12
2	15	15	15	11	7.6	8.0	12	12	12	12	12	12
3	15	15	15	8.0	7.6	8.0	12	12	8.6	12	12	12
4	15	15	15	8.0	7.6	8.0	12	12	11	12	12	12
5	15	15	15	8.0	8.0	8.0	12	12	12	12	12	12
6	15	15	15	8.0	8.0	8.0	12	12	12	12	12	12
7	15	15	15	8.0	8.0	8.0	12	12	12	12	12	12
8	15	15	15	8.0	8.0	8.0	12	12	12	12	12	12
9	15	15	15	8.0	8.0	8.0	12	12	12	12	12	12
10	15	15	15	8.0	8.0	8.0	12	12	12	12	12	12
11	15	15	15	8.0	8.0	8.0	12	12	22	12	12	12
12	15	15	15	8.0	8.0	8.0	12	12	43	12	12	12
13	15	15	15	8.0	8.0	8.0	12	12	12	12	12	12
14	15	15	15	8.0	7.6	8.0	12	12	12	12	12	12
15	15	15	15	8.0	7.6	8.0	12	12	12	12	12	7.3
16	15	15	15	8.0	7.6	11	12	12	12	9.4	12	4.7
17	15	15	15	8.0	7.6	12	12	12	12	13	12	5.0
18	15	15	15	8.0	7.6	12	12	12	12	13	12	5.0
19	15	15	15	8.0	7.6	12	12	12	12	13	12	5.0
20	15	15	15	8.0	8.0	12	12	12	12	13	12	5.0
21	15	15	15	8.0	8.0	12	12	12	12	13	12	5.0
22	15	15	15	8.0	8.0	12	12	12	12	13	12	5.0
23	14	15	15	8.0	8.0	12	12	12	12	13	12	5.0
24	15	15	15	8.0	8.0	12	12	12	12	13	12	5.0
25	15	15	15	8.0	8.0	12	12	12	12	13	12	5.0
26	15	15	15	8.0	8.0	12	12	12	12	13	12	5.0
27	15	15	15	8.0	8.0	12	12	12	12	13	12	5.0
28	15	15	15	8.0	8.0	12	12	12	12	12	12	5.0
29	15	15	15	8.0	8.0	12	12	12	12	12	12	5.0
30	15	15	15	8.0	---	12	12	12	12	12	12	5.0
31	15	---	15	8.0	---	12	---	12	---	12	12	---
TOTAL	462	450	465	258.0	228.0	311.0	360	372	396.6	380.4	372	250.0
MEAN	14.9	15.0	15.0	8.32	7.86	10.0	12.0	12.0	13.2	12.3	12.0	8.33
MAX	15	15	15	15	8.0	12	12	12	43	13	12	12
MIN	13	15	15	8.0	7.6	8.0	12	12	8.6	9.4	12	4.7
AC-FT	916	893	922	512	452	617	714	738	787	755	738	496
†	12	0	0	12	11	21	31	48	50	73	39	27

CAL YR 1975 TOTAL 13806.9 MEAN 37.8 MAX 150 MIN 8.0 AC-FT 27390
WTR YR 1976 TOTAL 4305.0 MEAN 11.8 MAX 43 MIN 4.7 AC-FT 8540

† Diversions, in acre-feet, to Grizzly Valley pipeline.

11392100 MIDDLE FORK FEATHER RIVER NEAR PORTOLA, CA

LOCATION.--Lat 39°49'07", long 120°26'37", in SW¼NW¼ sec.29, T.23 N., R.14 E., Plumas County, on right bank 0.8 mi (1.3 km) downstream from Big Grizzly Creek and 1.5 mi (2.4 km) northeast of Portola.

DRAINAGE AREA.--586 mi^2 (1,517 km^2).

PERIOD OF RECORD.--October 1968 to current year. November 1955 to September 1968 in bulletins of California Department of Water Resources.

GAGE.--Water-stage recorder. Altitude of gage is 4,860 ft (1,481 m), from topographic map.

REMARKS.--Flow partly regulated by Frenchman Lake (station 11391370) and Lake Davis (station 11391490).

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--8 years, 253 ft^3/s (7.165 m^3/s), 183,300 acre-ft/yr (226 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,640 ft^3/s (216 m^3/s) Jan. 21, 1969, gage height, 10.18 ft (3.103 m); minimum daily, 3.1 ft^3/s (0.088 m^3/s) Sept. 11, 12, 1969, Sept. 24, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 247 ft^3/s (7.00 m^3/s) Mar. 3, gage height, 3.36 ft (1.024 m); minimum daily, 3.1 ft^3/s (0.088 m^3/s) Sept. 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	53	110	72	77	70	147	57	35	16	10	6.2	9.9
2	54	112	87	78	70	197	57	32	16	10	8.0	11
3	57	116	102	50	68	233	53	28	17	11	9.9	9.9
4	61	103	101	46	68	215	47	26	7.7	13	9.5	7.3
5	65	89	97	53	52	177	23	23	12	12	9.5	8.9
6	72	96	93	51	43	153	17	21	9.2	12	9.5	6.6
7	81	111	90	61	52	143	17	18	8.6	10	9.5	8.0
8	84	85	88	62	51	139	20	18	8.9	10	9.5	8.9
9	85	77	85	74	70	135	24	16	11	11	9.5	9.9
10	98	82	82	68	70	137	28	16	10	10	9.5	10
11	117	88	80	69	79	153	28	15	12	10	9.5	14
12	125	96	80	58	85	178	31	14	65	10	8.9	11
13	127	95	80	62	87	184	31	12	20	10	8.0	10
14	128	94	62	67	108	156	30	11	17	10	8.3	11
15	128	92	79	73	122	129	30	12	15	10	9.5	10
16	123	95	62	83	145	112	28	16	14	9.5	8.3	4.9
17	117	97	58	84	160	105	30	18	17	8.6	8.3	3.4
18	113	95	60	83	150	100	32	19	28	8.9	10	3.7
19	109	105	61	72	152	103	35	20	23	7.7	11	3.4
20	108	99	65	74	138	109	34	21	19	7.7	10	3.4
21	106	85	73	73	119	115	31	19	15	7.3	9.9	3.4
22	105	86	75	67	110	114	29	19	10	6.6	11	3.4
23	105	84	71	64	114	106	27	17	9.2	6.6	9.9	4.5
24	104	87	80	66	115	94	23	17	14	6.6	8.6	3.1
25	105	86	80	70	116	90	22	20	14	6.9	6.6	3.4
26	109	84	87	70	114	75	25	22	12	6.9	8.3	3.4
27	105	85	91	64	105	59	33	21	11	6.6	6.9	3.4
28	102	85	99	63	93	56	37	20	11	6.2	6.2	3.4
29	119	70	105	66	103	57	34	19	11	5.8	6.2	4.5
30	139	70	107	71	---	57	34	18	10	4.9	6.6	4.5
31	130	---	89	72	---	56	---	17	---	5.3	8.6	---
TOTAL	3134	2759	2541	2091	2829	3884	947	600	463.6	271.1	271.2	202.2
MEAN	101	92.0	82.0	67.5	97.6	125	31.6	19.4	15.5	8.75	8.75	6.74
MAX	139	116	107	84	160	233	57	35	65	13	11	14
MIN	53	70	58	46	43	56	17	11	7.7	4.9	6.2	3.1
AC-FT	6220	5470	5040	4150	5610	7700	1880	1190	920	538	538	401

CAL YR 1975 TOTAL 86728.0 MEAN 238 MAX 2580 MIN 15 AC-FT 172000
WTR YR 1976 TOTAL 19993.1 MEAN 54.6 MAX 233 MIN 3.1 AC-FT 39660

11392500 MIDDLE FORK FEATHER RIVER NEAR CLIO, CA

LOCATION.--Lat 39°45'14", long 120°35'42", in NW¼SE¼ sec.23, T.22 N., R.12 E., Plumas County, on left bank 0.6 mi (1.0 km) upstream from Frazier Creek, 1.0 mi (1.6 km) northwest of Clio, and 2.2 mi (3.5 km) southeast of Blairsden.

DRAINAGE AREA.--686 mi^2 (1,777 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1925 to current year.

REVISED RECORDS.--WSP 1445: 1928, 1930, 1932. WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,380 ft (1,335 m), from topographic map. Prior to July 29, 1953, at site 0.5 mi (0.8 km) downstream at different datum.

REMARKS.--Records good. Diversions for irrigation of about 40,000 acres (162 km^2) above station, of which 14,500 acres (58.7 km^2) receive supplemental water of about 7,000 acre-ft (8.63 hm^3) annually from Little Truckee River. Flow partly regulated by Lake Davis (station 11391490) beginning in November 1966, and by Frenchman Lake (station 11391370) beginning in November 1961.

AVERAGE DISCHARGE.--51 years, 291 ft^3/s (8.241 m^3/s), 210,800 acre-ft/yr (260 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,500 ft^3/s (411 m^3/s) Feb. 1, 1963, gage height, 16.19 ft (4.935 m); minimum, 4.3 ft^3/s (0.12 m^3/s) Sept. 5, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 554 ft^3/s (15.7 m^3/s) Feb. 29, gage height, 5.68 ft (1.731 m); minimum daily, 13 ft^3/s (0.37 m^3/s) July 21-24, 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	68	163	109	99	98	276	105	71	38	24	15	23
2	68	150	116	105	98	284	101	74	37	24	16	24
3	73	156	132	88	95	315	98	71	36	24	16	24
4	78	147	139	78	94	311	90	68	38	24	19	24
5	83	132	149	87	89	261	80	65	31	23	19	21
6	133	120	136	80	77	223	65	61	33	23	19	22
7	131	151	129	86	80	212	59	54	33	22	19	20
8	114	133	126	91	81	226	59	58	32	21	19	21
9	124	116	122	109	98	231	63	61	35	21	17	22
10	263	144	117	99	108	220	65	60	42	20	17	24
11	220	127	115	96	106	218	70	60	41	19	18	44
12	171	132	126	90	117	229	75	59	53	19	18	35
13	168	134	118	91	142	245	72	60	62	18	17	31
14	166	133	104	97	157	227	69	57	36	18	21	31
15	166	156	115	103	160	197	79	51	33	17	44	33
16	162	209	118	113	177	178	71	49	30	17	27	30
17	156	152	97	115	199	172	67	50	29	17	25	26
18	149	141	96	114	194	181	71	51	33	15	26	24
19	146	135	97	108	221	183	69	50	40	15	31	23
20	142	142	97	98	188	173	72	49	36	15	28	22
21	138	131	102	100	168	175	71	48	35	13	27	22
22	141	124	111	95	152	173	69	47	29	13	28	22
23	140	125	103	93	150	168	66	46	25	13	29	22
24	138	124	111	98	150	160	64	45	25	13	27	23
25	138	124	113	96	151	154	63	45	29	14	27	22
26	255	123	124	97	157	140	58	44	32	13	24	23
27	175	125	130	93	152	117	61	44	30	14	24	23
28	149	126	130	90	169	107	66	42	27	14	23	23
29	148	109	138	92	415	102	65	40	25	14	23	23
30	261	112	141	96	---	102	66	40	25	14	22	23
31	189	---	126	99	---	105	---	39	---	14	22	---
TOTAL	4653	4096	3687	2996	4243	6065	2149	1659	1030	545	707	750
MEAN	150	137	119	96.6	146	196	71.6	53.5	34.3	17.6	22.8	25.0
MAX	263	209	149	115	415	315	105	74	62	24	44	44
MIN	68	109	96	78	77	102	58	39	25	13	15	20
AC-FT	9230	8120	7310	5940	8420	12030	4260	3290	2040	1080	1400	1490

CAL YR 1975	TOTAL	125464	MEAN 344	MAX 2850	MIN 48	AC-FT	248900	
WTR YR 1976	TOTAL	32580	MEAN 89.0	MAX 415	MIN 13	AC-FT	64620	

11392500 MIDDLE FORK FEATHER RIVER NEAR CLIO, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1963 to current year.
INSTRUMENTATION.--Temperature recorder since October 1963.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28.5°C July 26, 1976; minimum (water years 1964-66, 1969-73, 1975-76), 0.0°C on many days in 1963, 1969, 1971-73.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 28.5°C July 26; minimum recorded, 0.5°C Mar. 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	16.5	12.0	6.5	5.5	3.5	2.5			---	---	3.5	2.0
2	16.5	12.0	7.0	5.5	3.5	3.0			---	---	2.5	0.5
3	16.0	13.0	7.0	6.0	3.5	3.0			---	---	3.0	0.5
4	16.0	12.5	7.5	6.0	3.5	3.0			---	---	3.0	0.5
5	15.5	12.0	7.0	6.0	5.0	3.5			---	---	4.0	1.0
6	13.5	10.0	7.5	6.0	5.0	4.0			---	---	5.0	1.5
7	11.0	9.0	8.5	6.5	4.0	4.0			---	---	6.0	2.0
8	10.5	8.0	7.5	6.0	4.0	3.5			---	---	8.0	4.0
9	10.5	8.5	5.5	4.5	4.0	3.5			---	---	9.0	3.5
10	9.5	8.0	4.5	4.0	4.0	2.5			---	---	9.5	4.5
11	9.5	7.0	4.0	3.5	---	---			---	---	9.0	5.0
12	9.0	7.5	3.5	2.5	---	---			6.0	1.5	9.0	5.0
13	9.0	7.5	4.0	3.0	---	---			7.5	1.5	8.5	5.0
14	9.5	7.0	4.0	3.0	---	---			6.0	2.5	9.5	5.5
15	10.0	7.5	5.0	4.0	---	---			5.0	3.0	10.5	5.5
16	10.5	7.5	5.0	5.0	---	---			4.0	2.5	11.5	7.0
17	11.0	8.0	5.0	4.0	---	---			5.5	2.5	12.5	7.5
18	10.5	8.0	4.0	2.5	---	---			---	---	9.0	5.5
19	10.5	8.0	2.5	2.0	---	---			8.0	3.0	9.0	4.0
20	10.5	8.0	2.5	2.0	---	---			7.5	2.0	9.5	4.0
21	10.5	8.5	2.5	2.0	---	---			6.5	1.5	10.5	4.5
22	10.0	8.0	2.0	1.5	---	---			8.0	2.0	10.5	5.5
23	9.5	7.0	2.5	2.0	---	---			5.0	2.0	11.0	6.5
24	7.0	6.0	3.0	2.0	---	---			5.5	2.5	10.5	6.5
25	7.5	6.0	3.0	2.5	---	---			6.5	3.5	9.5	5.0
26	7.5	6.5	3.5	2.5	---	---			8.0	4.0	9.5	5.0
27	7.0	6.0	3.5	3.5	---	---			9.0	4.5	10.5	5.5
28	6.5	5.0	4.0	3.0	---	---			10.0	5.5	11.0	5.5
29	6.0	5.0	3.0	1.5	---	---			6.5	3.0	11.5	5.0
30	6.5	5.0	2.5	1.5	---	---			---	---	12.5	5.0
31	6.5	5.5	---	---	---	---			---	---	10.0	7.5
MONTH	16.5	5.0	8.5	1.5	---	---			---	---	12.5	0.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.0	6.0	19.0	10.5	20.0	12.5	22.5	14.5	22.0	18.5	22.0	15.0
2	13.0	5.5	18.5	10.5	20.0	12.0	23.0	15.0	23.0	16.0	22.5	16.0
3	13.0	6.5	19.5	10.5	19.5	12.0	23.0	16.0	21.0	17.0	22.0	16.0
4	13.5	6.5	18.0	9.5	20.0	11.5	24.0	16.5	22.5	15.5	23.0	16.5
5	11.5	8.0	18.5	11.0	19.5	11.5	25.0	16.5	22.0	16.0	22.5	18.0
6	10.5	7.0	16.5	10.5	19.5	12.0	25.5	17.0	22.0	15.5	22.0	16.5
7	14.0	6.0	20.0	10.0	19.5	13.0	23.5	18.0	21.5	15.0	21.0	15.0
8	13.0	8.5	18.5	11.5	16.5	12.0	25.0	16.5	22.5	15.5	20.5	15.0
9	13.5	6.0	18.5	11.0	15.5	13.0	26.0	18.0	23.5	16.0	20.5	14.5
10	13.0	6.5	19.0	11.0	15.0	11.0	26.0	18.0	21.5	17.5	19.5	15.5
11	14.5	7.5	20.5	11.0	18.5	11.5	25.5	18.5	24.0	17.0	18.0	16.0
12	12.5	6.5	21.0	9.5	21.0	12.5	26.0	18.0	24.0	17.0	20.0	15.0
13	12.5	6.5	20.5	10.5	21.0	14.5	26.5	19.0	20.0	16.5	19.0	13.5
14	14.5	6.5	20.5	11.5	20.5	13.0	27.0	18.5	18.0	16.0	17.5	13.5
15	10.5	7.0	20.5	9.5	21.5	13.5	27.0	18.5	16.0	13.0	16.0	13.0
16	10.5	5.5	20.0	11.0	23.0	15.0	26.0	21.5	15.0	12.5	15.5	11.0
17	11.0	4.5	18.0	10.5	24.0	16.0	27.0	20.0	14.5	11.5	16.5	11.0
18	14.5	7.5	18.0	9.5	25.0	17.0	27.0	20.0	15.5	13.0	16.5	11.0
19	16.0	7.5	18.0	9.5	24.0	17.5	27.5	19.5	19.5	13.5	16.5	11.0
20	17.5	9.0	19.0	9.5	23.5	17.0	26.5	18.5	21.0	14.0	17.0	12.5
21	16.5	9.0	17.0	12.5	23.5	17.0	26.5	18.0	22.0	15.5	16.5	11.5
22	16.5	9.5	19.5	11.0	23.5	16.0	27.0	18.0	20.0	16.5	15.5	10.5
23	17.0	8.5	19.5	11.0	23.5	16.0	23.0	20.0	21.0	14.0	15.0	9.5
24	17.5	9.5	19.0	11.5	24.0	16.0	26.5	18.0	22.0	15.5	15.5	10.0
25	15.5	9.0	21.0	12.0	25.0	17.5	27.0	19.0	21.5	15.5	15.0	10.0
26	14.5	7.5	21.5	12.5	24.5	16.5	28.5	20.5	21.0	14.0	15.5	10.0
27	12.5	7.0	21.5	14.0	24.5	16.5	28.0	19.5	21.0	14.0	17.0	11.5
28	14.0	7.0	20.5	13.0	25.0	17.0	23.5	20.5	22.0	15.5	16.0	12.0
29	16.5	7.5	19.0	12.0	24.5	18.0	27.0	19.5	22.0	15.5	14.5	11.0
30	19.0	9.5	19.5	12.5	22.5	16.0	24.0	19.5	22.0	15.0	16.5	11.5
31	---	---	20.0	13.0	---	---	22.0	19.0	22.0	15.5	---	---
MONTH	19.0	4.5	21.5	9.5	25.0	11.0	28.5	14.5	24.0	11.5	23.0	9.5

11394500 MIDDLE FORK FEATHER RIVER NEAR MERRIMAC, CA

LOCATION.--Lat 39°42'30", long 121°16'10", in NW¼NE¼ sec.2, T.21 N., R.6 E., Butte County, Plumas National Forest, on left bank 400 ft (122 m) downstream from bridge on Milsap Bar Road, 500 ft (152 m) downstream from Little North Fork, 4.5 mi (7.2 km) southeast of Merrimac, and 20 mi (32 km) northeast of Oroville.

DRAINAGE AREA.--1,062 mi² (2,751 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1931: 1960, drainage area. WDR CA-68-2: 1956(M), 1963(M).

GAGE.--Water-stage recorder. Altitude of gage is 1,560 ft (475 m), from topographic map. Prior to Jan. 21, 1965, on right bank at same site and datum.

REMARKS.--Records good. Diversions above station for irrigation of about 1,000 acres (4.05 km²) between stations near Clio and near Merrimac. Flow partly regulated by Antelope Lake (station 11401120) beginning in 1963, Lake Davis (station 11391490) beginning in 1966, and Frenchman Lake (station 11391370) beginning in 1961.

AVERAGE DISCHARGE.--25 years, 1,436 ft³/s (40.67 m³/s), 1,040,000 acre-ft/yr (1.28 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 86,200 ft³/s (2,440 m³/s) Dec. 22, 1964, gage height, 26.5 ft (8.08 m) from floodmarks, present site, from rating curve extended above 19,000 ft³/s (538 m³/s) on basis of slope-area measurement of maximum flow; minimum, 92 ft³/s (2.61 m³/s) Jan. 2, 1960.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 10, 1937, reached a stage of 19.4 ft (5.91 m) from floodmarks, discharge, 46,100 ft³/s (1,310 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,120 ft³/s (88.36 m³/s) Feb. 29, gage height, 8.93 ft (2.722 m), no peak above base of 7,000 ft³/s (198 m³/s); minimum daily, 100 ft³/s (2.83 m³/s) 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	SEP
1	263	608	416	391	331	2160	742	1040	386	170	115	121
2	256	563	411	348	331	1450	713	1120	359	170	120	118
3	247	526	414	386	329	1230	716	1090	336	173	124	116
4	255	507	450	377	333	1080	713	1080	321	173	125	118
5	262	467	416	368	317	989	743	1060	310	173	125	116
6	313	435	723	370	300	906	735	1010	300	169	127	114
7	494	489	609	352	309	857	716	973	288	166	128	106
8	367	581	566	353	320	847	886	1020	285	160	128	107
9	357	508	544	442	364	859	800	1030	292	157	129	105
10	786	604	522	417	344	859	799	998	318	154	128	100
11	1050	555	495	379	336	873	779	969	318	151	124	127
12	632	500	548	369	337	839	802	919	303	150	123	205
13	518	487	527	359	370	830	775	874	293	147	122	175
14	477	479	456	358	347	838	769	871	318	144	155	154
15	458	674	392	363	529	832	773	806	268	141	299	180
16	446	1280	440	373	537	847	760	731	252	138	294	176
17	431	905	433	382	555	926	720	686	247	135	215	167
18	421	710	406	384	608	1030	724	642	233	133	182	152
19	407	621	399	377	691	985	746	602	230	131	191	142
20	399	608	380	366	629	904	813	569	242	132	190	138
21	394	579	386	350	579	872	907	538	232	131	176	135
22	416	543	469	348	549	873	937	518	225	129	176	134
23	408	519	445	344	518	886	989	494	218	128	189	131
24	394	497	410	345	498	897	1050	475	205	126	176	132
25	397	483	416	337	529	886	1120	457	200	128	162	136
26	1180	463	416	332	617	833	1020	440	192	127	153	133
27	944	525	436	336	709	798	937	423	191	118	144	130
28	823	490	452	329	1020	754	870	409	188	112	135	133
29	638	426	461	327	2580	731	858	396	183	111	134	135
30	596	421	470	329	---	723	919	380	175	113	128	135
31	778	---	443	331	---	769	---	397	---	112	122	---
TOTAL	15427	17073	14751	11215	15976	29159	24831	23017	7908	4402	4839	4071
MEAN	511	569	476	362	551	941	828	742	264	142	156	136
MAX	1180	1280	816	442	2580	2160	1120	1120	386	173	299	205
MIN	247	421	380	327	300	723	713	380	175	111	115	100
AC-FT	31390	33860	29260	22240	31690	57840	49250	45650	15690	8730	9600	8070

CAL YR 1975 TOTAL 534102 MEAN 1463 MAX 6850 MIN 247 AC-FT 1059000
WTR YR 1976 TOTAL 173069 MEAN 473 MAX 2580 MIN 100 AC-FT 343300

11394500 MIDDLE FORK FEATHER RIVER NEAR MERRIMAC, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.
CHEMICAL ANALYSES: Water years 1963-66, 1970-72.
WATER TEMPERATURES: Water years 1963 to current year.
SEDIMENT RECORDS: Water years 1970-72.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1962 to current year.

INSTRUMENTATION.--Temperature recorder since October 1962.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1965-76), 24.0°C Aug. 3, 1966, July 17, 18, 1972, July 26, 27, 1976; minimum (water years 1963-64, 1966-76), 0.0°C Jan. 31, Feb. 1, 1975.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 24.0°C July 26, 27; minimum, 1.5°C Jan. 2, 3.

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	15.5	14.5	7.0	7.0	4.0	3.5	3.0	2.0	5.0	4.5	6.0	4.0
2	15.5	15.0	7.5	7.0	5.0	4.0	2.0	1.5	5.5	5.0	4.0	3.0
3	15.5	15.0	8.0	7.0	5.0	4.5	2.0	1.5	5.5	4.5	3.0	3.0
4	15.5	14.5	8.0	7.5	5.0	4.5	3.0	2.0	5.0	4.0	3.5	3.0
5	15.5	14.5	8.0	7.5	6.0	5.0	3.5	3.0	4.0	2.5	4.0	3.5
6	15.0	14.5	8.5	8.0	6.0	6.0	4.0	3.5	2.5	2.0	4.0	4.0
7	15.0	13.0	9.0	8.5	6.0	6.0	4.0	3.5	3.0	2.0	5.0	4.0
8	13.0	11.5	9.0	8.5	6.0	6.0	4.0	3.5	4.0	3.0	6.0	5.0
9	11.5	11.0	8.5	7.5	6.0	5.0	4.5	4.0	5.0	4.0	7.0	6.0
10	11.0	10.5	7.5	6.0	5.0	4.5	4.0	3.5	5.0	4.0	7.0	6.5
11	10.5	10.0	6.0	5.5	4.5	4.0	4.0	3.5	4.5	4.0	7.0	6.5
12	10.0	9.5	5.5	5.0	4.5	4.0	4.0	4.0	5.0	4.0	7.0	6.5
13	10.5	9.5	5.0	5.0	4.0	4.0	4.0	3.5	5.0	4.5	7.0	6.0
14	10.5	9.5	5.5	5.0	4.0	2.5	4.0	4.0	5.5	5.0	7.5	7.0
15	10.5	9.5	6.5	5.5	2.5	2.0	4.5	4.0	5.5	5.0	8.0	7.0
16	10.5	10.0	7.0	6.5	3.0	2.5	5.0	4.5	5.0	5.0	8.5	8.0
17	11.0	10.0	6.5	5.0	3.0	3.0	5.0	4.5	6.0	5.0	9.5	8.5
18	11.0	10.5	5.0	3.5	3.5	3.0	4.5	4.0	7.0	6.0	9.0	8.0
19	11.0	10.5	3.5	3.0	3.5	3.0	5.0	4.5	7.0	6.0	8.0	6.5
20	11.0	10.5	4.0	3.5	3.0	2.5	4.5	4.0	6.0	5.0	7.0	6.5
21	11.5	10.5	4.0	3.5	3.0	2.5	4.0	3.5	5.0	4.5	7.5	6.5
22	11.5	10.5	4.0	4.0	4.0	3.0	4.0	3.5	5.0	4.5	8.0	7.5
23	10.5	9.0	4.5	4.0	4.0	4.0	3.5	3.0	5.5	4.5	8.5	8.0
24	9.0	8.5	4.5	4.0	4.5	4.0	4.0	3.5	5.5	5.0	8.5	8.0
25	8.5	8.0	5.0	4.5	4.5	4.0	4.0	3.0	6.0	5.0	8.0	7.0
26	8.0	7.5	5.0	4.5	5.0	4.5	3.5	3.0	6.0	6.0	7.5	7.0
27	8.5	8.0	5.0	4.5	5.5	5.0	3.5	3.0	7.0	6.0	7.5	7.0
28	8.0	7.0	5.0	4.0	5.5	5.0	4.0	3.0	7.5	7.0	8.0	7.0
29	7.0	6.5	4.0	3.5	6.0	5.5	4.0	3.5	7.5	6.0	8.0	7.0
30	7.0	6.5	3.5	3.5	5.5	4.5	4.5	4.0	---	---	8.5	7.5
31	7.0	7.0	---	---	4.5	3.0	5.0	4.5	---	---	8.5	7.5
MONTH	15.5	6.5	9.0	3.0	6.0	2.0	5.0	1.5	7.5	2.0	9.5	3.0

11394500 MIDDLE FORK FEATHER RIVER NEAR MERRIMAC, CA--Continued

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	8.0	7.0	12.5	11.5	16.5	15.0	19.0	17.5	22.0	20.0	20.5	18.5
2	8.0	7.0	12.5	12.0	16.0	15.0	19.0	17.0	22.5	20.0	20.5	19.0
3	8.5	7.5	13.0	12.5	16.0	14.5	19.0	17.0	21.0	19.5	20.5	19.0
4	8.5	7.5	12.5	12.0	16.0	14.5	20.0	17.5	21.0	19.0	21.0	19.0
5	8.5	8.0	13.0	12.5	16.5	14.5	20.5	18.0	20.0	18.5	21.0	19.5
6	8.5	8.0	13.0	12.5	16.0	14.5	21.0	19.0	20.0	18.0	20.5	19.0
7	8.0	8.0	13.0	12.0	16.5	14.5	21.0	19.0	19.5	17.5	20.0	18.5
8	8.0	8.0	14.0	13.0	16.0	14.5	21.0	19.0	20.0	18.0	19.5	18.0
9	8.5	7.5	14.0	13.0	15.0	14.5	22.0	19.5	20.5	18.0	19.0	18.0
10	8.5	8.0	14.5	14.0	14.5	13.5	22.0	19.5	21.0	19.0	18.5	17.5
11	8.0	7.5	14.5	13.5	15.0	13.0	21.5	20.0	21.5	19.0	18.0	17.5
12	8.0	7.0	14.5	14.0	16.0	14.0	22.0	20.0	21.5	19.0	18.0	17.5
13	8.0	7.0	15.5	14.5	17.0	15.0	22.0	20.0	20.5	19.0	18.0	17.0
14	9.0	8.0	15.5	15.0	17.0	15.0	22.5	20.0	19.5	18.0	17.5	17.0
15	9.0	8.5	15.5	14.5	17.5	15.5	22.0	20.0	18.0	16.5	17.5	16.0
16	8.5	7.5	15.5	14.5	18.5	16.0	22.5	20.5	16.5	15.5	16.0	15.5
17	8.0	7.0	15.5	14.5	19.0	17.0	22.5	20.5	15.5	15.0	16.0	15.0
18	9.0	7.5	15.0	14.0	20.0	17.5	23.0	20.5	15.5	15.0	16.5	15.0
19	10.5	8.5	14.5	13.5	20.0	18.5	22.5	20.5	17.0	15.0	16.5	15.5
20	11.5	10.0	14.5	13.0	20.0	18.5	22.5	20.0	18.5	16.5	17.0	15.5
21	11.5	10.5	15.0	13.5	20.5	19.0	22.5	20.5	20.0	18.0	17.0	16.0
22	11.0	10.5	15.5	14.0	20.0	18.0	22.5	20.0	20.0	19.0	16.5	15.5
23	11.0	10.0	16.0	14.5	20.0	18.0	23.0	20.5	20.0	18.5	16.0	15.0
24	11.5	11.0	16.5	15.0	20.0	18.0	23.0	20.5	20.0	19.0	16.0	14.5
25	11.0	10.0	17.0	15.5	20.5	18.5	23.5	21.0	20.0	19.0	16.0	14.5
26	10.0	9.0	17.5	16.0	20.0	18.5	24.0	21.5	20.0	18.5	15.5	14.5
27	9.0	8.0	18.0	16.5	20.5	18.5	24.0	21.5	19.5	18.5	15.5	14.5
28	9.0	8.0	17.5	16.5	20.5	18.5	23.0	22.0	20.0	18.5	15.5	14.5
29	10.0	8.5	16.5	16.0	20.5	19.0	23.5	21.5	20.0	18.5	15.5	14.5
30	11.5	10.0	16.0	15.5	20.0	18.0	23.5	21.0	20.0	18.5	16.0	15.0
31	---	---	16.5	15.5	---	---	22.5	21.0	20.5	18.5	---	---
MONTH	11.5	7.0	18.0	11.5	20.5	13.0	24.0	17.0	22.5	15.0	21.0	14.5

11394620 FALL RIVER NEAR FEATHER FALLS, CA

LOCATION.--Lat 39°40'00", long 121°08'01", in SW¼NW¼ sec.19, T.21 N., R.8 E., Plumas County, on right bank 0.5 mi (0.8 km) downstream from Coyote Creek, and 8 mi (13 km) northeast of Feather Falls.

DRAINAGE AREA.--9.89 mi^2 (25.62 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 4,000 ft (1,219 m), from topographic map.

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

AVERAGE DISCHARGE.--13 years, 44.2 ft^3/s (1.252 m^3/s), 32,020 acre-ft/yr (39.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,770 ft^3/s (107 m^3/s) Dec. 22, 1964, gage height, 10.00 ft (3.048 m), from rating curve extended above 200 ft^3/s (5.66 m^3/s) on basis of slope-area measurement of maximum flow; minimum daily, 1.4 ft^3/s (0.040 m^3/s) Aug. 23-25, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 114 ft^3/s (3.23 m^3/s) Feb. 29, gage height, 2.78 ft (0.847 m), no peak above base of 180 ft^3/s (5.10 m^3/s); minimum daily, 1.6 ft^3/s (0.045 m^3/s) Sept. 9, 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	2.6	9.8	7.9	7.4	5.4	81	31	37	8.6	3.0	2.0	1.8
2	2.6	8.8	7.9	7.8	5.4	60	30	36	8.2	3.1	2.0	1.8
3	2.6	7.9	7.7	7.4	5.3	46	30	35	7.8	3.2	2.0	1.7
4	2.6	7.3	8.3	7.2	5.6	39	30	34	7.2	3.1	2.0	1.7
5	2.5	6.9	19	7.4	5.3	34	31	33	6.9	3.0	1.9	1.7
6	4.8	6.6	16	7.0	5.5	31	31	31	6.7	3.0	1.9	1.7
7	4.8	10	14	6.9	5.2	29	32	30	6.5	2.9	1.9	1.7
8	3.3	9.0	13	7.0	5.2	28	40	30	6.2	2.8	1.9	1.7
9	3.9	7.9	12	8.0	5.6	27	37	29	7.1	2.8	1.8	1.6
10	18	9.9	11	6.8	5.5	27	38	26	7.1	2.7	1.7	1.6
11	14	8.2	11	6.8	5.2	27	37	24	6.8	2.6	1.7	2.6
12	7.2	8.0	12	6.6	5.2	26	37	23	6.4	2.6	1.7	2.4
13	5.5	7.7	11	6.5	7.2	26	36	21	5.9	2.6	1.7	2.1
14	4.8	7.6	10	6.5	12	26	37	20	5.4	2.5	3.8	2.0
15	4.5	20	9.7	6.4	8.9	28	39	18	5.3	2.4	8.1	2.1
16	4.3	44	9.6	6.6	8.7	30	37	17	5.0	2.4	4.0	2.1
17	4.1	25	9.2	6.6	9.3	34	35	16	4.9	2.3	3.0	2.1
18	4.0	19	9.0	6.5	14	39	36	15	4.7	2.3	3.0	2.0
19	3.9	16	8.7	6.3	15	37	38	14	4.5	2.3	2.9	2.0
20	3.7	15	8.5	6.2	13	34	40	13	4.4	2.2	2.6	1.9
21	3.7	12	8.4	6.1	12	34	41	13	4.1	2.2	2.4	1.9
22	4.7	11	9.6	6.0	11	34	42	12	4.0	2.2	2.8	1.8
23	4.1	11	8.3	6.0	11	35	43	12	3.8	2.1	2.6	1.8
24	3.9	10	8.0	5.9	11	37	44	11	3.6	2.1	2.4	1.8
25	4.6	9.7	7.9	5.7	12	37	44	11	3.5	2.0	2.2	1.7
26	36	9.3	7.9	5.6	13	35	42	10	3.4	2.0	2.1	1.7
27	12	9.8	7.9	5.6	17	34	40	9.6	3.2	1.9	2.1	1.8
28	8.6	8.9	8.0	5.4	39	33	37	9.3	3.1	1.9	2.0	1.8
29	7.2	8.1	8.3	5.4	100	32	36	9.0	3.0	1.9	1.9	1.8
30	17	8.1	8.2	5.4	---	32	36	8.9	3.0	1.9	1.9	1.8
31	12	---	7.6	5.4	---	34	---	9.2	---	1.9	1.8	---
TOTAL	217.5	352.5	305.6	200.4	378.5	1086	1107	617.0	160.3	75.9	75.8	56.2
MEAN	7.02	11.8	9.86	6.46	13.1	35.0	36.9	19.9	5.34	2.45	2.45	1.87
MAX	36	44	19	8.0	100	81	44	37	8.6	3.2	8.1	2.6
MIN	2.5	6.6	7.6	5.4	5.2	26	30	8.9	3.0	1.9	1.7	1.6
AC-FT	431	699	606	397	751	2150	2200	1220	318	151	150	111

CAL YR 1975 TOTAL 18108.5 MEAN 49.6 MAX 878 MIN 2.5 AC-FT 35920
WTR YR 1976 TOTAL 4632.7 MEAN 12.7 MAX 100 MIN 1.6 AC-FT 9190

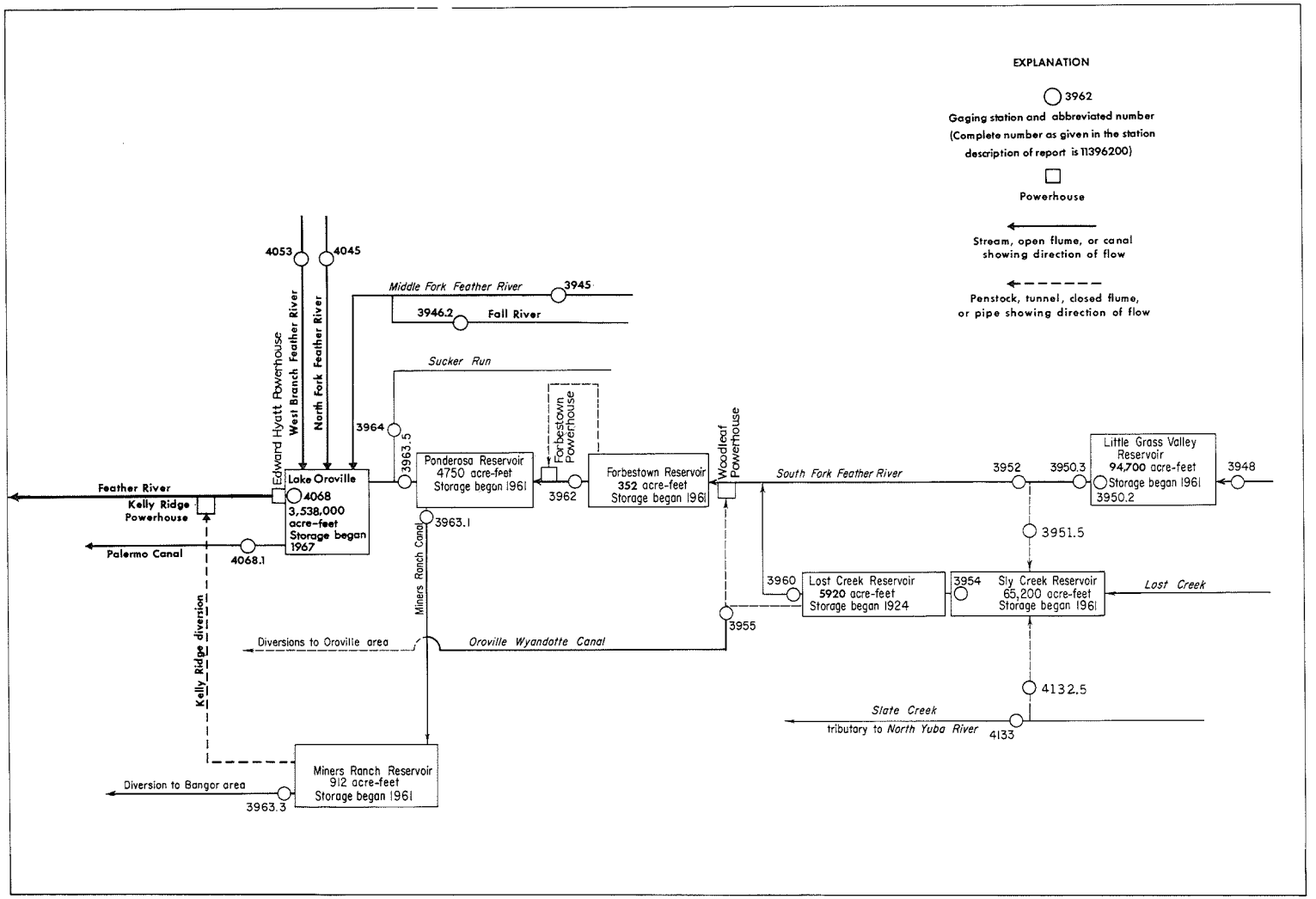

FIGURE 5.--Schematic diagram showing diversions and storage in South Fork Feather River basin.

11394800 SOUTH FORK FEATHER RIVER ABOVE LITTLE GRASS VALLEY RESERVOIR, CA

LOCATION.--Lat 39°45'07", long 120°57'26", in NW¼SE¼ sec.22, T.22 N., R.9 E., Plumas County, Plumas National Forest, on right bank 0.5 mi (0.8 km) downstream from unnamed tributary, 4.5 mi (7.2 km) upstream from Little Grass Valley Dam, and 5 mi (8 km) north of La Porte.

DRAINAGE AREA.--8.09 mi^2 (20.95 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 5,080 ft (1,548 m), from topographic map.

REMARKS.--Records good. No storage or diversion above station. See schematic diagram of South Fork Feather River basin.

AVERAGE DISCHARGE.--16 years, 30.6 ft^3/s (0.867 m^3/s), 22,170 acre-ft/yr (27.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,160 ft^3/s (118 m^3/s) Jan. 31, 1963, gage height, 7.12 ft (2.170 m), from rating curve extended above 140 ft^3/s (3.96 m^3/s) on basis of slope-area measurement at gage height 5.47 ft (1.667 m); minimum daily, 0.02 ft^3/s (<0.001 m^3/s) Sept. 18, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 68 ft^3/s (1.93 m^3/s) May 1, 3, gage height, 2.61 ft (0.796 m), no peak above base of 140 ft^3/s (3.96 m^3/s); minimum daily, 0.12 ft^3/s (0.003 m^3/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	1.2	5.9	3.9	6.0	4.0	20	19	54	8.4	1.0	.40	1.8
2	1.2	5.4	3.9	5.8	4.2	16	19	56	7.6	.97	.23	1.8
3	1.1	5.0	3.4	5.7	4.2	14	20	57	7.1	.90	.17	1.6
4	1.1	4.9	3.8	5.2	4.5	14	22	56	6.6	.82	.15	.34
5	1.1	4.6	7.5	5.2	4.9	12	22	55	6.1	.74	.15	.25
6	1.2	4.7	7.2	5.0	4.5	11	21	52	5.8	.64	.16	.25
7	2.1	7.2	6.2	4.9	4.1	11	22	54	5.6	.60	.15	.25
8	1.2	6.5	6.2	4.8	4.0	10	25	55	5.2	.55	.15	.25
9	1.2	5.3	6.5	4.9	4.0	11	23	54	6.4	.52	.14	.28
10	12	5.5	6.2	4.9	4.0	11	24	52	6.5	.49	.14	.52
11	6.7	4.7	6.1	4.6	4.1	11	22	49	6.2	.45	.14	.83
12	4.1	4.4	8.3	4.4	4.2	11	22	46	5.6	.45	.14	.78
13	3.0	4.4	5.6	4.4	4.4	12	21	44	5.2	.43	.12	.53
14	2.5	4.4	5.8	4.4	5.8	12	21	39	4.5	.40	.28	.50
15	2.4	7.8	8.1	4.4	6.4	14	23	33	4.1	.38	2.2	.50
16	2.1	16	5.4	4.5	4.9	16	21	29	3.9	.34	1.5	.46
17	2.0	9.9	5.1	4.7	5.0	20	20	26	3.6	.34	.72	.43
18	1.9	7.4	5.0	4.9	6.2	22	21	23	3.0	.33	1.3	.40
19	1.8	7.1	4.8	5.1	6.3	20	24	20	2.8	.29	1.2	.39
20	1.6	7.5	4.7	5.1	5.9	19	29	19	2.7	.28	.62	.41
21	1.6	5.9	5.1	4.7	5.8	19	33	17	2.6	.27	.91	.40
22	1.9	5.5	5.2	4.7	5.8	20	37	16	2.3	.25	3.0	.40
23	1.7	5.2	5.1	4.4	7.1	21	41	14	2.1	.25	3.3	.35
24	1.6	4.8	5.2	4.2	6.8	22	47	13	1.9	.24	2.9	.30
25	1.7	4.8	4.9	4.3	6.6	21	49	12	1.8	.23	2.6	.28
26	12	4.5	5.0	4.4	6.8	20	45	11	1.7	.21	2.6	.25
27	6.7	4.7	5.2	4.1	8.7	20	40	10	1.5	.21	2.3	.25
28	4.7	4.2	5.3	4.1	18	19	37	9.9	1.3	.27	2.3	.35
29	4.0	4.3	5.8	4.0	30	19	39	9.2	1.2	.34	2.2	.40
30	7.6	4.1	6.1	4.0	---	20	45	8.8	1.0	.38	2.0	.47
31	6.5	---	6.5	4.8	---	21	---	9.5	---	.41	1.9	---
TOTAL	101.5	176.6	173.1	146.6	191.2	509	854	1003.4	124.3	13.98	36.07	16.02
MEAN	3.27	5.89	5.58	4.73	6.59	16.4	28.5	32.4	4.14	.45	1.16	.53
MAX	12	16	8.3	6.0	30	22	49	57	8.4	1.0	3.3	1.8
MIN	1.1	4.1	3.4	4.0	4.0	10	19	8.8	1.0	.21	.12	.25
AC-FT	201	350	343	291	379	1010	1690	1990	247	28	72	32

CAL YR 1975 TOTAL 14210.80 MEAN 38.9 MAX 1390 MIN .30 AC-FT 28190
WTR YR 1976 TOTAL 3345.77 MEAN 9.14 MAX 57 MIN .12 AC-FT 6640

11395020 LITTLE GRASS VALLEY RESERVOIR NEAR LA PORTE, CA

LOCATION.--Lat 39°43'25", long 121°01'10", in SE¼NW¼ sec.31, T.22 N., R.9 E., Plumas County, Plumas National Forest, on right bank 300 ft (91 m) upstream from dam on South Fork Feather River, 3.3 mi (5.3 km) northwest of La Porte.

DRAINAGE AREA.--25.8 mi^2 (66.8 km^2).

PERIOD OF RECORD.--October 1961 to current year. Monthend elevation and contents only October 1961 to October 1962.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Oroville-Wyandotte Irrigation District). Prior to Nov. 1, 1962, in valve chamber in dam at same datum.

REMARKS.--Reservoir is formed by rockfill dam. Storage began in October 1961. Total capacity, 93,000 acre-ft (115 hm^3) between elevations, 4,876 ft (1,486.2 m) invert of release valve, and 5,047 ft (1,538.3 m) top of spillway gates, all of which is available for release. Water is released down South Fork Feather River for power development and irrigation downstream. Records, including extremes, represent contents at 2400 hours. See schematic diagram of South Fork Feather River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 96,100 acre-ft (118 hm^3) Apr. 29, 1965, elevation, 5,047.9 ft (1,538.60 m); minimum since reservoir first filled, 44,100 acre-ft (54.4 hm^3) Jan. 20, 21, 1976, elevation, 5,009.7 ft (1,526.96 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 61,300 acre-ft (75.6 hm^3) May 23 to June 19, elevation, 5,024.2 ft (1,531.38 m); minimum, 44,100 acre-ft (54.4 hm^3) Jan. 20, 21, elevation, 5,009.7 ft (1,526.96 m).

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

5000	34600
5010	44400
5020	55900
5030	68900
5040	83500
5048	96300

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	54700	48400	50300	50800	44400	47500	52100	58000	61300	61000	60200	59400
2	54000	48400	50300	50500	44400	47800	52200	58200	61300	61000	60000	59000
3	53600	48600	50300	50200	44600	48000	52500	58500	61300	61000	60000	58600
4	53000	48600	50400	49800	44600	48100	52600	58700	61300	61000	60000	58100
5	52700	48600	50500	49500	44600	48200	52700	59000	61300	60800	60000	57700
6	---	48600	50600	49100	44700	48300	52800	59300	61300	60800	60000	57300
7	---	48700	50600	48800	44700	48400	53000	59500	61300	60800	59900	56900
8	---	48800	50700	48400	44700	48600	53200	59800	61300	60800	59900	56500
9	---	48900	50700	48100	44800	48700	53500	60000	61300	60800	59900	56100
10	---	48900	50800	47800	44800	48800	53600	60200	61300	60700	59900	55900
11	---	49000	50800	47300	44800	49000	53800	60400	61300	60700	59900	55700
12	---	49000	51000	47000	44800	49000	54000	60600	61300	60700	59900	55300
13	---	49000	51100	46600	44900	49100	54200	60700	61300	60700	59800	55000
14	---	49100	51100	46300	45000	49200	54400	60800	61300	60600	59900	54500
15	---	49400	51100	45800	45100	49400	54500	60800	61300	60600	60000	54200
16	---	49500	51200	45500	45200	49500	54600	61000	61300	60600	60000	53800
17	---	49600	51200	45100	45400	49700	54700	61000	61300	60600	60000	53400
18	---	49700	51200	44700	45500	49900	55000	61100	61300	60600	60000	53000
19	---	49700	51200	44300	45600	50200	55100	61100	61300	60400	60000	52700
20	---	49800	51300	44100	45600	50300	55200	61200	61200	60400	60000	52200
21	49000	49800	51300	44100	45600	50400	55400	61200	61200	60400	60000	51900
22	48800	49900	51400	44200	45700	50600	54700	61200	61200	60400	60000	51400
23	48600	49900	51400	44300	45700	50700	55900	61300	61200	60300	60000	51100
24	48300	49900	51400	44300	45700	51000	56100	61300	61200	60300	60000	50600
25	48200	50000	51400	44300	45800	51100	56400	61300	61200	60300	60000	50300
26	48300	50000	51400	44300	45900	51300	56700	61300	61200	60300	60000	49900
27	48200	50200	51400	44300	46200	51400	56900	61300	61100	60300	60000	49500
28	48100	50200	51400	44300	46500	51500	57200	61300	61100	60300	60000	49000
29	48100	50200	51400	44400	47200	51800	57400	61300	61100	60200	59900	48700
30	48300	50200	51400	44400	---	51900	57700	61300	61000	60200	59900	48300
31	48400	---	51200	44400	---	52000	---	61300	---	60200	59800	---
MAX	---	50200	51400	50800	47200	52000	57700	61300	61300	61000	60200	59400
MIN	---	48400	50300	44100	44400	47500	52100	58000	61000	60200	59800	48300
†	5013.5	5015.0	5015.9	5010.0	5012.4	5016.6	5021.4	5024.2	5023.9	5023.3	5023.0	5013.4
‡	-6800	+1800	+1000	-6800	+2800	+4800	+5700	+3600	-300	-800	-400	-11500

CAL YR 1975 ‡ +4500
WTR YR 1976 ‡ -6900

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

11395030 SOUTH FORK FEATHER RIVER BELOW LITTLE GRASS VALLEY DAM, CA

LOCATION.--Lat 39°43'26", long 121°01'16", in SW¼NW¼ sec.31, T.22 N., R.9 E., Plumas County, Plumas National Forest, on left bank 0.1 mi (0.2 km) downstream from Little Grass Valley Dam, 0.7 mi (1.1 km) downstream from Ice Creek, and 3.5 mi (5.6 km) northwest of La Porte.

DRAINAGE AREA.--25.9 mi^2 (67.1 km^2).

PERIOD OF RECORD.--October 1927 to September 1933 (published as "near La Porte"), October 1960 to current year.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,809.0 ft (1,465.78 m) above mean sea level. Prior to Oct. 1, 1960, at site 0.4 mi (0.6 km) upstream at different datum. Oct. 1, 1960, to Oct. 30, 1962, at present site and datum. Nov. 1, 1962, to May 31, 1966, at site on outlet works at base of Little Grass Valley Dam 0.1 mi (0.2 km) upstream at datum 4,850.00 ft (1,478.280 m) above mean sea level.

REMARKS.--Records good. Flow regulated by Little Grass Valley Reservoir (station 11395020) beginning in October 1961. No diversion above station. See schematic diagram of South Fork Feather River basin.

AVERAGE DISCHARGE (adjusted for change in contents in Little Grass Valley Reservoir).--22 years, 96.4 ft^3/s (2.730 m^3/s), 69,840 acre-ft/yr (86.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,250 ft^3/s (120 m^3/s) Feb. 1, 1963; minimum, 0.2 ft^3/s (0.006 m^3/s) Oct. 28-31, Nov. 2, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 297 ft^3/s (8.41 m^3/s) Oct. 21, gage height, 9.46 ft (2.883 m); minimum daily, 1.8 ft^3/s (0.05 m^3/s) Mar. 12-15.

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	294	6.1	2.2	170	1.9	3.0	8.5	9.8	7.8	6.3	4.0	185
2	291	6.1	2.2	178	2.0	2.4	8.5	10	8.0	6.3	4.0	185
3	291	5.2	2.2	190	2.0	2.2	8.3	10	8.5	6.3	4.0	185
4	291	4.0	2.3	190	2.0	2.2	8.3	9.8	8.3	6.1	4.0	185
5	154	3.5	3.4	190	2.1	2.0	8.3	9.5	8.0	6.1	4.0	183
6	34	2.8	3.0	190	2.0	1.9	8.3	9.3	8.0	6.1	4.0	183
7	70	2.9	2.5	190	2.0	1.9	8.3	9.3	8.0	6.1	4.0	183
8	70	2.8	2.5	187	2.0	1.9	8.8	9.5	8.0	6.1	4.0	183
9	70	2.6	2.5	187	2.1	1.9	9.0	9.5	8.0	6.1	4.0	183
10	72	2.6	2.5	187	2.0	1.9	9.0	9.3	8.0	6.1	4.2	183
11	71	2.4	2.4	187	2.0	1.9	8.8	9.0	8.0	6.3	4.2	183
12	70	2.2	2.4	187	2.0	1.8	8.8	8.8	7.8	6.3	4.2	183
13	70	2.2	2.3	187	2.1	1.8	8.8	8.8	7.6	6.5	4.3	187
14	70	2.2	2.3	185	2.3	1.8	8.5	8.5	6.9	6.5	4.5	194
15	178	3.2	2.2	185	2.2	1.8	8.5	8.5	6.7	6.3	4.7	194
16	270	4.3	2.2	185	2.2	1.9	8.5	8.5	6.7	6.1	4.3	194
17	270	3.1	2.2	185	2.2	1.9	8.5	8.5	6.7	6.1	4.3	194
18	270	2.8	2.2	183	2.3	2.1	8.5	8.3	6.7	6.1	4.5	194
19	270	2.5	2.2	183	2.3	2.1	8.5	8.3	6.7	6.1	4.5	194
20	270	2.4	2.2	79	2.2	2.0	8.8	8.3	6.7	6.1	4.5	194
21	194	2.3	2.2	2.1	2.2	2.0	9.0	8.3	6.7	5.3	4.5	194
22	104	2.3	2.2	2.1	2.2	2.0	9.0	8.3	6.7	3.9	4.5	194
23	104	2.3	2.2	2.1	2.2	5.0	9.3	8.0	6.7	3.9	4.5	194
24	104	2.3	2.2	2.1	2.1	8.8	9.8	8.0	6.5	4.0	4.5	194
25	104	2.2	2.2	2.0	2.1	9.0	10	8.0	6.5	3.9	4.5	194
26	106	2.2	2.2	2.0	2.2	8.8	9.3	7.8	6.5	3.9	4.5	194
27	104	2.2	2.2	2.0	2.5	8.5	9.3	7.8	6.5	4.0	4.5	194
28	68	2.2	2.2	2.0	3.5	8.5	9.0	7.8	6.5	4.0	4.5	194
29	6.1	2.2	2.2	2.0	4.3	8.5	9.0	7.8	6.3	4.0	4.5	194
30	6.5	2.2	93	2.0	---	8.5	9.0	7.8	6.3	4.0	4.5	194
31	6.3	---	172	1.9	---	8.5	---	7.8	---	4.0	101	---
TOTAL	4352.9	88.3	332.7	3627.3	65.2	118.5	264.2	268.9	216.3	168.9	230.2	5689
MEAN	140	2.94	10.7	117	2.25	3.82	8.81	8.67	7.21	5.45	7.43	190
MAX	294	6.1	172	190	4.3	9.0	10	10	8.5	6.5	101	194
MIN	6.1	2.2	2.2	1.9	1.9	1.8	8.3	7.8	6.3	3.9	4.0	183
AC-FT	8630	175	660	7190	129	235	524	533	429	335	457	11280

CAL YR 1975 TOTAL 37985.0 MEAN 104 MAX 490 MIN 2.2 AC-FT 75340 MEAN † 110 AC-FT † 79840
WTR YR 1976 TOTAL 15422.4 MEAN 42.1 MAX 294 MIN 1.8 AC-FT 30590 MEAN † 32.6 AC-FT † 23690

† Adjusted for change in contents in Little Grass Valley Reservoir.

11395200 SOUTH FORK FEATHER RIVER BELOW DIVERSION DAM, NEAR STRAWBERRY VALLEY, CA

LOCATION.--Lat 39°38'51", long 121°07'04", in NE¼SE¼ sec.30, T.21 N., R.8 E., Plumas County, Plumas National Forest, on right bank 0.1 mi (0.2 km) downstream from diversion dam, 3.1 mi (5.0 km) upstream from Rock Creek, and 5.8 mi (9.3 km) north of Strawberry Valley.

DRAINAGE AREA.--37.7 mi^2 (97.6 km^2).

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

GAGE.--Water-stage recorder and since Nov. 7, 1962, concrete control. Datum of gage is 3,535.02 ft (1,077.474 m) above mean sea level (levels by Oroville-Wyandotte Irrigation District).

REMARKS.--Records good. Flow regulated by Little Grass Valley Reservoir (station 11395020). South Fork diversion tunnel, maximum capacity, about 600 ft^3/s (17.0 m^3/s) 500 ft (152 m) upstream, diverts to Sly Creek Reservoir (station 11395400); diversion began in November 1961. See schematic diagram of South Fork Feather River basin.

AVERAGE DISCHARGE (adjusted for diversion to South Fork tunnel).--16 years, 154 ft^3/s (4.361 m^3/s), 111,600 acre-ft/yr (138 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,330 ft^3/s (179 m^3/s) Jan. 31, 1963, gage height, 13.21 ft (4.026 m), from rating curve extended above 700 ft^3/s (19.8 m^3/s) on basis of computation of peak flow over diversion dam; minimum daily, 0.3 ft^3/s (0.008 m^3/s) Dec. 25, 1962, to Jan. 2, 1963, Mar. 1-3, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 460 ft^3/s (13.0 m^3/s) Oct. 6, gage height, 2.74 ft (0.835 m); minimum daily, 1.1 ft^3/s (0.031 m^3/s) Nov. 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	9.5	9.2	3.6	3.6	4.5	6.7	7.4	7.2	6.1	5.5	4.9	4.9
2	9.2	9.2	3.6	3.6	4.5	6.7	7.4	7.2	6.1	5.5	4.9	4.9
3	9.2	6.1	3.6	3.6	4.5	6.5	7.2	7.2	5.9	5.5	4.9	4.9
4	9.2	1.1	3.6	3.6	4.5	6.3	7.2	7.2	5.9	5.5	4.9	4.9
5	9.2	1.1	3.8	3.8	4.5	6.3	7.2	7.2	5.9	5.5	4.9	4.9
6	17	3.2	3.8	3.8	4.5	6.3	7.2	7.2	5.9	5.5	4.9	4.9
7	8.8	5.9	3.8	3.8	4.5	6.3	7.2	7.2	5.7	5.5	4.9	4.9
8	13	5.9	3.8	3.8	4.5	6.3	7.2	7.2	5.7	5.5	4.9	4.9
9	8.8	5.9	3.8	4.0	4.5	6.5	7.2	6.9	5.7	5.5	4.9	4.9
10	9.0	5.9	3.8	4.0	4.5	6.5	7.2	6.9	5.9	5.3	4.9	4.9
11	9.0	4.9	3.8	4.0	4.3	6.5	7.2	6.9	5.9	5.3	4.9	5.1
12	8.8	3.8	3.8	4.0	4.3	6.5	7.2	6.9	5.9	5.3	4.9	5.1
13	8.8	3.8	3.6	4.0	4.3	6.5	7.2	6.9	5.9	5.3	4.9	5.1
14	8.8	3.8	3.6	4.0	4.5	6.5	7.2	6.9	5.7	5.3	4.9	5.1
15	9.0	4.0	3.6	3.8	4.5	6.5	7.4	6.7	5.7	5.3	4.9	5.1
16	9.2	4.0	3.6	3.8	4.3	6.5	7.4	6.5	5.7	5.3	4.9	5.1
17	9.5	4.0	3.6	3.6	4.1	6.7	7.4	6.5	5.7	5.1	4.7	5.1
18	9.8	4.0	3.6	3.6	3.6	6.7	7.4	6.5	5.7	5.1	4.7	5.1
19	9.8	4.0	3.6	3.6	4.2	6.9	7.2	6.3	5.7	4.9	4.7	5.1
20	9.8	4.0	3.6	3.4	4.5	6.9	7.2	6.1	5.7	4.9	4.7	5.1
21	9.8	4.0	3.6	3.2	4.5	7.2	7.2	6.1	5.7	4.9	4.5	5.1
22	9.8	4.0	3.8	3.2	5.3	7.2	7.2	6.1	5.7	4.9	4.5	5.1
23	9.8	4.0	3.8	4.0	6.3	7.2	7.2	6.1	5.7	4.9	4.5	5.1
24	9.8	4.0	3.8	4.7	6.3	7.2	7.2	6.1	5.7	4.9	4.5	5.3
25	9.8	3.8	3.8	4.7	6.3	7.4	7.2	6.1	5.7	4.9	4.7	5.3
26	10	3.6	3.8	4.5	6.3	7.4	7.2	6.1	5.7	4.7	4.7	5.3
27	9.8	3.8	3.8	4.5	6.3	7.4	7.2	6.1	5.7	4.7	4.7	5.3
28	9.8	3.6	3.8	4.5	6.3	7.4	7.2	6.1	5.7	4.5	4.7	5.5
29	9.5	3.6	3.8	4.5	6.7	7.4	7.2	6.1	5.7	4.7	4.7	5.5
30	9.5	3.6	3.6	4.5	---	7.4	7.2	6.1	5.7	4.9	4.7	5.5
31	9.5	---	3.6	4.5	---	7.4	---	6.3	---	4.9	4.7	---
TOTAL	302.5	131.8	114.8	122.2	141.9	211.2	217.2	204.9	173.4	159.5	148.1	153.0
MEAN	9.76	4.39	3.70	3.94	4.89	6.81	7.24	6.61	5.78	5.15	4.78	5.10
MAX	17	9.2	3.8	4.7	6.7	7.4	7.4	7.2	6.1	5.5	4.9	5.5
MIN	8.8	1.1	3.6	3.2	3.6	6.3	7.2	6.1	5.7	4.5	4.5	4.9
AC-FT	600	261	228	242	281	419	431	406	344	316	294	303
MEAN ‡	158	22.2	25.9	140	26.9	56.9	53.8	30.1	17.6	12.5	11.0	199
AC-FT ‡	9740	1320	1590	8600	1550	3500	3200	1850	1050	769	678	11870
†	9140	1060	1360	8360	1270	3080	2770	1440	704	453	384	11570

CAL YR 1975	TOTAL	2468.3	MEAN 6.76	MAX 22	MIN 1.1	AC-FT 4900	MEAN †	154	AC-FT †	111200		
WTR YR 1976	TOTAL	2080.5	MEAN 5.68	MAX 17	MIN 1.1	AC-FT 4130	MEAN †	63.0	AC-FT †	45720		

‡ Adjusted for diversion to South Fork tunnel.
† Diversion, in acre-feet, from South Fork Feather River to South Fork diversion tunnel.

11395400 SLY CREEK RESERVOIR NEAR STRAWBERRY VALLEY, CA

LOCATION.--Lat 39°35'01", long 121°06'45", in NW¼NW¼ sec.20, T.20 N., R.8 E., Butte County, Plumas National Forest, on right bank 100 ft (30 m) upstream from dam on Lost Creek, 1.4 mi (2.3 km) northwest of Strawberry Valley.

DRAINAGE AREA.--24.0 mi^2 (62.2 km^2).

PERIOD OF RECORD.--November 1961 to current year (fragmentary prior to Mar. 14, 1962).

GAGE.--Nonrecording gage or Telemark read once daily. Datum of gage is at mean sea level (levels by Oroville-Wyandotte Irrigation District). Prior to Sept. 30, 1966, water-stage recorder in valve chamber inside dam at same datum.

REMARKS.--Reservoir is formed by earthfill dam. Storage began in November 1961. Total capacity, 65,000 acre-ft (80.1 hm^3) between elevations 3,285 ft (1,001.3 m), invert of outlet and 3,531 ft (1,076.2 m), top of spillway gate, all of which is available for release. Water is diverted into reservoir from South Fork Feather River through South Fork diversion tunnel and from North Yuba River basin through Slate Creek tunnel (station 11413250). Records, including extremes, show contents at 2400 hours. See schematic diagram of South Fork Feather River basin.

COOPERATION.--Nonrecording-gage or Telemark readings furnished by Oroville-Wyandotte Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 65,500 acre-ft (80.8 hm^3) June 2-5, 11, 12, 1962, Apr. 7, 1963, elevation, 3,531.5 ft (1,076.40 m); minimum, 860 acre-ft (1.06 hm^3) Feb. 11, 1976, elevation, 3,320.0 ft (1,011.94 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 37,500 acre-ft (46.2 hm^3) May 25, June 6-9, elevation, 3,477.6 ft (1,059.97 m); minimum, 860 acre-ft (1.06 hm^3), Feb. 11, elevation, 3,320.0 ft (1,011.94 m).

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

3320	860	3420	16600
3340	2150	3450	26300
3360	4300	3480	38500
3380	7360	3510	53400
3400	11500	3532	66200

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	32500	22700	9050	3820	2710	5700	19800	32100	37200	33200	29300	27000
2	32000	22300	8720	3740	2510	7090	20200	32400	37300	33300	29200	27400
3	31700	22000	8520	3980	2330	8480	20500	32800	37400	33000	29200	27800
4	31200	21600	8230	4160	1740	8800	20800	33600	37400	33100	29100	28200
5	30800	21300	8080	4360	1430	9140	20900	33600	37400	33100	29000	28500
6	30100	21000	8080	4400	1210	9560	21300	34000	37500	32900	29000	28900
7	29600	20800	8160	4540	940	9830	21700	34300	37500	32700	28900	29300
8	29800	20500	7750	4580	890	10400	22100	35000	37500	32500	28800	28700
9	28700	20200	7610	4710	910	10800	22200	35300	37500	32200	28800	27800
10	28000	19900	7980	4780	910	11200	22500	35600	37400	31900	28600	26800
11	28100	19300	8350	4970	860	11600	23300	35900	37000	31900	28300	26000
12	27700	18600	8160	5140	910	11800	24100	36200	36600	31900	28200	25800
13	27200	18000	7940	5310	910	12000	24000	35700	36600	31600	27600	25700
14	26600	17500	7710	5460	950	12400	24800	35500	36600	31500	27900	25400
15	26100	16900	7570	5450	940	12700	25000	35900	36300	31300	27900	25500
16	25900	17000	7210	5550	970	13000	25400	35700	35900	31200	28000	25800
17	25700	16800	7010	5620	1140	13300	25900	36000	35500	31200	28000	25500
18	25600	16400	6700	5730	1360	13600	26300	36100	35200	31200	27900	25200
19	25400	15900	6500	5930	1660	14300	26700	36300	35000	31100	27900	25100
20	25200	15400	6220	6100	1850	14700	27500	36400	35100	31000	27800	25200
21	25000	14900	5970	5800	2170	15000	27600	36500	35000	31000	27700	24800
22	25400	14400	5730	5450	2440	15500	28100	36500	35000	30900	27500	24600
23	25700	13800	5500	5310	2290	15800	28600	36800	35000	30800	27700	24600
24	25000	13200	5270	5040	2310	16200	29100	37200	35000	30700	27500	24600
25	24000	12500	5000	4750	2330	16600	30000	37500	34700	30700	27700	24500
26	23300	12100	4750	4330	2350	17200	30000	36900	34300	30400	27500	24300
27	23200	11500	4470	4030	2690	17800	30500	37000	34000	30200	27600	24300
28	22700	10900	4330	3640	3020	18200	31000	37000	33900	29800	27600	24200
29	22500	10200	4120	3270	4650	18600	31300	37100	33500	29700	27700	23900
30	22800	9630	3720	3050	---	19000	31700	37100	33300	29400	27800	23800
31	22800	---	3520	2810	---	19400	---	37200	---	29300	27900	---
MAX	32500	22700	9050	6100	4650	19400	31700	37500	37500	33300	29300	29300
MIN	22500	9630	3520	2810	860	5700	19800	32100	33300	29300	27500	23800
†	3440.2	3391.5	3353.3	3346.7	3362.5	3429.4	3464.0	3477.0	3469.0	3458.0	3454.2	3442.9
‡	-10000	-13200	-6100	-700	+1800	+14800	+12300	+5500	-3900	-4000	-1400	-4100

CAL YR 1975 ‡ +1400
WTR YR 1976 ‡ -900

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

11395500 OROVILLE-WYANDOTTE CANAL NEAR CLIPPER MILLS, CA

LOCATION.--Lat 39°33'15", long 121°11'31", in NW¼NE¼ sec.33, T.20 N., R.7 E., Butte County, in concrete valve house at head of canal, 2.5 mi (4.0 km) north of Clipper Mills.

PERIOD OF RECORD.--October 1927 to September 1941 (published as Forbestown ditch), October 1953 to current year. Monthly discharge only for October 1953 to September 1961, published with records for Lost Creek near Clipper Mills.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 3,166.0 ft (965.00 m) above mean sea level (levels by Oroville-Wyandotte Irrigation District). Prior to Sept. 30, 1941, nonrecording gages and Oct. 1, 1941, to Nov. 16, 1962, water-stage recorder at sites at different datums 4 mi (6 km) upstream in abandoned portion of canal, 0.3 mi (0.5 km) downstream from Lost Creek Dam.

REMARKS.--Records good. Water is discharged to canal through valve in Woodleaf penstock. Prior to Nov. 16, 1962, canal diverted from Lost Creek Dam. Water is used for irrigation and domestic supply. Demand for water reduced when a large lumber mill closed at Woodleaf in 1962. See schematic diagram of South Fork Feather River basin.

AVERAGE DISCHARGE (prior to closure of lumber mill).--23 years (water years 1928-41, 1954-62), 21.0 ft^3/s (0.595 m^3/s), 15,200 acre-ft/yr (18.7 hm^3/yr); 14 years (water years 1963-76), 8.30 ft^3/s (0.235 m^3/s), 6,010 acre-ft/yr (7.41 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 43 ft^3/s (1.22 m^3/s) Aug. 9 to Sept. 9, 1937; no flow at times in many 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	18	3.9	2.2	1.8	7.1	.40	3.6	18	18	22	31	22
2	18	3.6	2.2	1.7	7.1	.30	3.6	18	18	23	31	22
3	18	3.6	2.2	1.7	7.2	0	3.6	18	18	24	31	22
4	18	3.6	2.2	1.6	7.1	0	3.6	18	18	24	31	22
5	18	3.7	2.2	1.5	7.2	0	3.6	18	18	24	32	22
6	18	3.7	1.3	2.8	7.0	0	3.7	18	18	24	32	22
7	18	3.7	.10	4.3	7.0	0	3.7	18	18	24	32	22
8	18	3.7	0	4.4	7.0	0	1.4	18	18	25	33	24
9	18	3.9	0	1.8	7.1	0	0	18	18	27	33	32
10	12	3.9	2.4	1.6	7.2	0	0	18	18	28	32	32
11	5.8	3.9	4.4	2.5	7.2	0	0	18	18	28	32	36
12	5.8	4.0	4.4	2.5	7.1	0	0	19	18	27	32	36
13	5.8	4.3	3.3	2.5	7.0	0	0	19	18	28	32	34
14	5.8	3.6	2.5	2.5	7.1	0	0	18	18	27	33	26
15	5.8	3.5	2.5	2.5	4.6	0	0	18	18	27	33	26
16	5.8	3.6	2.4	2.5	2.2	0	0	18	18	27	32	26
17	5.8	3.6	1.8	2.5	2.2	1.0	0	18	19	27	32	26
18	5.8	2.7	1.5	5.7	2.2	1.6	0	18	19	27	32	26
19	5.8	2.1	2.0	6.8	2.2	2.2	0	18	19	27	33	26
20	5.8	2.1	2.1	6.8	2.2	1.8	0	18	19	27	33	25
21	5.8	1.8	2.0	6.6	2.2	1.5	0	18	19	27	33	26
22	5.8	1.8	2.0	6.8	2.2	1.5	1.4	18	19	27	32	26
23	5.8	2.1	2.0	6.8	2.2	1.7	4.0	18	19	27	32	26
24	5.8	2.1	2.0	7.0	2.2	1.8	5.6	18	19	27	31	25
25	5.8	2.0	2.0	6.8	2.2	1.8	9.0	18	20	27	30	24
26	6.0	2.1	1.8	6.8	2.2	1.8	9.7	18	20	27	26	25
27	6.0	2.2	1.8	6.8	1.8	1.8	12	18	20	27	22	24
28	5.9	2.2	1.8	7.0	1.4	1.8	17	18	19	28	22	25
29	5.1	2.2	1.8	7.1	1.0	2.7	18	18	20	24	22	23
30	4.0	2.2	1.8	7.1	---	3.7	18	18	21	29	22	22
31	3.9	---	1.7	7.1	---	3.7	---	18	---	30	22	---
TOTAL	291.9	91.4	62.40	135.9	132.4	31.10	121.5	560	560	817	936	775
MEAN	9.42	3.05	2.01	4.38	4.57	1.00	4.05	18.1	18.7	26.4	30.2	25.8
MAX	18	4.3	4.4	7.1	7.2	3.7	18	19	21	30	33	36
MIN	3.9	1.8	0	1.5	1.0	0	0	18	18	22	22	22
AC-FT	579	181	124	270	263	62	241	1110	1110	1620	1860	1540

CAL YR 1975 TOTAL 2072.95 MEAN 5.68 MAX 18 MIN 0 AC-FT 4110
WTR YR 1976 TOTAL 4514.60 MEAN 12.3 MAX 36 MIN 0 AC-FT 8950

11396000 LOST CREEK NEAR CLIPPER MILLS, CA

LOCATION.--Lat 39°34'25", long 121°08'26", in SE¼SW¼ sec.24, T.20 N., R.7 E., Butte County, Plumas National Forest, on left bank 0.3 mi (0.5 km) downstream from Lost Creek Reservoir, and 2.8 mi (4.5 km) north of Clipper Mills.

DRAINAGE AREA.--30.0 mi^2 (77.7 km^2).

PERIOD OF RECORD.--October 1927 to September 1941, October 1948 to current year. Records for Woodleaf powerplant from February 1963 to September 1966 in files of Geological Survey.

REVISED RECORDS.--WSP 1395: 1954. WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 3,170 ft (966 m), from topographic map.

REMARKS.--Records fair. Flow regulated by Sly Creek Reservoir 1.5 mi (2.4 km) upstream (station 11395400) and Lost Creek Reservoir 0.3 mi (0.5 km) upstream, usable capacity, 5,920 acre-ft (7.30 hm^3) with flashboards. Water is diverted into Sly Creek Reservoir through South Fork diversion tunnel from South Fork Feather River and through Slate Creek tunnel from North Yuba River basin. Woodleaf tunnel diverts from Lost Creek Reservoir to Woodleaf powerhouse. Oroville-Wyandotte Canal (station 11395500) diverts from Woodleaf penstock for irrigation and domestic use. Records represent seepage, release, or spill from Lost Creek Dam to Lost Creek. See schematic diagram of South Fork Feather River basin.

AVERAGE DISCHARGE.--27 years (water years 1928-41, 1949-61, prior to regulation by Sly Creek Reservoir), 73.0 ft^3/s (2.07 m^3/s), 52,850 acre-ft/yr (65.2 hm^3/yr); 15 years (water years 1962-76), 23.0 ft^3/s (0.651 m^3/s), 16,660 acre-ft/yr (20.5 hm^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft^3/s (142 m^3/s) Dec. 22, 1955, gage height, 6.90 ft (2.103 m); no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30 ft^3/s (0.84 m^3/s) Apr. 9, gage height, 1.37 ft (0.418 m); minimum daily, 0.01 ft^3/s (<0.001 m^3/s) Oct. 23, 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	.40	.07	.10	.09	.70	.82	.66	.94	.98	.98	.82	.86
2	.40	.05	.10	.09	.70	.74	.62	.94	.98	.98	.82	.82
3	.37	.05	.10	.09	.70	.70	.62	.94	.98	.98	.82	.78
4	.37	.05	.18	.09	.70	.70	.62	.94	.98	.94	.86	.78
5	.34	.05	.40	.10	.70	.70	.62	.94	.98	.94	.86	.78
6	.34	.07	.22	.09	.70	.70	.62	.94	.98	.90	.86	.74
7	.26	.12	.18	.08	.70	.70	.62	.98	.98	.90	.86	.74
8	.04	.09	.16	.08	.70	.70	6.6	.98	.98	.90	.86	.74
9	.11	.09	.16	.12	.70	.70	26	.98	.98	.90	.82	.74
10	.52	.12	.14	.12	.78	.70	19	.98	.98	.90	.82	.78
11	.43	.11	.12	.11	.78	.66	14	.98	.98	.90	.82	.94
12	.40	.10	.26	.11	.78	.66	11	.98	.98	.86	.78	.94
13	.40	.09	.18	.10	.82	.66	10	.98	.98	.86	.78	.90
14	.37	.09	.14	.10	.78	.66	9.2	.98	1.0	.86	.82	.90
15	.40	.14	.12	.10	.78	.66	8.0	.98	1.0	.86	.82	.86
16	.40	.18	.12	.10	.82	.66	7.0	.94	1.0	.86	.78	.86
17	.40	.12	.12	.10	.82	.66	6.2	.94	.98	.82	.78	.86
18	.40	.12	.11	.10	.78	.70	6.0	.98	1.0	.82	.78	.82
19	.40	.11	.11	.10	.82	.70	5.8	.98	1.0	.78	.82	.82
20	.37	.12	.10	.10	.78	.70	5.5	.98	1.0	.78	.82	.82
21	.31	.11	.10	.09	.74	.70	5.3	.98	1.0	.78	.82	.82
22	.09	.11	.26	.09	.74	.70	5.3	.98	1.0	.78	.82	.82
23	.01	.11	.14	.09	.74	.70	5.1	.98	.98	.78	.82	.82
24	.01	.10	.14	.08	.70	.74	4.9	.98	.98	.78	.86	.82
25	.05	.10	.12	.08	.70	.74	4.3	.98	.98	.74	.86	.82
26	.46	.10	.11	.73	.70	.74	1.8	.98	1.0	.78	.86	.82
27	.52	.14	.11	.70	.70	.74	.98	.98	1.0	.78	.86	.82
28	.52	.11	.10	.70	.70	.70	.98	.98	1.0	.78	.86	.82
29	.49	.11	.10	.70	1.2	.70	.98	.98	1.0	.78	.86	.86
30	.22	.11	.09	.70	---	.70	.94	.98	1.0	.78	.86	.86
31	.09	---	.09	.70	---	.70	---	.98	---	.82	.86	---
TOTAL	9.89	3.04	4.48	6.63	21.96	21.74	169.26	30.06	29.66	26.30	25.74	24.76
MEAN	.32	.10	.14	.21	.76	.70	5.64	.97	.99	.85	.83	.83
MAX	.52	.18	.40	.73	1.2	.82	26	.98	1.0	.98	.86	.94
MIN	.01	.05	.09	.08	.70	.66	.62	.94	.98	.74	.78	.74
AC-FT	20	6.0	8.9	13	44	43	336	60	59	52	51	49
†	25850	21990	12770	14220	6730	3320	105	1300	4690	3620	1720	13450

CAL YR 1975 TOTAL 497.64 MEAN 1.36 MAX 136 MIN 0 AC-FT 987
WTR YR 1976 TOTAL 373.52 MEAN 1.02 MAX 26 MIN .01 AC-FT 741

† Diversion, in acre-feet, to Woodleaf powerplant, furnished by Oroville-Wyandotte Irrigation District.

11396200 SOUTH FORK FEATHER RIVER BELOW FORBESTOWN DAM, CA

LOCATION.--Lat 39°33'05", long 121°12'30", in SE¼NE¼ sec.32, T.20 N., R.7 E., Butte County, Plumas National Forest, on right bank 500 ft (152 m) downstream from Forbestown Dam, 0.4 mi (0.6 km) upstream from Oroleve Creek, and 4.0 mi (6.4 km) northeast of Forbestown.

DRAINAGE AREA.--87.5 mi^2 (226.6 km^2).

PERIOD OF RECORD.--July 1962 to current year. Records for Forbestown powerplant from February 1963 to September 1966 in files of Geological Survey.

GAGE.--Water-stage recorder. Altitude of gage is 1,690 ft (515 m), from topographic map.

REMARKS.--Records good. Flow regulated by Little Grass Valley Reservoir (station 11395020), Sly Creek Reservoir, (station 11395400), and smaller reservoirs. Water from North Yuba River basin is imported through Slate Creek tunnel (station 11413250) to Sly Creek Reservoir. Oroville-Wyandotte Canal (station 11395500) diverts above station. Tunnel 600 ft (183 m) above station diverts most flow through Forbestown powerplant except fish-water releases and uncontrolled spill over Forbestown Dam. See schematic diagram of South Fork Feather River basin.

AVERAGE DISCHARGE.--14 years, 60.4 ft^3/s (1.711 m^3/s), 43,760 acre-ft/yr (54.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,510 ft^3/s (213 m^3/s) Jan. 31, 1963, gage height, 13.85 ft (4.221 m) in gage well, 15.3 ft (4.66 m) from floodmarks; minimum daily, 0.6 ft^3/s (0.017 m^3/s) Apr. 4, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12 ft^3/s (0.34 m^3/s) Oct. 26, gage height, 2.91 ft (0.887 m); minimum daily, 2.0 ft^3/s (0.057 m^3/s) Nov. 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	9.9	10	3.3	3.5	4.7	4.8	6.1	5.5	5.7	5.6	5.1	5.0
2	9.9	11	3.3	3.5	4.7	4.8	6.0	5.5	5.7	5.7	5.2	5.2
3	9.9	8.0	3.3	3.5	4.7	4.7	6.0	5.4	5.7	5.5	5.1	5.2
4	9.9	2.0	3.3	3.5	4.7	4.7	6.0	5.3	5.4	5.6	5.1	5.2
5	9.9	2.1	3.3	3.5	4.7	4.7	6.0	5.3	5.4	5.7	5.1	5.2
6	9.7	2.3	3.2	3.5	4.7	4.7	6.0	5.3	5.3	5.7	5.1	5.1
7	9.7	2.8	3.2	3.7	4.7	4.7	6.0	5.3	5.2	5.7	5.1	5.1
8	10	2.8	3.2	3.7	4.7	4.5	5.9	5.4	5.3	5.9	5.1	5.1
9	10	2.9	3.2	3.7	4.7	4.5	5.9	5.5	5.5	5.9	5.2	5.2
10	11	2.9	3.2	3.7	4.7	4.4	5.9	5.4	5.7	5.9	5.2	5.3
11	10	2.9	3.3	3.7	4.7	4.6	5.9	5.4	5.8	5.8	5.2	5.2
12	10	2.9	3.4	3.6	4.7	4.7	5.8	5.6	5.8	5.9	5.2	5.2
13	10	3.0	3.4	3.7	4.7	4.7	5.8	5.7	5.8	5.9	5.1	5.2
14	10	3.2	3.4	3.7	4.7	4.7	5.7	5.5	5.9	5.9	5.2	5.2
15	10	3.2	3.4	3.7	4.7	4.6	5.7	5.5	5.9	5.9	5.3	4.8
16	10	3.2	3.4	3.7	4.7	4.7	5.7	5.5	5.9	5.9	5.2	4.9
17	10	3.2	3.4	3.7	4.7	4.7	5.8	5.5	6.0	6.0	5.1	5.3
18	10	3.2	3.4	3.7	4.7	4.6	5.9	5.5	5.8	5.9	5.1	5.2
19	10	3.2	3.4	3.7	4.7	4.5	5.9	5.5	5.7	6.0	5.0	5.2
20	10	3.2	3.4	4.3	4.7	4.5	5.8	5.5	5.7	6.0	5.0	5.2
21	10	3.2	3.4	4.8	4.7	4.5	5.8	5.5	5.7	5.9	4.9	5.2
22	11	3.2	3.4	4.8	4.7	4.5	5.8	5.5	5.5	5.3	5.0	5.2
23	11	3.2	3.4	4.8	4.7	4.5	5.8	5.5	5.5	4.9	5.0	5.2
24	11	3.2	3.4	4.8	4.7	4.5	5.7	5.5	5.6	4.8	5.0	5.2
25	11	3.2	3.5	4.8	4.7	4.5	5.7	5.7	5.7	4.9	4.9	5.2
26	11	3.2	3.5	4.8	4.7	4.5	5.7	5.7	5.5	4.9	5.0	5.2
27	11	3.3	3.5	4.8	4.7	4.7	5.7	5.8	5.5	5.2	5.0	5.2
28	11	3.2	3.5	4.8	4.7	4.7	5.7	5.7	5.7	5.1	5.0	5.2
29	11	3.3	3.5	4.8	4.9	4.7	5.5	5.7	5.8	5.1	5.0	5.2
30	11	3.3	3.5	4.7	---	5.6	5.5	5.7	5.7	5.1	5.1	5.2
31	11	---	3.5	4.7	---	6.2	---	5.7	---	5.0	5.1	---
TOTAL	319.9	110.3	104.5	125.9	136.5	145.7	174.7	171.1	169.4	172.6	157.7	155.0
MEAN	10.3	3.68	3.37	4.06	4.71	4.70	5.82	5.52	5.65	5.57	5.09	5.17
MAX	11	11	3.5	4.8	4.9	6.2	6.1	5.8	6.0	6.0	5.3	5.3
MIN	9.7	2.0	3.2	3.5	4.7	4.4	5.5	5.3	5.2	4.8	4.9	4.8
AC-FT	635	219	207	250	271	289	347	339	336	342	313	307
‡	25380	21240	11040	11770	4330	2350	530	879	4110	2470	952	13210

CAL YR 1975 TOTAL 6206.2 MEAN 17.0 MAX 493 MIN 2.0 AC-FT 12310
WTR YR 1976 TOTAL 1943.3 MEAN 5.31 MAX 11 MIN 2.0 AC-FT 3850

‡ Diversion, in acre-feet, to Forbestown powerplant, furnished by Oroville-Wyandotte Irrigation District.

11396310 MINERS RANCH CANAL BELOW PONDEROSA DAM, NEAR FORBESTOWN, CA

LOCATION.--Lat 39°33'00", long 121°18'20", in SE¼NW¼ sec.33, T.20 N., R.6 E., Butte County, on right bank 800 ft (244 m) downstream from Ponderosa Dam, and 3 mi (5 km) northwest of Forbestown.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 975 ft (297 m), from topographic map.

REMARKS.--Records good. Canal diverts from South Fork Feather River at Ponderosa Dam. Water is used for power development and irrigation. See schematic diagram of South Fork Feather River basin.

AVERAGE DISCHARGE.--14 years, 218 ft^3/s (6.174 m^3/s), 157,900 acre-ft/yr (195 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 289 ft^3/s (8.184 m^3/s) Sept. 10, 1976; 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	261	252	255	257	132	231	2.3	0	51	0	69	185
2	260	254	255	256	226	228	1.8	100	44	1.9	0	208
3	260	254	255	257	236	230	0	174	23	109	83	209
4	260	254	255	252	234	229	0	10	0	0	0	210
5	260	254	255	246	233	167	69	0	0	105	118	210
6	258	254	254	254	187	86	118	0	0	71	0	210
7	258	252	246	255	134	84	34	97	0	98	32	209
8	258	252	248	254	134	84	2.8	91	0	174	101	225
9	257	252	75	254	112	90	1.8	0	0	106	0	270
10	254	252	9.0	252	113	100	50	0	42	134	115	289
11	252	254	120	250	138	100	7.9	0	151	0	80	220
12	252	254	252	249	110	100	1.8	111	164	43	134	264
13	251	254	255	246	86	100	56	91	91	178	0	270
14	256	254	254	244	86	100	7.1	71	52	180	0	275
15	257	255	254	244	110	100	0	29	74	21	17	279
16	256	255	255	243	115	103	71	46	80	0	88	275
17	255	255	255	242	94	65	32	59	109	0	0	276
18	255	255	254	242	111	116	0	67	182	88	102	278
19	255	255	252	238	112	118	68	0	71	14	0	278
20	255	255	254	239	111	118	87	49	0	147	21	276
21	255	255	250	238	112	118	0	0	0	96	96	278
22	255	255	252	237	112	94	55	0	0	0	0	278
23	255	255	254	234	112	48	0	98	129	79	32	278
24	255	255	255	234	113	2.8	113	162	158	0	122	276
25	255	255	254	226	113	2.3	174	160	119	9.4	0	276
26	254	255	254	237	113	1.8	89	140	182	180	0	276
27	254	256	252	238	113	62	0	123	112	152	126	275
28	252	256	252	238	113	37	0	117	112	79	50	275
29	251	256	254	238	153	62	0	105	182	87	0	275
30	251	256	255	236	---	102	0	81	97	167	153	276
31	252	---	255	230	---	43	---	67	---	0	151	---
TOTAL	7919	7630	7299.0	7560	3868	3121.9	1041.5	2048	2225	2319.3	1690	7679
MEAN	255	254	235	244	133	101	34.7	66.1	74.2	74.8	54.5	256
MAX	261	256	255	257	236	231	174	174	182	180	153	289
MIN	251	252	9.0	226	86	1.8	0	0	0	0	0	185
AC-FT	15710	15130	14480	15000	7670	6190	2070	4060	4410	4600	3350	15230
‡	12990	12980	12600	13720	6400	4870	446	849	1520	1510	189	12450

CAL YR 1975 TOTAL 86329.0 MEAN 237 MAX 270 MIN 9.0 AC-FT 171200
WTR YR 1976 TOTAL 54400.7 MEAN 149 MAX 289 MIN 0 AC-FT 107900

‡ Diversion, in acre-feet, to Kelly Ridge powerplant, furnished by Oroville-Wyandotte Irrigation District.

11396330 BANGOR CANAL BELOW MINERS RANCH RESERVOIR, NEAR OROVILLE, CA

LOCATION.--Lat 39°30'15", long 121°27'16", in NE¼SW¼ sec.18, T.19 N., R.5 E., Butte County, on left bank 400 ft (122 m) downstream from outlet at Miners Ranch Dam, and 5 mi (8 km) east of Oroville.

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

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 815 ft (248 m), from topographic map.

REMARKS.--Records excellent. Flow regulated by Miners Ranch Reservoir, capacity, 912 acre-ft (1.12 hm^3). Canal completed in November 1962. Water is used for irrigation. See schematic diagram of South Fork Feather River basin.

AVERAGE DISCHARGE.--13 years, 15.7 ft^3/s (0.445 m^3/s), 11,370 acre-ft/yr (14.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 65 ft^3/s (1.84 m^3/s) Aug. 17-20, 1963; no flow for several days in 1965, 1969.

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	27	19	8.8	5.9	6.5	5.2	7.9	22	26	30	33	24
2	27	19	9.0	5.9	6.4	5.2	8.2	22	26	30	33	23
3	27	19	9.0	5.9	6.4	5.2	8.2	24	26	32	41	21
4	27	19	8.9	5.9	6.4	5.2	7.9	25	26	33	47	21
5	27	19	7.4	5.7	6.4	5.2	7.7	25	26	33	37	21
6	27	19	5.9	5.6	6.4	5.2	8.4	26	26	33	31	21
7	27	16	5.8	5.7	6.4	5.2	8.5	27	25	30	29	21
8	27	14	5.7	5.8	6.6	5.2	8.1	29	26	33	31	26
9	27	14	5.7	6.2	9.2	5.2	7.9	27	25	34	30	28
10	25	14	5.7	6.2	10	5.2	7.8	27	24	34	28	26
11	24	14	5.7	6.2	10	5.2	8.1	27	33	34	28	23
12	24	14	5.9	6.4	10	5.2	7.8	27	33	32	29	20
13	24	14	5.9	6.4	10	5.2	7.7	28	29	33	27	20
14	24	14	5.9	6.4	10	5.2	8.0	28	28	32	27	20
15	24	11	5.9	6.4	10	5.2	7.8	27	28	35	27	21
16	24	9.0	5.9	6.4	7.8	5.2	7.7	27	29	33	28	20
17	24	9.0	5.9	6.4	5.3	5.2	7.9	28	30	33	28	18
18	24	8.7	5.9	6.4	5.4	5.2	8.1	28	31	33	25	16
19	24	8.7	6.2	6.4	5.4	5.2	9.2	27	31	34	25	16
20	24	8.7	6.2	6.4	5.4	5.4	14	27	29	32	24	16
21	24	8.7	6.1	6.4	5.4	5.4	16	27	29	34	25	16
22	24	8.7	6.2	6.4	5.4	5.4	20	27	28	33	25	16
23	24	8.7	6.1	6.4	5.4	5.4	24	26	28	32	23	16
24	24	9.0	6.2	6.3	5.2	5.4	23	28	29	33	24	16
25	24	9.0	6.2	6.4	5.2	5.4	24	27	28	32	24	16
26	24	9.0	6.2	6.6	5.2	5.4	23	27	28	33	24	16
27	24	8.7	6.2	6.6	5.2	5.4	23	27	28	36	25	16
28	24	8.7	6.2	6.6	5.2	7.0	23	27	30	34	26	16
29	24	8.7	6.0	6.6	5.2	7.9	23	27	30	32	25	16
30	21	8.7	5.9	6.5	---	7.9	22	26	30	33	25	16
31	19	---	5.9	6.4	---	8.1	---	26	---	33	25	---
TOTAL	764	371.0	198.5	193.8	197.4	172.9	387.9	823	845	1018	879	582
MEAN	24.6	12.4	6.40	6.25	6.81	5.58	12.9	26.5	28.2	32.8	28.4	19.4
MAX	27	19	9.0	6.6	10	8.1	24	29	33	36	47	28
MIN	19	8.7	5.7	5.6	5.2	5.2	7.7	22	24	30	23	16
AC-FT	1520	736	394	384	392	343	769	1630	1680	2020	1740	1150

CAL YR 1975 TOTAL 5906.6 MEAN 16.2 MAX 28 MIN 4.6 AC-FT 11720
WTR YR 1976 TOTAL 6432.5 MEAN 17.6 MAX 47 MIN 5.2 AC-FT 12760

11396350 SOUTH FORK FEATHER RIVER AT PONDEROSA DAM, CA

LOCATION.--Lat 39°32'52", long 121°18'11", in NW¼SE¼ sec.33, T.20 N., R.6 E., Butte County, at entrance to Miners Ranch Canal on the left end of Ponderosa Dam, 2,800 ft (853 m) upstream from Sucker Run, and 2.6 mi (4.2 km) northwest of Forbestown.

DRAINAGE AREA.--108 mi^2 (280 km^2).

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

GAGE.--Water-stage recorder, high level sluice gate, and concrete spillway of Ponderosa Dam. Datum of gage is at mean sea level (levels by Oroville-Wyandotte Irrigation District). Prior to Oct. 1, 1967, at site 1,800 ft (550 m) downstream at different datum.

REMARKS.--Records good. Records are combined flow through sluice gate and flow over spillway. Flow regulated by several reservoirs and diversions. Water is imported from North Yuba River basin through Slate Creek tunnel (station 11413250). Miners Ranch Canal (station 11396310) diverts at Ponderosa Dam for power development and irrigation; diversion began in October 1962. See schematic diagram of South Fork Feather River basin.

AVERAGE DISCHARGE (adjusted for diversion to Miners Ranch Canal).--14 years, 468 ft^3/s (13.25 m^3/s), 339,100 acre-ft/yr (418 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft^3/s (312 m^3/s) Dec. 22, 1964, gage height, 11.52 ft (3.511 m) in gage well, 12.7 ft (3.87 m) outside from floodmarks, site and datum then in use; no flow for several months most years.

EXTREMES FOR CURRENT YEAR: Maximum discharge, 315 ft^3/s (8.92 m^3/s) Nov. 11; 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	260	28	100		0				0			
2	260	33	11		0				0			
3	255	24	.61		0				112			
4	255	20	0		.83				124			
5	255	15	6.0		0				0			
6	236	14	3.8		0				0			
7	114	16	0		0				0			
8	147	20	0		0				0			
9	156	18	0		0				0			
10	192	93	.93		0				0			
11	182	210	9.7		0				0			
12	160	178	0		0				0			
13	160	178	0		0				0			
14	147	174	0		0				0			
15	147	182	0		0				0			
16	147	236	0		0				0			
17	143	205	0		0				0			
18	147	187	0		0				0			
19	147	187	0		0				0			
20	147	182	0		0				0			
21	147	187	0		0				0			
22	151	196	0		0				0			
23	151	196	0		0				0			
24	151	192	0		0				0			
25	160	135	0		0				0			
26	218	169	0		0				0			
27	196	187	0		0				0			
28	117	178	0		0				0			
29	27	164	0		0				0			
30	52	174	0		---				0			
31	27	---	0		---		---		---			---
TOTAL	5054	3978	132.04	0	.83	0	0	0	236	0	0	0
MEAN	163	133	4.26	0	.029	0	0	0	7.87	0	0	0
MAX	260	236	100	0	.83	0	0	0	124	0	0	0
MIN	27	14	0	0	0	0	0	0	0	0	0	0
AC-FT	10020	7890	262	0	1.6	0	0	0	468	0	0	0
MEAN ‡	374	351	209	223	111	79.2	7.50	13.8	33.4	24.6	3.07	209
AC-FT ‡	23010	20870	12860	13720	6400	4870	446	849	1990	1510	189	12450

CAL YR 1975 TOTAL 86905.04 MEAN 238 MAX 1730 MIN 0 AC-FT 172400 MEAN ‡ 465 AC-FT ‡ 336900
WTR YR 1976 TOTAL 9400.87 MEAN 25.7 MAX 260 MIN 0 AC-FT 18650 MEAN ‡ 137 AC-FT ‡ 99160

‡ Adjusted for diversion to Miners Ranch Canal.

11396400 SUCKER RUN NEAR FORBESTOWN, CA

LOCATION.--Lat 39°33'12", long 121°18'04", in NW¼NE¼ sec.33, T.20 N., R.6 E., Butte County, on left bank at upstream side of road bridge, 0.7 mi (1.1 km) upstream from confluence with South Fork Feather River, and 2.8 mi (4.5 km) northwest of Forbestown.

DRAINAGE AREA.--18.7 mi^2 (48.4 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 960 ft (292 m), from topographic map.

REMARKS.--Records good. See schematic diagram of South Fork Feather River basin.

AVERAGE DISCHARGE.--11 years, 26.5 ft^3/s (0.750 m^3/s), 19,200 acre-ft/yr (23.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,320 ft^3/s (37.4 m^3/s) Jan. 21, 1967, gage height, 6.03 ft (1.838 m), from rating curve extended as explained below; minimum daily, 0.40 ft^3/s (0.011 m^3/s) Oct. 7, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 7.4 ft (2.26 m) from floodmarks, discharge, 2,190 ft^3/s (62 m^3/s) from rating curve extended above 600 ft^3/s (17.0 m^3/s) on basis of computation of maximum flow over rock control.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 107 ft^3/s (3.03 m^3/s) Feb. 29, gage height, 2.75 ft (0.838 m), no peak above base of 300 ft^3/s (8.50 m^3/s); minimum daily, 2.5 ft^3/s (0.071 m^3/s) July 27, 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	4.6	12	11	11	9.5	33	10	7.7	4.2	3.4	2.8	3.1
2	4.6	11	11	10	9.6	22	10	8.6	4.1	3.4	2.7	3.1
3	4.6	11	11	10	9.4	18	10	8.3	4.0	3.1	2.7	3.2
4	4.6	10	12	10	10	17	10	7.9	4.2	3.2	2.8	3.2
5	4.6	10	22	11	9.8	16	10	7.0	4.1	3.2	2.9	3.2
6	6.5	10	16	11	9.7	15	11	6.1	4.1	3.2	2.8	3.1
7	8.4	13	14	10	9.7	15	11	5.9	4.1	3.2	2.8	3.1
8	6.7	11	13	10	9.8	12	21	6.1	4.1	3.2	3.8	3.1
9	7.0	10	12	19	10	10	19	6.1	4.5	3.1	4.1	3.0
10	15	17	12	15	9.7	10	17	5.6	5.1	3.1	4.2	3.1
11	15	12	11	13	9.4	10	17	5.7	4.8	3.0	4.0	4.4
12	10	11	15	12	9.4	10	20	5.7	4.4	2.9	3.8	4.2
13	9.4	10	14	12	11	10	18	5.8	4.2	2.9	3.8	4.1
14	8.9	10	13	12	14	10	16	5.7	4.1	2.9	5.0	4.0
15	8.8	16	12	12	12	11	15	5.8	3.8	2.9	8.5	6.3
16	8.6	26	12	11	17	11	14	5.7	3.8	2.9	4.4	4.8
17	8.3	15	12	11	18	12	13	6.1	3.8	2.9	4.1	4.5
18	8.3	12	12	11	15	13	13	6.5	3.8	2.8	4.1	4.3
19	8.1	12	11	11	16	12	12	6.6	3.8	2.8	4.4	4.2
20	7.9	12	11	10	15	11	11	6.3	3.5	2.8	4.1	4.0
21	8.2	12	11	10	13	11	11	5.9	3.6	2.8	4.1	3.9
22	8.7	11	14	10	12	11	11	5.6	3.6	2.8	4.6	3.8
23	9.2	11	12	10	12	12	10	5.4	3.5	2.8	4.5	3.8
24	9.3	12	12	10	11	12	10	4.8	3.4	2.7	4.1	3.6
25	10	11	11	10	11	12	9.4	5.0	3.4	2.7	3.9	3.5
26	21	11	11	10	12	11	8.0	4.8	3.4	2.6	3.8	3.6
27	13	13	11	10	12	11	8.1	4.6	3.4	2.5	3.8	3.7
28	11	13	11	10	12	11	7.8	4.5	3.2	2.5	3.5	3.8
29	10	12	11	9.8	55	10	7.8	4.5	3.2	2.7	3.3	3.7
30	20	12	11	9.7	---	10	7.8	4.4	3.2	2.5	3.2	3.7
31	13	---	11	9.6	---	11	---	4.5	---	2.6	3.1	---
TOTAL	293.3	369	383	341.1	384.0	400	368.9	183.2	116.4	90.1	119.7	113.1
MEAN	9.46	12.3	12.4	11.0	13.2	12.9	12.3	5.91	3.88	2.91	3.86	3.77
MAX	21	26	22	19	55	33	21	8.6	5.1	3.4	8.5	6.3
MIN	4.6	10	11	9.6	9.4	10	7.8	4.4	3.2	2.5	2.7	3.0
AC-FT	582	732	760	677	762	793	732	363	231	179	237	224

CAL YR 1975 TOTAL 10382.6 MEAN 28.4 MAX 461 MIN 4.6 AC-FT 20590
WTR YR 1976 TOTAL 3161.8 MEAN 8.64 MAX 55 MIN 2.5 AC-FT 6270

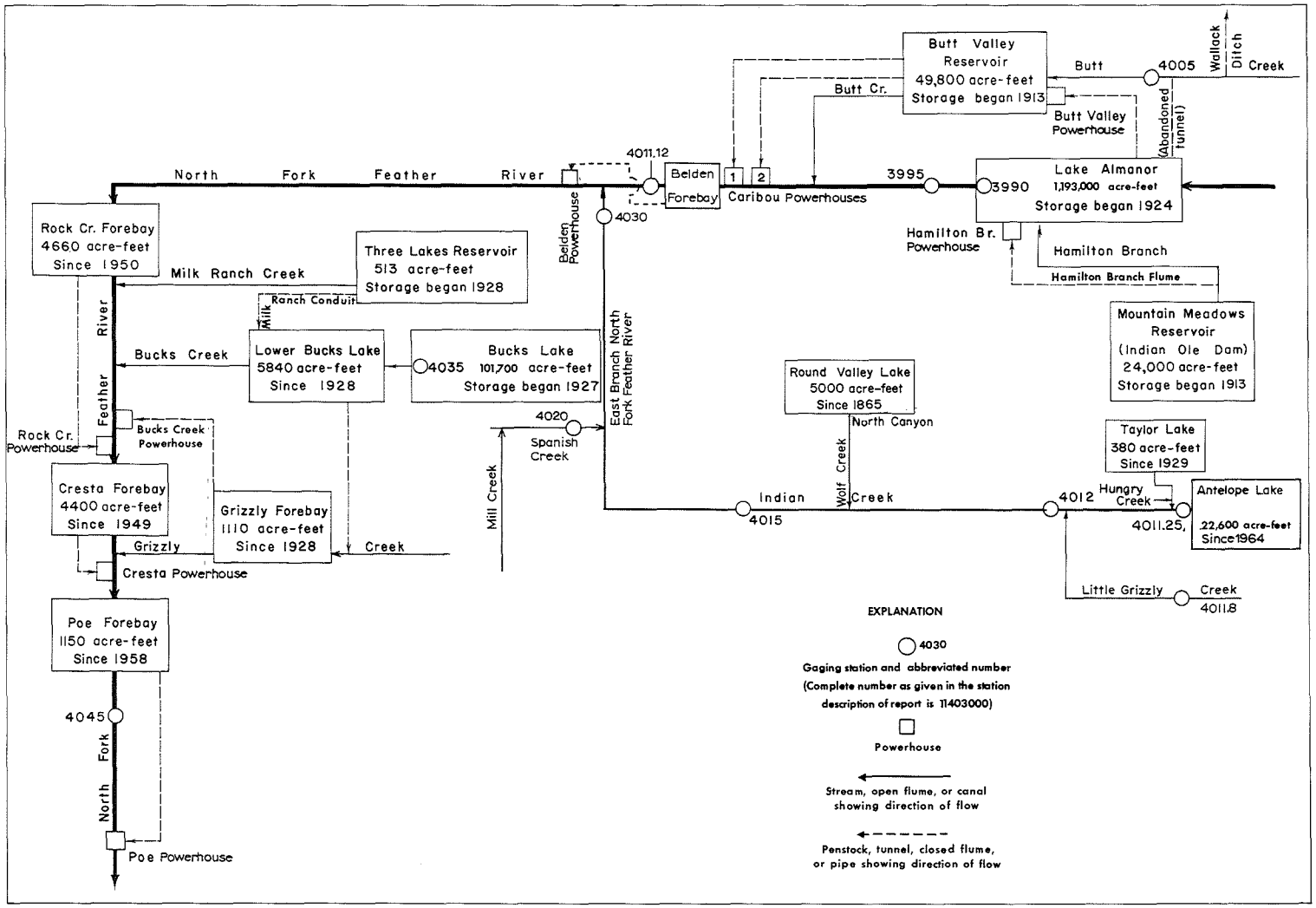

FIGURE 6.--Schematic diagram showing diversions and storage in North Fork Feather River basin.

11399000 LAKE ALMANOR AT PRATTVILLE, CA

LOCATION.--Lat 40°12'50", long 121°09'40", in SW¼NE¼ sec.11, T.27 N., R.7 E., Plumas County, Plumas National Forest, at outlet tower to No. 2 tunnel on North Fork Feather River at Prattville, 4.7 mi (7.6 km) northwest of Lake Almanor Dam, and 5.6 mi (9.0 km) northwest of Canyondam.

DRAINAGE AREA.--491 mi^2 (1,272 km^2).

PERIOD OF RECORD.--July 1913 to current year. Monthly contents only for some periods, published in WSP 1315-A. Published as "near Prattville" 1937-60. Prior to October 1964, records published as usable contents.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Nonrecording gage monitored once daily. Datum of gage is 10.23 ft (3.118 m) below mean sea level (levels by Pacific Gas and Electric Co.). Prior to June 1, 1965, nonrecording gage at site 4.7 mi (7.6 km) southeast at same datum.

REMARKS.--Lake is formed by earthfill dam; storage began in July 1913; dam raised to gage height 4,455 ft (1,357.9 m) in 1917 and 4,515 ft (1,376.2 m) in 1927. Capacity, 1,184,000 acre-ft (1.46 km^3) between gage heights 4,495.5 ft (1,370.23 m), upper storage limit and 4,422 ft (1,347.8 m), bottom of lowest outlet, of which 8,950 acre-ft (11.0 hm^3) is not available for release. Water is diverted by tunnel and penstock to Butt Valley Reservoir and powerhouse for use in Caribou powerplants; some water also released down North Fork Feather River (station 11399500). Figures given herein represent total contents at 2400 hours. See schematic diagram of North Fork Feather River basin.

COOPERATION.--Records furnished by Pacific Gas and Electric Co., in connection with a Federal Power Commission Project.

EXTREMES (AT 2400) FOR PERIOD OF RECORD.--Maximum contents, 1,142,000 acre-ft (1.41 km^3) June 4, 5, 10, 11, 1974, gage height, 4,493.96 ft (1,369.759 m); minimum, 5,230 acre-ft (6.45 hm^3) Feb. 5, 1918, gage height, 4.416.1 ft (1,346.03 m).

EXTREMES (AT 2400) FOR CURRENT YEAR.--Maximum contents observed, 926,700 acre-ft (1.14 km^3) Oct. 17, gage height, 4,485.73 ft (1,367.251 m); minimum observed, 544,500 acre-ft (671 hm^3) Mar. 26, gage height, 4,468.97 ft (1,362.142 m).

Capacity table (gage height, in feet, and contents, in acre-feet)

4422	8950	4432	34200	4450	220800	4475	672700
4424	10100	4434	49500	4455	294500	4480	787300
4426	11300	4437	74200	4460	376700	4485	908500
4428	13500	4440	101900	4465	467000	4490	1036000
4430	21200	4445	156400	4470	565500	4495.5	1184000

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	906967	901501	821553	736731	650555	583948	546132	583114	606251	604977	611573	613068
2	907962	898773	818920	733732	647266	583322	547145	584782	607101	605614	612000	612854
3	908709	895801	816528	731206	645952	582073	548361	586034	607739	606251	612000	611573
4	909456	893080	814377	728455	641799	580200	549579	587705	608377	606888	612640	610507
5	910203	890115	812467	725707	638529	578538	551001	589588	609016	607314	613068	611147
6	913444	887155	810082	722506	635048	577085	552222	590426	609441	606888	612854	611573
7	914442	884690	807461	719994	632010	575634	553036	591055	610507	607314	612640	611147
8	914941	882229	805081	717486	629627	573771	554870	593154	610720	606463	613281	608377
9	916938	879279	802465	715436	626599	571910	556094	594836	612000	605402	613068	606039
10	920188	876578	799615	712025	623364	569638	557115	595257	613068	606039	613068	603917
11	921189	873391	797480	709526	620567	568401	558955	595257	613709	606463	613495	604765
12	922190	870453	795109	706351	617562	566136	559774	595046	614564	605402	613709	605189
13	923192	868007	792505	703634	615206	563259	561003	594415	615634	604129	613281	603069
14	924444	864832	789667	700469	612854	561413	562233	594205	613922	604553	614564	602645
15	925697	864588	787068	697760	609868	559774	563464	594625	610933	605402	615420	600952
16	926450	862149	783765	694604	607739	558137	564697	595467	609016	606039	616062	598418
17	926700	859226	780938	691903	604553	556298	565930	596520	608377	606251	616704	596309
18	924695	856550	777881	688532	601799	554870	567165	597785	607314	607526	617776	596309
19	922440	853391	775063	686064	599262	553647	568401	598840	607101	607314	618849	596941
20	920438	851207	772248	682704	596309	551408	569226	599896	607526	607101	618634	595467
21	918938	848297	769438	680020	593364	549376	570464	600952	608377	607952	619493	592944
22	916938	845875	766632	677118	590426	547347	571496	602010	609299	607314	620137	590426
23	913444	843214	763830	674665	587705	546739	573150	602857	608377	608164	620352	588333
24	909705	840798	761032	672216	584156	545929	574806	604129	607314	608803	620567	585825
25	906967	837901	757772	670659	582489	545120	575841	604997	606039	608590	620997	586451
26	908958	835008	754519	667993	580408	544513	576878	604553	606039	607526	620782	587287
27	906469	832600	751966	664889	578330	545524	577708	604129	605189	607314	619922	585199
28	905226	829713	748954	662012	578330	547145	578953	603493	603917	607952	619493	582906
29	904729	826830	746408	659140	582281	546132	582697	604129	604149	607952	619922	580408
30	905972	824190	742712	655833	---	546537	581656	604765	604553	608377	618205	578746
31	904978	---	739945	653192	---	546132	---	605614	---	608803	615206	---
MAX	926700	901501	821553	736731	650555	583948	582697	605614	615634	608803	620997	613068
MIN	904729	824190	739945	653192	578330	544513	546132	583114	603917	604129	611573	578746
(†)	4484.86	4481.55	4477.97	4474.12	4470.81	4469.05	4470.78	4471.92	4471.87	4472.07	4472.37	4470.64
(‡)	-992	-80800	-84200	-86800	-70900	-36100	+35500	+24000	-1060	+4250	+6400	+36500

CAL YR 1975 ‡ -64700
WTR YR 1976 ‡ -327200

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet, rounded to Geological Survey standards.

11399500 NORTH FORK FEATHER RIVER NEAR PRATTVILLE, CA

LOCATION.--Lat 40°10'10", long 121°05'29", in NE¼SW¼ sec.28, T.27 N., R.8 E., Plumas County, Plumas National Forest, on left bank 0.5 mi (0.8 km) downstream from Almanor Dam, 4.5 mi (7.2 km) southeast of Prattville, and 9 mi (14 km) upstream from Butt Creek.

DRAINAGE AREA.--493 mi^2 (1,277 km^2).

PERIOD OF RECORD.--June 1905 to current year (daily discharges for July 1921 to September 1936 include water diverted through Almanor-Butt Creek tunnel). Records for water year 1911 incomplete, yearly estimate published in WSP 1315-A. Published as "below Prattville" prior to 1911. Supplemental records for Almanor-Butt Creek tunnel diversion computed November 1924 to Dec. 30, 1958, as difference of flow between Butt Creek above Almanor-Butt Creek tunnel (unpublished prior to 1936 and since 1964), and Butt Creek below Almanor-Butt Creek tunnel (unpublished prior to 1936 and 1960-64).

REVISED RECORDS.--WSP 1245: 1951 (yearly summaries). WSP 1285: 1952 (yearly summaries).

GAGE.--Water-stage recorder and broad-crested weir. Altitude of gage is 4,380 ft (1,335 m), from topographic map. Prior to Oct. 1, 1936, nonrecording gages or water-stage recorders at several sites within 0.5 mi (0.8 km) of present site at various datums.

REMARKS.--Flow regulated by Lake Almanor (station 11399000) 0.5 mi (0.8 km) upstream and Mountain Meadows Reservoir since 1924, capacity, 24,000 acre-ft (29.6 hm^3). Water diverted for power from Lake Almanor through old Almanor-Butt Creek tunnel to Butt Creek until Dec. 30, 1958. Diversion through new tunnel and Butt Valley powerhouse began Dec. 31, 1958. See schematic diagram of North Fork Feather 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 diversion and leakage).--71 years, 919 ft^3/s (26.03 m^3/s), 665,800 acre-ft/yr (821 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,000 ft^3/s (283 m^3/s) Mar. 19, 1907, before construction of dam, gage height, 16.2 ft (4.94 m) at former site, from rating curve extended above 3,700 ft^3/s (105 m^3/s); no flow Apr. 15, 16, 1914, at times January to April 1919, Apr. 21, 1923.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 58 ft^3/s (1.64 m^3/s) May 24, 25; minimum daily, 30 ft^3/s (0.85 m^3/s) 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	36	34	36	35	38	33	38	49	38	38	40	34
2	35	34	36	35	38	33	37	50	38	38	39	34
3	35	34	36	35	38	33	38	51	38	38	39	33
4	35	34	36	35	37	33	38	52	38	38	39	33
5	35	34	36	35	37	36	38	52	38	38	39	33
6	35	34	36	35	37	37	39	53	38	38	39	33
7	35	34	35	34	36	37	39	53	38	38	39	33
8	35	34	35	35	36	36	40	53	38	38	39	33
9	35	34	35	37	36	36	40	54	39	38	39	33
10	36	34	35	37	35	36	40	54	39	38	39	33
11	35	34	35	37	35	35	41	54	39	38	39	33
12	35	33	35	37	34	34	41	54	39	38	39	33
13	35	33	35	36	34	34	41	54	39	37	39	33
14	35	33	34	36	34	34	42	54	39	37	39	32
15	35	33	34	36	33	34	42	54	38	37	39	32
16	35	33	34	36	33	34	42	54	38	37	39	32
17	35	33	34	36	33	34	42	54	38	38	39	32
18	35	33	34	35	32	34	43	55	38	38	39	31
19	35	33	34	35	34	34	43	55	38	38	36	31
20	35	33	34	35	35	34	44	56	38	38	34	32
21	35	33	34	34	35	34	44	57	38	38	34	31
22	35	33	35	34	34	38	45	57	38	38	35	31
23	35	33	37	34	34	38	46	57	38	38	35	31
24	35	35	37	34	33	38	46	58	38	38	35	30
25	35	37	37	34	33	38	47	58	38	38	35	30
26	34	37	36	34	33	38	47	48	38	38	35	30
27	34	36	36	33	32	38	48	38	38	38	34	30
28	34	36	36	33	32	38	48	38	38	40	34	30
29	34	36	36	36	33	38	48	38	37	43	34	33
30	35	36	36	39	---	38	49	38	38	43	34	36
31	34	---	36	39	---	38	---	38	---	44	34	---
TOTAL	1082	1023	1095	1096	1004	1105	1276	1590	1145	1192	1152	965
MEAN	34.9	34.1	35.3	35.4	34.6	35.6	42.5	51.3	38.2	38.5	37.2	32.2
MAX	36	37	37	39	38	38	49	58	39	44	40	36
MIN	34	33	34	33	32	33	37	38	37	37	34	30
AC-FT	2150	2030	2170	2170	1990	2190	2530	3150	2270	2360	2280	1910
MEAN †	737	2228	2181	2099	2019	1366	72.1	299	405	280	310	1040
AC-FT †	45290	132600	134100	129100	116100	83970	4290	18370	24120	17250	19030	61900

CAL YR 1975 TOTAL 13022.5 MEAN 35.7 MAX 57 MIN 9.5 AC-FT 25830 MEAN † 1197 AC-FT † 866700
WTR YR 1976 TOTAL 13725.0 MEAN 37.5 MAX 58 MIN 30 AC-FT 27220 MEAN † 1083 AC-FT † 786200

† Adjusted for diversion through Butt Valley powerhouse and leakage from Almanor-Butt Creek tunnel No. 1.

11400500 BUTT CREEK BELOW ALMANOR-BUTT CREEK TUNNEL, NEAR PRATTVILLE, CA

LOCATION.--Lat 40°11'12", long 121°11'11", in NW¼NW¼ sec.22, T.27 N., R.7 E., Plumas County, on right bank 400 ft (122 m) downstream from outlet of old tunnel from Lake Almanor to Butt Creek, and 2.2 mi (3.5 km) southwest of Prattville.

DRAINAGE AREA.--69.3 mi^2 (179.5 km^2).

PERIOD OF RECORD.--October 1936 to September 1959, October 1964 to current year. Published as "below tunnel No. 1" 1938-40. Records for water years 1937-38, published in WSP 1515.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,400 ft (1,341 m), from topographic map. Prior to Oct. 5, 1937, at site 200 ft (61 m) downstream at datum 4 ft (1.2 m) lower.

REMARKS.--No regulation above station. Howell-Bunger valve in conduit from Lake Almanor to Butt Valley powerhouse is opened for short periods several times a year causing sharp peaks. Wallack ditch, above station, diverts several cubic feet per second during each irrigation season into Yellow Creek basin. Leakage from Almanor-Butt Creek tunnel No. 1 was 6,370 acre-ft (7.85 hm^3) during the current year. See schematic diagram of North Fork Feather 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 (natural flow of Butt Creek, adjusted for leakage from Almanor-Butt Creek tunnel No. 1).--40 years (including records for station 11400000 Butt Creek above Almanor-Butt Creek tunnel, near Prattville for water years 1960-64), 83.4 ft^3/s (2.362 m^3/s), 60,420 acre-ft/yr (74.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,830 ft^3/s (108 m^3/s) Dec. 23, 1964, gage height, 5.87 ft (1.789 m), from rating curve extended above 1,400 ft^3/s (39.6 m^3/s); minimum daily, 26 ft^3/s (0.74 m^3/s) May 26-28, June 1-5, 13-15, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 222 ft^3/s (6.29 m^3/s) Feb. 29, gage height, 1.41 ft (0.430 m); minimum daily, 26 ft^3/s (0.74 m^3/s) May 26-28, June 1-5, 13-15.

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	53	72	65	57	58	107	73	66	26	37	47	36
2	54	69	64	56	58	82	71	64	26	37	46	35
3	54	67	63	60	58	76	72	62	26	37	37	35
4	54	66	65	58	58	73	73	60	26	37	37	35
5	53	65	111	58	58	69	76	58	26	37	37	35
6	73	65	84	57	62	68	75	57	27	37	37	35
7	71	81	72	57	61	68	75	55	27	36	37	35
8	62	73	70	58	60	70	95	56	27	36	37	35
9	62	67	68	60	61	71	79	57	31	35	36	35
10	105	70	67	57	59	72	77	55	30	35	35	36
11	87	66	66	59	57	73	75	53	29	35	37	39
12	70	65	69	58	58	71	75	51	27	35	35	39
13	65	66	67	57	62	70	72	51	26	35	35	37
14	63	66	64	57	68	72	72	49	26	35	44	38
15	62	112	71	57	61	73	75	47	26	35	47	78
16	62	126	66	58	61	76	70	43	35	35	42	46
17	61	80	66	59	63	83	69	37	41	35	39	46
18	61	71	66	59	67	87	72	34	40	36	42	46
19	60	69	66	59	64	78	73	33	40	37	41	46
20	60	70	65	58	61	74	77	32	39	36	38	46
21	60	68	62	59	60	73	79	31	40	35	37	46
22	64	67	63	60	59	76	80	31	39	35	39	46
23	61	66	62	60	58	75	82	29	39	36	38	46
24	60	66	62	59	57	77	85	27	39	35	37	46
25	64	66	62	60	59	75	85	27	39	35	37	44
26	128	65	62	60	92	73	80	26	39	34	37	42
27	86	66	64	59	90	72	74	26	38	34	37	40
28	71	64	63	58	131	71	68	26	38	34	38	40
29	67	65	64	58	162	71	64	27	38	35	38	40
30	95	64	65	58	---	72	65	27	38	34	38	40
31	80	---	61	58	---	77	---	27	---	35	38	---
TOTAL	2128	2143	2085	1808	1983	2325	2258	1324	988	1100	1200	1243
MEAN	68.6	71.4	67.3	58.3	68.4	75.0	75.3	42.7	32.9	35.5	38.7	41.4
MAX	128	126	111	60	162	107	95	66	41	37	47	78
MIN	53	64	61	56	57	68	64	26	26	34	35	35
AC-FT	4220	4250	4140	3590	3930	4610	4480	2630	1960	2180	2380	2470

CAL YR 1975 TOTAL 40422 MEAN 111 MAX 474 MIN 29 AC-FT 80180
WTR YR 1976 TOTAL 20585 MEAN 56.2 MAX 162 MIN 26 AC-FT 40830

11401112 NORTH FORK FEATHER RIVER BELOW BELDEN DAM, CA

LOCATION.--Lat 40°04'18", long 121°09'46", in SE¼SW¼ sec.26, T.26 N., R.7 E., Plumas County, Plumas National Forest, on left bank 0.2 mi (0.3 km) downstream from Belden Dam, 0.4 mi (0.6 km) upstream from Deadwood Canyon, and 6.2 mi (10.0 km) northeast of Belden.

DRAINAGE AREA.--612 mi^2 (1,585 km^2).

PERIOD OF RECORD.--October 1969 to current year. July 1959 to September 1969 in files of Pacific Gas and Electric Co.

GAGE.--Water-stage recorder. Datum of gage is 2,811.00 ft (856.793 m) above mean sea level (levels by Pacific Gas and Electric Co.).

REMARKS.--Flow regulated by Belden Reservoir 0.2 mi (0.3 km) upstream, Lake Almanor (station 11399000), Butt Valley Reservoir, and Mountain Meadows Reservoir, combined capacity, 1,267,000 acre-ft (1.56 km^3). Diversion through tunnel to Belden powerhouse began on Aug. 27, 1969. See schematic diagram of North Fork Feather River basin.

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

AVERAGE DISCHARGE (including diversion to Belden powerhouse).--7 years, 1,311 ft^3/s (37.13 m^3/s), 949,800 acre-ft/yr (1.17 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,040 ft^3/s (86.1 m^3/s) Nov. 18, 1974, gage height, 8.89 ft (2.710 m); minimum daily, 11 ft^3/s (0.31 m^3/s) Dec. 4-9, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 148 ft^3/s (4.19 m^3/s) Apr. 27, gage height, 3.57 ft (1.088 m); minimum daily, 11 ft^3/s (0.31 m^3/s) Dec. 4-9.

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	70	60	60	55	53	52	41	141	136	134	140	137
2	70	61	60	55	53	50	45	141	137	133	138	90
3	72	60	32	55	52	53	47	136	134	138	138	57
4	72	58	11	54	51	52	48	129	134	140	138	55
5	72	59	11	55	51	52	47	127	133	140	140	58
6	72	60	11	54	51	52	47	123	134	134	139	59
7	72	60	11	53	50	52	47	134	134	135	140	60
8	72	61	11	53	50	52	46	130	136	138	140	59
9	74	61	11	53	50	52	47	132	140	143	139	59
10	76	61	26	52	50	51	46	133	137	142	140	58
11	78	60	61	50	50	51	46	135	134	141	139	60
12	77	60	57	50	51	51	45	141	138	139	140	60
13	72	60	56	51	51	51	47	137	136	140	136	59
14	68	60	56	50	52	52	49	139	133	135	138	59
15	68	61	57	49	52	51	46	138	134	136	138	59
16	67	60	50	50	51	50	49	138	135	137	136	59
17	66	59	52	48	51	51	50	138	134	139	136	58
18	66	56	55	48	51	51	51	138	135	140	138	58
19	66	57	53	48	51	49	50	135	132	138	138	58
20	63	60	55	49	52	50	49	134	130	135	138	57
21	67	60	56	51	51	50	50	135	134	139	139	56
22	69	60	55	52	51	50	50	136	137	138	139	55
23	69	60	55	51	52	51	100	135	141	138	139	58
24	70	60	55	51	52	51	128	132	139	138	140	56
25	70	60	55	51	52	50	127	133	142	138	139	59
26	72	57	55	52	49	46	137	132	142	140	139	59
27	69	60	55	53	50	50	145	135	140	139	140	59
28	70	61	55	50	52	50	140	133	140	142	140	57
29	52	61	54	52	52	51	143	138	141	141	142	59
30	12	61	53	53	---	38	141	137	137	142	137	61
31	32	---	56	52	---	37	---	135	---	142	135	---
TOTAL	2065	1794	1400	1600	1484	1549	2104	4180	4089	4294	4298	1858
MEAN	66.6	59.8	45.2	51.6	51.2	50.0	70.1	135	136	139	139	61.9
MAX	78	61	61	55	53	53	145	141	142	143	142	137
MIN	12	56	11	48	49	37	41	123	130	133	135	55
AC-FT	4100	3560	2780	3170	2940	3070	4170	8290	8110	8520	8530	3690
(†)	760	2494	2442	2255	2234	1607	305	430	503	440	412	1145
(‡)	46740	148400	150200	138600	128500	98840	18170	26450	29950	27050	25350	68160

CAL YR 1975 TOTAL 107192 MEAN 294 MAX 2100 MIN 11 AC-FT 212600 MEAN † 1416 AC-FT † 1025000
WTR YR 1976 TOTAL 30715 MEAN 83.9 MAX 145 MIN 11 AC-FT 60920 MEAN † 1249 AC-FT † 906500

† Adjusted for diversion through Belden powerhouse.

11401125 INDIAN CREEK NEAR BOULDER CREEK GUARD STATION, NEAR TAYLORSVILLE, CA

LOCATION (REVISED).--Lat 40°10'47", long 120°36'27", in SE¼SE¼ sec.22, T.27 N., R.12 E., Plumas County, on left bank 150 ft (46 m) downstream from Antelope Dam, 1.8 mi (2.9 km) upstream from Cold Stream, 1.3 mi (2.1 km) south of Boulder Creek Guard Station, 12.3 mi (19.8 km) northeast of Genesee, and 14.3 mi (23.0 km) northeast of Taylorsville.

DRAINAGE AREA.--68.6 mi^2 (177.7 km^2).

PERIOD OF RECORD.--October 1965 to current year. June 1961 to September 1965 in reports of California Department of Water Resources.

GAGE.--Water-stage recorder and steel-lipped concrete control. Supplementary water-stage recorder on dam and concrete spillway. Altitude of gage is 4,930 ft (1,502 m), from topographic map. October 1965 to September 1968, at site 0.9 mi (1.4 km) downstream at different datum.

REMARKS.--Flow regulated since Nov. 25, 1963 by Antelope Lake, capacity, 22,500 acre-ft (27.7 hm^3). See schematic diagram of North Fork Feather River basin. Records since October 1968 are combined flow of release from Antelope Dam and flow over spillway.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--11 years, 65.8 ft^3/s (1.863 m^3/s), 47,670 acre-ft/yr (58.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 828 ft^3/s (23.4 m^3/s) May 24, 1967, gage height, 6.31 ft (1.923 m) previous site and datum, and Jan. 24, 1970 (includes flow over spillway); no flow for several months in 1971-72 (caused by draining of Antelope Lake).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 141 ft^3/s (3.99 m^3/s) July 16-27; minimum daily, 10 ft^3/s (0.28 m^3/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	18	10	10	10	10	10	10	45	20	20	140	95
2	18	10	10	10	10	10	10	47	20	20	140	95
3	14	10	10	10	10	10	10	47	20	20	140	94
4	10	10	10	10	10	10	10	46	20	20	139	94
5	10	10	10	10	10	10	10	44	20	20	138	94
6	10	10	10	10	10	10	10	40	20	20	117	93
7	10	10	10	10	10	10	10	37	20	20	102	93
8	10	10	10	10	10	10	10	35	20	20	102	92
9	10	10	10	10	10	10	10	34	19	20	101	91
10	10	10	10	10	10	10	10	36	21	20	101	91
11	10	10	10	10	10	10	10	38	21	20	101	90
12	10	10	10	10	10	10	10	34	21	20	100	90
13	10	10	10	10	10	10	10	30	21	20	100	102
14	10	10	10	10	10	10	11	26	21	36	100	119
15	10	10	10	10	10	10	14	24	21	96	99	118
16	10	10	10	10	10	10	16	22	21	141	99	118
17	10	10	10	10	10	10	17	21	20	141	99	118
18	10	10	10	10	10	10	21	20	20	141	99	117
19	10	10	10	10	10	10	24	20	20	141	99	116
20	10	10	10	10	10	10	29	20	20	141	99	115
21	10	10	10	10	10	10	34	20	21	141	99	114
22	10	10	10	10	10	10	39	20	21	141	99	113
23	10	10	10	10	10	10	44	20	20	141	99	113
24	10	10	10	10	10	10	48	20	20	141	98	112
25	10	10	10	10	10	10	53	20	20	141	98	111
26	10	10	10	10	10	10	52	20	20	141	98	110
27	10	10	10	10	10	10	48	20	20	141	98	108
28	10	10	10	10	10	10	45	20	20	140	98	107
29	10	10	10	10	10	10	43	20	19	140	97	92
30	10	10	10	10	---	10	43	20	20	140	97	56
31	10	---	10	10	---	10	---	20	---	140	96	---
TOTAL	330	300	310	310	290	310	711	886	607	2644	3292	3071
MEAN	10.6	10.0	10.0	10.0	10.0	10.0	23.7	28.6	20.2	85.3	106	102
MAX	18	10	10	10	10	10	53	47	21	141	140	119
MIN	10	10	10	10	10	10	10	20	19	20	96	56
AC-FT	655	595	615	615	575	615	1410	1760	1200	5240	6530	6090

CAL YR 1975 TOTAL 20202 MEAN 55.3 MAX 437 MIN 10 AC-FT 40070
WTR YR 1976 TOTAL 13061 MEAN 35.7 MAX 141 MIN 10 AC-FT 25910

11401180 LITTLE GRIZZLY CREEK NEAR GENESEE, CA

LOCATION.--Lat 40°00'50", long 120°45'11", in NE¼SW¼ sec.21, T.25 N., R.11 E., Plumas County, Plumas National Forest, on right bank 2 mi (3 km) south of Genesee, and 2.5 mi (4.0 km) upstream from Indian Creek.

DRAINAGE AREA.--29.6 mi^2 (76.7 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,180 ft (1,274 m), from topographic map.

REMARKS.--Records good. No known diversion or regulation above station. See schematic diagram of North Fork Feather River basin.

AVERAGE DISCHARGE.--12 years, 53.4 ft^3/s (1.512 m^3/s), 38,690 acre-ft/yr (47.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,800 ft^3/s (51.0 m^3/s) Jan. 24, 1970, gage height, 6.15 ft (1.875 m), from rating curve extended above 500 ft^3/s (14.2 m^3/s) on basis of slope-area measurement at gage height, 5.90 ft (1.798 m); minimum daily, 2.9 ft^3/s (0.082 m^3/s) Aug. 13, Sept. 6, 9, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 43 ft^3/s (1.22 m^3/s) Feb. 29, gage height, 2.09 ft (0.637 m), no peak above base of 300 ft^3/s (8.50 m^3/s); minimum daily, 2.9 ft^3/s (0.082 m^3/s) Aug. 13, Sept. 6, 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	6.9	12	9.5	7.6	8.1	28	17	41	11	4.6	3.7	3.1
2	6.8	11	9.4	7.6	8.0	20	17	44	10	4.6	4.1	3.0
3	6.8	11	9.4	9.4	8.2	16	18	43	10	4.6	3.7	3.0
4	6.9	10	9.4	8.9	8.2	14	20	43	10	4.6	3.9	3.0
5	6.8	9.7	11	8.7	7.3	12	21	42	9.5	4.4	3.5	3.0
6	9.9	9.5	10	8.6	7.3	12	19	41	9.1	4.3	3.4	2.9
7	12	17	9.7	8.5	8.1	12	19	39	8.7	4.1	3.4	3.0
8	8.6	14	9.5	8.6	7.9	13	22	38	8.6	4.0	3.4	3.1
9	8.3	12	9.3	9.4	8.2	14	19	39	9.7	4.0	3.2	2.9
10	25	12	9.2	8.8	7.7	15	20	39	9.7	3.9	3.1	3.0
11	19	12	8.9	8.7	7.7	16	20	37	9.8	3.8	3.1	6.9
12	12	11	9.5	8.7	8.0	14	20	34	8.9	3.8	3.0	5.1
13	11	11	8.9	8.5	8.9	14	18	32	8.2	3.8	2.9	4.1
14	10	11	8.2	8.6	9.7	15	18	30	7.6	3.7	5.4	3.8
15	9.7	14	8.2	8.6	8.9	16	19	28	7.2	3.5	8.5	4.3
16	9.5	26	8.9	8.8	9.0	19	17	26	6.7	3.5	6.6	4.9
17	9.3	16	8.9	8.9	9.2	24	17	23	6.5	3.6	6.0	4.1
18	9.1	13	8.9	8.8	9.7	25	18	22	6.4	3.7	6.3	3.9
19	8.8	12	8.8	8.6	10	20	20	20	6.1	4.1	6.3	3.7
20	8.7	12	9.0	8.2	9.2	18	25	19	6.0	3.5	4.9	3.7
21	8.5	11	8.9	8.5	9.1	18	29	18	6.0	3.4	4.2	3.7
22	11	11	9.2	8.5	9.1	19	32	17	5.9	3.3	4.3	3.6
23	9.4	11	8.8	8.6	8.8	20	35	16	5.7	3.4	4.4	3.6
24	9.0	10	9.0	8.3	8.6	20	40	15	5.4	3.5	4.2	3.5
25	9.2	10	8.9	8.0	8.6	18	42	15	5.4	3.4	3.8	3.5
26	14	9.9	9.0	8.1	9.3	17	37	14	5.2	3.3	3.7	3.6
27	15	10	9.2	8.1	11	17	33	13	5.0	3.1	3.6	3.6
28	12	9.6	9.1	8.1	15	16	31	12	4.8	3.0	3.4	3.5
29	10	9.0	9.2	8.1	36	16	30	12	4.6	3.2	3.4	3.5
30	22	9.6	9.3	8.1	---	18	34	12	4.6	3.1	3.2	3.7
31	15	---	7.8	8.1	---	18	---	12	---	3.2	3.1	---
TOTAL	345.1	357.3	283.0	263.0	284.8	534	727	836	222.3	116.0	129.7	110.3
MEAN	11.1	11.9	9.13	8.48	9.82	17.2	24.2	27.0	7.41	3.74	4.18	3.68
MAX	25	26	11	9.4	36	28	42	44	11	4.6	8.5	6.9
MIN	6.8	9.0	7.8	7.6	7.3	12	17	12	4.6	3.0	2.9	2.9
AC-FT	685	709	561	522	565	1060	1440	1660	441	230	257	219

CAL YR 1975 TOTAL 20334.1 MEAN 55.7 MAX 477 MIN 6.8 AC-FT 40330
WTR YR 1976 TOTAL 4208.5 MEAN 11.5 MAX 44 MIN 2.9 AC-FT 8350

11401180 LITTLE GRIZZLY CREEK NEAR GENESEE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--Water temperatures: August 1964 to current year.
INSTRUMENTATION.--Temperature recorder since August 1964.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1965-73, 1975-76), 21.5°C July 31, Aug. 1, 1973, July 30, 1976; minimum, 0.0°C on many days during winter period of most years.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.5°C July 30; minimum recorded, 0.5°C on several days during November to 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	11.5	8.5	5.0	3.0	3.0	2.0	---	---	2.5	1.0	---	---
2	12.5	9.0	5.0	3.0	2.5	1.5	---	---	---	---	---	---
3	12.5	9.5	5.0	3.5	2.5	1.5	---	---	---	---	---	---
4	12.5	9.5	5.0	3.5	3.5	1.5	---	---	---	---	---	---
5	12.0	9.0	6.0	3.0	4.5	3.5	---	---	---	---	---	---
6	11.5	9.0	6.5	4.5	3.5	2.0	---	---	---	---	---	---
7	9.0	6.0	7.5	5.0	2.5	1.5	---	---	---	---	---	---
8	8.5	5.5	5.5	3.0	2.5	1.5	---	---	---	---	---	---
9	8.5	7.0	3.5	2.0	2.0	1.5	---	---	---	---	---	---
10	7.5	6.5	2.5	1.5	2.5	1.5	---	---	---	---	---	---
11	7.5	5.5	---	---	3.0	1.0	---	---	---	---	---	---
12	7.5	5.5	---	---	3.0	1.5	---	---	---	---	4.0	1.5
13	8.0	5.5	2.5	1.0	1.5	0.5	---	---	---	---	5.0	1.5
14	7.5	4.5	3.0	1.5	1.5	0.5	---	---	---	---	5.5	2.5
15	7.5	5.0	5.0	3.0	---	---	---	---	---	---	5.5	2.5
16	8.0	5.0	5.0	3.0	---	---	2.0	1.5	---	---	6.5	3.5
17	8.0	5.0	3.5	1.0	---	---	2.5	1.0	---	---	6.5	3.0
18	8.0	5.5	1.5	0.5	---	---	2.0	1.0	---	---	4.0	2.0
19	8.0	5.0	1.5	1.0	---	---	2.0	1.0	---	---	6.0	1.5
20	8.0	5.5	2.5	1.0	---	---	1.5	0.5	---	---	5.0	1.0
21	9.0	6.0	1.5	0.5	---	---	1.5	0.5	---	---	4.5	2.0
22	9.0	5.0	2.0	1.0	---	---	1.5	0.5	---	---	5.0	2.0
23	5.0	3.5	2.0	1.0	---	---	1.5	0.5	---	---	5.0	3.0
24	4.5	2.0	2.0	1.0	---	---	2.0	0.5	---	---	6.0	2.0
25	6.5	3.0	2.5	1.5	---	---	1.5	0.5	---	---	6.0	2.5
26	6.5	5.5	3.0	1.5	---	---	1.5	0.5	---	---	7.0	4.5
27	5.5	4.0	2.5	1.5	---	---	1.5	0.5	---	---	5.0	2.0
28	4.0	2.0	2.0	0.5	---	---	1.5	0.5	---	---	5.5	2.0
29	4.5	2.0	1.5	0.5	---	---	2.5	1.0	---	---	7.0	3.0
30	6.0	4.0	2.5	1.0	---	---	2.5	1.0	---	---	7.0	3.0
31	5.0	2.5	---	---	---	---	2.5	1.0	---	---	8.5	5.0
MONTH	12.5	2.0	7.5	0.5	---	---	---	---	---	---	---	---

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.5	3.5	12.0	6.5	14.0	8.0	16.5	10.0	19.0	16.0	---	---
2	6.0	3.0	11.5	6.5	14.5	8.0	17.0	10.0	19.5	15.0	---	---
3	---	---	11.5	6.0	14.0	7.5	17.5	11.0	18.5	15.5	---	---
4	---	---	12.0	6.0	14.0	7.5	18.0	11.5	18.0	15.0	---	---
5	---	---	11.5	7.5	14.0	7.5	19.0	12.0	17.0	14.0	---	---
6	---	---	9.5	6.0	13.5	7.5	19.5	12.5	16.0	13.5	---	---
7	---	---	12.0	6.5	14.5	8.5	18.5	13.5	16.5	11.5	---	---
8	---	---	11.5	7.5	12.0	8.0	19.0	12.5	18.5	13.0	---	---
9	---	---	13.0	7.5	11.5	8.5	20.0	14.0	18.5	14.0	---	---
10	---	---	12.5	8.0	10.5	8.5	20.0	13.0	19.5	14.5	---	---
11	---	---	13.5	8.0	13.0	9.0	20.0	13.5	---	---	---	---
12	---	---	14.0	7.5	13.5	9.0	20.0	13.5	---	---	---	---
13	---	---	15.0	8.5	15.5	10.0	20.0	13.5	---	---	---	---
14	---	---	14.5	9.5	15.0	8.5	20.5	13.5	---	---	---	---
15	---	---	13.5	7.0	16.0	9.5	20.5	14.0	---	---	---	---
16	---	---	14.5	8.5	17.0	11.0	20.0	16.0	---	---	---	---
17	---	---	13.5	7.0	17.5	11.5	20.0	15.0	---	---	---	---
18	---	---	13.0	7.0	19.0	12.5	19.5	14.5	---	---	---	---
19	---	---	12.5	6.0	18.5	13.0	19.5	13.5	14.0	9.5	---	---
20	---	---	13.0	6.0	17.5	12.5	19.5	13.0	16.0	10.5	---	---
21	---	---	12.0	8.5	17.0	13.0	19.5	13.0	17.0	12.0	---	---
22	10.0	5.5	14.0	8.0	17.0	11.0	20.0	13.0	15.0	13.0	---	---
23	10.0	4.5	14.0	7.5	17.5	11.0	18.5	15.0	16.0	11.0	11.5	8.0
24	9.5	6.0	14.0	8.0	18.0	11.5	20.0	14.5	16.5	12.0	11.5	8.0
25	8.0	4.5	15.0	8.5	18.5	12.5	20.5	14.0	---	---	11.5	8.0
26	7.5	3.5	15.5	8.5	18.0	11.5	21.0	15.5	---	---	12.0	8.5
27	5.5	3.5	15.5	10.0	18.5	11.5	21.0	14.5	---	---	12.5	9.5
28	8.0	3.0	14.5	9.0	18.5	12.0	18.0	14.0	---	---	12.0	9.5
29	10.5	4.0	14.0	7.5	18.5	13.0	19.5	14.0	---	---	12.0	9.5
30	12.0	6.0	13.0	9.0	17.0	11.0	21.5	14.0	---	---	13.0	10.0
31	---	---	13.0	8.0	---	---	19.0	16.5	---	---	---	---
MONTH	---	---	15.5	6.0	19.0	7.5	21.5	10.0	---	---	---	---

11401200 INDIAN CREEK NEAR TAYLORSVILLE, CA

LOCATION.--Lat 40°02'53", long 120°49'01", in SE¼NW¼ sec.12, T.25 N., R.10 E., Plumas County, on right bank 0.3 mi (0.5 km) upstream from Montgomery Creek, and 2.3 mi (3.7 km) southeast of Taylorsville.

DRAINAGE AREA.--526 mi^2 (1,362 km^2).

PERIOD OF RECORD.--May 1957 to September 1973, October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,580 ft (1,091 m), from topographic map. Prior to Oct. 22, 1963, at site 1.0 mi (1.6 km) downstream at different datum.

REMARKS.--Flow partly regulated by Antelope Lake (station 11401120) and storage in Taylor Lake since 1929, capacity, 380 acre-ft (46,900 m^3). Some diversions for irrigation upstream. See schematic diagram of North Fork Feather River basin.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--18 years, 361 ft^3/s (10.22 m^3/s), 261,500 acre-ft/yr (322 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,200 ft^3/s (855 m^3/s) Feb. 1, 1963, gage height, 10.65 ft (3.246 m) site and datum then in use, from rating curve extended above 3,000 ft^3/s (85.0 m^3/s) on basis of slope-area measurements at gage heights 10.3 ft (3.14 m) and 10.65 ft (3.246 m); minimum daily, 13 ft^3/s (0.37 m^3/s) Aug. 2-4, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 11.5 ft (3.50 m) from floodmarks, site and datum then in use (discharge unknown).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 219 ft^3/s (6.20 m^3/s) Feb. 29, gage height, 5.35 ft (1.631 m); minimum daily, 37 ft^3/s (1.05 m^3/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	67	102	87	77	75	198	133	159	63	42	159	113
2	66	93	87	67	77	133	131	168	62	43	168	112
3	66	90	87	81	78	121	131	170	61	42	162	113
4	61	89	88	78	78	98	131	170	60	42	161	114
5	59	87	91	77	65	98	135	164	59	43	158	114
6	71	85	93	74	73	98	133	150	58	42	152	114
7	85	100	90	74	82	102	135	140	59	41	119	112
8	76	105	87	76	78	103	135	136	58	40	116	110
9	73	93	86	83	78	109	135	134	62	39	116	105
10	111	98	83	77	75	116	135	130	65	37	116	105
11	126	92	82	76	71	129	133	130	69	39	120	118
12	98	90	87	77	75	133	133	126	66	40	118	121
13	84	91	82	78	78	125	133	115	64	40	116	118
14	78	91	78	78	87	129	133	107	61	40	123	131
15	77	109	75	78	82	149	133	101	58	56	135	139
16	76	157	84	78	81	157	131	93	54	125	135	141
17	75	139	82	79	81	179	131	88	53	145	131	143
18	73	110	79	79	82	198	131	84	52	147	133	145
19	73	93	77	78	87	190	129	82	49	149	129	143
20	71	103	75	74	80	157	131	81	48	151	128	143
21	71	92	77	76	77	155	141	79	47	151	125	141
22	77	90	81	75	80	153	151	77	46	153	123	139
23	77	90	78	78	80	155	159	75	46	153	123	139
24	76	89	76	78	80	155	172	74	46	153	123	137
25	79	89	77	70	81	155	190	72	45	151	120	135
26	102	88	78	72	83	149	179	71	45	151	119	135
27	105	90	80	76	86	145	166	68	45	157	119	131
28	92	90	80	76	98	143	153	67	45	157	118	129
29	88	77	79	76	176	137	149	66	44	157	117	125
30	161	91	80	77	---	133	147	65	43	157	114	97
31	120	---	70	75	---	137	---	64	---	157	114	---
TOTAL	2614	2903	2536	2368	2404	4339	4259	3306	1633	3040	4010	3762
MEAN	84.3	96.8	81.8	76.4	82.9	140	142	107	54.4	98.1	129	125
MAX	161	157	93	83	176	198	190	170	69	157	168	145
MIN	59	77	70	67	65	98	129	64	43	37	114	97
AC-FT	5180	5760	5030	4700	4770	8610	8450	6560	3240	6030	7950	7460

CAL YR 1975 TOTAL 146751 MEAN 402 MAX 2870 MIN 59 AC-FT 291100
WTR YR 1976 TOTAL 37174 MEAN 102 MAX 198 MIN 37 AC-FT 73730

11401500 INDIAN CREEK NEAR CRESCENT MILLS, CA

LOCATION.--Lat 40°04'42", long 120°55'36", in SW¼SW¼ sec.25, T.26 N., R.9 E., Plumas County, on left bank 0.8 mi (1.3 km) upstream from Dixie Creek, and 1.5 mi (2.4 km) south of Crescent Mills.

DRAINAGE AREA.--739 mi^2 (1,914 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1906 to December 1909, September 1911 to March 1918, October 1930 to current year.

REVISED RECORDS.--WSP 1445: 1906-9. WSP 1931: 1956, 1958(M).

GAGE.--Water-stage recorder. Altitude of gage is 3,500 ft (1,070 m), from topographic map. Prior to March 1918, nonrecording gage at site 800 ft (240 m) upstream at different datum.

REMARKS.--Records good. Natural flow affected by storage in Round Valley Reservoir since 1865, capacity, 5,000 acre-ft (6.2 hm^3), Taylor Lake since 1929, capacity, 380 acre-ft (469,000 m^3), and Antelope Lake (station 11401120) since November 1963. Diversions above station for irrigation of about 11,800 acres (47.8 km^2) of which 9,700 acres (39.2 km^2) are in Indian and Genesee Valleys. See schematic diagram of North Fork Feather River basin.

AVERAGE DISCHARGE.--55 years (water years 1907-9, 1912-17, 1931-76), 553 ft^3/s (15.66 m^3/s), 400,600 acre-ft/yr (494 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 25,000 ft^3/s (708 m^3/s) Mar. 19, 1907, gage height, 20.2 ft (6.16 m) site and datum then in use; minimum, 1.7 ft^3/s (0.048 m^3/s) Aug. 25, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 756 ft^3/s (21.4 m^3/s) Mar. 1, gage height, 4.58 ft (1.396 m), no peak above base of 1,500 ft^3/s (42.5 m^3/s); minimum daily, 14 ft^3/s (0.40 m^3/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	61	191	137	105	121	600	167	153	33	16	94	85
2	66	171	137	99	121	375	160	163	37	27	100	81
3	65	157	137	121	123	309	155	177	36	25	100	84
4	78	147	138	123	128	257	147	158	34	22	100	84
5	57	139	149	123	108	241	136	144	30	21	98	94
6	91	136	156	118	90	238	147	146	25	21	85	92
7	154	145	148	113	133	235	149	136	24	20	76	93
8	116	164	142	118	125	230	168	132	29	18	78	91
9	118	148	138	151	126	229	168	130	37	16	81	85
10	190	177	136	143	120	233	149	130	48	14	83	84
11	322	160	132	129	113	243	162	122	54	16	82	100
12	216	146	156	132	121	243	188	118	43	20	83	107
13	183	144	144	128	124	230	200	114	43	20	79	109
14	171	144	119	127	155	230	175	103	43	20	98	112
15	119	180	111	126	150	243	155	96	45	40	125	132
16	124	260	132	125	147	254	161	84	39	90	126	137
17	128	229	132	126	144	278	155	85	36	105	118	141
18	118	183	126	125	145	310	164	80	30	105	133	132
19	116	154	124	123	165	295	159	74	28	105	136	130
20	110	168	119	116	150	259	144	65	27	105	132	135
21	108	156	121	115	137	251	147	59	23	105	120	134
22	113	147	140	117	138	243	159	57	25	105	121	130
23	114	146	130	121	135	238	176	56	26	102	118	133
24	111	142	128	127	133	232	179	50	22	111	117	125
25	117	140	130	111	135	231	181	43	26	107	119	117
26	146	141	128	110	170	219	179	45	28	103	110	112
27	184	144	131	118	179	209	170	45	28	101	98	114
28	153	145	132	120	202	173	174	43	27	113	93	115
29	137	122	130	119	528	178	172	45	24	122	87	110
30	334	138	131	123	---	157	155	41	16	118	87	102
31	255	---	118	122	---	164	---	43	---	100	87	---
TOTAL	4375	4764	4132	3774	4366	7827	4901	2937	966	2013	3164	3300
MEAN	141	159	133	122	151	252	163	94.7	32.2	64.9	102	110
MAX	334	260	156	151	528	600	200	177	54	122	136	141
MIN	57	122	111	99	90	157	136	41	16	14	76	81
AC-FT	8680	9450	8200	7490	8660	15520	9720	5830	1920	3990	6280	6550

CAL YR 1975 TOTAL 247620 MEAN 678 MAX 4700 MIN 39 AC-FT 491200
WTR YR 1976 TOTAL 46519 MEAN 127 MAX 600 MIN 14 AC-FT 92270

11401500 INDIAN CREEK NEAR CRESCENT MILLS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.
CHEMICAL ANALYSES: Water years 1951-66, 1972.
WATER TEMPERATURES: Water years 1963 to current year.
SEDIMENT RECORDS.--Water years 1957-66.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1962 to current year.

INSTRUMENTATION.--Temperature recorder since October 1962.

REMARKS.--Clock stopped Nov. 15-21, Jan. 22 to Mar. 11, Mar. 11-17, Mar. 17 to Apr. 21; range in temperature, 1.5°C to 7.0°C, 1.5°C to 10.5°C, 4.5°C to 11.5°C, and 5.0°C to 18.0°C, respectively.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES (water years 1963-65, 1967-76): Maximum, 28.0°C July 26-28, 1963; minimum (water years 1963-64, 1967-76), 0.0°C on many days during most years.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.0°C July 13; minimum recorded, 1.0°C on several days during December.

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	19.0	13.5	10.0	8.5	7.5	4.5	3.5	2.0				
2	18.5	13.5	10.0	9.0	7.0	5.0	4.0	2.0				
3	17.5	13.5	10.0	9.0	6.5	4.5	4.0	2.5				
4	18.0	13.0	9.5	8.5	7.5	4.0	4.5	2.5				
5	18.0	13.5	9.5	9.0	7.5	6.0	6.0	4.0				
6	15.5	12.0	9.5	9.0	7.5	6.5	6.5	3.5				
7	14.5	11.5	9.5	9.0	7.5	6.0	5.5	3.5				
8	14.0	11.0	9.5	8.5	7.0	5.0	6.0	3.5				
9	12.5	11.0	8.5	7.5	6.5	4.5	6.5	4.5				
10	12.0	11.0	7.5	7.0	6.0	4.0	6.5	4.5				
11	15.0	11.5	7.5	6.5	5.5	3.5	6.0	4.0				
12	14.0	12.5	7.0	6.0	5.0	4.5	5.5	3.5				
13	14.0	13.0	7.0	6.0	4.5	2.0	6.5	3.5				
14	14.0	12.5	7.0	6.5	3.5	1.0	7.0	4.0				
15	14.5	13.0	---	---	3.0	1.0	6.0	3.0				
16	14.5	13.0	---	---	4.0	1.0	5.5	3.0				
17	14.0	13.0	---	---	4.5	1.5	5.5	2.5				
18	14.0	13.0	---	---	4.5	1.0	6.0	2.0				
19	14.5	12.5	---	---	5.0	2.0	5.5	1.5				
20	14.0	12.0	---	---	5.0	2.0	5.5	1.5				
21	14.0	13.0	---	---	5.5	2.0	5.5	1.5				
22	14.0	13.0	5.5	2.0	6.5	5.0	---	---				
23	13.0	11.5	6.0	2.0	6.5	4.0	---	---				
24	12.0	10.5	6.0	2.0	7.0	5.0	---	---				
25	12.0	11.0	6.5	2.5	6.5	5.5	---	---				
26	11.5	11.0	6.5	3.0	7.5	4.5	---	---				
27	11.0	10.5	6.0	4.5	7.5	5.5	---	---				
28	11.0	10.0	5.5	3.0	8.0	5.0	---	---				
29	10.0	9.0	4.0	1.5	7.5	5.0	---	---				
30	10.0	9.0	5.0	3.0	6.5	3.5	---	---				
31	10.5	9.0	---	---	4.5	2.0	---	---				
MONTH	19.0	9.0	---	---	8.0	1.0	---	---				

11401500 INDIAN CREEK NEAR CRESCENT MILLS, CA--Continued

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	---	---	18.5	11.0	20.5	11.0	22.5	11.5	21.5	16.5	23.5	14.5
2	---	---	18.0	10.5	20.5	11.5	22.5	12.5	23.0	16.5	23.0	15.0
3	---	---	19.0	11.0	21.0	11.5	23.0	13.5	20.0	15.5	23.5	15.0
4	---	---	18.5	11.5	21.5	11.5	24.5	14.5	22.0	15.0	23.5	15.5
5	---	---	19.0	12.5	21.0	12.0	25.0	15.0	22.0	14.0	21.5	16.5
6	---	---	16.5	11.5	20.0	11.5	25.5	16.0	21.0	15.0	22.0	15.0
7	---	---	20.0	10.5	21.0	13.0	23.5	15.5	21.0	13.5	21.5	13.5
8	---	---	19.0	12.5	19.0	12.0	25.0	15.0	23.5	14.5	21.5	13.0
9	---	---	21.5	13.5	16.0	13.5	25.5	16.0	24.0	15.0	21.5	13.0
10	---	---	19.5	13.5	17.0	12.5	25.0	15.0	24.0	16.0	19.5	14.5
11	---	---	22.0	13.0	20.0	13.0	24.0	15.0	24.5	16.0	18.5	16.0
12	---	---	23.5	13.0	22.0	14.0	26.0	16.0	23.5	15.0	21.0	15.5
13	---	---	22.5	14.0	24.0	15.0	27.0	16.5	19.5	15.0	21.0	14.0
14	---	---	22.0	13.5	22.5	13.0	26.5	17.0	18.0	15.5	19.0	14.0
15	---	---	22.5	12.5	23.0	13.5	26.5	16.5	17.0	14.0	17.0	13.0
16	---	---	21.5	13.5	26.0	15.0	25.5	18.5	16.0	13.0	16.5	12.0
17	---	---	20.5	11.5	26.5	15.5	25.0	18.0	17.0	12.0	18.0	12.0
18	---	---	20.5	11.5	26.0	16.0	23.0	17.0	17.0	14.0	19.5	12.5
19	---	---	20.5	11.0	25.0	15.5	24.5	15.5	22.5	14.0	20.0	13.0
20	---	---	22.0	10.5	23.5	15.0	24.5	15.5	24.0	15.5	19.5	14.0
21	---	---	19.5	13.5	23.5	15.0	25.0	15.5	24.0	16.0	19.0	13.0
22	14.5	8.0	21.5	12.5	25.0	14.0	24.5	15.5	21.5	17.0	17.5	12.5
23	15.5	7.5	22.0	12.5	24.0	14.0	22.5	16.5	23.0	15.0	17.5	11.5
24	15.5	10.5	21.5	12.5	25.5	14.0	26.0	16.5	23.5	16.0	18.0	11.5
25	15.0	8.0	23.5	13.0	25.5	16.0	26.5	17.0	22.5	16.0	18.0	11.5
26	13.0	6.5	24.5	13.5	25.5	14.5	26.0	17.5	22.5	14.5	18.5	12.0
27	12.0	6.0	21.5	14.5	25.5	15.0	26.0	17.0	23.0	14.0	18.0	13.5
28	13.5	6.0	22.0	12.0	24.5	14.5	23.0	17.0	22.5	15.0	19.0	13.5
29	16.5	7.5	19.5	11.5	22.0	13.5	24.0	17.0	23.0	15.0	18.5	13.0
30	18.5	9.5	19.5	12.5	20.5	12.5	24.5	17.0	23.0	13.0	17.5	13.0
31	---	---	20.0	12.0	---	---	20.5	16.5	23.0	14.5	---	---
MONTH	---	---	24.5	10.5	26.5	11.0	27.0	11.5	24.5	12.0	23.5	11.5

11402000 SPANISH CREEK ABOVE BLACKHAWK CREEK, AT KEDDIE, CA

LOCATION.--Lat 40°00'11", long 120°57'12", in SE¼NE¼ sec.27, T.25 N., R.9 E., Plumas County, on right bank 200 ft (61 m) upstream from Blackhawk Creek, and 0.9 mi (1.4 km) southeast of Keddie.

DRAINAGE AREA.--184 mi^2 (477 km^2).

PERIOD OF RECORD.--October 1933 to current year. Prior to October 1953, published as "at Keddie." Records for October 1911 to September 1933 at site 1.2 mi (1.9 km) downstream not equivalent owing to inflow.

REVISED RECORDS.--WSP 1041: 1938(M).

GAGE.--Water-stage recorder. Datum of gage is 3,129.86 ft (953.981 m) above mean sea level.

REMARKS.--Records excellent. Flow regulated by five small reservoirs having a combined capacity of 800 acre-ft (986,000 m^3). Approximately 4,600 acres (18.6 km^2) irrigated above station (from information furnished by U.S. Forest Service). City of Quincy diverts about 450 acre-ft (555,000 m^3) annually for municipal supply. See schematic diagram of North Fork Feather River basin.

AVERAGE DISCHARGE.--43 years, 270 ft^3/s (7.646 m^3/s), 195,600 acre-ft/yr (241 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,400 ft^3/s (436 m^3/s) Dec. 22, 1964, gage height, 13.53 ft (4.124 m), from rating curve extended above 5,200 ft^3/s (147 m^3/s) on basis of slope-area measurement at gage height 12.47 ft (3.801 m); minimum, 3.8 ft^3/s (0.11 m^3/s) Aug. 12, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,070 ft^3/s (30.3 m^3/s) Feb. 29, gage height, 4.39 ft (1.338 m), no peak above base of 1,700 ft^3/s (48.1 m^3/s); minimum daily, 12 ft^3/s (0.34 m^3/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	44	103	76	69	67	649	134	112	61	20	17	21
2	45	93	75	65	67	341	125	119	53	25	16	19
3	44	85	75	77	67	257	122	118	52	23	16	14
4	44	81	75	73	68	210	121	114	55	22	15	14
5	43	78	91	75	64	187	126	111	56	22	15	14
6	59	76	104	74	61	176	129	108	53	21	16	14
7	79	77	96	72	68	172	126	103	54	21	17	14
8	61	84	90	72	70	175	143	107	54	20	16	14
9	58	77	88	96	71	178	142	100	48	17	15	13
10	112	107	84	87	70	180	137	98	47	16	14	16
11	150	96	81	80	66	181	137	97	46	17	15	20
12	99	86	98	78	68	166	144	86	45	17	14	25
13	80	83	92	76	69	155	140	82	41	17	12	24
14	72	81	81	76	94	153	139	80	39	17	15	23
15	69	99	76	75	91	157	139	72	34	20	21	25
16	64	194	80	74	90	164	133	65	30	20	30	30
17	66	140	79	74	93	185	125	65	28	20	32	30
18	64	113	77	74	93	206	124	62	28	21	31	29
19	62	100	77	72	113	191	122	61	26	21	34	28
20	62	98	74	70	104	166	125	51	26	19	30	27
21	62	93	76	70	96	156	135	48	26	14	29	26
22	64	88	88	69	92	151	138	50	25	13	28	26
23	63	85	82	72	88	150	142	48	27	13	29	27
24	62	82	79	73	85	151	146	49	25	16	28	23
25	62	80	79	69	86	158	152	49	25	16	27	23
26	90	79	78	68	172	149	136	47	26	16	25	24
27	114	82	78	69	196	143	118	46	26	15	24	26
28	88	83	78	68	218	136	115	44	25	13	22	24
29	78	75	78	68	775	130	114	45	21	15	22	25
30	214	76	78	68	---	127	111	49	20	15	21	27
31	136	---	75	67	---	133	---	56	---	15	20	---
TOTAL	2410	2774	2538	2270	3362	5833	3940	2342	1122	557	666	665
MEAN	77.7	92.5	81.9	73.2	116	188	131	75.5	37.4	18.0	21.5	22.2
MAX	214	194	104	96	775	649	152	119	61	25	34	30
MIN	43	75	74	65	61	127	111	44	20	13	12	13
AC-FT	4780	5500	5030	4500	6670	11570	7810	4650	2230	1100	1320	1320

CAL YR 1975	TOTAL	108907	MEAN 298	MAX 2660	MIN 39	AC-FT	216000	
WTR YR 1976	TOTAL	28479	MEAN 77.8	MAX 775	MIN 12	AC-FT	56490	

11403000 EAST BRANCH OF NORTH FORK FEATHER RIVER NEAR RICH BAR, CA

LOCATION.--Lat 40°00'38", long 121°13'03", in SW¼NE¼ sec.20, T.25 N., R.7 E., Plumas County, Plumas National Forest, on left bank 0.5 mi (0.8 km) upstream from mouth, and 1.3 mi (2.1 km) west of Rich Bar.

DRAINAGE AREA.--1,025 mi^2 (2,655 km^2).

PERIOD OF RECORD.--October 1950 to September 1961, 1965-67 (annual maximum), December 1967 to current year.

REVISED RECORDS.--WSP 1245: 1951(M).

GAGE.--Water-stage recorder. Altitude of gage is 2,300 ft (701 m), from topographic map. Prior to Nov. 29, 1950, at site 30 ft (9 m) downstream at same datum.

REMARKS.--No storage or diversion between stations on Indian and Spanish Creeks and station near Rich Bar.

COOPERATION.--Records furnished by Pacific Gas and Electric Co. and reviewed by Geological Survey.

AVERAGE DISCHARGE.--19 years (water years 1951-61, 1969-76), 1,093 ft^3/s (30.95 m^3/s), 791,900 acre-ft/yr (976 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,300 ft^3/s (1,370 m^3/s) Dec. 22, 1964, gage height, 16.56 ft (5.048 m), from rating curve extended above 15,000 ft^3/s (425 m^3/s) on basis of study of upstream and downstream peak discharges; minimum, 39 ft^3/s (1.10 m^3/s) Sept. 6, 7, 1955, July 28, Aug. 23, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,080 ft^3/s (58.9 m^3/s) Mar. 1, gage height, 6.37 ft (1.942 m); minimum daily, 60 ft^3/s (1.70 m^3/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	165	395	276	232	238	1740	377	339	150	68	145	146
2	165	342	272	225	239	1070	360	359	140	84	145	137
3	163	320	272	245	239	800	352	372	138	82	145	133
4	169	301	276	255	245	646	343	346	143	77	144	132
5	168	287	305	254	238	555	339	327	142	76	142	143
6	177	282	329	256	201	531	349	324	132	74	130	141
7	281	290	319	246	232	516	355	306	134	72	122	141
8	248	310	303	246	255	509	379	307	140	68	123	128
9	241	298	294	286	248	512	409	294	137	63	125	129
10	333	341	288	311	248	514	377	291	147	60	126	139
11	571	348	281	277	236	524	379	281	152	63	126	150
12	428	306	309	269	234	517	401	259	139	67	125	164
13	330	294	314	265	244	488	434	248	132	67	120	170
14	315	291	286	261	287	470	411	234	128	67	126	168
15	270	349	251	260	304	482	381	214	120	92	156	166
16	246	582	263	257	300	507	382	192	106	142	168	184
17	250	517	279	257	301	552	365	192	99	156	166	194
18	244	409	268	257	294	618	363	184	93	157	167	200
19	236	348	263	253	328	631	367	176	87	157	193	197
20	230	333	258	248	339	547	370	151	86	155	202	189
21	224	331	255	241	305	507	374	152	82	150	190	190
22	229	309	280	241	290	486	391	152	83	151	185	189
23	234	300	287	243	284	479	413	140	90	152	184	187
24	229	291	271	252	277	472	423	136	82	154	180	188
25	233	287	271	247	280	486	433	130	86	154	180	186
26	313	284	270	232	384	456	405	130	90	149	177	177
27	376	287	270	235	548	444	366	129	90	146	166	172
28	325	295	271	239	563	407	365	125	87	145	157	172
29	288	277	270	239	1280	382	361	128	78	149	152	174
30	588	259	270	240	---	356	339	133	68	147	147	173
31	568	---	266	242	---	368	---	149	---	146	147	---
TOTAL	8837	9863	8687	7811	9461	17572	11363	6900	3381	3490	4761	4959
MEAN	285	329	280	252	326	567	379	223	113	113	154	165
MAX	588	582	329	311	1280	1740	434	372	152	157	202	200
MIN	163	259	251	225	201	356	339	125	68	60	120	128
AC-FT	17530	19560	17230	15490	18770	34850	22540	13690	6710	6920	9440	9840

CAL YR 1975 TOTAL 417768 MEAN 1145 MAX 6270 MIN 140 AC-FT 828600
WTR YR 1976 TOTAL 97085 MEAN 265 MAX 1740 MIN 60 AC-FT 192600

NOTE.--No gage-height record Apr. 19 to July 24.

11403500 BUCKS LAKE NEAR BUCKS LODGE, CA

LOCATION.--Lat 39°53'45", long 121°12'10", in NW¼ sec.33, T.24 N., R.7 E., Plumas County, Plumas National Forest, in intake tower No. 2 upstream from dam on Bucks Creek, 2 mi (3 km) northwest of Bucks Lodge, and 15 mi (24 km) west of Quincy.

DRAINAGE AREA.--28.6 mi² (74.1 km²).

PERIOD OF RECORD.--1927-28 (year-end contents only, published in WSP 1315-A), October 1928 to current year. Prior to October 1954, published as Bucks Creek Reservoir near Bucks Ranch.

GAGE.--Water-stage recorder and nonrecording gage monitored once daily. Datum of gage is at mean sea level (levels by Feather River Power Co.).

REMARKS.--Reservoir is formed by concrete-faced, rockfill dam completed in 1927; storage began in May 1927. Capacity, 101,400 acre-ft (125 hm³) between elevations 5,064.75 ft (1,543.736 m), sill of outlet gate and 5,154.85 ft (1,571.198 m), spillway crest, above mean sea level. Released water flows down Bucks Creek to Lower Bucks Lake, where it enters tunnel that discharges into Grizzly Creek, then to Bucks Creek power-house. Figures given herein represent total contents, of which 274 acre-ft (338,000 m³) is not available for release. See schematic diagram of North Fork Feather 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, 105,800 acre-ft (130 hm³) June 23, 1938, elevation, 5,157.1 ft (1,571.88 m); minimum, 12,330 acre-ft (15.2 hm³) Feb. 27, 1929, elevation, 5,090.7 ft (1,551.65 m).
NOTE.--Water year 1974, maximum and minimum contents at 2400 hrs were published.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 70,200 acre-ft (86.6 hm³) Oct. 1, elevation, 5,136.5 ft (1,565.61 m); minimum, 34,700 acre-ft (42.8 hm³) Jan. 21, elevation, 5,111.8 ft (1,558.08 m).

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

5064.75	274	5075	2400	5100	21200	5125	52500
5066	388	5080	4740	5105	26600	5130	60000
5068	635	5085	7920	5110	32500	5140	75900
5070	977	5090	11700	5115	38800	5150	93000
5072	1440	5095	16200	5120	45500	5160	111200

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	69714	61223	51389	42531	35232	37764	42618	47698	53422	54155	53714	52984
2	69232	61223	50957	41950	35358	37893	42751	47977	53422	54155	53714	52837
3	68753	61070	50528	41550	35358	39316	42751	48257	53422	54155	53714	52837
4	68274	60764	50243	41153	35358	39316	42886	48398	53422	54155	53714	52837
5	67795	60457	50100	40889	35358	39446	43021	48681	53422	54155	53714	52837
6	67795	59997	49814	40494	35358	39446	43291	49105	53422	54155	53714	52837
7	67320	59693	49530	40098	35358	39576	43426	49247	53568	54155	53714	52837
8	66844	59389	49105	39707	35358	39576	43831	49530	53568	54155	53714	52837
9	66527	59086	48681	39446	35358	39707	43966	49957	53714	54155	53714	52837
10	66844	58782	48398	39185	35358	39707	44101	50243	53714	54155	53714	52837
11	66527	58478	48257	38794	35358	40098	44238	50528	53861	54155	53568	52837
12	66210	58177	47977	38537	35358	40098	44375	50671	53861	54155	53568	52837
13	65738	57575	47558	38151	35403	40230	44512	50814	54007	54155	53568	52837
14	65266	57274	47139	37893	35403	40230	44619	51100	54007	54155	53714	52837
15	64794	57124	46859	37380	35403	40362	44924	51245	54007	54155	53861	52984
16	64325	56973	46443	36999	35403	40494	45061	51389	54007	54155	53861	52984
17	63857	56526	46027	36744	35403	40626	45198	51534	54155	54155	53861	52984
18	63388	56228	45749	36236	35403	40889	45335	51678	54155	54155	54007	52984
19	63077	55930	45335	35985	35403	41021	45472	51823	54145	54155	54007	52984
20	62613	55483	45061	35734	35403	41153	45611	51967	54155	54155	53861	52984
21	62149	55188	44619	34733	35403	41285	45749	51967	54302	54155	53861	52837
22	61839	54893	44375	34733	35403	41417	45888	52112	54302	54155	53861	52401
23	61377	54450	44101	34857	36999	41417	46207	52256	54302	54155	54007	51967
24	60917	54007	43696	34857	36999	41684	46304	52401	54302	54155	54007	51534
25	60457	53568	43426	34857	36999	41817	46582	52401	54302	54155	53861	51100
26	60917	53130	43426	34981	36999	41817	46859	52545	54302	54155	54007	50671
27	60917	52837	43426	34981	36999	41950	46999	52540	54302	53861	53861	50243
28	60457	52545	43426	35107	36999	42084	47139	52540	54302	53714	53861	49814
29	60610	52112	43291	35107	36999	42084	47278	52540	54155	53714	53861	49388
30	61070	51823	43021	35107	---	42217	47418	52691	54155	53714	53568	48962
31	61223	---	42751	35232	---	42484	---	52691	---	53714	53276	---
MAX	69714	61223	51389	42531	36999	42484	47418	52691	54302	54155	54007	52984
MIN	60457	51823	42751	34733	35232	37764	42618	47698	53422	53714	53276	48962
(†)	5130.8	5124.5	5118.0	5112.2	5113.6	5117.8	5121.4	5125.1	5126.1	5125.8	5125.5	5122.5
(‡)	-8970	-9400	-9070	-7520	+1770	+5490	+4930	+5270	+1460	-441	-438	-4310

CAL YR 1975 ‡ -19600
WTR YR 1976 ‡ -21200

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet, rounded to Geological Survey standards.

11404500 NORTH FORK FEATHER RIVER AT PULGA, CA

LOCATION.--Lat 39°47'39", long 121°27'03", in SW¼NE¼ sec.6, T.22 N., R.5 E., Butte County, Plumas National Forest, on left bank between railroad and highway bridges, 0.5 mi (0.8 km) downstream from Flea Valley Creek and Pulga, and 1.5 mi (2.4 km) downstream from Poe Dam.

DRAINAGE AREA.--1,953 mi^2 (5,058 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to current year. Monthly discharge only for some periods and yearly estimates for water years 1911 and 1938, published in WSP 1315A. Prior to October 1960, published as "at Big Bar."

REVISED RECORDS.--WSP 931: 1938(M), 1940. WSP 1515: 1935.

GAGE.--Water-stage recorder. Datum of gage is 1,304.88 ft (397.727 m) above mean sea level (levels by Pacific Gas and Electric Co.). Prior to Oct. 1, 1937, at site 1.1 mi (1.8 km) upstream at different datum. Oct. 1, 1937, to Sept. 30, 1958, at present site at datum 5.00 ft (1.524 m) higher.

REMARKS.--Records good. Flow regulated by Lake Almanor (station 11399000), Bucks Lake (station 11403500), Mountain Meadows Reservoir, Butt Valley Reservoir, and five forebays, combined capacity, 1,386,000 acre-ft (1.71 km^3). Diversion through Poe powerhouse began on May 29, 1958. See schematic diagram of North Fork Feather River basin.

COOPERATION.--Gage-height record and nine discharge measurements furnished by Pacific Gas and Electric Co. in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE (including diversion through Poe powerhouse).--66 years, 2,997 ft^3/s (84.88 m^3/s), 2,171,000 acre-ft/yr (2.68 km^3/yr).

EXTREMES FOR PERIOD OF RECORD (prior to diversion to Poe powerhouse).--Maximum discharge, 72,400 ft^3/s (2,050 m^3/s) Dec. 23, 1955, gage height, 35.60 ft (10.851 m) present datum, from rating curve extended above 34,000 ft^3/s (963 m^3/s); minimum daily, 235 ft^3/s (6.66 m^3/s) Oct. 31, 1932.
1958 to current year: Maximum discharge, 73,000 ft^3/s (2,070 m^3/s) Dec. 22, 1964, gage height, 35.80 ft (10.912 m), from rating curve extended above 34,000 ft^3/s (963 m^3/s); minimum daily, 33 ft^3/s (0.93 m^3/s) June 25, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 490 ft^3/s (13.9 m^3/s) Feb. 29, gage height, 6.26 ft (1.908 m); minimum daily, 48 ft^3/s (1.36 m^3/s) Aug. 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	51	59	58	58	58	191	59	60	52	50	51	52
2	52	58	58	57	59	98	57	62	51	52	51	52
3	54	58	58	57	59	86	57	61	51	51	50	53
4	52	57	58	58	61	78	57	60	51	51	50	52
5	54	57	59	57	60	71	57	57	50	51	50	53
6	58	56	59	56	60	71	60	56	50	50	51	54
7	60	57	59	56	59	70	62	55	50	49	51	53
8	57	58	59	56	60	67	80	55	49	49	50	52
9	60	57	59	56	61	67	68	55	49	49	50	52
10	75	70	59	57	59	66	67	55	52	49	49	50
11	64	60	58	57	59	66	68	52	52	49	49	52
12	59	60	59	58	60	63	68	53	52	50	49	52
13	57	58	59	58	60	62	66	51	51	50	50	53
14	56	57	59	58	69	60	66	53	51	49	53	53
15	55	66	59	58	69	62	66	53	51	50	60	61
16	54	71	59	58	71	59	64	53	49	51	53	54
17	54	64	58	58	71	59	65	51	49	49	51	52
18	53	62	58	58	70	61	63	52	49	49	52	52
19	52	60	58	58	73	60	62	52	49	50	50	54
20	52	59	58	58	70	58	62	51	49	51	48	50
21	55	59	57	58	68	59	62	52	49	51	49	52
22	55	58	59	59	64	58	63	53	50	51	51	50
23	55	59	59	60	66	58	63	53	51	49	50	51
24	56	58	58	59	64	59	63	52	49	51	50	52
25	56	58	58	58	71	58	62	53	51	50	50	51
26	81	58	57	60	86	57	61	52	50	50	53	54
27	62	58	57	60	85	57	61	51	49	50	51	53
28	55	59	57	61	83	57	61	49	50	50	52	53
29	56	58	57	61	221	56	61	50	53	50	52	52
30	76	57	58	60	---	58	60	52	52	51	51	52
31	63	---	57	60	---	61	---	51	---	51	51	---
TOTAL	1799	1786	1805	1803	2076	2113	1891	1665	1511	1553	1578	1576
MEAN	58.0	59.5	58.2	58.2	71.6	68.2	63.0	53.7	50.4	50.1	50.9	52.5
MAX	81	71	59	61	221	191	80	62	53	52	60	61
MIN	51	56	57	56	58	56	57	49	49	49	48	50
AC-FT	3570	3540	3580	3580	4120	4190	3750	3300	3000	3080	3130	3130
MEAN †	1558	3169	3067	2780	2885	2588	1166	1208	2595	277	561	1387
AC-FT †	95800	188600	188600	171000	165900	159100	69360	74300	154400	17060	34470	82530

CAL YR 1975 TOTAL 272795 MEAN 747 MAX 8000 MIN 50 AC-FT 541100 MEAN † 3653 AC-FT † 2645000
WTR YR 1976 TOTAL 21156 MEAN 57.8 MAX 221 MIN 48 AC-FT 41960 MEAN † 1930 AC-FT † 1401000

† Adjusted for diversion through Poe powerhouse.

11404500 NORTH FORK FEATHER RIVER AT PULGA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.
CHEMICAL ANALYSES: Water years 1963-66, 1972.
WATER TEMPERATURES: Water years 1963 to current year.

PERIOD OF DAILY RECORD:
WATER TEMPERATURES: October 1962 to current year.

INSTRUMENTATION.--Temperature recorder since October 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1963-64, 1966, 1968-76), 24.5°C July 26, 27, 1976; minimum (water years 1964-65, 1967-76), 0.5°C Jan. 4, 1972.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 24.5°C July 26, 27; minimum, 3.0°C Feb. 6.

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	17.5	15.0	13.5	12.0	6.5	6.0	5.5	4.5	6.5	5.5	6.5	6.0
2	17.0	15.5	14.0	12.5	7.0	6.0	5.0	4.5	6.0	5.0	5.5	4.5
3	17.0	15.0	14.0	12.5	7.0	6.0	5.5	4.5	6.0	5.0	6.0	4.5
4	17.0	15.5	14.0	13.0	7.0	6.5	5.5	5.0	6.0	5.0	6.0	4.5
5	17.0	15.5	13.5	12.5	8.0	7.0	6.0	5.5	5.0	3.5	6.0	4.0
6	17.0	15.5	14.0	13.5	8.0	7.0	6.0	5.5	4.0	3.0	6.5	4.5
7	15.5	14.0	14.0	13.5	7.5	7.0	5.5	5.0	5.0	4.0	7.0	5.0
8	15.5	14.0	13.5	12.5	7.5	7.0	5.0	4.5	5.5	5.0	7.5	5.5
9	15.0	13.5	12.5	11.5	7.5	6.5	5.5	5.0	6.0	5.0	8.0	6.0
10	14.0	13.5	11.5	11.0	7.0	6.0	5.5	4.5	5.5	4.0	8.5	6.0
11	14.0	13.5	11.0	10.5	7.0	6.0	5.5	5.0	5.5	4.0	8.0	6.0
12	13.5	12.5	11.0	10.0	6.5	6.0	5.5	5.0	6.0	5.0	8.0	6.0
13	13.5	12.5	11.0	10.0	6.5	6.0	5.0	4.5	6.0	5.0	8.0	6.0
14	13.5	12.0	11.0	10.5	6.0	4.5	5.0	4.5	6.0	5.5	8.0	6.5
15	14.0	12.5	10.5	10.5	5.0	4.0	6.0	4.5	6.0	5.5	8.5	6.5
16	14.5	13.5	11.0	10.0	6.0	5.0	6.0	5.0	6.0	5.5	9.0	7.5
17	15.0	13.5	10.0	9.0	6.0	5.0	6.0	5.0	7.0	5.5	9.5	8.0
18	15.5	13.5	9.0	8.5	5.5	5.0	6.0	5.0	7.0	6.0	9.5	8.5
19	15.5	13.5	8.5	7.5	6.0	5.5	6.0	5.0	7.0	6.0	9.0	7.5
20	15.5	14.0	8.5	8.0	6.0	5.0	6.0	5.0	6.5	5.0	8.5	6.5
21	15.5	14.0	8.5	7.0	6.0	5.5	5.5	5.0	6.5	5.0	9.0	6.5
22	16.0	14.5	8.5	8.0	6.5	6.0	5.5	4.5	6.5	5.0	9.0	7.5
23	14.5	13.0	8.5	7.5	6.5	5.5	5.5	5.0	6.0	5.0	10.0	8.0
24	14.0	13.0	8.5	8.0	6.5	5.5	5.0	4.0	7.0	5.0	9.5	8.5
25	14.0	13.0	8.0	7.5	6.5	6.0	5.0	4.0	6.5	6.0	9.0	7.5
26	13.5	13.5	8.0	7.5	6.5	6.0	5.0	4.0	7.0	6.0	9.0	7.5
27	14.0	13.0	8.0	7.5	6.5	6.0	5.0	4.0	7.5	6.5	9.0	7.0
28	13.5	12.0	8.0	7.0	6.5	5.5	5.5	4.5	7.5	7.0	10.0	7.5
29	13.5	12.5	7.0	6.5	7.5	6.5	5.5	4.5	7.5	6.5	9.5	7.0
30	13.5	12.5	6.5	6.0	7.0	6.0	6.0	5.0	---	---	10.0	8.0
31	13.0	12.0	---	---	6.5	5.0	6.5	5.0	---	---	10.0	8.5
MONTH	17.5	12.0	14.0	6.0	8.0	4.0	6.5	4.0	7.5	3.0	10.0	4.0

11404500 NORTH FORK FEATHER RIVER AT PULGA, CA--Continued

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	10.0	8.0	16.0	13.5	20.5	18.0	20.5	17.5	24.0	21.5	21.0	18.0
2	9.5	7.5	17.0	14.5	20.5	18.0	20.5	17.5	24.0	21.5	21.0	18.5
3	9.5	7.5	17.0	14.0	---	---	21.0	17.5	23.5	21.0	21.0	18.5
4	9.5	7.5	17.5	15.0	---	---	21.0	18.0	23.5	21.0	21.0	19.0
5	9.5	8.5	18.0	16.0	18.0	15.0	21.0	18.0	23.0	20.5	21.0	19.5
6	9.5	8.5	17.5	15.0	17.5	14.5	21.0	18.0	23.0	20.5	21.0	19.0
7	9.0	8.5	18.0	16.0	18.0	15.0	21.5	18.5	22.5	20.0	20.5	18.5
8	9.5	9.0	18.0	16.0	17.5	15.0	21.5	18.0	22.5	20.0	20.0	18.5
9	10.0	9.0	19.0	16.0	17.5	16.0	22.0	19.0	22.5	20.0	20.0	18.5
10	10.0	9.0	19.0	17.0	17.0	15.0	21.5	18.5	22.5	20.0	20.5	19.0
11	10.0	9.0	19.0	17.0	17.5	15.0	21.5	18.5	22.0	20.5	20.5	19.5
12	9.5	9.0	19.5	16.5	18.0	15.0	22.0	19.5	22.0	20.0	20.0	19.0
13	11.0	8.5	19.5	17.0	18.0	15.5	22.0	19.0	21.5	20.0	20.0	18.5
14	11.5	9.0	20.0	17.0	17.5	14.5	22.5	19.5	21.0	19.5	20.0	18.5
15	11.0	9.5	19.0	16.5	18.5	15.5	22.5	19.5	20.0	19.0	19.0	17.5
16	11.5	9.0	20.0	17.0	19.0	16.0	23.0	20.5	20.0	19.0	19.0	17.0
17	11.5	9.0	19.5	17.0	19.0	16.5	23.0	20.5	19.5	17.5	19.0	17.0
18	12.0	10.0	19.5	16.5	19.5	17.0	23.0	20.5	19.0	18.5	19.0	17.0
19	12.5	10.0	19.5	16.5	20.0	17.0	23.0	20.5	20.0	17.5	19.0	17.5
20	13.5	11.5	19.0	16.0	20.0	17.5	23.0	20.5	20.5	17.5	19.0	17.5
21	13.5	12.0	19.5	17.0	20.5	18.0	23.5	20.5	20.5	18.0	19.0	17.0
22	13.5	12.5	19.5	17.0	20.5	17.5	23.5	20.5	20.0	18.5	19.0	17.0
23	14.5	12.0	19.5	17.0	20.5	17.5	23.5	21.0	20.5	18.0	18.5	17.0
24	15.0	13.5	20.0	17.0	20.5	17.5	23.5	21.5	20.5	18.5	18.5	17.0
25	15.0	13.0	20.5	18.0	21.0	18.5	24.0	21.5	21.0	18.5	18.5	17.0
26	15.0	12.0	20.5	18.0	20.5	17.5	24.5	22.0	20.5	18.5	18.5	17.0
27	14.0	12.0	21.0	18.0	21.0	18.0	24.5	22.0	20.5	18.0	18.0	17.5
28	15.0	12.5	20.5	18.0	21.0	17.5	24.0	22.5	21.0	18.5	18.0	17.5
29	15.0	12.5	20.0	17.5	21.0	18.5	24.0	22.0	20.5	18.5	18.0	17.0
30	15.5	12.5	20.0	18.0	20.5	17.5	24.0	22.0	20.5	18.0	19.0	17.5
31	---	---	20.5	18.5	---	---	23.5	21.5	21.0	18.0	---	---
MONTH	15.5	7.5	21.0	13.5	21.0	14.5	24.5	17.5	24.0	17.5	21.0	17.0

11405300 WEST BRANCH FEATHER RIVER NEAR PARADISE, CA

LOCATION.--Lat 39°47'12", long 121°33'42", in SE¼SE¼ sec.6, T.22 N., R.4 E., Butte County, on right bank 0.6 mi (1.0 km) upstream from Griffin Gulch, and 4.0 mi (6.4 km) northeast of Paradise.

DRAINAGE AREA.--110 mi^2 (285 km^2).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 2131: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,370 ft (418 m), from topographic map. Prior to June 1, 1970, on left bank at same datum.

REMARKS.--Records good. Dewey, Miners, and Hendricks Canals divert from headwaters of West Branch Feather River into Butte Creek basin for power development at DeSabla and Centerville plants of Pacific Gas and Electric Co. Upper Miocene Canal diverts about 50 ft^3/s (1.42 m^3/s) to Lime Saddle powerplant. Flow regulated by Round Valley Reservoir, usable capacity, 5,000 acre-ft (6.16 hm^3) and Philbrook Reservoir, capacity, 5,010 acre-ft (6.18 hm^3).

AVERAGE DISCHARGE.--19 years, 312 ft^3/s (8.836 m^3/s), 226,000 acre-ft/yr 279 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,300 ft^3/s (745 m^3/s) Dec. 22, 1964, gage height, 26.2 ft (7.99 m) from floodmarks, from rating curve extended above 14,000 ft^3/s (396 m^3/s); minimum, 0.3 ft^3/s (0.008 m^3/s) Aug. 31, Sept. 1, 2, 1960, Sept. 8, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,210 ft^3/s (34.3 m^3/s) Feb. 29, gage height, 7.32 ft (2.231 m); minimum daily, 1.1 ft^3/s (0.031 m^3/s) Aug. 31, 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	SEP
1	1.3	28	8.1	6.6	1.8	674	53	101	2.4	1.6	5.8	1.2
2	1.3	18	9.1	5.8	1.8	330	45	115	2.2	2.1	8.0	1.2
3	1.3	11	8.5	7.9	1.7	212	48	107	2.0	2.0	1.7	1.2
4	1.3	7.0	12	6.7	3.9	156	47	106	1.9	1.8	1.5	1.2
5	1.4	4.7	295	6.6	1.9	121	66	97	1.8	1.6	1.5	1.3
6	19	3.9	148	7.2	1.6	96	60	89	1.8	1.6	1.5	1.3
7	77	24	62	6.1	1.8	88	73	74	1.8	1.6	1.5	1.3
8	32	32	42	5.6	1.7	84	330	92	1.8	1.5	1.5	1.3
9	28	12	35	25	2.5	116	167	83	1.8	1.5	1.5	1.2
10	218	33	29	15	2.2	144	157	79	2.1	1.5	1.5	1.1
11	146	21	24	11	1.7	149	146	69	2.8	1.5	1.4	1.4
12	35	14	38	9.3	1.7	135	129	51	2.1	1.7	1.4	1.5
13	9.4	12	30	8.0	4.1	129	107	59	1.8	1.7	1.4	1.5
14	2.8	11	20	7.3	32	127	115	40	1.7	1.6	2.7	1.4
15	1.9	159	20	7.2	27	128	120	31	1.5	1.6	28	7.9
16	5.5	371	20	8.0	46	138	95	25	1.5	1.5	8.8	3.3
17	2.4	93	20	9.7	46	159	71	22	1.5	1.5	2.3	1.6
18	2.0	45	18	8.5	39	190	65	11	1.5	1.6	1.9	1.5
19	1.7	32	15	6.5	41	127	76	7.0	1.5	1.7	2.0	1.4
20	1.5	30	13	4.8	27	68	101	5.4	1.5	1.7	2.0	1.3
21	1.4	25	12	4.1	21	62	119	3.9	1.6	1.7	1.5	1.2
22	1.4	22	22	3.6	17	66	100	4.4	1.6	1.6	1.5	1.4
23	1.4	18	17	3.2	15	62	116	6.5	1.5	1.5	1.5	1.8
24	1.3	16	14	3.1	12	68	121	5.2	1.5	1.4	1.5	2.0
25	1.4	15	14	2.6	18	81	138	4.4	1.4	1.4	1.4	1.9
26	264	13	13	2.2	52	58	97	3.5	1.4	1.3	1.2	1.9
27	107	16	13	2.0	258	52	77	2.6	1.4	1.3	1.2	2.0
28	25	15	12	2.0	336	47	62	2.3	1.3	1.4	1.2	2.1
29	12	8.8	16	2.0	877	44	51	2.4	1.3	1.4	1.2	2.1
30	106	8.4	15	1.9	---	48	74	4.7	1.3	1.5	1.2	2.1
31	72	---	10	1.8	---	66	---	2.4	---	1.5	1.1	---
TOTAL	1181.7	1118.8	1024.7	201.3	1892.4	4025	3026	1305.7	51.3	48.9	92.4	53.6
MEAN	38.1	37.3	33.1	6.49	65.3	130	101	42.1	1.71	1.58	2.98	1.79
MAX	264	371	295	25	877	674	330	115	2.8	2.1	28	7.9
MIN	1.3	3.9	8.1	1.8	1.6	44	45	2.3	1.3	1.3	1.1	1.1
AC-FT	2340	2220	2030	399	3750	7980	6000	2590	102	97	183	106

CAL YR 1975 TOTAL 108571.6 MEAN 297 MAX 3130 MIN 1.1 AC-FT 215400
WTR YR 1976 TOTAL 14021.8 MEAN 38.3 MAX 877 MIN 1.1 AC-FT 27810

11405300 WEST BRANCH FEATHER RIVER NEAR PARADISE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1962 to current year.
INSTRUMENTATION.--Temperature recorder since October 1962.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1963, 1965-70, 1972-76), 33.5°C July 24, 26, 1976; minimum, 1.0°C on several days in 1965, 1972, 1973, and 1976.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 33.5°C July 24, 26; minimum, 1.0°C Mar. 2, 3.

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	21.5	15.0	9.0	7.0	7.5	5.0	5.5	3.0	9.5	4.5	4.0	3.0
2	21.0	15.5	9.5	8.0	7.5	5.0	5.0	1.5	10.0	3.5	3.0	1.0
3	21.0	14.5	10.5	8.5	7.5	4.5	4.5	2.5	10.0	3.5	3.0	1.0
4	21.5	14.5	11.0	8.5	7.0	5.0	4.5	2.5	7.0	4.0	3.5	1.5
5	21.5	14.5	11.0	9.0	7.0	6.5	4.5	4.0	7.0	2.0	4.5	2.0
6	19.0	14.5	12.5	10.5	7.0	6.0	5.5	4.0	5.0	1.5	5.0	2.5
7	14.0	12.0	12.0	10.0	6.5	5.5	6.0	3.5	6.5	1.5	5.5	3.0
8	12.5	11.0	10.0	8.5	7.0	6.0	6.0	3.5	7.0	4.0	7.0	4.5
9	12.0	11.0	9.5	7.5	7.0	6.0	5.5	5.0	9.0	4.0	7.0	4.5
10	11.0	10.5	8.0	7.0	6.5	5.5	6.0	4.0	9.5	3.0	7.5	4.5
11	10.5	10.0	7.5	6.0	6.0	5.5	5.5	4.0	10.0	2.5	7.0	5.0
12	11.5	9.5	8.0	6.0	6.5	5.5	5.5	4.0	11.5	4.0	7.0	4.0
13	13.0	10.5	8.0	6.0	5.5	4.5	6.5	4.0	6.5	4.5	7.0	4.5
14	15.0	10.0	7.5	6.0	4.5	3.0	6.5	4.0	6.5	5.5	8.0	5.5
15	15.5	10.5	8.0	7.0	4.0	3.0	7.0	4.5	5.5	5.0	8.5	5.5
16	13.5	10.5	8.0	6.5	5.0	3.0	7.0	4.5	5.5	5.0	9.5	7.0
17	16.0	11.0	6.5	4.5	5.0	3.5	7.0	4.5	7.0	5.0	10.0	7.5
18	17.0	12.0	4.5	3.5	5.5	4.0	7.5	4.5	7.0	6.0	9.0	7.0
19	17.0	11.0	4.5	3.0	6.0	4.0	7.5	4.5	7.0	6.0	7.0	5.0
20	16.5	11.5	5.0	4.0	6.0	3.5	7.0	4.0	6.5	4.5	7.0	4.5
21	16.5	12.0	5.0	4.0	5.0	3.5	7.0	4.0	6.0	4.0	8.0	5.0
22	16.0	9.5	5.0	4.5	6.0	5.0	7.0	4.0	7.0	4.5	7.5	6.5
23	13.5	7.0	5.5	4.0	6.0	5.0	6.5	4.0	6.5	5.0	9.0	7.0
24	13.0	6.0	6.5	4.5	6.5	5.0	6.5	3.5	7.5	4.5	8.0	6.5
25	11.5	9.0	7.0	5.0	6.5	5.0	6.0	2.5	6.5	6.0	7.5	5.0
26	11.0	9.0	6.5	5.5	6.5	5.0	7.0	2.0	6.5	5.5	7.5	5.0
27	9.0	7.5	7.0	6.0	7.5	6.0	6.5	2.0	6.0	5.5	7.5	5.0
28	9.0	7.0	7.0	4.5	8.0	6.0	8.0	2.5	6.5	6.0	8.5	6.0
29	9.5	7.5	5.5	3.5	8.0	6.0	9.0	3.5	6.0	4.5	8.5	6.0
30	9.5	8.5	6.5	4.0	7.5	5.0	9.0	3.5	---	---	9.5	6.5
31	9.0	7.0	---	---	6.0	4.0	8.5	4.0	---	---	9.0	7.5
MONTH	21.5	6.0	12.5	3.0	8.0	3.0	9.0	1.5	11.5	1.5	10.0	1.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.5	6.0	14.0	10.5	25.5	13.5	29.5	15.5	26.0	19.0	30.5	16.0
2	8.5	5.5	14.0	11.0	25.5	14.0	27.5	16.5	23.5	18.5	30.0	17.5
3	8.0	6.5	14.5	11.0	28.0	13.5	28.0	17.0	27.5	16.5	30.0	17.5
4	8.5	6.0	14.5	11.0	28.5	13.0	29.5	17.0	29.0	16.0	29.5	18.0
5	8.0	7.0	15.0	12.0	26.5	13.5	30.0	17.5	29.0	16.0	28.5	18.5
6	7.5	7.0	14.5	11.5	25.5	13.0	30.0	17.5	27.5	16.0	28.0	17.0
7	7.0	6.5	15.5	11.0	24.5	14.0	29.0	18.0	29.0	16.0	28.5	16.0
8	7.0	5.0	16.0	12.5	24.0	14.0	30.0	17.5	30.0	16.5	29.5	16.0
9	8.0	5.0	17.0	13.0	23.0	16.0	31.0	19.0	30.0	17.0	29.5	15.5
10	7.0	6.0	17.0	14.0	21.0	15.0	29.5	18.0	30.0	18.0	28.0	17.0
11	7.5	5.5	17.5	14.0	21.5	14.5	28.0	18.5	29.5	18.5	20.5	18.5
12	7.0	6.0	18.0	14.0	26.0	15.0	31.0	19.0	29.5	17.5	25.5	18.0
13	8.0	5.0	18.5	15.0	26.5	16.5	31.0	18.5	25.0	17.0	27.0	15.5
14	9.5	6.5	19.0	15.0	28.0	15.0	31.5	18.5	19.5	17.5	24.0	16.5
15	9.5	7.5	19.0	15.0	27.0	15.0	30.5	18.5	18.0	16.0	20.0	17.0
16	8.5	5.5	19.0	15.0	31.5	16.0	31.0	20.5	17.5	14.5	21.0	15.0
17	8.5	5.5	17.5	15.0	32.0	16.0	30.5	20.0	21.5	13.0	24.5	13.0
18	10.5	7.0	20.0	14.5	30.0	17.0	30.5	20.0	20.5	15.5	25.0	14.0
19	11.0	7.5	21.0	14.0	29.5	17.5	31.0	19.0	25.5	14.5	25.5	14.5
20	12.5	8.5	23.0	13.5	29.0	17.5	31.0	19.5	27.5	16.0	24.5	14.5
21	11.0	9.0	23.5	15.0	28.5	18.0	31.5	19.0	29.0	17.5	24.5	13.0
22	12.0	8.5	25.5	14.5	31.0	17.0	31.5	18.5	24.5	18.5	23.5	13.0
23	12.0	8.5	22.5	15.5	30.5	16.5	31.5	19.5	28.0	16.0	21.5	13.5
24	13.0	10.0	22.5	15.5	32.5	17.5	33.5	19.5	29.0	16.5	22.5	13.5
25	11.0	9.0	24.5	15.5	32.0	17.5	32.5	19.5	29.0	17.0	22.5	14.0
26	10.5	7.0	26.5	15.5	31.5	16.5	33.5	20.5	30.0	15.5	22.5	14.0
27	11.0	7.5	27.5	16.0	32.5	17.0	32.5	19.5	29.5	15.5	19.5	16.0
28	11.0	7.5	27.5	14.5	31.0	16.5	26.5	20.0	30.5	16.5	23.5	16.5
29	12.0	8.5	24.5	14.0	29.5	17.0	31.0	20.0	30.0	16.0	22.0	15.0
30	13.0	9.5	21.0	16.0	29.0	15.5	30.0	19.5	30.5	15.0	23.0	15.5
31	---	---	25.5	15.0	---	---	26.5	19.0	30.0	15.5	---	---
MONTH	13.0	5.0	27.5	10.5	32.5	13.0	33.5	15.5	30.5	13.0	30.5	13.0

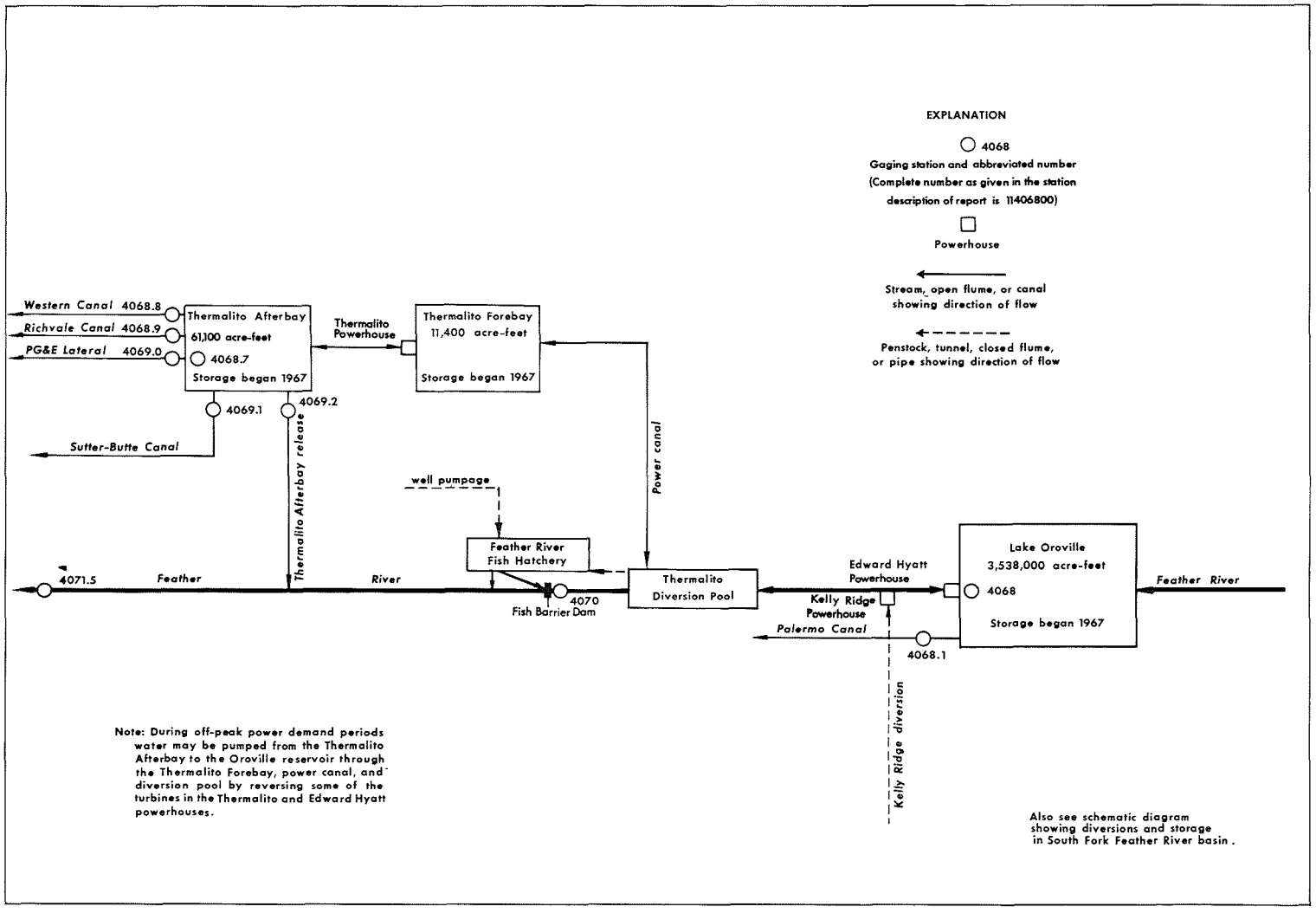

FIGURE 7.--Schematic diagram showing diversions and storage from Feather River at Lake Oroville.

11406800 LAKE OROVILLE NEAR OROVILLE, CA

LOCATION.--Lat 39°32'06", long 121°28'25", in NE¼SW¼ sec.1, T.19 N., R.4 E., Butte County, near intake structure at left end of Oroville Dam on Feather River, 1.0 mi (1.6 km) downstream from North Fork Feather River, and 4.2 mi (6.8 km) east of Oroville.

DRAINAGE AREA.--3,607 mi^2 (9,342 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 0.47 ft (0.143 m) above mean sea level (levels by California Department of Water Resources).

REMARKS.--Reservoir is formed by an earthfill dam with concrete chute-type sidehill spillway completed May 13, 1968; storage began Nov. 14, 1967. Usable capacity, 2,685,385 acre-ft (3.31 km^3) between elevations 640.0 ft (195.07 m) minimum power pool, and 900.0 ft (274.32 m) normal maximum pool. Dead storage, 852,192 acre-ft (1.05 km^3). Total capacity at normal maximum pool, 3,537,577 acre-ft (4.36 km^3); temporary detention storage occurred at times during construction; maximum was 155,200 acre-ft (191 hm^3) Dec. 23, 1964. Water is released to Edward Hyatt powerhouse through penstock in left abutment of dam and to Palermo Canal (station 11406810) through concrete tunnel also in left abutment of dam. Three of the total of six turbines in the Edward Hyatt powerplant are reversible and during periods of low power demand water is pumped at times from the river back into Lake Oroville. Records, including extremes, represent total contents at 2400 hours. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project. Contents rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 3,536,000 acre-ft (4.36 km^3) June 4, 1973, gage height, 899.88 ft (274.283 m); minimum since initial storage began, 1,643,000 acre-ft (2.03 km^3) Sept. 3, 1968, gage height, 746.27 ft (227.463 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,876,934 acre-ft (3.55 km^3) Mar. 28, gage height, 855.07 ft (260.625 m); minimum, 1,827,949 acre-ft (2.25 km^3) Sept. 30, gage height, 765.64 ft (233.367 m).

Capacity table (gage height, in feet, and contents, in acre-feet)

730	1498175	790	2080969	850	2808349
740	1586086	800	2191742	860	2944741
750	1677554	810	2306597	870	3085747
760	1772690	820	2425571	880	3231454
770	1871511	830	2548850	890	3382038
780	1974240	840	2676446	900	3537577

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	2854215	2815330	2743029	2587813	2684235	2757834	2857065	2752408	2620662	2408303	2109488	1917251
2	2840536	2821381	2728280	2593014	2686575	2761677	2852180	2756510	2613125	2392558	2096779	1915406
3	2838238	2823400	2717648	2598222	2687746	2767249	2852994	2744877	2605348	2385850	2088264	1915508
4	2837022	2825286	2712408	2604838	2683846	2773360	2852180	2731830	2600384	2381186	2078252	1912027
5	2838373	2825151	2704823	2606749	2676965	2779747	2842835	2725126	2600129	2372114	2071308	1909265
6	2833916	2826903	2699600	2603565	2679430	2788280	2832836	2714896	2598095	2358909	2064812	1905486
7	2834861	2828385	2695949	2603056	2685535	2796429	2825286	2705607	2588827	2344336	2059303	1896925
8	2831754	2835401	2693082	2601910	2692040	2804595	2818422	2710968	2578318	2328530	2055959	1885656
9	2828655	2838508	2686835	2602674	2697293	2811570	2811579	2720401	2567208	2312799	2045520	1875948
10	2829464	2831892	2676576	2607258	2698818	2818153	2810764	2715289	2556384	2312331	2038440	1873023
11	2831622	2823939	2666855	2612742	2695558	2821381	2815465	2704039	2546844	2313033	2028813	1874435
12	2829599	2816002	2658966	2612614	2692561	2829059	2818825	2694385	2546468	2299241	2020495	1875746
13	2829059	2817750	2658966	2614784	2688266	2834456	2822458	2688006	2548474	2284576	2019005	1866478
14	2825286	2814524	2659612	2617722	2695167	2836752	2823939	2685405	2542209	2274026	2016984	1867081
15	2822862	2825690	2656254	2619895	2703255	2840536	2823670	2692952	2530834	2265818	2016133	1872216
16	2820036	2837967	2648258	2624501	2705084	2843647	2820440	2702733	2529212	2256249	2012202	1872216
17	2816809	2843105	2640665	2630010	2699861	2848114	2822324	2694646	2535455	2251762	1999385	1872821
18	2816809	2841077	2626037	2635270	2701688	2852587	2821247	2689567	2527466	2244986	1993473	1873830
19	2818825	2839860	2616444	2636425	2703386	2853130	2821785	2683456	2521361	2233535	1988626	1875444
20	2813047	2838913	2612487	2637067	2707437	2860868	2814659	2669056	2518002	2219505	1978957	1875746
21	2809020	2833376	2611466	2638223	2714372	2869982	2807545	2663749	2506951	2207350	1978118	1872418
22	2804595	2827846	2606367	2638352	2718172	2868621	2806606	2664655	2495687	2194902	1978643	1870101
23	2804863	2822458	2593141	2642466	2719877	2866987	2796028	2666466	2483226	2180480	1968592	1866076
24	2803791	2812375	2586926	2648774	2715813	2865899	2799372	2658837	2471177	2179356	1960036	1857543
25	2808081	2799908	2589208	2654576	2713062	2868076	2799105	2645940	2460638	2176212	1953793	1857643
26	2809959	2787479	2584265	2656512	2713848	2868893	2793622	2638994	2462107	2164000	1946217	1856040
27	2808752	2781746	2584139	2660258	2721057	2872298	2783878	2636939	2460883	2150836	1944559	1845245
28	2805802	2768311	2587940	2664266	2732225	2876934	2771765	2637196	2447203	2137174	1944559	1837577
29	2803925	2758497	2587433	2667890	2751482	2874479	2760484	2637581	2433455	2125119	1944559	1835589
30	2805534	2751615	2588067	2672944	---	2872026	2751482	2637453	2422062	2113003	1935460	1827949
31	2808618	---	2582746	2679041	---	2863994	---	2632703	---	2113333	1927214	---
MAX	2854215	2843105	2743029	2679041	2751482	2876934	2857065	2756510	2620662	2408303	2109488	1917251
MIN	2803791	2751615	2582746	2587813	2676965	2757834	2751482	2632703	2422062	2113003	1927214	1827949
†	850.02	845.74	832.69	840.20	845.73	854.12	845.73	836.61	819.71	792.96	775.47	765.64
‡	-48854	-57003	-168869	+96295	+72441	+112512	-112512	-118779	-210641	-308729	-186119	-99265
††	3929	2234	1142	1525	1702	3268	3717	7132	8420	8386	5978	5236

CAL YR 1975 ‡ +915617
WTR YR 1976 ‡ -1029523

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
†† Evaporation, in acre-feet.

11406810 PALERMO CANAL NEAR OROVILLE, CA

LOCATION.--Lat 39°31'59", long 121°28'54", in SW¼SW¼ sec.1, T.19 N., R.4 E., Butte County, on right bank 50 ft (15 m) downstream from Oroville Dam, and 4.4 mi (7.1 km) east of Oroville.

PERIOD OF RECORD.--April 1965 to current year. Daily discharge of diversion from Kelly Ridge penstock for period April 1965 to October 1968 when Kelly Ridge penstock supplied the entire flow of Palermo Canal are in files of California district office of Geological Survey.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 547.67 ft (166.930 m), levels by California Department of Water Resources. April 1965 to October 1968, water-stage recorder and Parshall flume at site of diversion from Kelly Ridge penstock, 0.4 mi (0.6 km) downstream at different datum.

REMARKS.--Canal diverts from left end of Oroville Dam. Water is used for irrigation near Oroville. During period of construction of Oroville Dam, water was released from Kelly Ridge penstock to meet irrigation requirements.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--11 years, 12.2 ft^3/s (0.346 m^3/s) 8,840 acre-ft/yr (10.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 28 ft^3/s (0.79 m^3/s) several days in July to September 1967; no flow at times in 1967, 1970, 1974-75.

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	6.4	5.2	4.4	4.6	4.2	9.0	16	24	25	22	26
2	19	6.4	4.5	4.3	4.7	4.2	9.0	18	24	25	22	25
3	19	6.4	4.5	4.4	4.7	4.2	9.0	18	24	25	22	23
4	19	6.4	4.4	4.4	4.7	4.2	9.1	19	23	25	22	23
5	19	6.4	4.4	4.4	4.7	4.2	9.1	21	23	25	22	23
6	18	6.4	4.4	4.4	4.7	4.2	9.1	21	23	25	22	23
7	17	6.4	4.4	4.4	4.7	4.2	9.1	23	23	25	21	23
8	16	6.4	4.3	4.4	4.6	4.2	9.0	24	23	25	22	23
9	15	6.2	4.3	4.5	2.8	4.3	7.7	24	23	25	21	23
10	10	6.1	4.3	4.5	.13	4.3	6.1	24	23	25	21	23
11	6.1	6.1	4.3	4.5	1.4	4.3	6.2	24	23	25	21	23
12	6.1	6.1	4.2	4.5	3.9	4.3	6.5	24	23	25	21	23
13	6.1	6.1	4.2	4.5	4.2	4.3	6.5	24	23	25	21	23
14	6.1	6.1	4.2	4.5	4.2	4.3	6.5	24	23	25	21	23
15	6.2	6.1	4.3	4.5	4.2	4.3	6.5	24	23	25	21	23
16	6.2	6.1	4.2	4.5	4.2	4.3	6.5	24	23	25	21	20
17	6.2	6.1	4.2	4.5	4.2	4.3	6.5	24	26	25	21	19
18	6.2	6.1	4.3	4.5	4.2	4.3	6.5	24	26	25	21	18
19	6.2	6.1	4.3	4.4	4.2	4.3	6.5	24	26	23	21	18
20	6.2	6.1	4.3	4.4	4.2	4.3	6.5	22	26	22	21	18
21	6.3	6.1	4.3	4.4	4.2	4.3	6.5	21	26	22	21	18
22	6.3	6.2	4.3	4.4	4.2	4.3	6.5	21	26	22	21	18
23	6.3	6.2	4.3	4.4	4.2	4.3	6.5	21	26	22	21	18
24	6.3	6.2	4.3	4.4	4.2	4.3	6.5	22	26	22	21	18
25	6.3	6.2	4.4	4.5	4.2	4.3	6.4	23	26	22	21	18
26	6.3	6.2	4.3	4.5	4.2	4.3	7.8	23	26	22	21	18
27	6.3	6.1	4.4	4.5	4.2	4.3	11	23	26	22	21	18
28	6.3	6.1	4.3	4.5	4.2	5.7	13	23	26	22	22	18
29	6.4	6.1	4.4	4.5	4.2	6.7	15	23	26	22	22	16
30	6.4	6.1	4.3	4.5	---	7.8	16	23	25	22	24	15
31	6.4	---	4.4	4.5	---	9.0	---	23	---	22	26	---
TOTAL	302.2	186.0	134.9	138.0	117.03	144.5	246.1	692	734	737	668	618
MEAN	9.75	6.20	4.35	4.45	4.04	4.66	8.20	22.3	24.5	23.8	21.5	20.6
MAX	19	6.4	5.2	4.5	4.7	9.0	16	24	26	25	26	26
MIN	6.1	6.1	4.2	4.3	.13	4.2	6.1	16	23	22	21	15
AC-FT	599	369	268	274	232	287	488	1370	1460	1460	1320	1230

CAL YR 1975 TOTAL 4303.30 MEAN 11.8 MAX 26 MIN 0 AC-FT 8540
WTR YR 1976 TOTAL 4717.73 MEAN 12.9 MAX 26 MIN .13 AC-FT 9360

11406870 THERMALITO AFTERBAY NEAR OROVILLE, CA

LOCATION.--Lat 39°27'30", long 121°38'17", in NE¼SE¼ sec.33, T.19 N., R.3 E., Butte County, at dam 195 ft (59 m) northeast of centerline of outlet structure, and 5.7 mi (9.2 km) southwest of Oroville.

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

GAGE.--Water-stage recorder. Datum of gage is 100.47 ft (30.623 m) above mean sea level (levels by California Department of Water Resources). Auxiliary water-stage recorder 90 ft (27 m) southwest of centerline of Western Canal outlet, and 7.2 mi (11.6 km) west of Oroville.

REMARKS.--Reservoir is formed by an earthfill dam completed in 1967; diversion from the reservoir began Oct. 12, 1967. Usable capacity, 61,144 acre-ft (75.4 hm^3) between gage heights 120.0 ft (36.58 m) and 139.0 ft (42.37 m) extreme operating levels. Normal operating range is 123 ft (37.5 m) to 136.5 ft (41.61 m). Water is released to four canals (stations 11406880, 11406890, 11406900, and 11406910), and to the Feather River (station 11406920) from the reservoir. Total maximum release to the four canals is approximately 4,000 ft^3/s (113 m^3/s). Water is pumped, at times, from Thermalito Afterbay back into Thermalito Forebay during off-peak periods to be re-released through Thermalito powerplant for power generation during peak demand periods. Records, including extremes, represent total contents at 2400 hours. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 57,300 acre-ft (70.7 hm^3) May 24, 1969, gage height, 136.56 ft (41.623 m); minimum since initial operation began, 5,590 acre-ft (6.89 hm^3) Mar. 1, 1968, gage height, 119.09 ft (36.299 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 54,147 acre-ft (66.8 hm^3) Nov. 14, gage height, 135.82 ft (41.398 m); minimum, 14,644 acre-ft (18.1 hm^3) June 6, gage height, 123.78 ft (37.728 m).

Capacity table (gage height, in feet, and contents, in acre-feet)

120	7054	128	25832
122	10792	130	32150
124	15157	134	46719
126	20171	139	68198

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	27043	24794	46758	42352	16815	24882	28280	29703	21580	27380	17484	32751
2	35277	21498	50783	37998	17309	32117	27906	19905	23404	31918	20064	29193
3	34242	21251	50783	33324	17086	33867	21635	28093	25263	27751	19509	24472
4	30997	21773	46956	27751	22413	33493	17086	34345	25503	21635	21884	22751
5	25922	23461	49560	27104	30379	32919	21580	35765	19456	20816	21580	19825
6	26404	23661	46011	30379	29864	30250	27257	41824	14644	24065	20011	17384
7	22413	24882	42012	31292	25563	27473	31984	47671	16133	28093	19958	22864
8	21498	20492	37318	32617	21251	24530	36998	39339	20385	33867	16570	31918
9	22610	19143	37603	34586	16987	21580	42201	23776	24210	39339	20870	37675
10	21635	29130	41299	31588	15345	18676	40369	25563	29352	29512	22357	36185
11	20681	39926	44841	27968	18496	20198	33459	33222	34003	18857	26737	29067
12	21006	49155	48994	28280	22610	17962	28625	40629	29289	21690	28249	21829
13	19221	49641	42997	27658	28530	17309	24735	45307	22554	27104	24123	28468
14	21773	54147	36962	27534	24123	18266	23062	43149	24123	29352	20870	25503
15	22413	50006	34965	28030	19221	18909	22273	31522	32450	27968	17384	22864
16	23776	43073	31984	27319	19091	20198	24268	16692	31687	28249	15345	24882
17	24941	39339	32517	24677	26253	20064	22162	19825	22610	22610	22357	24794
18	23518	43761	41075	22078	26737	20816	17609	20627	23661	19143	23461	21967
19	19404	45736	43493	21443	27319	25832	20816	23719	22078	20951	23661	19221
20	23604	47392	40554	23611	25922	23318	25623	33324	17434	25623	28845	19039
21	25982	51152	37104	26313	22023	19641	30704	33087	19143	28249	24472	22469
22	28280	50660	39926	29639	19825	23518	27906	27104	21829	31687	18780	24414
23	26404	48310	49074	29512	19509	26253	34174	20681	26737	36608	22864	26253
24	25623	48712	51234	27319	24882	29193	25414	21884	30932	27349	26829	30379
25	20681	51070	46128	25088	28311	29928	19878	30153	34106	20198	28972	23261
26	21006	52765	48994	25712	28814	28908	19958	34723	24007	22948	31687	17384
27	26192	49276	46285	24941	25772	25088	23805	32919	15868	29225	28468	22273
28	28908	52474	40184	24414	22301	20762	29864	27751	20064	30476	22948	26132
29	30314	51440	40814	24530	19483	22162	34861	21884	24065	31522	17384	24530
30	30314	47950	41150	21967	---	22807	37568	15630	24210	33222	22554	30997
31	28751	---	47950	19143	---	27257	---	14690	---	23518	27968	---
MAX	35277	54147	51234	42352	30379	33867	42201	47671	34106	39339	31687	37675
MIN	19221	19143	31984	19143	15345	17309	17086	14690	14644	18857	15345	17384
†	128.95	134.31	134.31	125.61	125.74	128.47	131.57	123.80	127.45	127.21	128.70	129.65
‡	+1278	+19199	0	-28807	+340	+7774	+10311	+22878	+9520	-692	+4450	+3029
††	939	501	202	272	291	775	824	1563	2559	2522	1753	1527

CAL YR 1975 ‡ +5674
WTR YR 1976 ‡ +3524

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
†† Evaporation, in acre-feet.

11406880 WESTERN CANAL AT INTAKE, NEAR OROVILLE, CA

LOCATION.--Lat 39°30'19", long 121°41'06", in SW¼NW¼ sec.18, T.19 N., R.3 E., Butte County, on left bank 500 ft (152 m) downstream from Thermalito Afterbay Dam, and 7.3 mi (11.7 km) west of Oroville.

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

GAGE.--Water-stage recorder. Datum of gage is 100.47 ft (30.623 m) above mean sea level (levels by California Department of Water Resources).

REMARKS.--Water is diverted from Thermalito Afterbay and is used for irrigation. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--8 years, 290 ft^3/s (8.213 m^3/s), 210,100 acre-ft/yr (259 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,140 ft^3/s (32.3 m^3/s) May 4, 1976; 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	256	267	201	252		0	80	963	562	870	696	298
2	266	264	204	251		0	98	1020	576	849	676	296
3	265	264	203	255		0	99	1080	598	835	676	289
4	266	266	80	251		0	99	1140	605	827	679	277
5	265	267	0	252		0	99	1120	604	811	677	256
6	267	266	0	252		0	96	1010	605	774	684	247
7	265	267	0	256		0	68	1040	604	748	692	227
8	265	267	0	259		0	35	1090	605	750	680	203
9	265	262	0	174		0	21	1100	599	749	664	154
10	220	259	0	89		0	21	1050	594	750	652	110
11	199	260	0	89		0	21	960	595	751	650	100
12	197	270	0	156		0	21	894	590	738	642	100
13	198	270	0	198		0	17	849	591	721	631	87
14	208	270	0	198		0	17	826	603	710	633	72
15	199	184	79	200		0	17	817	627	701	622	46
16	224	146	205	79		0	17	774	679	695	596	34
17	259	146	247	0		0	17	745	727	687	571	37
18	259	184	267	0		0	17	703	743	684	547	34
19	267	203	266	0		0	17	673	753	662	542	32
20	274	203	266	0		0	75	661	754	672	527	29
21	268	202	267	0		0	158	662	766	692	522	32
22	268	203	266	0		0	270	662	774	716	521	30
23	268	202	265	0		0	396	646	775	722	522	72
24	267	202	266	0		0	566	607	787	723	505	196
25	265	201	265	0		0	603	574	801	720	474	244
26	268	202	226	0		0	611	546	804	723	443	244
27	269	201	146	0		0	657	522	824	724	431	244
28	265	201	214	0		0	763	525	837	722	417	246
29	265	202	250	0		0	898	540	856	716	399	245
30	266	201	254	0	---	0	914	548	866	707	379	245
31	268	---	253	0	---	29	---	548	---	698	338	---
TOTAL	7821	6802	4690	3211	0	29	6788	24895	20704	22847	17688	4726
MEAN	252	227	151	104	0	.94	226	803	690	737	571	158
MAX	274	270	267	259	0	29	914	1140	866	870	696	298
MIN	197	146	0	0	0	0	17	522	562	662	338	29
AC-FT	15510	13490	9300	6370	0	58	13460	49380	41070	45320	35080	9370

CAL YR 1975 TOTAL 117536.00 MEAN 322 MAX 999 MIN 0 AC-FT 233100
WTR YR 1976 TOTAL 120201.00 MEAN 328 MAX 1140 MIN 0 AC-FT 238400

11406890 RICHVALE CANAL AT INTAKE, NEAR OROVILLE, CA

LOCATION.--Lat 39°30'19", long 121°41'06", in SW¼NW¼ sec.18, T.19 N., R.3 E., Butte County, on right bank 500 ft (152 m) downstream from axis of Thermalito Afterbay Dam, and 7.3 mi (11.7 km) west of Oroville.

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

GAGE.--Water-stage recorder. Datum of gage is 100.47 ft (30.623 m) above mean sea level (levels by California Department of Water Resources).

REMARKS.--Canal diverts from Thermalito Afterbay; water is used for irrigation. The canal is part of the Oroville project. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--8 years, 119 ft^3/s (3.370 m^3/s) 86,220 acre-ft/yr (106 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 511 ft^3/s (14.5 m^3/s) May 16, 1974; 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	29	460	317	365	345	198
2						0	28	455	321	372	346	199
3						0	27	457	321	372	344	168
4						0	9.0	481	320	373	343	162
5						0	0	484	320	374	343	162
6						0	0	481	318	376	342	158
7						0	12	482	318	374	342	153
8						0	8.0	481	318	370	342	152
9						0	0	481	319	365	343	130
10						0	0	482	319	362	342	104
11						0	0	480	319	365	339	74
12						0	0	464	319	365	336	61
13						0	0	450	318	368	329	47
14						0	0	450	320	362	329	44
15						0	0	450	320	364	327	47
16						0	0	450	321	361	328	47
17						0	0	411	319	355	328	41
18						0	0	371	319	352	328	32
19						0	32	345	318	353	319	31
20						0	51	336	317	351	312	30
21						0	127	337	318	353	311	31
22						0	165	338	320	356	311	26
23						0	166	338	317	355	285	6.0
24						0	166	339	317	355	269	0
25						0	203	329	316	351	270	0
26						0	256	330	318	348	243	0
27						0	272	317	317	343	231	0
28						0	337	310	340	351	230	0
29						0	428	310	350	346	231	0
30					---	15	461	310	348	346	230	0
31		---			---	25	---	312	---	345	207	---
TOTAL	0	0	0	0	0	40	2777.0	12521	9642	11148	9525	2103.0
MEAN	0	0	0	0	0	1.29	92.6	404	321	360	307	70.1
MAX	0	0	0	0	0	25	461	484	350	376	346	199
MIN	0	0	0	0	0	0	0	310	316	343	207	0
AC-FT	0	0	0	0	0	79	5510	24840	19120	22110	18890	4170

CAL YR 1975 TOTAL 50533.60 MEAN 138 MAX 491 MIN 0 AC-FT 100200
WTR YR 1976 TOTAL 47756.00 MEAN 130 MAX 484 MIN 0 AC-FT 94720

11406900 PACIFIC GAS AND ELECTRIC CO. LATERAL AT INTAKE, NEAR OROVILLE, CA

LOCATION.--Lat 39°29'22", long 121°41'12", in SE¼NW¼ sec.19, T.19 N., R.3 E., Butte County, on right bank 82 ft (25 m) downstream from axis of Thermalito Afterbay Dam, and 7.2 mi (11.6 km) west of Oroville.

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

GAGE.--Water-stage recorder. Datum of gage is 113.47 ft (34.586 m) above mean sea level (levels by California Department of Water Resources).

REMARKS.--Flow regulated at outlet works from Thermalito Afterbay; water is used for irrigation. Records for some years include diversions from Thermalito Afterbay into Pacific Gas and Electric Co. lateral via Duncan lateral siphon. No diversion was made during the current year to Duncan lateral siphon.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--8 years, 4.66 ft^3/s (0.132 m^3/s), 3,380 acre-ft/yr (4.17 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 44 ft^3/s (1.25 m^3/s) May 4-7, 1975; 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	42	11	16	14	5.4
2							0	42	12	16	14	4.6
3							0	36	12	16	14	4.3
4							0	31	12	16	14	3.8
5							0	24	12	16	14	3.6
6							0	17	12	16	14	3.8
7							0	14	12	16	14	4.3
8							0	12	12	16	14	4.3
9							0	12	12	16	14	4.3
10							0	12	12	16	13	4.3
11							0	12	12	16	13	4.3
12							0	12	12	16	13	4.3
13							0	12	12	16	13	4.3
14							0	12	12	15	13	3.3
15							0	12	12	14	13	1.0
16							0	12	12	14	13	0
17							0	12	12	14	13	0
18							0	15	12	14	13	0
19							0	17	12	14	13	0
20							0	17	12	14	13	0
21							0	17	12	14	13	0
22							0	17	12	14	13	0
23							0	17	12	14	13	0
24							0	17	14	14	14	0
25							4.4	11	15	14	13	0
26							7.1	8.3	15	14	13	0
27							19	9.7	15	14	13	0
28							26	10	15	14	13	0
29							36	10	15	14	13	0
30					---		42	10	16	14	12	0
31		---			---		---	10	---	14	8.5	---
TOTAL	0	0	0	0	0	0	134.5	512.0	380	461	407.5	59.9
MEAN	0	0	0	0	0	0	4.48	16.5	12.7	14.9	13.1	2.00
MAX	0	0	0	0	0	0	42	42	16	16	14	5.4
MIN	0	0	0	0	0	0	0	8.3	11	14	8.5	0
AC-FT	0	0	0	0	0	0	267	1020	754	914	808	119

CAL YR 1975	TOTAL	2022.50	MEAN 5.54	MAX 44	MIN 0	AC-FT 4010
WTR YR 1976	TOTAL	1954.90	MEAN 5.34	MAX 42	MIN 0	AC-FT 3880

11406910 SUTTER-BUTTE CANAL AT INTAKE, NEAR OROVILLE, CA

LOCATION.--Lat 39°27'01", long 121°39'27", in NW corner of Boga Fernandez Grant, T.18 N., R.3 E., Butte County, on left bank 675 ft (206 m) downstream from Thermalito Afterbay Dam, and 6.8 mi (10.9 km) southwest of Oroville.

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

GAGE.--Water-stage recorder. Datum of gage is 109.97 ft (33.519 m) above mean sea level (levels by California Department of Water Resources). Prior to May 1, 1970, at datum 109.50 ft (33.376 m) lower.

REMARKS.--Water is diverted from Thermalito Afterbay and is used for irrigation. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--8 years, 684 ft^3/s (19.37 m^3/s), 495,600 acre-ft/yr (6.11 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,110 ft^3/s (59.8 m^3/s) Apr. 22-24, 1968; 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	451				0	386	951	1990	1520	1630	1640	1230
2	449				0	337	948	1980	1520	1640	1620	1240
3	444				0	284	904	1990	1540	1620	1600	1240
4	445				0	291	884	2000	1550	1590	1600	1210
5	444				0	306	835	1960	1540	1600	1590	1150
6	444				0	307	764	1940	1550	1650	1590	1100
7	410				71	307	730	1900	1520	1650	1580	1040
8	394				168	324	620	1880	1510	1650	1560	1010
9	364				207	332	487	1860	1510	1650	1560	1020
10	323				220	359	407	1830	1500	1650	1530	1040
11	305				311	377	391	1750	1520	1650	1510	984
12	305				397	392	395	1670	1510	1650	1500	944
13	305				422	403	382	1610	1480	1600	1490	886
14	304				378	403	395	1620	1470	1610	1480	843
15	304				378	403	374	1580	1440	1640	1440	776
16	305				358	380	356	1530	1400	1640	1430	718
17	304				347	423	441	1560	1440	1640	1430	673
18	304				345	507	477	1530	1480	1600	1410	658
19	304				347	581	666	1510	1540	1620	1370	658
20	305				346	689	824	1500	1560	1630	1370	637
21	304				344	745	959	1510	1560	1660	1370	607
22	304				364	773	1090	1520	1530	1670	1360	582
23	305				388	821	1290	1500	1540	1670	1370	553
24	304				390	884	1430	1500	1510	1660	1320	545
25	305				428	928	1490	1460	1530	1640	1280	541
26	306				432	1020	1510	1460	1580	1630	1260	541
27	306				431	982	1570	1480	1600	1630	1250	546
28	305				431	953	1710	1510	1580	1660	1240	521
29	305				405	957	1820	1520	1580	1670	1240	500
30	303				---	926	1900	1520	1590	1670	1220	415
31	116	---			---	909	---	1500	---	1650	1210	---
TOTAL	10376	0	0	0	7908	17689	27000	51670	45700	50820	44420	24408
MEAN	335	0	0	0	273	571	900	1667	1523	1639	1433	814
MAX	451	0	0	0	432	1020	1900	2000	1600	1670	1640	1240
MIN	116	0	0	0	0	284	356	1460	1400	1590	1210	415
AC-FT	20580	0	0	0	15690	35090	53550	102500	90650	100800	88110	48410

CAL YR 1975 TOTAL 251980.00 MEAN 690 MAX 2050 MIN 0 AC-FT 499800
WTR YR 1976 TOTAL 279991.00 MEAN 765 MAX 2000 MIN 0 AC-FT 555400

11406920 THERMALITO AFTERBAY RELEASE TO FEATHER RIVER, NEAR OROVILLE, CA

LOCATION.--Lat 39°27'23", long 121°38'10", in NW¼SE¼ sec.33, T.19 N., R.3 E., Butte County, on left bank of outlet channel 955 ft (291 m) downstream from centerline of Thermalito Afterbay Dam, and 5.7 mi (9.2 km) southwest of Oroville.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 113.47 ft (34.586 m) above mean sea level (levels by California Department of Water Resources). Prior to May 1, 1970, at datum 13.00 ft (3.962 m) lower.

REMARKS.--Flow regulated by gates of Thermalito Afterbay outlet 955 ft (291 m) upstream. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--8 years, 4,638 ft^3/s (131.3 m^3/s), 3,360,000 acre-ft/yr (4.14 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,600 ft^3/s (612 m^3/s) Jan. 28, 1970, gage height, 23.30 ft (7.102 m) previous datum; no flow for many days in 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,730 ft^3/s (247 m^3/s) Nov. 26, 28, 29, Dec. 2, 5, gage height, 6.07 ft (1.850 m); minimum daily, 646 ft^3/s (18.3 m^3/s) Aug. 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	2470	2470	8640	2860	1720	1300	3210	1610	851	2760	2430	1600
2	2490	2460	8640	2850	1730	1320	3220	1480	717	2740	2150	1590
3	2470	2500	8640	2840	2220	1320	3180	1420	675	2730	1800	1590
4	2460	2510	8630	2840	2290	1290	3200	1310	808	2710	1430	1590
5	2440	2510	8650	2880	2290	1280	3250	1220	1070	2740	1170	1590
6	2470	2500	8620	2890	2260	1280	3240	1120	1310	2740	1040	1590
7	2470	2520	7700	2860	2260	1270	3250	930	1470	2740	767	1590
8	2500	2480	7630	2840	2230	1270	3270	775	1410	2740	763	1810
9	2520	2490	6750	2820	2250	1270	3250	725	1200	2730	712	2270
10	2520	2540	6690	2770	2250	1240	3230	739	1010	2700	650	2540
11	2490	2560	6700	2760	2260	1250	3200	737	818	2700	650	2530
12	2510	2530	6670	2890	2240	1280	2770	729	681	2740	651	2520
13	2480	2520	6650	2360	2260	1250	1940	743	681	2540	647	2230
14	2490	2520	6650	1940	2240	1270	1850	775	679	2130	651	1870
15	2480	2530	6650	1790	2200	1280	1870	778	679	2040	652	1300
16	2490	3500	6650	1590	2230	1270	1890	771	681	2180	648	790
17	2500	3530	6650	1460	2230	1260	1860	793	680	2300	654	690
18	2480	3550	6680	1370	2240	1280	1830	791	1110	2320	651	682
19	2470	3550	6660	1270	2290	1290	1850	788	1660	2330	646	683
20	2490	3550	6640	1260	2250	1280	1850	785	1670	2330	665	995
21	2480	5060	5670	1260	2220	1250	1850	782	1670	2320	680	1460
22	2510	6560	4680	1270	2250	1270	2280	782	1670	2320	681	1850
23	2510	7670	4680	1280	2300	1280	2830	780	1800	2490	683	2130
24	2520	8600	4680	1270	2290	1300	2800	783	2110	2600	682	2770
25	2480	8620	4650	1250	2300	1290	2830	784	2260	2600	683	2980
26	2550	8650	4680	1250	2090	1280	2540	777	2370	2610	890	3160
27	2530	8620	4650	1260	1750	1280	2340	777	2450	2610	1370	3410
28	2520	8680	3630	1250	1460	1280	2340	751	2460	2610	1560	3180
29	2500	8660	2870	1240	1290	1640	2330	858	2610	2610	1560	2680
30	2510	8650	2890	1690	---	2250	2030	1140	2750	2520	1580	2190
31	2520	---	2910	1720	---	2530	---	1050	---	2400	1590	---
TOTAL	77320	135090	193180	61880	61890	42200	77380	28283	42010	78630	31386	57860
MEAN	2494	4503	6232	1996	2134	1361	2579	912	1400	2536	1012	1929
MAX	2550	8680	8650	2890	2300	2530	3270	1610	2750	2760	2430	3410
MIN	2440	2460	2870	1240	1290	1240	1830	725	675	2040	646	682
AC-FT	153400	268000	383200	122700	122800	83700	153500	56100	83330	156000	62250	114800

CAL YR 1975 TOTAL 1325442 MEAN 3631 MAX 9820 MIN 566 AC-FT 2629000
WTR YR 1976 TOTAL 887109 MEAN 2424 MAX 8680 MIN 646 AC-FT 1760000

11406920 THERMALITO AFTERBAY RELEASE TO FEATHER RIVER NEAR OROVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1968 to current year.

INSTRUMENTATION.--Temperature recorder since May 1968.

REMARKS.--Temperature is listed only when water is released from Thermalito Afterbay. Because of the complete regulation of the Feather River below Oroville Dam, the temperature of the water released from Thermalito Afterbay affects the temperature of the Feather River downstream from the Oroville project.

COOPERATION.--Records furnished by California Department of Water Resources.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28.0°C July 13, 1970; minimum, 1.5°C Dec. 13, 1972.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 25.0°C June 17; minimum, 5.0°C Jan. 4-6.

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	16.5	16.5	11.5	11.0	8.0	6.5	6.0	5.5	8.5	8.0	10.0	9.0
2	16.0	15.5	12.0	11.5	8.5	6.5	5.5	5.5	9.0	8.0	9.0	8.0
3	15.5	15.5	13.0	12.0	8.5	7.0	5.5	5.5	9.5	8.5	8.0	7.0
4	16.0	15.0	13.5	12.0	8.5	7.0	5.5	5.0	9.0	8.0	8.0	7.0
5	16.0	15.5	13.5	13.0	8.5	7.0	5.0	5.0	8.0	6.5	8.5	7.0
6	16.0	15.0	13.0	13.0	9.0	7.0	5.5	5.0	6.5	6.0	9.0	7.0
7	16.0	15.0	13.0	13.0	9.0	9.0	5.5	5.5	6.0	5.5	8.5	8.0
8	16.0	15.5	13.0	12.0	9.0	9.0	5.5	5.5	6.0	5.5	10.0	8.5
9	15.5	14.0	12.0	11.0	9.0	7.0	6.0	5.5	7.0	6.0	10.5	9.5
10	14.0	14.0	11.0	10.5	8.5	7.0	6.0	6.0	7.0	6.0	11.0	10.0
11	14.0	13.5	10.5	10.0	8.5	6.5	6.0	5.5	8.0	6.5	11.5	10.5
12	14.0	13.5	10.0	10.0	8.0	6.5	6.0	6.0	8.5	7.0	11.5	10.5
13	14.0	13.5	10.5	10.0	8.0	6.5	6.0	6.0	8.0	8.0	13.0	10.5
14	14.5	13.5	10.0	10.0	8.0	6.5	6.0	6.0	8.0	8.0	14.0	11.0
15	14.0	14.0	10.0	10.0	6.5	6.5	6.0	6.0	8.0	8.0	12.0	11.5
16	14.5	14.0	10.5	10.0	6.5	6.5	6.5	6.0	8.0	8.0	14.5	12.0
17	14.5	14.0	10.5	9.5	7.0	6.5	6.5	6.5	8.0	8.0	14.0	13.0
18	15.0	14.5	9.5	8.5	7.0	6.5	8.0	6.5	8.5	8.0	14.0	13.0
19	15.5	14.5	8.5	8.0	7.0	7.0	7.0	6.5	8.5	8.5	13.0	11.5
20	15.5	15.0	8.5	8.5	7.0	6.5	8.0	7.0	8.5	8.0	12.0	11.0
21	15.5	15.0	8.5	8.0	7.0	6.5	8.0	7.0	8.5	8.0	14.0	11.5
22	15.0	13.5	9.0	8.5	7.0	7.0	8.0	7.0	9.0	8.0	12.0	11.5
23	13.5	12.0	9.0	9.0	7.0	7.0	8.0	8.0	9.0	8.5	13.0	11.5
24	12.0	11.0	9.5	9.0	7.0	7.0	8.0	7.0	8.5	8.5	12.0	11.0
25	11.0	11.0	9.5	9.5	7.0	7.0	8.0	7.0	8.5	8.5	11.0	10.5
26	11.0	11.0	9.5	9.5	7.0	7.0	8.0	7.0	9.0	8.0	11.0	10.5
27	11.0	10.5	9.5	9.5	7.0	7.0	8.0	7.0	10.0	8.5	10.5	9.5
28	11.0	10.5	9.5	8.5	7.0	7.0	8.0	7.0	10.0	10.0	11.5	9.5
29	11.0	10.5	8.5	8.0	7.0	7.0	8.0	7.0	10.0	10.0	11.5	10.5
30	11.0	11.0	8.0	8.0	7.0	7.0	8.0	8.0	---	---	12.0	11.0
31	11.5	10.5	---	---	7.0	6.0	8.5	8.0	---	---	12.0	11.0
MONTH	16.5	10.5	13.5	8.0	9.0	6.0	8.5	5.0	10.0	5.5	14.5	7.0

11406920 THERMALITO AFTERBAY RELEASE TO FEATHER RIVER NEAR OROVILLE, CA--Continued

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

11407000 FEATHER RIVER AT OROVILLE, CA

LOCATION.--Lat 39°31'18", long 121°32'48", in Boga Fernandez Grant, T.19 N., R.4 E., Butte County, on right bank 300 ft (91 m) upstream from fish barrier dam on Feather River, and 0.8 mi (1.3 km) northeast of Oroville Post Office.
DRAINAGE AREA.--3,624 mi^2 (9,386 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1901 to current year. Monthly discharge only for some periods, published in WSP 1315-A. October 1934 to September 1961 published as "near Oroville." Records since October 1967 equivalent to earlier records if diversions out of Thermalito Afterbay are added to flow past station.
REVISED RECORDS.--WSP 843: 1907(M), 1909(M), 1914-15(M), 1919(M), 1927-28(M). WSP 881: 1913-28 (yearly summaries only). WSP 1515: 1906-8. WSP 1931: Drainage area. WDR CA-74-2: 1968-70, adjusted monthly discharge.
GAGE.--Water-stage recorder. Datum of gage is 148.97 ft (45.406 m) above mean sea level (levels by California Department of Water Resources). See WSP 1931 for history of changes prior to Oct. 1, 1964.
REMARKS.--Flow regulated by Lake Oroville (station 11406800) and other powerplants and reservoirs above station. Several diversions above station for power and irrigation. Feather River Fish Hatchery diverts up to 120 ft^3/s (3.40 m^3/s) at Thermalito diversion dam 0.4 mi (0.6 km) upstream from gage. Diverted flow returns to Feather River approximately 0.3 mi (0.5 km) downstream from gage. Daily figures shown are combined figures of river flow and diversion to fish hatchery. See REMARKS for upstream stations and schematic diagrams showing diversions from Feather River at Lake Oroville and for South Fork Feather River basin.
COOPERATION.--Records collected by California Department of Water Resources under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.
AVERAGE DISCHARGE (adjusted for diversions into and out of, change in contents in, and evaporation from Lake Oroville, Thermalito diversion pool, Thermalito Forebay, and Thermalito Afterbay).--75 years, 5,934 ft^3/s (168.1 m^3/s), 4,299,000 acre-ft/yr (5.30 km^3/yr).
EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge observed, 230,000 ft^3/s (6,510 m^3/s) Mar. 19, 1907, elevation, 167.5 ft (51.05 m) above mean sea level; minimum daily, 89 ft^3/s (2.52 m^3/s) Sept. 19, 1972.
Combined flow (since construction of Oroville Dam), maximum discharge, 56,400 ft^3/s (1,600 m^3/s) Jan. 25, 1970; minimum daily, 222 ft^3/s (6.29 m^3/s) Sept. 19, 1972.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of February 1881 reached a stage of 25 ft (7.6 m) from floodmarks, site and datum in use from Dec. 16, 1912, to Sept. 30, 1934.
EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 430 ft^3/s (12.2 m^3/s) July 8, gage height, 0.65 ft (0.198 m); minimum daily, 270 ft^3/s (7.65 m^3/s) Dec. 14.
Combined flow, maximum discharge, 515 ft^3/s (14.6 m^3/s) July 8; minimum daily, 369 ft^3/s (10.5 m^3/s) Feb. 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	402	400	413	393	403	398	413	396	415	413	391	413
2	402	396	411	393	405	408	411	410	410	413	402	399
3	402	399	407	393	404	403	412	406	415	412	398	401
4	401	400	401	394	403	402	414	409	413	414	406	404
5	401	398	402	395	405	403	410	410	412	414	398	403
6	401	400	398	404	404	401	410	412	411	414	400	407
7	400	404	397	405	401	393	410	411	411	415	409	409
8	403	404	398	404	396	395	411	403	414	429	403	405
9	405	403	403	405	393	401	412	403	413	431	402	405
10	403	405	403	404	399	403	412	401	412	418	401	404
11	401	402	402	402	410	410	410	408	412	409	411	405
12	399	402	400	405	412	406	408	401	410	403	410	405
13	399	401	388	406	407	403	406	407	403	402	409	405
14	401	404	383	404	403	405	403	405	398	404	407	401
15	400	404	384	404	401	407	402	407	408	397	404	404
16	399	402	392	404	405	410	408	404	406	399	406	404
17	399	401	418	403	412	410	408	412	403	399	397	403
18	397	404	412	397	413	414	404	410	406	402	405	404
19	397	402	399	399	414	413	404	411	413	404	404	405
20	396	404	399	404	387	411	408	412	408	404	401	403
21	396	405	400	404	369	403	411	409	413	402	396	403
22	397	403	404	404	370	403	410	410	414	398	401	400
23	397	404	403	401	386	412	410	406	412	400	411	399
24	396	403	400	397	400	413	407	406	411	391	407	401
25	397	403	394	394	402	413	406	413	412	384	399	398
26	401	403	393	399	400	411	409	410	411	391	400	399
27	404	404	393	403	397	409	411	410	411	395	398	401
28	401	403	393	409	395	405	405	411	411	383	397	399
29	400	407	398	405	392	406	390	410	414	397	398	400
30	406	405	401	406	---	412	386	411	413	401	402	406
31	403	---	401	404	---	415	---	412	---	395	417	---
TOTAL	12406	12075	12390	12444	11588	12598	12221	12646	12315	12533	12490	12095
MEAN	400	403	400	401	400	406	407	408	411	404	403	403
MAX	406	407	418	409	414	415	414	413	415	431	417	413
MIN	396	396	383	393	369	393	386	396	398	383	391	398
AC-FT	24610	23950	24580	24680	22980	24990	24240	25080	24430	24860	24770	23990
MEAN †	2825	4564	4069	3638	4108	4396	2590	2113	1235	900	968	1923
AC-FT †	173700	271600	250200	223700	236300	270300	154100	129900	73480	55360	59540	114400

CAL YR 1975 TOTAL 162914 MEAN 446 MAX 890 MIN 369 AC-FT 323100 MEAN † 6649 AC-FT † 4814000
WTR YR 1976 TOTAL 147801 MEAN 404 MAX 431 MIN 369 AC-FT 293200 MEAN † 2773 AC-FT † 2013000

† Adjusted for diversions in and out of, change in contents in, and evaporation from Lake Oroville, Thermalito diversion pool, Thermalito Forebay, and Thermalito Afterbay.

11407000 FEATHER RIVER AT OROVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1906-7, 1951 to current year.
CHEMICAL ANALYSES: Water years 1906-7, 1951 to current year.
SPECIFIC CONDUCTANCE: Water years 1972 to current year.
WATER TEMPERATURES: Water years 1954, 1957 to current year.
SEDIMENT RECORDS: Water years 1957 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1972 to current year.
WATER TEMPERATURES: October 1953 to September 1954, November 1956 to current year.
SEDIMENT DISCHARGE: November 1956 to current year.

REVISED RECORDS.--WDR CA-74-2: 1966, sediment.

INSTRUMENTATION.--Specific conductance recorder since June 1976. Temperature recorder October 1953 to September 1954, and since November 1956.

REMARKS.--Water-temperature data for the gaging station are obtained from a thermograph located at fish hatchery near fish barrier dam. Chemical and sediment sampling point ranges from 0.2 to 1.5 mi (0.3 to 2.4 km) downstream from gaging station. Extremes affected by construction of Oroville Dam in 1967, and are given for two separate periods--Water years 1954, 1957-67, and 1968 to current year. Extremes for water temperatures are not included for 1968 water year.

COOPERATION.--Records of discharge and temperature data furnished by California Department of Water Resources and reviewed by the Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD (water years 1954, 1957-67).--
WATER TEMPERATURES: Maximum, 27.0°C Sept. 10, 12, 1959; minimum, 1.5°C Dec. 27, 1959, Jan. 23-25, 1962.
SEDIMENT CONCENTRATIONS (water years 1957-67): Maximum daily mean, 4,100 mg/L Feb. 1, 1963; minimum daily mean, 1 mg/L on many days in 1961-62, 1964.
SEDIMENT DISCHARGE (water years 1957-67): Maximum daily, 1,500,000 tons (1,360,000 tonnes) Feb. 1, 1963; minimum daily, 3 tons (2.7 tonnes) Jan. 16, 17, 1962.
Water years 1968-76.--
SPECIFIC CONDUCTANCE (water years 1973-76): Maximum daily, 94 micromhos Jan. 22, 1973, Sept. 14-17, 1976; minimum daily, 66 micromhos June 13, 14, 1974, July 1, 1975.
WATER TEMPERATURES (water years 1969-76): Maximum, 17.0°C on many days in 1971-73, 1974-75; minimum, 6.5°C on many days in 1971-73, 1974-75.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 310 mg/L Jan. 22, 1969; minimum daily mean, 1 mg/L on many days each year.
SEDIMENT DISCHARGE: Maximum daily, 42,100 tons (38,200 tonnes) Jan. 22, 1969; minimum daily, 0.60 ton (0.54 tonne) Sept. 19, 1972.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 94 micromhos Sept. 14-17; minimum daily, 72 micromhos Oct. 9-11, 25.
WATER TEMPERATURES: Maximum, 16.5°C June 27, 28; minimum, 7.0°C on several days during January.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 7 mg/L Nov. 29; minimum daily mean, 1 mg/L on many days.
SEDIMENT DISCHARGE: Maximum daily, 7.7 tons (6.9 tonnes) Nov. 29; minimum daily, 1.0 ton (0.7 tonne) on several days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
NOV												
11...	0900	405	--	--	--	32	0	7.4	3.3	3.0	17	.2
DEC												
02...	1100	412	--	--	10.0	32	0	7.6	3.1	3.5	19	.3
JAN												
08...	1400	403	77	7.9	9.0	36	0	8.5	3.7	3.4	16	.2
FEB												
08...	1530	402	86	--	8.5	35	0	8.2	3.5	3.4	17	.3
MAR												
01...	0715	401	80	8.8	7.0	36	0	8.4	3.6	3.6	18	.3
APR												
06...	0800	410	--	--	10.0	34	0	8.6	3.1	3.4	17	.3
MAY												
04...	0730	414	77	8.0	13.0	39	0	9.3	3.8	3.9	18	.3
JUN												
07...	1330	412	83	7.8	19.0	38	0	9.1	3.6	3.6	17	.3
JUL												
08...	1130	414	87	7.5	18.5	34	0	8.0	3.5	3.6	18	.3
AUG												
04...	1000	407	91	7.8	16.0	44	0	11	3.9	3.9	16	.3

11407000 FEATHER RIVER AT OROVILLE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO, PHOS-PHORUS (P) (MG/L)
NOV												
11...	.7	46	--	38	1.3	1.6	.0	52	.07	56.9	.05	.00
DEC												
02...	.8	45	--	37	2.6	.9	.1	54	.07	60.1	.04	.03
JAN												
08...	1.0	53	0	43	3.8	.7	.0	69	.09	75.1	.03	.00
FEB												
08...	.9	52	--	43	3.8	1.8	.1	57	.08	61.9	.04	.00
MAR												
01...	.9	51	0	42	2.6	1.6	.1	53	.07	57.4	.10	.00
APR												
06...	.9	52	--	43	2.8	1.5	.1	62	.08	68.6	.03	.00
MAY												
04...	.9	58	0	48	3.3	1.5	.1	62	.08	69.3	.07	.00
JUN												
07...	.8	47	0	39	3.0	1.2	.1	56	.08	62.3	.01	.01
JUL												
08...	.9	50	0	41	2.5	1.3	.1	63	.09	70.4	.02	.00
AUG												
04...	.9	56	0	46	3.9	1.2	.0	66	.09	72.5	.01	.01

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	77	---	80	80	79	---	82	83	87	86	90	89
2	77	---	79	---	78	82	82	84	88	86	92	89
3	77	---	81	81	79	83	82	84	87	86	92	90
4	77	78	81	79	78	82	82	---	86	86	87	91
5	76	73	80	80	80	82	82	84	84	86	86	90
6	76	73	79	80	81	82	82	85	87	85	85	89
7	76	74	80	79	---	82	83	85	87	85	85	90
8	76	78	80	80	81	82	83	85	83	87	86	89
9	72	79	80	80	80	81	83	85	83	87	86	89
10	72	79	81	80	82	81	80	85	83	86	86	91
11	72	78	81	81	80	81	76	86	82	88	87	91
12	74	79	81	79	82	81	83	85	82	88	88	91
13	75	79	81	---	81	---	85	---	82	87	87	91
14	73	79	---	80	80	80	84	85	82	88	86	94
15	73	79	81	80	82	82	84	86	82	88	90	94
16	73	79	81	---	83	85	---	86	83	87	88	94
17	73	80	81	80	82	82	85	86	83	87	86	94
18	73	79	81	81	87	82	85	86	82	88	86	93
19	74	78	81	79	82	82	84	86	82	88	86	91
20	74	79	81	79	83	82	85	87	83	88	84	91
21	75	78	82	79	82	83	---	87	83	88	85	88
22	75	79	82	79	83	81	85	87	84	89	85	86
23	74	78	---	80	81	84	84	87	83	90	85	86
24	74	79	82	76	81	83	85	87	83	91	86	87
25	72	79	81	77	---	84	85	87	83	91	85	88
26	73	82	82	77	80	83	85	87	83	91	87	88
27	---	79	81	77	80	84	84	87	84	90	87	89
28	73	80	81	77	82	82	85	87	83	89	88	90
29	---	80	80	77	81	84	85	87	83	90	88	93
30	80	79	79	77	---	83	85	87	84	91	89	93
31	---	---	80	76	---	81	---	87	---	91	87	---
MONTH	75	78	81	79	81	82	83	86	84	88	87	90

11407000 FEATHER RIVER AT OROVILLE, CA--Continued

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	12.0	11.5	12.0	11.5	10.5	9.5	8.5	8.5	8.0	8.0	8.5	8.5
2	12.0	11.5	12.0	11.5	10.0	9.0	8.5	8.5	8.0	8.0	8.5	8.0
3	13.0	11.5	12.0	11.5	9.5	9.0	8.5	8.5	8.0	8.0	8.0	8.0
4	13.0	12.0	11.5	11.5	10.0	9.5	8.5	8.0	8.0	8.0	8.0	8.0
5	13.0	12.0	11.5	11.0	10.5	9.5	8.0	8.0	8.0	8.0	8.5	8.0
6	13.0	12.0	11.5	11.0	9.5	9.5	8.0	8.0	8.0	8.0	8.5	8.0
7	13.0	11.5	11.5	11.0	9.5	9.5	8.0	8.0	8.0	8.0	8.5	8.5
8	12.0	11.5	11.5	11.5	9.5	9.0	8.0	8.0	8.0	8.0	8.5	8.5
9	12.0	11.0	11.5	11.5	9.5	9.5	8.0	8.0	8.0	8.0	9.0	8.5
10	11.5	11.0	11.5	11.0	10.0	9.5	8.0	8.0	8.0	8.0	9.5	8.5
11	11.5	11.5	12.0	11.0	10.0	9.5	8.0	8.0	8.0	8.0	9.5	8.5
12	11.5	11.5	12.0	11.5	9.5	9.0	8.0	8.0	8.5	8.0	9.0	9.0
13	12.0	11.5	11.5	11.5	9.5	9.0	8.0	7.0	8.5	8.5	9.0	9.0
14	13.0	11.5	11.5	11.5	9.5	9.0	7.0	7.0	8.5	8.5	9.5	9.0
15	13.0	13.0	11.5	11.5	9.5	9.0	7.0	7.0	8.5	8.0	9.5	9.0
16	13.0	11.0	11.5	11.5	9.0	9.0	7.0	7.0	8.0	8.0	9.5	9.0
17	11.5	10.5	11.5	11.5	9.0	8.5	7.0	7.0	8.0	8.0	9.5	9.0
18	11.0	10.5	11.5	11.0	9.0	8.5	7.0	7.0	8.0	8.0	9.5	9.0
19	11.5	11.0	11.5	11.5	9.0	9.0	8.0	7.0	8.0	8.0	9.5	8.5
20	11.0	11.0	11.5	11.0	9.0	9.0	7.0	7.0	8.0	8.0	9.0	8.5
21	11.0	11.0	11.0	11.0	9.0	9.0	8.0	7.0	8.0	8.0	9.5	9.0
22	11.0	11.0	11.0	11.0	9.0	8.5	8.5	8.0	8.0	8.0	9.5	9.0
23	11.5	11.0	11.0	10.5	9.0	9.0	8.5	8.5	8.0	8.0	9.5	9.0
24	11.5	11.0	11.0	10.5	9.5	8.5	8.5	8.0	8.0	8.0	9.0	9.0
25	11.5	11.0	11.0	10.0	9.5	9.0	8.5	8.5	8.0	8.0	9.5	9.0
26	11.0	11.0	10.5	10.0	9.0	9.0	8.5	8.0	8.0	8.0	9.5	8.5
27	12.0	11.0	11.0	9.5	9.0	8.0	8.0	8.0	8.0	8.0	9.5	9.0
28	12.0	12.0	10.5	9.5	9.0	8.5	8.0	8.0	8.0	8.0	9.5	9.0
29	12.0	12.0	10.0	9.0	8.5	8.5	8.0	8.0	8.5	8.0	10.0	9.0
30	12.0	11.0	10.5	9.5	8.5	8.5	8.0	8.0	---	---	10.0	9.5
31	12.0	11.5	---	---	8.5	8.5	8.0	8.0	---	---	10.0	9.5
MONTH	13.0	10.5	12.0	9.0	10.5	8.0	8.5	7.0	8.5	8.0	10.0	8.0

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

11407000 FEATHER RIVER AT OROVILLE, 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	402	3	3.3	400	2	2.2	413	1	1.1
2	402	3	3.3	396	2	2.1	411	1	1.1
3	402	2	2.2	399	2	2.2	407	2	2.2
4	401	2	2.2	400	2	2.2	401	3	3.2
5	401	2	2.2	398	1	1.1	402	4	4.3
6	401	3	3.2	400	1	1.1	398	2	2.1
7	400	3	3.2	404	1	1.1	397	1	1.1
8	403	3	3.3	404	1	1.1	398	1	1.1
9	405	3	3.3	403	2	2.2	403	1	1.1
10	403	2	2.2	405	2	2.2	403	1	1.1
11	401	2	2.2	402	2	2.2	402	1	1.1
12	399	2	2.2	402	1	1.1	400	1	1.1
13	399	2	2.2	401	1	1.1	388	1	1.0
14	401	2	2.2	404	1	1.1	383	1	1.0
15	400	2	2.2	404	1	1.1	384	1	1.0
16	399	2	2.2	402	1	1.1	392	1	1.1
17	399	2	2.2	401	1	1.1	418	1	1.1
18	397	2	2.1	404	1	1.1	412	1	1.1
19	397	2	2.1	402	1	1.1	399	1	1.1
20	396	2	2.1	404	1	1.1	399	1	1.1
21	396	2	2.1	405	1	1.1	400	1	1.1
22	397	2	2.1	403	1	1.1	404	1	1.1
23	397	2	2.1	404	1	1.1	403	1	1.1
24	396	2	2.1	403	1	1.1	400	1	1.1
25	397	2	2.1	403	1	1.1	394	1	1.1
26	401	2	2.2	403	1	1.1	393	1	1.1
27	404	2	2.2	404	1	1.1	393	1	1.1
28	401	2	2.2	403	3	3.3	393	1	1.1
29	400	2	2.2	407	7	7.7	398	1	1.1
30	406	2	2.2	405	2	2.2	401	1	1.1
31	403	2	2.2	---	---	---	401	1	1.1
TOTAL	12406	---	73.8	12075	---	50.5	12390	---	41.2

	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	393	1	1.1	403	1	1.1	398	2	2.1
2	393	2	2.1	405	1	1.1	408	5	5.5
3	393	1	1.1	404	2	2.2	403	6	6.5
4	394	1	1.1	403	3	3.3	402	6	6.5
5	395	1	1.1	405	2	2.2	403	5	5.4
6	404	1	1.1	404	2	2.2	401	5	5.4
7	405	2	2.2	401	2	2.2	393	5	5.3
8	404	2	2.2	396	2	2.1	395	5	5.3
9	405	2	2.2	393	2	2.1	401	4	4.3
10	404	2	2.2	399	2	2.2	403	4	4.4
11	402	2	2.2	410	2	2.2	410	3	3.3
12	405	2	2.2	412	2	2.2	406	3	3.3
13	406	2	2.2	407	2	2.2	403	2	2.2
14	404	2	2.2	403	2	2.2	405	2	2.2
15	404	2	2.2	401	2	2.2	407	3	3.3
16	404	2	2.2	405	2	2.2	410	4	4.4
17	403	2	2.2	412	2	2.2	410	6	6.6
18	397	1	1.1	413	1	1.1	414	4	4.5
19	399	1	1.1	414	1	1.1	413	3	3.3
20	404	1	1.1	387	1	1.0	411	3	3.3
21	404	1	1.1	369	2	2.0	403	3	3.3
22	404	1	1.1	370	2	2.0	403	3	3.3
23	401	1	1.1	386	2	2.1	412	3	3.3
24	397	1	1.1	400	1	1.1	413	3	3.3
25	394	1	1.1	402	1	1.1	413	3	3.3
26	399	1	1.1	400	1	1.1	411	3	3.3
27	403	2	2.2	397	1	1.1	409	3	3.3
28	409	2	2.2	395	1	1.1	405	2	2.2
29	405	1	1.1	392	2	2.1	406	2	2.2
30	406	1	1.1	---	---	---	412	2	2.2
31	404	1	1.1	---	---	---	415	2	2.2
TOTAL	12444	---	49.4	11588	---	53.0	12598	---	119.0

11407000 FEATHER RIVER AT OROVILLE, CA--Continued

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	413	2	2.2	396	2	2.1	415	1	1.1
2	411	2	2.2	410	2	2.2	410	1	1.1
3	412	2	2.2	406	2	2.2	415	1	1.1
4	414	2	2.2	409	2	2.2	413	2	2.2
5	410	1	1.1	410	3	3.3	412	2	2.2
6	410	1	1.1	412	3	3.3	411	2	2.2
7	410	2	2.2	411	3	3.3	411	1	1.1
8	411	3	3.3	403	3	3.3	414	1	1.1
9	412	3	3.3	403	3	3.3	413	1	1.1
10	412	3	3.3	401	3	3.2	412	1	1.1
11	410	3	3.3	408	3	3.3	412	1	1.1
12	408	3	3.3	401	3	3.2	410	1	1.1
13	406	3	3.3	407	3	3.3	403	1	1.1
14	403	3	3.3	405	3	3.3	398	2	2.1
15	402	2	2.2	407	3	3.3	408	2	2.2
16	408	2	2.2	404	3	3.3	406	2	2.2
17	408	2	2.2	412	3	3.3	403	2	2.2
18	404	2	2.2	410	2	2.2	406	2	2.2
19	404	2	2.2	411	2	2.2	413	1	1.1
20	408	2	2.2	412	2	2.2	408	1	1.1
21	411	2	2.2	409	2	2.2	413	2	2.2
22	410	2	2.2	410	2	2.2	414	2	2.2
23	410	2	2.2	406	2	2.2	412	1	1.1
24	407	2	2.2	406	2	2.2	411	1	1.1
25	406	2	2.2	413	2	2.2	412	1	1.1
26	409	2	2.2	410	2	2.2	411	1	1.1
27	411	2	2.2	410	2	2.2	411	1	1.1
28	405	2	2.2	411	2	2.2	411	2	2.2
29	390	2	2.1	410	2	2.2	414	2	2.2
30	386	2	2.1	411	2	2.2	413	2	2.2
31	---	---	---	412	2	2.2	---	---	---
TOTAL	12221	---	71.3	12646	---	82.2	12315	---	47.2

	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	413	1	1.1	391	1	1.1	413	2	2.2
2	413	2	2.2	402	1	1.1	399	2	2.2
3	412	2	2.2	398	1	1.1	401	2	2.2
4	414	2	2.2	406	1	1.1	404	3	3.3
5	414	2	2.2	398	1	1.1	403	3	3.3
6	414	2	2.2	400	1	1.1	407	3	3.3
7	415	2	2.2	409	1	1.1	409	3	3.3
8	429	2	2.3	403	1	1.1	405	3	3.3
9	431	1	1.2	402	1	1.1	405	2	2.2
10	418	1	1.1	401	1	1.1	404	2	2.2
11	409	2	2.2	411	1	1.1	405	2	2.2
12	403	2	2.2	410	1	1.1	405	2	2.2
13	402	2	2.2	409	2	2.2	405	3	3.3
14	404	1	1.1	407	3	3.3	401	3	3.2
15	397	1	1.1	404	4	4.4	404	3	3.3
16	399	2	2.2	406	3	3.3	404	2	2.2
17	399	2	2.2	397	3	3.2	403	2	2.2
18	402	1	1.1	405	2	2.2	404	2	2.2
19	404	1	1.1	404	2	2.2	405	2	2.2
20	404	1	1.1	401	2	2.2	403	2	2.2
21	402	1	1.1	396	2	2.1	403	3	3.3
22	398	1	1.1	401	2	2.2	400	3	3.2
23	400	1	1.1	411	2	2.2	399	3	3.2
24	391	1	1.1	407	2	2.2	401	2	2.2
25	384	1	1.0	399	2	2.2	398	2	2.1
26	391	1	1.1	400	2	2.2	399	2	2.2
27	395	1	1.1	398	2	2.1	401	3	3.2
28	383	1	1.0	397	2	2.1	399	3	3.2
29	397	1	1.1	398	2	2.1	400	3	3.2
30	401	1	1.1	402	2	2.2	406	3	3.3
31	395	1	1.1	417	2	2.3	---	---	---
TOTAL	12533	---	47.3	12490	---	60.1	12095	---	81.8
YEAR	147801		776.8						

11407150 FEATHER RIVER NEAR GRIDLEY, CA

LOCATION.--Lat 39°22'00", long 121°38'46", in Boga Fernandez Grant, T.18 N., R.3 E., Butte County, on right bank 300 ft (91 m) upstream from highway bridge, and 2.7 mi (4.3 km) east of Gridley.

DRAINAGE AREA.--3,676 mi^2 (9,521 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year. January 1944 to September 1964 are published in reports by California Department of Water Resources.

GAGE.--Water-stage recorder. Datum of gage is 2.91 ft (0.887 m) below mean sea level. Prior to Mar. 13, 1966, water-stage recorder on left bank. Mar. 14, 1966, to Sept. 30, 1973, on right bank, at datum 47.09 ft (14.353 m) above mean sea level.

REMARKS.--Flow regulated by Lake Oroville since November 1967 (station 11406800) and Thermalito Afterbay release to the Feather River since December 1968 (station 11406920). See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--12 years, 5,411 ft^3/s (153.2 m^3/s), 3,920,000 acre-ft/yr (4.83 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 151,000 ft^3/s (4,280 m^3/s) Dec. 23, 1964, gage height, 50.43 ft (15.371 m), present datum; minimum daily, 117 ft^3/s (3.31 m^3/s) June 27, 1966. Maximum discharge since construction of Oroville Dam in 1967, 72,900 ft^3/s (2,060 m^3/s) Jan. 27, 1970, gage height, 42.81 ft (13.048 m); minimum daily, 366 ft^3/s (10.4 m^3/s) July 26, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 52.25 ft (15.926 m) present datum, discharge unknown.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,400 ft^3/s (266 m^3/s) Dec. 4, gage height, 78.53 ft (23.936 m); minimum daily, 950 ft^3/s (26.9 m^3/s) Aug. 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	2680	2890	9130	3160	1980	1690	3150	2010	1180	2850	2520	1870
2	2700	2880	9150	3120	1990	1760	3240	1800	1010	2850	2340	1860
3	2700	2920	9170	3090	2360	1730	3230	1710	977	2840	2040	1860
4	2680	2930	9210	3080	2480	1680	3250	1650	1020	2840	1700	1870
5	2660	2960	9310	3110	2470	1640	3300	1530	1310	2850	1460	1880
6	2680	2960	9220	3110	2470	1640	3310	1450	1460	2850	1350	1880
7	2660	2960	8450	3080	2450	1630	3340	1290	1690	2840	1090	1880
8	2690	2950	8210	3050	2430	1610	3370	1120	1680	2840	1070	2050
9	2730	2920	7470	3060	2460	1610	3320	1050	1490	2860	1040	2450
10	2770	3020	7250	2990	2460	1610	3310	1050	1320	2840	969	2790
11	2710	3030	7250	2940	2470	1580	3300	1030	1140	2840	966	2840
12	2740	3010	7210	2930	2480	1610	3060	1020	983	2830	967	2810
13	2720	3010	7140	2680	2510	1580	2230	1030	958	2710	965	2570
14	2720	3010	7090	2220	2520	1570	2100	1050	951	2310	977	2220
15	2750	3100	7070	2080	2470	1590	2080	1050	957	2190	979	1740
16	2740	3820	7080	1910	2490	1580	2090	1060	953	2310	960	1250
17	2760	3950	7060	1750	2510	1580	2120	1060	953	2430	958	1110
18	2750	4010	7050	1700	2540	1580	2100	1060	1230	2440	950	1100
19	2750	4030	7000	1540	2550	1560	2100	1060	1850	2440	959	1100
20	2780	4040	6960	1550	2500	1560	2100	1060	1850	2440	974	1330
21	2800	5270	6130	1550	2460	1530	2100	1050	1840	2430	983	1760
22	2800	6730	5180	1560	2480	1530	2370	1060	1850	2430	989	2140
23	2820	7900	5030	1570	2520	1550	3010	1060	1940	2580	975	2410
24	2830	8860	5020	1570	2560	1580	2990	1050	2220	2700	983	3070
25	2830	8950	4950	1570	2600	1550	2980	1050	2400	2680	990	3390
26	2920	9120	4940	1570	2480	1540	2790	1050	2490	2700	1100	3540
27	2900	9060	4910	1580	2160	1530	2560	1050	2590	2730	1550	3860
28	2900	9110	4070	1580	1910	1550	2560	1040	2600	2720	1780	3650
29	2900	9110	3340	1580	1760	1720	2530	1060	2710	2730	1790	3100
30	2960	9120	3210	1880	---	2380	2340	1370	2870	2660	1820	2630
31	2910	---	3190	1990	---	2580	---	1320	---	2510	1850	---
TOTAL	85940	147630	207450	70150	69520	51430	82330	37300	48472	82270	40044	68010
MEAN	2772	4921	6692	2263	2397	1659	2744	1203	1616	2654	1292	2267
MAX	2960	9120	9310	3160	2600	2580	3370	2010	2870	2860	2520	3860
MIN	2660	2880	3190	1540	1760	1530	2080	1020	951	2190	950	1100
AC-FT	170500	292800	411500	139100	137900	102000	163300	73980	96140	163200	79430	134900

CAL YR 1975 TOTAL 1504270 MEAN 4121 MAX 10800 MIN 1100 AC-FT 2984000
WTR YR 1976 TOTAL 990546 MEAN 2706 MAX 9310 MIN 950 AC-FT 1965000

11407150 FEATHER RIVER NEAR GRIDLEY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1964 to current year.
SEDIMENT RECORDS: October 1964 to current year.

REVISED RECORDS.--WDR-CA-73-2: 1966, sediment. WDR CA-74-2: 1965, 1970, 1971, 1973, sediment.

INSTRUMENTATION.--Temperature recorder since October 1971.

COOPERATION.--Temperature records furnished by California Department of Water Resources.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES (water years 1965-69, 1971-76): Maximum (water years 1973-76), 25.0°C July 7, 1975; minimum, 4.0°C on several days in December and January of most years.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,340 mg/L Dec. 25, 1964; minimum daily mean, 1 mg/L Dec. 12, 1968, Dec. 4, 1969, Sept. 1, 1970, Dec. 14, 1971.
SEDIMENT DISCHARGE: Maximum, 527,000 tons (478,000 tonnes) Dec. 23, 1964; minimum daily, 1.4 tons (1.3 tonnes) Oct. 27, 1966.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 23.5°C June 19, 20, Aug. 29; minimum, 6.5°C Jan. 2, 4.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 41 mg/L June 19; minimum daily mean, 3 mg/L on several days.
SEDIMENT DISCHARGE: Maximum daily, 363 tons (329 tonnes) Nov. 23; minimum daily, 13 tons (12 tonnes) Jan. 26, 27.

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	18.5	17.0	13.5	12.0	9.5	9.0	7.5	7.0	9.5	9.0	11.5	10.5
2	17.5	16.5	14.0	12.5	9.5	9.0	7.5	6.5	10.0	9.0	10.5	9.0
3	17.5	16.0	14.0	13.0	10.0	9.5	7.5	7.0	10.5	9.5	10.5	9.0
4	17.5	16.0	14.5	13.0	9.5	9.5	7.0	6.5	9.5	8.0	10.5	9.0
5	18.0	16.0	14.0	13.5	9.5	9.5	7.5	7.0	8.5	7.0	11.0	9.0
6	17.0	15.5	14.5	13.5	10.0	9.5	7.5	7.0	7.5	7.0	11.0	9.5
7	17.0	15.0	14.0	13.5	10.0	9.5	7.5	7.0	8.0	7.0	11.5	9.5
8	16.5	15.5	14.0	13.0	9.5	9.5	7.5	7.0	8.0	7.5	12.0	10.5
9	16.0	14.5	13.0	12.0	9.5	9.5	7.5	7.5	9.0	7.5	12.5	11.0
10	15.0	14.5	12.5	11.5	9.5	9.0	7.5	7.5	9.0	8.0	12.5	11.0
11	15.0	14.0	12.0	11.0	9.0	9.0	7.5	7.0	9.0	8.0	13.5	11.5
12	15.5	14.0	12.0	11.0	9.5	9.0	8.0	7.5	10.0	8.5	13.5	11.5
13	15.5	14.0	12.0	11.0	9.0	8.5	8.0	7.5	9.0	9.0	13.5	12.0
14	15.5	14.0	12.0	11.5	8.5	8.0	8.0	7.5	9.0	8.5	14.0	12.5
15	16.0	14.5	12.0	11.5	8.5	8.0	8.0	7.5	9.0	8.5	14.0	13.0
16	16.0	14.5	12.0	11.5	8.5	8.0	8.5	7.5	9.0	8.5	15.0	13.0
17	16.0	15.0	11.5	10.5	8.5	8.0	8.5	8.0	10.5	8.5	15.0	13.5
18	16.5	15.0	10.5	9.5	8.5	8.0	9.0	8.0	10.0	9.0	14.5	13.5
19	16.5	15.0	10.0	9.5	8.5	8.0	9.0	8.0	10.0	9.0	14.0	12.5
20	16.5	15.0	10.5	10.0	8.5	8.0	9.0	8.0	---	---	14.0	12.0
21	16.5	15.5	10.5	9.5	8.5	8.0	9.0	8.0	---	---	14.5	12.5
22	15.5	14.0	10.0	9.5	8.5	8.5	9.0	8.0	---	---	14.0	13.0
23	14.0	13.0	10.5	10.0	8.5	8.0	9.0	8.5	---	---	14.0	12.5
24	13.0	12.5	11.0	10.0	9.0	8.5	9.5	8.5	---	---	13.5	12.5
25	12.5	12.0	11.0	10.5	8.5	8.5	9.0	8.0	---	---	13.0	11.5
26	13.0	12.0	11.0	10.5	8.5	8.5	9.5	8.0	---	---	13.0	11.5
27	13.0	12.0	11.0	10.5	8.5	8.5	9.5	8.5	---	---	12.5	11.0
28	13.0	11.5	10.5	10.0	9.0	8.0	9.5	8.5	---	---	13.5	11.5
29	13.0	11.5	10.0	9.5	9.0	8.5	9.5	8.5	---	---	14.0	12.0
30	13.0	12.5	9.5	9.5	9.0	8.0	9.5	8.5	---	---	14.0	12.0
31	13.0	12.0	---	---	8.0	7.5	9.5	8.5	---	---	14.0	12.5
MONTH	18.5	11.5	14.5	9.5	10.0	7.5	9.5	6.5	---	---	15.0	9.0

11407150 FEATHER RIVER NEAR GRIDLEY, CA--Continued

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	13.0	12.0	17.0	15.0	20.0	18.5	21.5	20.0	21.0	19.5	21.5	20.5
2	13.5	11.5	17.5	16.0	20.5	18.5	21.0	19.5	21.5	19.5	---	---
3	12.5	11.5	19.0	17.0	20.5	18.0	20.5	19.0	20.5	19.0	---	---
4	13.0	11.5	19.0	17.5	20.0	18.5	21.5	18.5	20.5	18.5	---	---
5	12.5	11.5	19.0	17.0	21.0	19.0	21.5	19.5	21.0	18.5	---	---
6	12.0	11.0	19.5	17.5	21.0	18.5	21.5	20.0	20.5	19.0	---	---
7	11.5	11.0	19.0	17.5	20.5	19.0	21.0	20.0	21.0	18.5	---	---
8	12.0	11.0	19.0	17.5	19.5	18.5	21.0	19.0	21.5	19.0	---	---
9	12.5	11.0	19.0	17.5	19.5	18.5	21.0	19.5	21.5	20.0	---	---
10	11.5	11.0	19.0	17.5	20.0	19.0	21.5	19.5	21.5	20.0	---	---
11	12.5	11.0	20.0	18.0	20.0	18.5	21.5	20.0	22.0	20.0	---	---
12	13.0	11.5	20.5	18.5	19.5	18.0	22.5	20.5	22.0	20.0	---	---
13	14.0	12.0	20.5	19.0	21.0	18.5	22.5	21.5	22.0	20.0	---	---
14	14.5	12.5	20.5	18.5	20.0	19.0	22.0	20.0	21.0	19.5	---	---
15	14.5	13.5	20.5	19.0	21.0	19.0	21.5	19.5	20.0	18.5	---	---
16	13.5	12.5	21.0	19.5	21.5	19.5	22.0	19.5	19.5	18.5	---	---
17	14.0	12.5	20.5	19.0	22.0	20.0	22.0	20.0	20.0	18.5	19.5	18.0
18	15.0	13.0	20.0	18.5	22.5	21.0	22.5	20.5	20.0	18.5	20.0	18.5
19	16.0	14.5	20.0	18.5	23.5	20.5	22.5	20.5	21.0	18.5	20.0	18.5
20	16.5	15.0	20.0	19.0	23.5	21.0	22.0	20.5	21.0	19.0	20.0	18.5
21	16.5	15.5	20.5	19.0	22.0	20.0	22.0	20.0	21.0	19.5	19.5	18.5
22	16.5	15.0	20.5	18.5	22.0	20.0	22.5	20.5	21.0	19.5	20.5	18.5
23	17.0	15.0	20.0	18.5	22.0	20.5	22.5	20.5	21.5	19.5	20.5	19.0
24	16.5	15.5	20.0	18.5	23.0	20.5	23.0	20.5	21.5	20.0	20.0	18.5
25	16.0	14.5	20.0	19.0	22.5	21.0	23.0	21.0	22.0	20.0	19.0	17.5
26	15.0	13.5	20.5	19.5	22.5	21.5	23.0	22.0	22.0	20.0	18.5	17.5
27	15.0	13.5	20.5	19.5	23.0	21.5	22.5	21.0	22.5	20.0	18.0	17.5
28	15.5	14.0	20.0	19.0	23.0	22.0	21.5	20.0	22.5	20.5	18.0	17.5
29	16.0	14.0	20.5	18.5	23.0	21.5	21.0	19.5	23.5	20.5	18.5	17.0
30	16.5	14.5	20.5	19.5	22.0	21.0	21.0	18.5	22.5	21.0	18.5	17.0
31	---	---	20.5	19.0	---	---	20.0	19.0	23.0	20.5	---	---
MONTH	17.0	11.0	21.0	15.0	23.5	18.0	23.0	18.5	23.5	18.5	---	---

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	2680	14	101	2890	10	78	9130	5	123
2	2700	12	87	2880	12	93	9150	5	124
3	2700	10	73	2920	12	95	9170	5	124
4	2680	10	72	2930	12	95	9210	5	124
5	2660	9	65	2960	12	96	9310	5	126
6	2680	9	65	2960	10	80	9220	7	174
7	2660	9	65	2960	10	80	8450	9	205
8	2690	8	58	2950	9	72	8210	7	155
9	2730	8	59	2920	8	63	7470	4	81
10	2770	8	60	3020	8	65	7250	5	98
11	2710	9	66	3030	6	49	7250	6	117
12	2740	8	59	3010	6	49	7210	6	117
13	2720	6	44	3010	6	49	7140	6	116
14	2720	9	66	3010	6	49	7090	6	115
15	2750	12	89	3100	6	50	7070	7	134
16	2740	10	74	3820	8	83	7080	6	115
17	2760	8	60	3950	8	85	7060	5	95
18	2750	9	67	4010	8	87	7050	5	95
19	2750	10	74	4030	8	87	7000	5	94
20	2780	14	105	4040	6	65	6960	4	75
21	2800	14	106	5270	6	85	6130	4	66
22	2800	10	76	6730	6	109	5180	4	56
23	2820	6	46	7900	17	363	5030	4	54
24	2830	8	61	8860	12	287	5020	4	54
25	2830	9	69	8950	10	242	4950	4	53
26	2920	8	63	9120	9	222	4940	4	53
27	2900	6	47	9060	8	196	4910	4	53
28	2900	8	63	9110	6	148	4070	4	44
29	2900	8	63	9110	7	172	3340	3	27
30	2960	9	72	9120	8	197	3210	3	26
31	2910	8	63	---	---	---	3190	3	26
TOTAL	85940	---	2138	147630	---	3491	207450	---	2919

11407150 FEATHER RIVER NEAR GRIDLEY, CA--Continued

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

	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	3160	3	26	1980	6	32	1690	5	23
2	3120	3	25	1990	6	32	1760	6	29
3	3090	3	25	2360	7	45	1730	8	37
4	3080	3	25	2480	6	40	1680	8	36
5	3110	3	25	2470	6	40	1640	7	31
6	3110	3	25	2470	6	40	1640	6	27
7	3080	3	25	2450	5	33	1630	6	26
8	3050	3	25	2430	5	33	1610	6	26
9	3060	3	25	2460	5	33	1610	6	26
10	2990	3	24	2460	6	40	1610	6	26
11	2940	3	24	2470	6	40	1580	7	30
12	2930	3	24	2480	6	40	1610	7	30
13	2680	3	22	2510	6	41	1580	7	30
14	2220	4	24	2520	6	41	1570	7	30
15	2080	5	28	2470	6	40	1590	6	26
16	1910	5	26	2490	5	34	1580	7	30
17	1750	5	24	2510	5	34	1580	8	34
18	1700	4	18	2540	5	34	1580	8	34
19	1540	4	17	2550	5	34	1560	7	29
20	1550	4	17	2500	5	34	1560	8	34
21	1550	4	17	2460	5	33	1530	9	37
22	1560	4	17	2480	5	33	1530	8	33
23	1570	4	17	2520	6	41	1550	8	33
24	1570	4	17	2560	8	55	1580	8	34
25	1570	4	17	2600	8	56	1550	8	33
26	1570	3	13	2480	8	54	1540	9	37
27	1580	3	13	2160	8	47	1530	10	41
28	1580	4	17	1910	8	41	1550	10	42
29	1580	6	26	1760	8	38	1720	10	46
30	1880	6	30	---	---	---	2380	10	64
31	1990	6	32	---	---	---	2580	15	104
TOTAL	70150	---	690	69520	---	1138	51430	---	1098

	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	3150	14	119	2010	10	54	1180	16	51
2	3240	14	122	1800	10	49	1010	13	35
3	3230	13	113	1710	10	46	977	11	29
4	3250	13	114	1650	10	45	1020	10	28
5	3300	13	116	1530	10	41	1310	10	35
6	3310	10	89	1450	10	39	1460	20	79
7	3340	8	72	1290	10	35	1690	18	82
8	3370	8	73	1120	10	30	1680	17	77
9	3320	9	81	1050	10	28	1490	16	64
10	3310	8	71	1050	10	28	1320	13	46
11	3300	8	71	1030	10	28	1140	10	31
12	3060	8	66	1020	10	28	983	10	27
13	2230	9	54	1030	10	28	958	10	26
14	2100	9	51	1050	10	28	951	11	28
15	2080	9	51	1050	10	28	957	11	28
16	2090	9	51	1060	10	29	953	10	26
17	2120	9	52	1060	10	29	953	10	26
18	2100	9	51	1060	10	29	1230	19	63
19	2100	9	51	1060	10	29	1850	41	205
20	2100	9	51	1060	10	29	1850	37	185
21	2100	9	51	1050	10	28	1840	34	169
22	2370	14	90	1060	10	29	1850	32	160
23	3010	14	114	1060	10	29	1940	33	173
24	2990	10	81	1050	10	28	2220	31	186
25	2980	10	80	1050	10	28	2400	30	194
26	2790	10	75	1050	10	28	2490	26	175
27	2560	10	69	1050	10	28	2590	21	147
28	2560	10	69	1040	10	28	2600	17	119
29	2530	10	68	1060	10	29	2710	19	139
30	2340	10	63	1370	14	52	2870	21	163
31	---	---	---	1320	15	53	---	---	---
TOTAL	82330	---	2279	37300	---	1040	48472	---	2796

11407150 FEATHER RIVER NEAR GRIDLEY, CA--Continued

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

	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	2850	18	139	2520	9	61	1870	8	40
2	2850	16	123	2340	10	63	1860	8	40
3	2840	16	123	2040	10	55	1860	8	40
4	2840	14	107	1700	10	46	1870	8	40
5	2850	13	100	1460	9	35	1880	8	41
6	2850	13	100	1350	8	29	1880	8	41
7	2840	13	100	1090	8	24	1880	8	41
8	2840	12	92	1070	8	23	2050	8	44
9	2860	10	77	1040	8	22	2450	8	53
10	2840	10	77	969	8	21	2790	8	60
11	2840	12	92	966	8	21	2840	8	61
12	2830	13	99	967	8	21	2810	8	61
13	2710	13	95	965	9	23	2570	8	56
14	2310	12	75	977	9	24	2220	7	42
15	2190	10	59	979	11	29	1740	6	28
16	2310	9	56	960	11	29	1250	6	20
17	2430	9	59	958	10	26	1110	5	15
18	2440	10	66	950	8	21	1100	7	21
19	2440	10	66	959	8	21	1100	8	24
20	2440	10	66	974	6	16	1330	8	29
21	2430	10	66	983	6	16	1760	8	38
22	2430	10	66	989	8	21	2140	8	46
23	2580	9	63	975	9	24	2410	8	52
24	2700	9	66	983	11	29	3070	9	75
25	2680	8	58	990	14	37	3390	10	92
26	2700	8	58	1100	14	42	3540	11	105
27	2730	8	59	1550	11	46	3860	11	115
28	2720	9	66	1780	9	43	3650	10	99
29	2730	9	66	1790	7	34	3100	8	67
30	2660	9	65	1820	8	39	2630	6	43
31	2510	9	61	1850	8	40	---	---	---
TOTAL	82270	---	2465	40044	---	981	68010	---	1529
YEAR	990546		22564.0						

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

DATE	TIME	TEMPER-ATURE (DEG C)	SUS-PENDED SEDI-MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM
JUL 22...	1330	21.5	8	95	100

11407300 NORTH HONCUT CREEK NEAR BANGOR, CA

LOCATION.--Lat 39°20'32", long 121°29'25", in NW¼SE¼ sec.11, T.17 N., R.4 E., Butte County, on left bank 0.2 mi (0.3 km) upstream from unnamed tributary, and 5.7 mi (9.2 km) southwest of Bangor.

DRAINAGE AREA.--47.1 mi^2 (122.0 km^2).

PERIOD OF RECORD.--October 1960 to September 1962, July 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 125 ft (38 m), from topographic map. Prior to September 1962, at site 50 ft (15 m) upstream at same datum.

REMARKS.--Small diversions above station for irrigation. Slight regulation occurs from Lake Wyandotte, capacity, 1,460 acre-ft (1.80 hm^3).

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--15 years, 49.7 ft^3/s (1.408 m^3/s), 36,010 acre-ft/yr (44.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft^3/s (303 m^3/s) Dec. 26, 1964, gage height, 11.57 ft (3.527 m), from rating curve extended above 4,600 ft^3/s (130 m^3/s); maximum gage height, 12.03 ft (3.667 m) Feb. 27, 1973; no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 300 ft^3/s (8.50 m^3/s) Feb. 29, gage height, 5.86 ft (1.786 m); 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	1.1	11	4.0	5.8	4.9	113	5.1	11	3.5	.20	.70	0
2	1.1	8.8	4.0	5.8	4.7	77	5.6	10	3.5	.20	.80	0
3	1.3	7.7	4.1	5.8	4.7	129	5.6	9.6	3.5	.20	1.0	0
4	1.5	7.4	4.7	6.0	5.0	70	5.3	9.9	3.4	.20	1.1	0
5	1.5	6.9	27	5.6	5.0	35	4.9	9.5	3.6	.20	3.6	0
6	1.7	7.1	27	5.3	4.8	24	4.6	9.3	3.2	.30	5.1	0
7	3.5	7.0	14	5.1	4.5	19	4.9	8.6	2.9	.40	2.5	0
8	3.8	7.1	9.8	5.0	4.5	16	39	8.5	2.7	.80	1.4	0
9	3.9	5.5	7.9	16	4.5	14	48	9.9	2.6	.70	.70	0
10	8.8	7.7	6.9	25	4.6	12	25	9.9	2.9	.80	.40	0
11	10	11	6.1	15	4.5	10	27	9.4	2.9	1.0	.30	0
12	8.7	8.3	15	12	4.3	8.8	32	8.3	2.6	1.3	.30	0
13	8.5	7.2	24	10	5.2	7.8	26	7.1	5.5	1.2	.10	0
14	8.0	7.2	13	9.1	11	7.4	16	7.6	3.6	.90	.60	0
15	7.6	8.2	9.4	8.4	12	7.2	12	7.3	2.7	.60	.20	3.4
16	7.4	17	7.6	7.8	15	6.9	9.6	6.4	2.6	.50	.50	4.2
17	7.8	12	6.6	7.4	33	7.0	8.3	6.0	2.2	.80	.50	2.7
18	7.8	8.5	6.1	7.1	20	7.1	7.2	4.8	2.3	1.0	.50	2.3
19	8.1	6.7	5.6	6.7	14	6.8	6.8	5.6	2.2	1.0	.60	3.2
20	7.8	6.3	5.2	6.3	11	6.4	6.0	6.3	2.4	1.2	.40	4.9
21	7.8	6.0	5.2	6.1	9.1	6.2	6.5	6.0	2.5	1.3	.30	4.8
22	7.8	5.5	6.8	5.9	7.8	5.7	8.2	5.0	2.6	1.1	.10	6.8
23	7.0	5.0	7.9	5.9	7.0	5.6	10	4.3	2.0	1.4	.10	7.8
24	6.8	4.7	7.0	5.8	6.4	5.5	13	4.2	1.6	.90	.10	8.9
25	7.1	4.3	6.4	5.5	6.2	5.5	12	4.2	1.1	.60	0	8.4
26	10	4.1	6.2	5.1	7.8	5.6	13	4.1	.80	.40	0	7.7
27	13	4.1	6.0	4.9	8.3	5.4	12	3.6	.60	.30	0	7.9
28	11	4.9	5.8	4.9	7.5	5.4	12	3.4	.50	.20	0	7.3
29	11	4.6	5.7	4.9	73	5.2	11	3.3	.30	1.2	0	6.9
30	28	4.1	5.8	4.8	---	4.9	11	3.4	.20	1.2	0	6.2
31	20	---	5.6	4.7	---	4.9	---	3.6	---	1.2	0	---
TOTAL	239.4	215.9	276.4	233.7	310.3	644.3	407.6	210.1	73.00	23.30	21.90	93.4
MEAN	7.72	7.20	8.92	7.54	10.7	20.8	13.6	6.78	2.43	.75	.71	3.11
MAX	28	17	27	25	73	129	48	11	5.5	1.4	5.1	8.9
MIN	1.1	4.1	4.0	4.7	4.3	4.9	4.6	3.3	.20	.20	0	0
AC-FT	475	428	548	464	615	1280	808	417	145	46	43	185

CAL YR 1975 TOTAL 19429.20 MEAN 53.2 MAX 2370 MIN .10 AC-FT 38540
WTR YR 1976 TOTAL 2749.30 MEAN 7.51 MAX 129 MIN 0 AC-FT 5450

11407500 SOUTH HONCUT CREEK NEAR BANGOR, CA

LOCATION.--Lat 39°22'04", long 121°22'16", in SE¼SE¼ sec.35, T.18 N., R.5 E., Butte County, on right bank 2.3 mi (3.7 km) southeast of Bangor, 3.3 mi (5.3 km) upstream from Tennessee Creek, and 16.3 mi (26.2 km) southeast of Oroville.

DRAINAGE AREA.--30.6 mi^2 (79.3 km^2).

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

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 620 ft (189 m), from topographic map.

REMARKS.--Records good. Some small diversions upstream for irrigation.

AVERAGE DISCHARGE.--26 years, 36.2 ft^3/s (1.025 m^3/s), 26,230 acre-ft/yr (32.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,600 ft^3/s (498 m^3/s) Dec. 26, 1964, gage height, 19.25 ft (5.867 m), from rating curve extended above 2,200 ft^3/s (62.3 m^3/s) on basis of slope-area measurements at gage heights 11.15 ft (3.399 m) and 19.25 ft (5.867 m); no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 247 ft^3/s (7.00 m^3/s) Feb. 29, gage height, 4.58 ft (1.396 m), no peak above base of 1,400 ft^3/s (39.6 m^3/s); minimum daily, 0.21 ft^3/s (0.006 m^3/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	2.4	5.0	2.7	3.1	3.4	54	4.3	3.3	1.4	.27	.71	1.1
2	2.5	3.7	2.7	3.0	3.4	90	5.0	2.9	1.4	.46	6.8	.99
3	2.6	3.3	2.7	3.1	3.4	27	3.7	3.3	1.5	.94	7.9	.73
4	2.8	3.3	2.9	3.1	3.4	28	3.7	3.3	1.7	1.0	7.6	.73
5	2.8	3.6	14	3.1	3.6	19	3.8	3.3	1.5	1.1	6.7	.78
6	3.4	3.5	8.4	3.1	3.5	12	4.1	2.7	1.4	.80	6.6	.66
7	5.3	3.0	4.7	2.9	3.4	9.0	5.3	2.7	1.5	.60	7.0	.54
8	4.6	3.2	3.7	3.0	3.4	7.6	32	2.6	1.5	.51	7.2	.55
9	5.1	3.1	3.3	11	3.5	6.4	22	2.5	1.8	.51	7.1	.52
10	11	6.5	3.1	8.0	3.5	6.0	10	2.4	1.9	.46	7.1	1.1
11	9.4	4.7	3.1	4.7	3.4	5.4	14	2.4	2.0	.68	6.6	3.3
12	6.9	3.6	30	4.0	3.6	5.0	33	2.1	1.9	.78	6.1	2.5
13	4.4	3.1	12	3.6	5.0	4.8	14	1.9	1.7	.70	5.9	1.2
14	4.0	2.9	6.3	3.5	8.6	4.7	8.0	1.9	1.1	.65	7.6	.80
15	3.8	4.1	4.4	3.4	7.3	4.5	6.2	1.8	.58	.56	8.6	3.4
16	3.2	18	3.9	3.3	24	4.5	5.4	1.7	.47	.53	7.1	2.4
17	3.4	6.9	3.6	3.3	18	4.2	4.7	1.7	.86	.69	6.4	1.5
18	3.6	4.3	3.5	3.2	12	4.5	4.1	1.8	1.8	2.1	6.0	1.2
19	3.6	3.3	3.2	3.2	9.0	4.9	3.8	2.0	3.4	2.8	5.8	1.0
20	3.5	3.3	3.2	3.2	7.5	4.6	3.6	2.0	2.4	1.5	5.6	.85
21	3.6	3.1	3.2	3.4	6.2	4.5	3.4	1.9	1.1	3.0	5.5	.77
22	3.5	3.0	4.3	3.7	5.2	4.4	3.3	1.9	1.4	5.2	5.7	.80
23	3.6	2.9	4.0	3.5	5.1	4.2	3.2	4.0	.98	5.1	5.3	.68
24	3.6	2.8	3.6	3.5	4.7	4.1	3.1	2.8	.69	2.4	5.1	.56
25	3.9	2.8	3.5	3.3	5.3	4.2	3.1	3.1	.51	1.0	5.0	.58
26	8.2	2.8	3.4	3.1	5.8	4.0	3.8	2.7	.43	.50	4.1	.49
27	6.6	2.8	3.3	3.1	6.0	3.9	3.7	1.9	.36	.45	3.3	.48
28	5.0	2.8	3.3	3.3	5.6	3.8	3.5	1.7	.30	.36	2.5	.49
29	5.7	2.7	3.2	3.3	76	3.8	4.4	1.5	.27	.35	3.7	.56
30	18	2.6	3.2	3.4	---	3.6	4.2	1.5	.23	.29	2.1	.59
31	8.6	---	3.2	3.4	---	3.5	---	1.5	---	.21	1.9	---
TOTAL	158.6	120.7	159.6	115.8	252.8	350.1	226.4	72.8	38.08	36.50	174.61	31.85
MEAN	5.12	4.02	5.15	3.74	8.72	11.3	7.55	2.35	1.27	1.18	5.63	1.06
MAX	18	18	30	11	76	90	33	4.0	3.4	5.2	8.6	3.4
MIN	2.4	2.6	2.7	2.9	3.4	3.5	3.1	1.5	.23	.21	.71	.48
AC-FT	315	239	317	230	501	694	449	144	76	72	346	63

CAL YR 1975 TOTAL 13224.90 MEAN 36.2 MAX 1180 MIN .16 AC-FT 26230
WTR YR 1976 TOTAL 1737.84 MEAN 4.75 MAX 90 MIN .21 AC-FT 3450

11407700 FEATHER RIVER AT YUBA CITY, CA

LOCATION.--Lat 39°08'20", long 121°36'17", in New Helvetia Grant, T.15 N., R.3 E., Yuba County, on left bank at 5th Street railroad bridge in Yuba City, 0.7 mi (1.1 km) upstream from confluence with Yuba River, and at mile 28.0 (45.1 km) upstream from mouth.

DRAINAGE AREA.--3,974 mi^2 (10,293 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year. November 1943 to September 1963 (prior to July 1, 1944, stage only) published in reports of California Department of Water Resources.

GAGE.--Water-stage recorder. Datum of gage is 3.00 ft (0.914 m) below mean sea level.

REMARKS.--Flow regulated by powerplants and reservoirs. There are many diversions above the station for irrigation. Discharge figures computed as summation of Feather River near Gridley, North and South Honcut Creeks (stations 11407150, 11407300, 11407500), and a correction for ungaged drainage area.

COOPERATION.--Gage-height record furnished by California Department of Water Resources.

AVERAGE DISCHARGE.--12 years, 5,739 ft^3/s (162.5 m^3/s), 4,158,000 acre-ft/yr (5.13 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 172,000 ft^3/s (4,870 m^3/s) Dec. 23, 1964, gage height, 76.42 ft (23.293 m); minimum daily, 166 ft^3/s (4.70 m^3/s) June 30, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 9,470 ft^3/s (268 m^3/s) Dec. 5; minimum daily, 965 ft^3/s (27.3 m^3/s) June 16, 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	2690	2950	9160	3190	2010	2330	3190	2060	1200	2850	2530	1870
2	2710	2930	9180	3150	2020	2400	3280	1850	1030	2850	2370	1860
3	2720	2960	9200	3120	2390	2330	3270	1760	996	2840	2070	1860
4	2700	2970	9240	3120	2510	2060	3290	1700	1040	2840	1730	1870
5	2680	3000	9470	3140	2500	1850	3330	1580	1330	2860	1500	1880
6	2700	3000	9350	3140	2500	1780	3340	1500	1480	2850	1400	1880
7	2690	3000	8520	3110	2480	1740	3380	1330	1710	2840	1130	1880
8	2720	2990	8260	3080	2460	1700	3640	1160	1700	2850	1100	2050
9	2770	2950	7510	3160	2490	1690	3590	1100	1510	2860	1070	2450
10	2850	3070	7290	3120	2490	1680	3440	1100	1340	2850	998	2790
11	2780	3090	7290	3020	2500	1640	3460	1080	1160	2850	992	2850
12	2800	3060	7380	2990	2510	1660	3310	1060	1000	2840	992	2820
13	2770	3050	7280	2730	2550	1630	2380	1070	986	2720	988	2570
14	2770	3050	7160	2270	2600	1620	2190	1090	969	2320	1010	2220
15	2790	3150	7120	2130	2540	1640	2150	1090	970	2190	1010	1770
16	2780	3950	7130	1950	2640	1620	2150	1090	965	2310	989	1280
17	2800	4020	7100	1790	2710	1620	2170	1090	965	2440	984	1130
18	2790	4060	7090	1740	2660	1630	2140	1090	1250	2450	975	1110
19	2800	4070	7030	1580	2640	1610	2140	1090	1870	2460	984	1120
20	2820	4080	6990	1590	2570	1600	2140	1090	1870	2450	997	1350
21	2840	5310	6160	1590	2520	1570	2140	1080	1850	2450	1010	1780
22	2840	6760	5220	1600	2530	1570	2420	1090	1870	2450	1010	2170
23	2860	7930	5080	1610	2570	1590	3060	1090	1950	2610	996	2440
24	2870	8890	5060	1610	2600	1620	3050	1080	2230	2710	1000	3110
25	2870	8980	4990	1600	2650	1590	3040	1080	2410	2690	1010	3430
26	2990	9150	4980	1600	2530	1580	2860	1080	2490	2700	1120	3570
27	2980	9090	4950	1610	2210	1570	2620	1070	2590	2730	1560	3890
28	2960	9140	4110	1610	1960	1590	2620	1060	2600	2720	1790	3680
29	2970	9140	3370	1610	2330	1760	2590	1080	2710	2740	1800	3130
30	3140	9150	3250	1910	---	2410	2400	1390	2870	2670	1830	2660
31	3020	---	3220	2020	---	2610	---	1340	---	2520	1860	---
TOTAL	87470	148940	209140	71490	71670	55290	84780	38420	48911	82510	40805	68470
MEAN	2822	4965	6746	2306	2471	1784	2826	1239	1630	2662	1316	2282
MAX	3140	9150	9470	3190	2710	2610	3640	2060	2870	2860	2530	3890
MIN	2680	2930	3220	1580	1960	1570	2140	1060	965	2190	975	1110
AC-FT	173500	295400	414800	141800	142200	109700	168200	76210	97010	163700	80940	135800

CAL YR 1975 TOTAL 1629820 MEAN 4465 MAX 15800 MIN 1250 AC-FT 3233000
WTR YR 1976 TOTAL 1007896 MEAN 2754 MAX 9470 MIN 965 AC-FT 1999000

11407700 FEATHER RIVER AT YUBA CITY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: July 1964 to September 1976 (discontinued).
SEDIMENT RECORDS: October 1964 to September 1976 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1965-67), 32.0°C July 29, 1964; minimum (water year 1965) 3.0°C on several days in 1965.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 840 mg/L Feb. 13, 1975; minimum daily mean, 6 mg/L Jan. 9, 10, 1969, Aug. 13-15, 23, 24, 1976.
SEDIMENT DISCHARGE: Maximum daily, 334,000 tons (303,000 tonnes) Dec. 24, 1964; minimum daily, 12 tons (11 tonnes) Oct. 27, 1966.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 246 mg/L Nov. 24; minimum daily mean, 6 mg/L Aug. 13-15, 23, 24.
SEDIMENT DISCHARGE: Maximum daily, 5,900 tons (5,350 tonnes) Nov. 24; minimum daily, 16 tons (15 tonnes) Aug. 13-15, 23, 24.

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	19.0	12.0	---	7.0	10.0	---	---	---	---	---	---	24.0
2	---	---	9.0	---	---	9.0	13.0	---	22.0	---	22.0	---
3	17.5	---	---	6.5	---	---	---	20.0	---	---	---	---
4	---	13.0	9.5	---	---	10.0	---	---	23.0	---	---	---
5	17.0	14.0	---	7.0	8.0	---	14.0	---	---	22.0	22.5	22.0
6	---	---	10.0	---	---	---	---	---	---	---	---	---
7	---	14.0	10.0	---	---	10.0	---	21.0	21.0	---	---	---
8	16.5	---	---	---	8.0	---	---	---	---	---	24.0	---
9	---	12.0	9.5	---	---	---	---	---	21.0	23.0	---	---
10	---	11.0	---	7.0	---	---	---	---	---	---	---	---
11	15.0	---	---	7.0	---	13.0	---	---	---	---	---	---
12	---	11.0	9.0	---	---	---	---	---	---	---	25.0	---
13	14.0	---	---	---	9.0	---	---	---	22.0	24.0	---	---
14	---	11.0	8.0	---	9.0	---	---	---	---	---	---	---
15	---	11.0	8.0	---	---	15.0	15.0	23.0	---	---	21.0	19.5
16	16.0	---	---	---	9.0	---	---	---	25.0	---	---	---
17	---	10.0	8.0	8.0	---	---	---	---	---	23.5	21.0	---
18	16.0	9.0	---	7.5	---	15.0	---	20.0	---	---	---	---
19	---	---	---	---	---	---	17.0	---	24.0	---	---	21.0
20	15.5	9.0	---	---	---	---	---	---	---	---	---	---
21	---	---	9.0	9.0	---	---	---	22.0	25.0	---	24.0	---
22	---	---	9.0	---	10.0	---	17.0	---	---	22.5	---	22.0
23	14.0	10.0	8.0	---	---	---	---	---	---	---	---	19.5
24	---	10.0	---	---	9.5	---	---	23.0	---	---	24.0	21.0
25	---	---	---	9.0	---	12.0	---	24.0	24.0	---	23.0	---
26	12.5	---	9.0	---	---	---	---	---	---	25.0	---	---
27	---	10.0	8.0	---	---	---	---	---	---	---	---	18.0
28	---	---	9.0	9.0	---	---	---	---	---	---	24.0	---
29	---	---	8.0	---	12.0	15.0	---	21.0	---	23.0	---	---
30	12.5	10.0	---	---	---	---	---	---	22.0	---	---	19.0
31	---	---	---	---	---	---	---	23.0	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

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

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)	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	SUS. SED. SIEVE DIAM. % FINER THAN 2.00 MM
OCT									
03...	0915	17.5	2720	91	99	100	--	--	--
NOV									
24...	1110	10.0	8890	26	53	87	98	100	--
DEC									
07...	1630	10.0	8520	24	39	64	75	83	100
28...	1315	9.0	4110	66	86	95	97	100	--
JUL									
22...	1100	22.5	2450	90	18	100	--	--	--

11407700 FEATHER RIVER AT YUBA CITY, 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	2690	48	349	2950	33	263	9160	122	3020
2	2710	48	351	2930	32	253	9180	130	3220
3	2720	47	345	2960	29	232	9200	120	2980
4	2700	40	292	2970	27	217	9240	117	2920
5	2680	35	253	3000	27	219	9470	125	3200
6	2700	38	277	3000	30	243	9350	138	3480
7	2690	40	291	3000	35	283	8520	120	2760
8	2720	43	316	2990	30	242	8260	102	2270
9	2770	42	314	2950	27	215	7510	88	1780
10	2850	41	315	3070	27	224	7290	84	1650
11	2780	39	293	3090	28	234	7290	82	1610
12	2800	38	287	3060	33	273	7380	79	1570
13	2770	38	284	3050	28	231	7280	84	1650
14	2770	36	269	3050	21	173	7160	92	1780
15	2790	35	264	3150	32	272	7120	70	1350
16	2780	35	263	3950	70	747	7130	74	1420
17	2800	40	302	4020	56	608	7100	78	1500
18	2790	43	324	4060	46	504	7090	78	1490
19	2800	37	280	4070	42	462	7030	78	1480
20	2820	34	259	4080	39	430	6990	77	1450
21	2840	32	245	5310	70	1000	6160	77	1280
22	2840	30	230	6760	130	2370	5220	59	832
23	2860	28	216	7930	230	4920	5080	58	796
24	2870	28	217	8890	246	5900	5060	62	847
25	2870	28	217	8980	220	5330	4990	68	916
26	2990	28	226	9150	210	5190	4980	74	995
27	2980	28	225	9090	162	3980	4950	69	922
28	2960	28	224	9140	142	3500	4110	50	555
29	2970	30	241	9140	130	3210	3370	31	282
30	3140	33	280	9150	120	2960	3250	32	281
31	3020	33	269	---	---	---	3220	32	278
TOTAL	87470	---	8518	148940	---	44685	209140	---	50564

	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	3190	33	284	2010	27	147	2330	24	151
2	3150	32	272	2020	28	153	2400	30	194
3	3120	32	270	2390	50	323	2330	30	189
4	3120	32	270	2510	100	678	2060	30	167
5	3140	31	263	2500	91	614	1850	29	145
6	3140	30	254	2500	70	472	1780	28	135
7	3110	30	252	2480	50	335	1740	28	132
8	3080	34	283	2460	35	232	1700	26	119
9	3160	38	324	2490	30	202	1690	22	100
10	3120	40	337	2490	28	188	1680	18	82
11	3020	32	261	2500	24	162	1640	16	71
12	2990	28	226	2510	22	149	1660	15	67
13	2730	24	177	2550	19	131	1630	15	66
14	2270	20	123	2600	35	246	1620	14	61
15	2130	18	104	2540	35	240	1640	13	58
16	1950	15	79	2640	34	242	1620	14	61
17	1790	12	58	2710	30	220	1620	16	70
18	1740	21	99	2660	28	201	1630	17	75
19	1580	18	77	2640	26	185	1610	17	74
20	1590	16	69	2570	24	167	1600	17	73
21	1590	15	64	2520	22	150	1570	16	68
22	1600	15	65	2530	21	143	1570	16	68
23	1610	15	65	2570	18	125	1590	16	69
24	1610	15	65	2600	16	112	1620	16	70
25	1600	15	65	2650	15	107	1590	15	64
26	1600	14	60	2530	16	109	1580	15	64
27	1610	14	61	2210	16	95	1570	15	64
28	1610	13	57	1960	16	85	1590	16	69
29	1610	16	70	2330	16	101	1760	16	76
30	1910	20	103	---	---	---	2410	22	143
31	2020	26	142	---	---	---	2610	28	197
TOTAL	71490	---	4899	71670	---	6314	55290	---	3042

11407700 FEATHER RIVER AT YUBA CITY, CA--Continued

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	3190	40	345	2060	24	133	1200	20	65
2	3280	54	478	1850	20	100	1030	16	44
3	3270	52	459	1760	16	76	996	15	40
4	3290	50	444	1700	16	73	1040	14	39
5	3330	49	441	1580	17	73	1330	24	86
6	3340	50	451	1500	18	73	1480	40	160
7	3380	55	502	1330	19	68	1710	34	157
8	3640	60	590	1160	19	60	1700	28	129
9	3590	52	504	1100	19	56	1510	24	98
10	3440	50	464	1100	19	56	1340	22	80
11	3460	44	411	1080	19	55	1160	20	63
12	3310	38	340	1060	19	54	1000	18	49
13	2380	35	225	1070	19	55	986	16	43
14	2190	32	189	1090	19	56	969	15	39
15	2150	30	174	1090	19	56	970	14	37
16	2150	30	174	1090	14	41	965	13	34
17	2170	30	176	1090	12	35	965	14	36
18	2140	30	173	1090	9	26	1250	16	54
19	2140	30	173	1090	10	29	1870	40	202
20	2140	23	133	1090	12	35	1870	30	151
21	2140	18	104	1080	15	44	1850	26	130
22	2420	14	91	1090	15	44	1870	30	151
23	3060	20	165	1090	15	44	1950	36	190
24	3050	30	247	1080	16	47	2230	40	241
25	3040	40	328	1080	12	35	2410	45	293
26	2860	51	394	1080	12	35	2490	46	309
27	2620	44	311	1070	12	35	2590	47	329
28	2620	36	255	1060	12	34	2600	48	337
29	2590	32	224	1080	11	32	2710	49	359
30	2400	28	181	1390	30	113	2870	50	387
31	---	---	---	1340	29	105	---	---	---
TOTAL	84780	---	9146	38420	---	1778	48911	---	4332

	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	2850	46	354	2530	21	143	1870	19	96
2	2850	44	339	2370	19	122	1860	20	100
3	2840	42	322	2070	17	95	1860	20	100
4	2840	40	307	1730	15	70	1870	20	101
5	2860	38	293	1500	14	57	1880	20	102
6	2850	36	277	1400	14	53	1880	20	102
7	2840	34	261	1130	13	40	1880	20	102
8	2850	32	246	1100	13	39	2050	24	133
9	2860	30	232	1070	10	29	2450	30	198
10	2850	30	231	998	10	27	2790	38	286
11	2850	30	231	992	8	21	2850	42	323
12	2840	30	230	992	7	19	2820	34	259
13	2720	30	220	988	6	16	2570	26	180
14	2320	29	182	1010	6	16	2220	20	120
15	2190	27	160	1010	6	16	1770	16	76
16	2310	26	162	989	7	19	1280	14	48
17	2440	24	158	984	7	19	1130	12	37
18	2450	24	159	975	7	18	1110	10	30
19	2460	24	159	984	7	19	1120	9	27
20	2450	25	165	997	7	19	1350	12	44
21	2450	25	165	1010	8	22	1780	14	67
22	2450	25	165	1010	7	19	2170	18	105
23	2610	24	169	996	6	16	2440	26	171
24	2710	23	168	1000	6	16	3110	34	285
25	2690	22	160	1010	10	27	3430	44	407
26	2700	21	153	1120	20	60	3570	50	482
27	2730	22	162	1560	40	168	3890	66	693
28	2720	23	169	1790	26	126	3680	50	497
29	2740	24	178	1800	24	117	3130	30	254
30	2670	23	166	1830	22	109	2660	24	172
31	2520	22	150	1860	20	100	---	---	---
TOTAL	82510	---	6493	40805	---	1637	68470	---	5597
YEAR	1007896		147005.0						

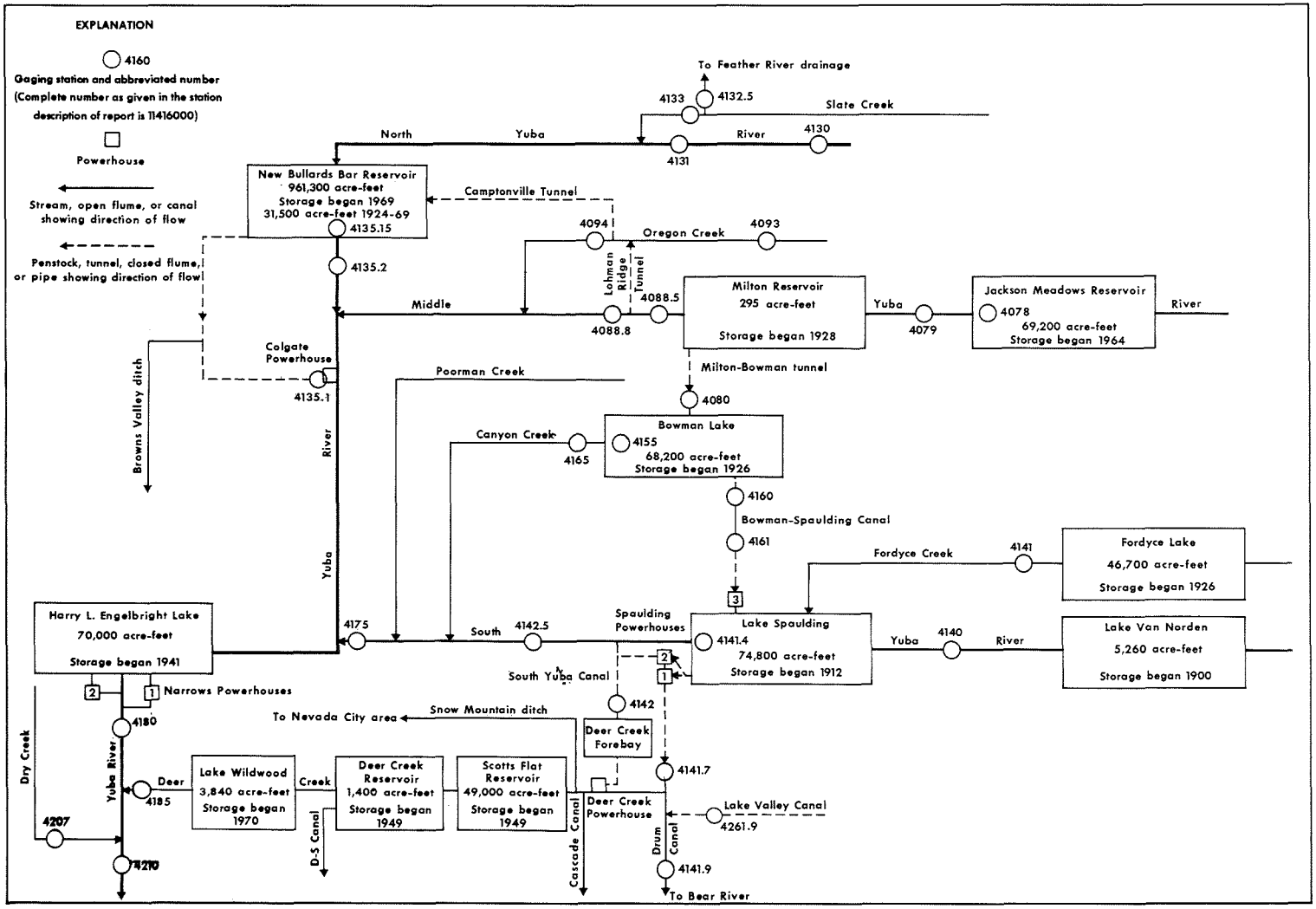

FIGURE 8.--Schematic diagram showing diversions and storage in Yuba River basin.

11407800 JACKSON MEADOWS RESERVOIR NEAR SIERRA CITY, CA

LOCATION.--Lat 39°30'40", long 120°33'15", in NW¼SE¼ sec.18, T.19 N., R.13 E., Sierra County, Tahoe National Forest, on right bank at Jackson Meadows Dam on Middle Yuba River, 0.7 mi (1.1 km) downstream from Pass Creek, and 5.7 mi (9.2 km) southeast of Sierra City.

DRAINAGE AREA.--37.6 mi^2 (97.4 km^2).

PERIOD OF RECORD.--November 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Nevada Irrigation District).

REMARKS.--Reservoir is formed by an earthfill dam. Storage began Nov. 9, 1964. Usable capacity, 66,700 acre-ft (82.2 hm^3) between elevations 5,933.0 ft (1,808.38 m), bottom of intake tower, and 6.036.0 ft (1,839.77 m), top of spillway Tainter gates. Dead storage, 2,500 acre-ft (3.08 hm^3). Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Yuba River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 71,000 acre-ft (87.5 hm^3) on several days in 1969-71, elevation, 6,037.7 ft (1,840.29 m); minimum since reservoir first filled, 2,500 acre-ft (3.08 hm^3) Sept. 27-29, 1976, elevation, 5,933.1 ft (1,808.41 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 44,100 acre-ft (54.4 hm^3) Oct. 1, elevation, 6,010.2 ft (1,831.91 m); minimum, 2,500 acre-ft (3.08 hm^3) Sept. 27-29, elevation, 5,933.1 ft (1,808.41 m).

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

5930	2000	5990	27600
5940	3920	6000	35300
5950	6760	6010	43900
5960	10600	6020	53200
5970	15400	6030	63000
5980	21000	6040	73500

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	44100	36800	34900	24600	18900	20100	22600	29100	38400	39000	27500	12300
2	43500	36700	34700	24300	18900	20200	22700	29500	38400	39000	26900	11800
3	42900	36600	34300	24000	19000	20300	22800	30000	38400	39000	26400	11200
4	42300	36500	33900	23600	19000	20300	22900	30600	38400	39000	25900	10700
5	41700	36400	33600	23300	19000	20400	23100	31100	38500	39000	25400	10200
6	41100	36300	33200	23000	19100	20400	23200	31500	38500	39000	24800	9690
7	40600	36300	32900	22700	19100	20400	23300	32000	38600	39000	24300	9190
8	40000	36300	32600	22400	19100	20500	23500	32500	38600	38800	23800	8720
9	39400	36300	32200	22100	19100	20500	23600	33000	38700	38400	23300	8250
10	39100	36300	31900	21800	19100	20500	23800	33600	38800	38000	22800	7770
11	38900	36200	31600	21400	19100	20600	23900	34000	38900	37600	22200	7340
12	38500	36100	31300	21100	19200	20700	24000	34500	38900	37300	21800	6890
13	38100	36000	30900	20800	19300	20700	24100	35000	39000	36800	21200	6460
14	37800	35900	30600	20500	19300	20800	24200	35400	39000	36300	20800	6020
15	37500	35900	30300	20100	19300	20800	24400	35800	39000	35800	20400	5560
16	37400	36000	30000	19800	19400	20900	24500	36100	39000	35300	20000	5160
17	37300	36000	29600	19600	19400	21000	24600	36300	39000	34800	19400	4740
18	37200	35900	29300	19200	19400	21200	24700	36700	39000	34300	19000	4350
19	37100	35800	28900	18900	19500	21300	24900	36800	39000	33800	18500	3990
20	37000	35800	28600	18600	19600	21400	25100	37000	39000	33300	18000	3600
21	36800	35700	28300	18500	19600	21500	25400	37200	39000	32800	17600	3230
22	36800	35600	28000	18600	19600	21600	25800	37300	39000	32400	17100	2870
23	36600	35600	27600	18600	19600	21700	26100	37500	39000	31900	16600	2630
24	36500	35500	27300	18700	19600	21800	26600	37600	39000	31400	16100	2560
25	36400	35300	27000	18700	19700	21900	27000	37800	39000	31000	15600	2520
26	37000	35300	26600	18800	19700	22000	27300	37900	39000	30500	15200	2520
27	37000	35300	26300	18800	19700	22100	27500	37900	39000	30000	14700	2500
28	37000	35200	26000	18900	19800	22200	27800	38000	39000	29500	14200	2500
29	36900	35000	25700	18900	20000	22200	28100	38100	39000	29000	13700	2500
30	36900	34900	25300	18900	---	22400	28500	38200	39000	28500	13300	2520
31	36800	---	25000	18900	---	22500	---	38300	---	28000	12800	---
MAX	44100	36800	34900	24600	20000	22500	28500	38300	39000	39000	27500	12300
MIN	36400	34900	25000	18500	18900	20100	22600	29100	38400	28000	12800	2500
†	6001.8	5999.5	5986.2	5976.4	5978.3	5982.4	5991.2	6003.5	6004.3	5990.5	5964.7	5933.2
‡	-8000	-1900	-9900	-6100	+1100	+2500	+6000	+9800	+700	-11000	-15200	-10280

CAL YR 1975 ‡ +2600
WTR YR 1976 ‡ -42280

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

11407900 MIDDLE YUBA RIVER BELOW JACKSON MEADOWS DAM, NEAR SIERRA CITY, CA

LOCATION.--Lat 39°30'58", long 120°33'40", in SE¼NW¼ sec.18, T.19 N., R.13 E., Sierra County, Tahoe National Forest, on right bank 0.6 mi (1.0 km) downstream from Jackson Meadows Dam, and 5.2 mi (8.4 km) southeast of Sierra City.

DRAINAGE AREA.--38.3 mi^2 (99.2 km^2).

PERIOD OF RECORD.--October 1964 to current year. If record for Milton-Bowman tunnel near Graniteville is added to record published as Middle Yuba River at Milton, a record equivalent to this site can be obtained for the period 1928-64.

GAGE.--Water-stage recorder. Datum of gage is 5,717.20 ft (1,742.603 m) above mean sea level (levels by Nevada Irrigation District).

REMARKS.--Records good. Flow regulated by Jackson Meadows Reservoir since November 1964 (station 11407800). See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE (adjusted for change in contents in Jackson Meadows Reservoir).--12 years, 116 ft^3/s (3.285 m^3/s), 84,040 acre-ft/yr (104 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,300 ft^3/s (65.1 m^3/s) Sept. 1, 1965, gage height, 6.60 ft (2.012 m), from rating curve extended above 1,100 ft^3/s (31.2 m^3/s) on basis of computation of flow over Milton Dam at gage height, 10.57 ft (3.222 m); minimum daily, 0.1 ft^3/s (0.003 m^3/s) Oct. 1, 2, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1925, 10.57 ft (3.222 m) Jan. 31, 1963, from floodmarks, discharge, 10,000 ft^3/s (283 m^3/s) by computation of flow over Milton Dam, adjusted for diversion and inflow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 285 ft^3/s (8.07 m^3/s) Oct. 1-4, gage height, 4.30 ft (1.311 m); minimum daily, 2.3 ft^3/s (0.065 m^3/s) Sept. 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	285	64	63	176	4.6	6.0	6.2	7.0	5.8	4.9	246	247
2	285	64	121	173	4.6	5.8	6.2	7.0	5.8	4.9	246	248
3	285	64	209	173	4.8	5.8	6.2	7.5	5.8	4.9	251	247
4	283	63	225	172	4.6	5.8	6.4	7.5	5.5	4.9	256	246
5	280	63	210	171	4.4	5.8	6.6	7.5	5.5	4.9	256	243
6	279	63	187	171	4.4	5.8	6.2	7.2	5.5	4.9	256	234
7	273	63	185	171	4.4	5.8	6.3	7.0	5.5	4.9	256	235
8	272	63	185	171	4.4	5.8	6.6	7.0	5.5	79	256	230
9	272	63	185	171	4.5	5.8	6.3	7.2	5.5	176	252	229
10	226	62	185	170	4.6	5.8	6.6	7.2	5.5	176	249	227
11	171	63	185	169	4.6	5.8	6.6	7.0	5.5	176	247	224
12	171	63	185	169	4.6	5.8	6.6	7.0	5.5	176	246	214
13	171	63	182	169	4.6	5.8	6.6	6.8	5.5	216	246	212
14	170	63	182	169	4.8	5.8	6.6	6.6	5.5	247	246	210
15	118	63	182	169	5.1	6.0	6.6	6.6	5.5	246	245	208
16	64	66	182	169	5.1	6.1	6.6	6.6	5.5	246	242	202
17	64	65	182	169	5.1	6.8	6.6	6.6	5.5	243	244	195
18	64	65	182	169	5.1	7.0	6.6	6.6	5.2	238	245	193
19	64	65	182	169	5.3	6.5	7.1	6.2	5.2	236	242	190
20	64	64	182	167	4.8	6.3	7.8	6.2	5.1	234	242	184
21	64	64	182	63	4.8	6.3	8.3	6.2	5.2	233	236	177
22	64	64	182	4.9	4.8	6.5	8.6	6.2	5.2	229	232	174
23	64	64	180	4.8	4.8	6.5	8.6	6.2	5.2	229	232	130
24	64	64	180	4.8	4.8	6.5	8.7	6.2	5.2	229	235	47
25	64	65	180	4.7	4.8	6.5	8.5	6.2	5.2	229	240	22
26	69	64	180	4.6	4.8	6.3	7.6	6.2	5.2	229	232	11
27	64	64	180	4.6	5.2	6.2	7.1	5.6	5.2	236	229	6.6
28	64	64	180	4.6	6.0	6.2	6.8	5.5	5.2	245	231	4.3
29	64	63	180	4.6	7.0	6.2	6.6	5.7	5.2	246	227	2.3
30	64	63	180	4.6	---	6.4	6.8	5.8	4.9	246	226	2.3
31	64	---	178	4.6	---	6.4	---	5.8	---	246	236	---
TOTAL	4570	1911	5563	3516.8	141.4	190.1	208.9	203.9	161.6	5320.3	7525	4994.5
MEAN	147	63.7	179	113	4.88	6.13	6.96	6.58	5.39	172	243	166
MAX	285	66	225	176	7.0	7.0	8.7	7.5	5.8	247	256	248
MIN	64	62	63	4.6	4.4	5.8	6.2	5.5	4.9	4.9	226	2.3
AC-FT	9060	3790	11030	6980	280	377	414	404	321	10550	14930	9910

CAL YR 1975 TOTAL 39713.0 MEAN 109 MAX 685 MIN 4.4 AC-FT 78770 MEAN ‡ 112 AC-FT ‡ 81370
WTR YR 1976 TOTAL 34306.5 MEAN 93.7 MAX 285 MIN 2.3 AC-FT 68050 MEAN ‡ 35.5 AC-FT ‡ 25770

‡ Adjusted for change in contents in Jackson Meadows Reservoir.

11408000 MILTON-BOWMAN TUNNEL OUTLET NEAR GRANITEVILLE, CA

LOCATION.--Lat 39°27'36", long 120°36'40", in NW¼NE¼ sec.3, T.18 N., R.12 E., Nevada County, on right bank 100 ft (30 m) downstream from tunnel outlet near upper end of Bowman Lake, and 6.9 mi (11.1 km) east of Graniteville.

PERIOD OF RECORD.--May 1928 to September 1930, February 1931 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1962, published as "Milton-Bowman tunnel at outlet."

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 5,592.51 ft (1,704.597 m) above mean sea level. Prior to Sept. 22, 1964, at datum 0.56 ft (0.171 m) higher.

REMARKS.--Records excellent. Tunnel diverts from Middle Yuba River at Milton, in sec.12, T.19 N., R.12 E., and discharges into Bowman Lake. Practically the entire flow of Middle Yuba River is diverted during low and medium flows. Middle Yuba River flow is regulated by Jackson Meadows Reservoir (station 11407800) since November 1964. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--48 years, 74.1 ft^3/s (2.099 m^3/s), 53,690 acre-ft/yr (66.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 492 ft^3/s (13.9 m^3/s) Feb. 11, 1941; minimum daily, 0.4 ft^3/s (0.011 m^3/s) Oct. 7, 1944.

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	68	66	175	5.1	13	12	25	7.1	3.0	248	243
2	300	67	100	174	5.1	11	11	25	6.8	3.1	247	245
3	298	67	176	174	5.1	10	12	25	6.3	3.0	246	246
4	298	67	250	174	5.7	9.5	12	25	6.2	3.0	252	245
5	295	66	229	174	5.3	9.0	13	24	6.1	3.0	254	242
6	298	66	194	172	5.0	8.9	12	23	6.2	8.6	253	239
7	298	71	191	172	5.0	8.9	12	22	6.0	5.4	252	235
8	295	68	190	172	5.2	9.0	13	23	5.9	43	251	232
9	294	67	189	172	5.6	9.3	12	25	6.7	176	249	228
10	286	69	188	170	5.3	9.6	12	26	6.9	179	247	226
11	208	67	189	170	5.1	9.9	12	23	6.9	179	246	224
12	203	67	188	169	5.2	9.7	12	21	6.3	180	244	214
13	201	67	187	168	5.5	9.9	12	20	6.0	200	243	212
14	200	67	186	167	6.2	10	12	18	5.5	244	245	210
15	165	68	185	167	6.1	11	12	16	5.3	248	250	208
16	68	85	185	166	5.9	12	11	15	5.2	249	243	202
17	68	73	184	165	5.7	13	11	14	5.1	248	241	195
18	65	69	183	164	5.9	14	12	13	5.0	248	243	193
19	64	69	183	163	7.3	13	13	12	4.9	247	243	190
20	64	69	182	163	5.9	12	15	11	4.8	246	241	184
21	64	68	182	64	5.7	12	18	11	4.7	245	239	177
22	65	68	183	8.0	5.8	12	19	10	4.6	244	238	174
23	64	68	181	7.0	5.8	13	21	9.4	4.5	243	235	133
24	64	67	180	6.2	5.6	13	22	9.1	4.2	242	235	53
25	64	68	180	5.7	5.9	13	23	8.8	3.5	241	241	22
26	107	67	179	5.6	6.2	12	20	8.5	3.3	240	240	13
27	76	68	179	5.3	6.4	12	18	8.1	3.3	240	238	8.8
28	70	67	178	5.3	9.4	11	17	7.9	3.1	247	236	6.5
29	68	66	178	5.3	19	11	18	7.6	3.2	250	234	3.5
30	73	66	177	5.2	---	12	21	7.4	3.3	249	230	2.5
31	69	---	176	5.1	---	13	---	7.5	---	248	232	---
TOTAL	5052	2050	5598	3513.7	181.0	346.7	440	501.3	156.9	5405.1	7536	5006.3
MEAN	163	68.3	181	113	6.24	11.2	14.7	16.2	5.23	174	243	167
MAX	300	85	250	175	19	14	23	26	7.1	250	254	246
MIN	64	66	66	5.1	5.0	8.9	11	7.4	3.1	3.0	230	2.5
AC-FT	10020	4070	11100	6970	359	688	873	994	311	10720	14950	9930

CAL YR 1975 TOTAL 33070.9 MEAN 90.6 MAX 300 MIN 2.9 AC-FT 65600
WTR YR 1976 TOTAL 35787.0 MEAN 97.8 MAX 300 MIN 2.5 AC-FT 70980

11408850 MIDDLE YUBA RIVER NEAR CAMPTONVILLE, CA

LOCATION.--Lat 39°25'01", long 120°57'06", in SW¼SE¼ sec.15, T.18 N., R.9 E., Sierra County, Tahoe National Forest, on right bank 0.6 mi (1.0 km) downstream from Kanaka Creek, and 5.8 mi (9.3 km) southeast of Camptonville.

DRAINAGE AREA.--136 mi^2 (352 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 2,170 ft (661 m), from topographic map.

REMARKS.--Records excellent. Natural flow of stream affected by Jackson Meadows Reservoir since November 1964 (station 11407800), Milton-Bowman tunnel (station 11408000) which diverts above station to Bowman Lake (station 11415500), and other small diversions above station. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--9 years, 335 ft^3/s (9.487 m^3/s), 242,700 acre-ft/yr (299 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft^3/s (348 m^3/s) Jan. 21, 1970, gage height, 14.80 ft (4.511 m); minimum daily, 21 ft^3/s (0.59 m^3/s) Oct. 17, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 948 ft^3/s (26.8 m^3/s) Oct. 26, gage height, 7.95 ft (2.423 m); minimum daily, 23 ft^3/s (0.65 m^3/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	36	113	82	78	62	503	151	205	68	35	25	25
2	37	98	84	75	61	328	143	223	65	35	26	25
3	37	89	85	77	61	260	140	216	63	35	26	25
4	37	83	86	76	67	222	139	223	61	35	26	25
5	37	76	123	79	66	198	143	219	59	34	26	25
6	42	75	124	81	63	184	146	213	57	33	26	25
7	59	100	108	75	61	179	141	206	57	32	26	25
8	48	140	101	74	63	178	175	219	57	32	26	24
9	44	100	96	95	66	181	163	216	59	31	25	24
10	139	135	92	88	67	185	164	219	68	30	25	24
11	182	120	89	82	64	188	170	207	67	30	24	44
12	85	108	106	82	62	179	180	197	62	29	23	40
13	66	103	98	81	68	171	177	191	58	29	23	31
14	59	98	90	80	120	168	174	187	54	28	33	29
15	56	111	85	80	113	166	184	168	51	27	106	28
16	54	324	85	80	121	171	177	152	49	27	64	27
17	52	212	85	80	134	188	165	141	48	26	40	27
18	51	160	82	80	141	220	159	129	46	26	37	27
19	50	136	81	78	233	207	159	119	45	27	41	27
20	49	128	78	74	171	188	170	111	44	26	37	26
21	48	118	77	72	144	184	186	105	43	26	33	26
22	50	109	109	70	128	182	195	99	43	26	34	26
23	52	103	98	69	117	183	207	94	42	26	35	25
24	50	98	91	69	109	183	211	90	40	26	32	24
25	50	93	91	68	105	189	224	86	39	26	30	24
26	531	89	90	65	110	173	208	83	38	26	29	24
27	267	96	90	64	109	165	193	78	38	25	28	24
28	139	99	88	65	170	158	181	75	37	24	27	24
29	107	86	88	64	637	151	174	73	36	25	26	24
30	176	82	88	63	---	146	182	72	35	25	26	24
31	148	---	84	62	---	153	---	70	---	25	26	---
TOTAL	2838	3482	2854	2326	3493	6131	5181	4686	1529	887	1011	798
MEAN	91.5	116	92.1	75.0	120	198	173	151	51.0	28.6	32.6	26.6
MAX	531	324	124	95	637	503	224	223	68	35	106	44
MIN	36	75	77	62	61	146	139	70	35	24	23	24
AC-FT	5630	6910	5660	4610	6930	12160	10280	9290	3030	1760	2010	1580

CAL YR 1975 TOTAL 123405 MEAN 338 MAX 3100 MIN 36 AC-FT 244800
WTR YR 1976 TOTAL 35216 MEAN 96.2 MAX 637 MIN 23 AC-FT 69850

11408880 MIDDLE YUBA RIVER BELOW OUR HOUSE DAM, NEAR CAMPTONVILLE, CA

LOCATION.--Lat 39°24'42", long 120°59'49", in SW¼NW¼ sec.20, T.18 N., R.9 E., Sierra County, Tahoe National Forest, on right bank 400 ft (122 m) downstream from Our House Dam, and 4.0 mi (6.4 km) southeast of Camptonville.

DRAINAGE AREA.--145 mi^2 (376 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 1,957.51 ft (596.649 m) above mean sea level. Prior to Nov. 4, 1970, at datum 10.0 ft (3.05 m) higher.

REMARKS.--Records excellent. Natural flow of stream affected by Jackson Meadows Reservoir since November 1964 (station 11407800), Milton-Bowman tunnel (station 11408000) which diverts above station to Bowman Lake (station 11415500), Lohman Ridge tunnel since October 1968 which diverts 400 ft (122 m) upstream to Oregon Creek and then to Bullards Bar Reservoir via Camptonville tunnel. Other small diversions above station. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--8 years, 149 ft^3/s (4.220 m^3/s), 108,000 acre-ft/yr (133 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft^3/s (354 m^3/s) Jan. 21, 1970, gage height, 20.70 ft (6.309 m) present datum; minimum daily, 3.2 ft^3/s (0.09 m^3/s) Oct. 21 to Nov. 4, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 50 ft^3/s (1.42 m^3/s) May 12, 13, gage height, 10.45 ft (3.185 m); minimum daily, 23 ft^3/s (0.65 m^3/s) Aug. 10, 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	36	35	35	30	28	35	31	47	49	33	24	26
2	36	35	35	29	28	33	31	47	49	33	24	25
3	36	35	35	29	28	32	31	46	49	33	24	25
4	36	35	35	29	28	32	31	45	49	33	25	25
5	36	34	35	29	28	31	31	45	49	33	25	25
6	35	34	36	29	28	31	31	45	48	32	25	25
7	35	35	36	29	28	31	31	45	49	32	24	25
8	34	35	36	29	28	31	31	45	48	32	24	25
9	34	35	36	30	28	32	31	46	49	32	24	24
10	36	35	35	30	28	31	31	45	49	31	23	24
11	36	35	35	30	28	31	31	45	49	30	24	29
12	33	34	35	30	28	31	31	48	49	30	23	33
13	33	34	33	29	28	31	32	50	49	29	23	33
14	34	34	31	29	29	31	32	49	49	29	24	33
15	34	35	31	29	29	31	39	49	43	28	31	32
16	34	37	30	29	29	31	46	49	36	28	32	30
17	34	36	30	29	29	31	46	49	36	27	31	28
18	34	35	30	29	30	31	46	49	35	27	31	28
19	34	36	30	29	31	31	46	49	35	27	31	27
20	34	36	30	29	31	31	47	49	35	26	31	27
21	34	36	30	29	30	31	47	49	35	26	31	26
22	34	36	30	29	30	31	47	49	35	26	31	26
23	34	36	30	29	30	31	47	49	36	26	30	25
24	34	36	30	29	30	31	47	49	36	26	30	25
25	34	35	30	29	29	31	47	49	36	25	31	25
26	40	35	30	29	29	31	47	49	36	25	30	24
27	39	35	30	28	29	31	47	49	35	25	29	24
28	36	35	30	28	30	31	47	49	33	24	28	24
29	36	35	30	28	35	31	47	49	33	24	27	24
30	36	35	30	28	---	31	47	49	33	24	27	24
31	36	---	30	28	---	31	---	49	---	24	26	---
TOTAL	1087	1054	999	899	844	970	1176	1481	1252	880	843	796
MEAN	35.1	35.1	32.2	29.0	29.1	31.3	39.2	47.8	41.7	28.4	27.2	26.5
MAX	40	37	36	30	35	35	47	50	49	33	32	33
MIN	33	34	30	28	28	31	31	45	33	24	23	24
AC-FT	2160	2090	1980	1780	1670	1920	2330	2940	2480	1750	1670	1580
‡	4000	5470	4210	3260	5910	11380	8920	7220	830	170	530	150

CAL YR 1975 TOTAL 25568 MEAN 70.0 MAX 2020 MIN 30 AC-FT 50710
WTR YR 1976 TOTAL 12281 MEAN 33.6 MAX 50 MIN 23 AC-FT 24360

‡ Diversion, in acre-feet, to Lohman Ridge tunnel.

11409300 OREGON CREEK AT CAMPTONVILLE, CA

LOCATION.--Lat 39°26'46", long 121°02'43", in SE¼NE¼ sec.11, T.18 N., R.8 E., Yuba County, Tahoe National Forest, on right bank 25 ft (8 m) downstream from county bridge, 0.5 mi (0.8 km) southeast of Camptonville, and 5.5 mi (8.8 km) upstream from mouth.

DRAINAGE AREA.--23.0 mi^2 (59.6 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 2,230 ft (680 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are fair, and for the summer months, which are poor. No regulation or diversion above station. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--9 years, 73.3 ft^3/s (2.076 m^3/s), 53,110 acre-ft/yr (65.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,130 ft^3/s (88.6 m^3/s) Jan. 21, 1970, gage height, 10.07 ft (3.069 m); minimum daily, 1.3 ft^3/s (0.037 m^3/s) Aug. 12, 13, Sept. 9, 10, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 455 ft^3/s (12.9 m^3/s) Feb. 29, gage height, 5.35 ft (1.631 m), no peak above base of 500 ft^3/s (14.2 m^3/s); minimum daily, 1.3 ft^3/s (0.037 m^3/s) Aug. 12, 13, Sept. 9, 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	2.6	17	12	14	10	200	33	27	8.2	2.7	1.6	1.6
2	2.4	13	12	13	10	105	32	26	7.7	2.8	1.6	1.6
3	2.5	11	12	14	9.8	84	31	25	7.4	2.8	1.6	1.5
4	2.5	10	12	13	12	76	30	24	7.2	2.7	1.6	1.5
5	2.5	8.9	26	14	11	70	30	23	7.1	2.8	1.6	1.6
6	4.0	8.5	25	14	10	66	30	22	6.8	2.8	1.6	1.5
7	8.7	12	21	13	10	64	29	21	6.7	2.6	1.5	1.5
8	4.5	13	19	12	11	63	40	20	6.6	2.7	1.5	1.4
9	4.2	11	17	20	12	64	38	20	7.4	2.7	1.5	1.3
10	25	27	16	17	12	63	40	19	8.2	2.6	1.4	1.3
11	24	20	15	16	11	61	43	18	8.3	2.3	1.4	7.6
12	9.2	16	19	15	11	56	48	16	7.3	2.4	1.3	7.0
13	6.3	15	17	15	13	53	49	16	6.7	2.5	1.3	4.3
14	5.2	14	15	15	35	51	53	15	5.8	2.4	3.0	3.4
15	4.6	23	15	15	31	49	55	14	6.2	2.2	19	3.2
16	4.3	101	14	15	37	48	53	14	5.9	2.1	8.7	3.1
17	4.0	42	14	16	39	49	49	13	5.7	2.0	4.5	3.1
18	3.9	29	14	16	38	57	47	12	5.4	2.0	4.0	3.0
19	3.9	24	13	15	70	55	44	12	5.3	2.0	4.3	2.9
20	3.8	23	13	14	50	52	42	12	4.8	1.9	3.4	2.8
21	3.7	20	12	14	38	49	42	12	4.7	1.8	2.8	2.7
22	4.1	18	21	13	31	46	42	11	6.0	1.8	3.8	2.6
23	4.6	16	19	13	26	45	40	11	5.0	1.8	3.8	2.6
24	4.3	15	18	13	23	45	38	10	3.7	1.7	3.0	2.5
25	5.3	14	17	12	22	47	39	10	3.5	1.7	2.6	2.3
26	95	13	17	11	20	43	37	9.6	3.3	1.7	2.3	2.3
27	30	15	17	11	22	41	35	9.1	3.1	1.6	2.1	2.5
28	16	15	17	11	50	39	32	8.7	3.0	1.6	2.0	2.4
29	12	13	17	11	300	37	30	8.7	2.8	1.7	1.9	2.2
30	31	12	16	11	---	35	28	8.3	2.6	1.6	1.8	2.2
31	24	---	15	10	---	35	---	8.3	---	1.5	1.7	---
TOTAL	358.1	589.4	507	426	974.8	1848	1179	475.7	172.4	67.5	94.2	79.5
MEAN	11.6	19.6	16.4	13.7	33.6	59.6	39.3	15.3	5.75	2.18	3.04	2.65
MAX	95	101	26	20	300	200	55	27	8.3	2.8	19	7.6
MIN	2.4	8.5	12	10	9.8	35	28	8.3	2.6	1.5	1.3	1.3
AC-FT	710	1170	1010	845	1930	3670	2340	944	342	134	187	158

CAL YR 1975 TOTAL 29855.0 MEAN 81.8 MAX 1270 MIN 2.0 AC-FT 59220
WTR YR 1976 TOTAL 6771.6 MEAN 18.5 MAX 300 MIN 1.3 AC-FT 13430

NOTE.--No gage-height record Feb. 18 to Mar. 7.

11409400 OREGON CREEK BELOW LOG CABIN DAM, NEAR CAMPTONVILLE, CA

LOCATION.--Lat 39°26'22", long 121°03'29", in SW¼SW¼ sec.11, T.18 N., R.8 E., Yuba County, Tahoe National Forest, on right bank 500 ft (152 m) downstream from Log Cabin Dam, 670 ft (204 m) upstream from High Point Ravine, and 1.1 mi (1.8 km) southwest of Camptonville.

DRAINAGE AREA.--29.1 mi^2 (75.4 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,919.96 ft (585.204 m) above mean sea level (levels by Yuba County Water Agency). Prior to July 24, 1973, at site 470 ft (143 m) downstream at datum 8.40 ft (2.560 m) lower.

REMARKS.--Records excellent. Camptonville tunnel, maximum capacity, about 830 ft^3/s (23.5 m^3/s), 520 ft (158 m) upstream, diverts to New Bullards Bar Reservoir (station 11413515); diversion began October 1968. See schematic diagram showing diversions and storage in Yuba River basin.

AVERAGE DISCHARGE.--8 years, 43.1 ft^3/s (1.221 m^3/s), 31,230 acre-ft/yr (38.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,180 ft^3/s (118 m^3/s) Jan. 21, 1970, gage height, 7.02 ft (2.140 m) previous site and datum; maximum gage height, 7.51 ft (2.289 m) Jan. 16, 1970; minimum daily discharge, 0.34 ft^3/s (0.01 m^3/s) Sept. 18, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16 ft^3/s (0.45 m^3/s) Nov. 16, gage height, 2.44 ft (0.744 m); minimum daily, 2.2 ft^3/s (0.062 m^3/s) July 31 to Aug. 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	5.1	9.3	12	8.4	8.8	13	6.5	11	11	6.0	2.2	2.6
2	5.0	9.1	12	8.4	8.8	12	6.7	11	10	6.2	2.2	2.6
3	5.0	8.9	12	8.4	8.8	11	6.7	11	10	6.2	2.3	2.6
4	5.1	8.8	12	8.4	8.8	11	6.7	11	10	5.9	2.6	2.5
5	5.1	8.8	13	8.4	8.8	10	6.7	11	10	5.3	2.5	2.5
6	6.5	8.7	13	8.5	8.8	10	6.7	11	10	4.6	2.7	2.5
7	10	8.7	12	8.4	8.8	10	6.7	11	10	4.1	3.0	2.5
8	9.7	9.0	12	8.4	8.8	10	7.0	11	10	3.8	3.0	2.5
9	9.5	8.7	12	8.7	8.8	10	6.9	11	10	3.7	2.8	2.5
10	9.6	8.5	12	8.7	8.8	10	6.9	11	10	3.6	2.7	2.4
11	8.5	10	12	8.6	8.8	10	6.9	11	11	3.6	2.6	2.6
12	7.6	11	12	8.5	8.7	10	7.0	11	10	3.5	2.5	3.7
13	7.3	11	11	8.4	8.9	10	7.0	12	10	3.5	2.5	4.7
14	7.1	11	8.6	8.6	9.7	10	7.0	12	10	3.4	4.1	4.0
15	7.0	11	8.6	8.6	9.6	9.9	9.5	11	8.2	3.3	5.5	3.7
16	7.0	15	8.5	8.7	9.8	8.3	11	11	7.5	3.2	3.9	3.7
17	7.0	14	8.5	8.8	10	6.7	11	11	7.2	3.1	3.3	3.7
18	7.0	13	8.5	8.7	10	6.8	10	11	7.2	3.1	3.0	3.7
19	7.0	13	8.4	8.6	11	6.8	10	11	7.1	3.1	3.0	3.6
20	7.0	13	8.4	8.6	11	6.7	10	11	7.0	3.2	2.8	3.5
21	7.0	13	8.4	8.6	10	6.7	11	11	7.0	3.0	2.7	3.4
22	7.1	13	8.9	8.6	10	6.5	11	11	7.2	3.0	2.7	3.3
23	7.2	12	8.7	8.6	9.8	6.5	11	11	6.5	2.9	2.9	3.3
24	7.0	12	8.6	8.6	9.7	6.6	11	11	6.5	2.9	2.8	3.2
25	7.6	12	8.6	8.6	9.6	6.6	11	11	6.5	2.9	2.7	3.2
26	11	12	8.6	8.6	9.7	6.5	11	11	6.4	2.8	2.6	3.1
27	11	12	8.6	8.6	9.6	6.5	11	11	6.4	2.7	2.6	3.2
28	9.8	12	8.5	8.8	10	6.5	11	11	6.3	2.6	2.6	3.3
29	9.5	12	8.6	8.8	14	6.4	10	11	6.2	2.8	2.6	3.3
30	10	12	8.5	8.8	---	6.2	10	11	6.0	2.6	2.6	3.3
31	9.9	---	8.4	8.8	---	6.2	---	11	---	2.2	2.6	---
TOTAL	240.2	332.5	310.9	266.2	277.9	263.4	264.9	343	251.2	112.8	88.6	94.7
MEAN	7.75	11.1	10.0	8.59	9.58	8.50	8.83	11.1	8.37	3.64	2.86	3.16
MAX	11	15	13	8.8	14	13	11	12	11	6.2	5.5	4.7
MIN	5.0	8.5	8.4	8.4	8.7	6.2	6.5	11	6.0	2.2	2.2	2.4
AC-FT	476	660	617	528	551	522	525	680	498	224	176	188
‡	4420	6290	4870	3800	7800	15120	11360	7730	765	116	590	162

CAL YR 1975 TOTAL 6036.2 MEAN 16.5 MAX 1140 MIN 5.0 AC-FT 11970
WTR YR 1976 TOTAL 2846.3 MEAN 7.78 MAX 15 MIN 2.2 AC-FT 5650

‡ Camptonville tunnel diversion, in acre-feet, to New Bullards Bar Reservoir.

11409400 OREGON CREEK BELOW LOG CABIN DAM, NEAR CAMPTONVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1971 to current year.
INSTRUMENTATION.--Temperature recorder since Aug. 17, 1971.
REMARKS.--Prior to July 24, 1973, at site 470 ft (143 m) downstream.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1972, 1974-76), 25.0°C July 16-18, 1972; minimum, 0.5°C Dec. 11-14, 1972, Feb. 1, 1975.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 23.0°C July 9, 26; minimum, 1.0°C Jan. 1-3.

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	16.0	14.0	8.5	7.5	4.5	4.0	2.5	1.0	5.0	4.0	6.0	4.5
2	16.0	14.0	8.5	8.0	4.5	4.5	1.0	1.0	5.0	4.5	4.5	3.5
3	16.5	14.0	9.0	8.0	5.0	4.5	1.5	1.0	5.0	4.5	4.5	3.5
4	16.0	14.0	9.5	8.5	5.5	5.0	2.5	1.5	5.0	2.0	4.5	3.0
5	16.0	14.0	9.5	8.5	7.0	5.5	3.5	2.5	2.0	1.5	4.5	3.5
6	15.0	14.0	10.0	9.5	7.0	6.0	4.0	3.5	2.0	1.5	5.5	4.0
7	15.0	14.0	10.0	10.0	6.0	5.5	3.5	3.5	2.5	1.5	6.0	4.5
8	14.0	13.0	10.0	8.5	5.5	5.5	4.0	3.5	3.5	2.0	7.0	5.5
9	13.5	12.5	8.5	7.5	5.5	5.0	4.0	3.5	4.0	3.5	7.0	5.5
10	13.0	12.0	8.0	7.5	5.0	5.0	3.5	2.5	4.0	3.0	7.5	5.5
11	12.0	11.5	7.5	6.5	5.0	4.5	3.0	2.5	3.0	2.5	7.5	6.0
12	11.5	10.5	6.5	5.5	5.0	4.5	3.0	3.0	4.0	3.0	7.0	5.0
13	11.5	11.0	6.0	5.5	4.5	4.0	3.0	3.0	5.0	4.0	7.0	5.5
14	11.5	10.5	7.0	6.0	4.0	2.5	3.5	3.0	5.5	5.0	7.5	6.5
15	12.0	11.0	7.5	7.0	2.5	2.0	3.5	3.0	5.0	4.0	8.0	6.5
16	12.0	11.5	8.0	7.5	2.5	2.0	3.5	3.0	4.5	4.0	9.0	7.5
17	12.0	11.5	7.5	5.0	3.0	2.5	4.0	3.5	5.5	4.5	9.5	8.5
18	12.5	12.0	5.0	3.5	2.5	2.5	4.0	3.5	6.5	5.5	9.0	7.5
19	12.0	11.5	4.5	3.5	2.5	2.0	4.0	3.5	6.0	5.0	7.5	6.0
20	12.0	12.0	5.5	4.5	2.5	2.0	3.5	3.0	5.0	4.0	7.5	5.5
21	12.5	12.0	5.0	4.5	3.5	2.5	3.5	3.0	5.0	4.0	8.5	6.5
22	12.5	11.5	5.0	4.5	4.0	3.5	3.5	3.5	5.0	4.5	8.5	7.5
23	11.5	10.0	5.0	4.5	4.0	3.5	4.0	3.5	5.0	4.0	9.0	8.0
24	10.0	9.5	5.5	5.0	4.0	3.5	4.0	4.0	5.0	4.0	9.0	8.0
25	9.5	9.5	5.5	5.0	4.0	3.5	4.0	3.0	5.5	5.0	8.0	6.5
26	10.0	9.5	5.5	5.0	4.5	4.0	3.0	2.5	6.5	5.5	7.5	6.0
27	9.5	8.5	6.0	5.5	5.0	4.5	3.0	2.5	7.0	6.5	7.5	6.5
28	8.5	7.0	5.5	4.0	5.0	4.5	3.5	3.0	7.0	7.0	8.0	6.5
29	8.0	7.0	4.0	3.0	4.5	4.5	4.0	3.5	7.0	5.5	8.5	6.5
30	9.0	8.0	4.0	3.0	5.0	4.5	4.5	4.0	---	---	8.5	7.0
31	8.5	7.5	---	---	4.5	2.5	4.5	4.0	---	---	---	---
MONTH	16.5	7.0	10.0	3.0	7.0	2.0	4.5	1.0	7.0	1.5	9.5	3.0

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

11410000 MIDDLE YUBA RIVER BELOW OREGON CREEK, NEAR NORTH SAN JUAN, CA

LOCATION.--Lat 39°23'11", long 121°05'18", in NE¼NW¼ sec.33, T.18 N., R.8 E., Yuba County, on right bank 2,000 ft (610 m) downstream from Freeman Crossing, 0.7 mi (1.1 km) downstream from Oregon Creek, and 1.4 mi (2.3 km) northeast of North San Juan.

DRAINAGE AREA.--198 mi^2 (513 km^2).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1974 to current year.

INSTRUMENTATION.--Temperature recorder since Sept. 11, 1974.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 30.0°C July 26, 1976; minimum, 0.0°C Dec. 24, 1974, Jan. 2, 3, 1975.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 30.0°C July 26; minimum, 0.5°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	19.5	15.0	9.5	7.0	5.5	4.0	2.5	1.0	6.0	4.0	8.0	5.5
2	19.5	15.5	10.0	7.5	6.0	4.0	2.0	0.5	7.0	4.0	5.5	4.0
3	19.5	15.0	10.0	7.5	6.0	4.0	2.0	0.5	6.5	3.5	7.0	3.5
4	19.5	15.0	10.5	7.5	6.5	4.0	3.0	0.5	5.5	3.0	6.5	3.0
5	19.0	14.5	10.0	7.5	7.5	6.5	4.0	3.0	4.5	2.5	7.0	2.5
6	16.5	15.0	11.5	9.5	7.5	6.0	5.5	3.5	3.5	2.0	7.5	3.0
7	15.0	13.0	10.5	9.5	6.5	5.0	4.5	3.0	4.0	1.5	8.0	3.5
8	14.5	11.5	10.5	8.5	6.5	4.5	5.0	2.5	4.5	2.5	9.5	5.5
9	13.0	12.0	8.5	6.5	6.0	4.5	5.5	4.5	6.5	4.0	10.0	5.5
10	12.5	12.0	9.0	7.5	6.0	4.0	5.0	3.5	6.5	3.5	10.5	5.5
11	13.0	12.0	7.5	5.5	5.5	3.5	5.0	3.5	6.5	3.0	10.5	6.5
12	14.0	10.5	7.5	5.0	6.5	5.5	4.5	3.5	7.0	4.0	10.0	5.0
13	13.5	10.0	7.5	5.0	6.0	4.0	5.0	3.0	6.0	3.5	10.5	5.5
14	14.0	10.0	7.5	5.5	3.5	2.0	5.0	3.0	6.5	6.0	10.0	6.5
15	14.0	10.5	8.0	7.0	3.0	1.5	5.0	3.0	6.0	5.5	11.0	6.5
16	14.0	10.5	9.0	7.5	3.5	1.5	5.0	3.0	6.0	5.5	13.5	8.5
17	14.5	10.5	7.5	5.0	3.5	1.5	5.5	3.5	8.0	5.5	14.0	9.0
18	15.0	11.5	5.5	3.5	3.0	1.5	5.5	3.0	9.5	7.0	10.5	9.0
19	14.5	10.5	4.5	2.5	3.0	1.5	5.0	2.5	8.0	6.0	11.5	7.5
20	14.0	10.5	6.0	4.5	3.0	1.5	4.5	2.5	7.0	4.5	11.5	5.5
21	14.5	11.0	5.5	3.5	4.0	2.0	4.5	2.0	7.0	3.5	12.5	6.5
22	14.0	10.5	5.0	3.0	5.5	4.0	4.5	2.5	7.0	4.0	12.0	7.5
23	11.5	8.5	5.5	3.0	5.0	3.5	4.5	2.5	5.5	4.0	13.0	9.0
24	10.5	7.0	5.5	3.5	5.0	3.5	5.0	2.5	7.0	3.5	11.0	9.0
25	9.5	8.0	6.0	4.0	5.5	3.5	4.0	1.5	6.5	5.5	12.0	7.0
26	11.0	9.5	6.0	4.0	6.0	4.0	4.0	1.5	9.0	6.0	11.0	6.5
27	11.5	9.0	6.5	6.0	6.5	5.0	4.0	1.5	9.0	6.5	12.0	7.0
28	9.5	7.0	6.5	4.0	6.5	4.0	5.0	2.5	10.0	8.5	12.0	7.5
29	9.5	6.5	4.0	2.5	6.0	4.5	5.0	2.5	9.0	7.5	13.5	7.0
30	10.0	8.5	5.0	3.5	6.5	4.0	6.0	3.5	---	---	14.0	8.0
31	10.0	7.5	---	---	3.5	2.0	6.0	3.0	---	---	10.5	8.0
MONTH	19.5	6.5	11.5	2.5	7.5	1.5	6.0	0.5	10.0	1.5	14.0	2.5

11410000 MIDDLE YUBA RIVER BELOW OREGON CREEK, NEAR NORTH SAN JUAN, CA--Continued

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	12.5	7.0	19.0	13.0	21.0	15.5	24.5	17.5	26.0	20.5	26.0	18.5
2	13.0	7.0	19.5	13.5	21.0	15.0	24.5	17.0	26.5	20.0	26.0	19.0
3	10.5	8.0	19.5	13.5	20.5	14.5	25.0	18.0	24.5	19.5	26.0	19.0
4	11.5	7.0	19.5	13.5	20.5	14.0	26.0	18.5	25.5	18.5	25.5	19.5
5	9.0	8.5	20.0	14.5	21.0	14.5	27.0	19.5	25.5	18.5	24.0	20.0
6	11.5	8.0	19.5	14.5	20.0	14.5	27.5	20.0	25.0	18.5	24.5	18.5
7	11.5	9.0	20.0	13.5	20.5	15.0	27.0	20.0	25.0	18.0	24.5	18.0
8	10.0	8.5	20.5	15.0	19.5	14.5	27.0	19.5	25.5	18.0	24.5	17.5
9	13.5	7.5	21.5	16.0	17.0	15.5	28.0	21.0	26.0	18.5	25.0	18.0
10	10.0	8.5	21.0	16.0	17.0	14.5	28.0	20.5	26.5	19.5	23.0	19.0
11	12.0	8.0	22.0	15.5	19.5	14.0	27.5	20.5	27.0	20.0	20.0	18.5
12	12.0	8.5	22.0	15.0	21.0	15.0	28.0	21.0	27.0	19.5	22.0	18.0
13	13.0	8.0	22.5	16.5	22.5	16.0	28.0	20.5	24.5	19.5	23.0	17.5
14	14.5	8.0	22.0	16.5	23.0	16.5	28.5	20.5	21.0	19.0	22.0	17.5
15	12.5	8.5	21.5	15.5	23.0	17.0	28.5	20.5	19.5	17.5	20.0	17.5
16	12.5	6.5	21.5	15.5	25.0	17.5	28.5	22.5	19.0	17.0	19.5	16.0
17	12.0	6.5	20.5	14.5	26.0	18.5	28.0	21.5	19.5	15.0	20.5	15.0
18	15.0	9.5	20.0	14.0	26.0	19.5	28.5	22.0	19.0	17.0	21.0	15.5
19	16.0	9.5	20.0	14.0	26.0	19.0	28.5	21.0	23.5	17.0	21.5	16.0
20	17.0	11.0	20.0	14.0	25.5	19.0	28.0	21.0	25.0	18.5	21.5	16.0
21	16.0	11.5	20.0	15.0	25.0	19.5	28.0	20.5	25.5	19.0	21.0	15.5
22	16.5	11.5	21.0	15.0	25.5	18.0	28.0	20.0	22.5	19.5	19.5	15.0
23	17.0	11.0	21.0	15.0	26.0	18.5	28.5	21.5	24.5	18.0	20.0	14.5
24	18.0	12.0	20.5	15.0	26.5	18.5	29.0	21.5	25.0	18.5	20.0	14.0
25	16.5	11.5	21.5	15.5	27.0	19.5	29.5	22.0	25.0	19.0	20.0	14.5
26	15.5	10.0	22.5	16.0	26.5	19.0	30.0	22.5	24.5	18.0	20.0	14.5
27	16.0	10.0	22.5	17.0	27.0	19.0	29.5	22.0	25.0	18.0	19.5	15.5
28	16.0	10.0	21.0	16.0	27.0	19.5	25.0	22.5	25.5	18.5	20.0	16.5
29	17.0	10.5	20.0	15.0	26.0	19.5	28.0	22.0	26.0	18.5	19.0	15.5
30	18.0	11.5	19.5	15.0	25.0	18.5	28.0	21.5	26.0	18.5	20.5	16.0
31	---	---	21.5	16.5	---	---	24.5	21.0	26.0	18.5	---	---
MONTH	18.0	6.5	22.5	13.0	27.0	14.0	30.0	17.0	27.0	15.0	26.0	14.0

11413000 NORTH YUBA RIVER BELOW GOODYEARS BAR, CA

LOCATION.--Lat 39°31'30", long 120°56'13", in NE¼SW¼ sec.11, T.19 N., R.9 E., Sierra County, Tahoe National Forest, on right bank 200 ft (61 m) downstream from St. Catherine Creek, 3.1 mi (5.0 km) southwest of Goodyears Bar, and 6.4 mi (10.3 km) southwest of Downieville.

DRAINAGE AREA.--250 mi^2 (648 km^2).

PERIOD OF RECORD.--October 1930 to current year. Prior to October 1949, published as North Fork Yuba River below Goodyears Bar. Monthly and yearly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1041: 1944. WSP 1931. Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,453 ft (747.7 m) above mean sea level (river-profile survey).

REMARKS.--Records excellent. Several small diversions above station for irrigation and mining. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--46 years, 755 ft^3/s (21.38 m^3/s), 547,000 acre-ft/yr (674 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,000 ft^3/s (1,130 m^3/s) Feb. 1, 1963, height, 23.8 ft (7.25 m) from floodmarks, from rating curve extended above 8,500 ft^3/s (241 m^3/s) on basis of one float measurement at 17,900 ft^3/s (507 m^3/s) and slope-area measurements at gage heights 19.15 ft (5.837 m) and 23.8 ft (7.25 m); minimum, 69 ft^3/s (1.95 m^3/s) Aug. 26, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,070 ft^3/s (58.6 m^3/s) Oct. 26, gage height, 6.46 ft (1.969 m), no peak above base of 3,200 ft^3/s (90.6 m^3/s); minimum daily, 96 ft^3/s (2.72 m^3/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	165	322	252	222	203	986	426	901	302	147	110	102
2	164	303	259	220	203	673	409	953	286	146	110	100
3	164	283	257	227	203	563	426	932	271	145	108	99
4	163	268	255	222	219	496	436	964	258	143	110	98
5	162	257	344	231	204	449	470	928	252	140	108	98
6	188	250	328	224	203	421	439	881	243	138	106	98
7	274	379	294	216	206	410	416	885	237	136	105	97
8	196	386	283	215	209	408	492	959	233	133	104	97
9	193	302	277	253	217	413	446	945	253	131	102	97
10	562	380	269	230	217	428	457	970	271	129	100	98
11	489	317	261	225	205	442	455	943	265	126	99	185
12	301	300	293	222	208	414	459	894	242	125	98	157
13	254	298	271	218	221	404	442	897	231	125	96	124
14	241	299	248	220	290	406	437	891	217	123	131	115
15	242	343	251	222	268	415	478	773	208	121	333	113
16	234	910	254	229	275	449	437	706	203	119	201	114
17	229	541	249	235	283	509	414	658	197	120	150	111
18	226	405	243	230	310	593	422	599	193	118	151	110
19	216	353	238	223	424	520	444	549	188	118	165	108
20	208	358	233	217	339	480	532	511	184	115	140	106
21	203	325	232	217	307	476	627	481	182	112	127	105
22	215	309	274	214	289	491	667	456	179	111	140	103
23	209	296	250	214	275	500	715	432	173	111	144	101
24	200	288	251	214	263	506	776	409	168	114	129	101
25	204	282	249	204	266	489	843	390	165	109	122	99
26	1170	272	246	206	280	458	731	368	162	106	117	99
27	589	287	249	206	285	443	664	351	158	104	114	100
28	362	276	245	204	467	427	600	339	154	104	110	102
29	312	244	252	205	1320	413	628	323	150	108	108	101
30	447	262	248	204	---	411	745	311	148	105	106	99
31	375	---	229	204	---	469	---	315	---	104	104	---
TOTAL	9157	10095	8084	6793	8659	14962	15933	20914	6373	3786	3948	3237
MEAN	295	337	261	219	299	483	531	675	212	122	127	108
MAX	1170	910	344	253	1320	986	843	970	302	147	333	185
MIN	162	244	229	204	203	404	409	311	148	104	96	97
AC-FT	18160	20020	16030	13470	17180	29680	31600	41480	12640	7510	7830	6420

CAL YR 1975 TOTAL 302076 MEAN 828 MAX 3990 MIN 162 AC-FT 599200
WTR YR 1976 TOTAL 111941 MEAN 306 MAX 1320 MIN 96 AC-FT 222000

11413100 NORTH YUBA RIVER ABOVE SLATE CREEK, NEAR STRAWBERRY VALLEY, CA

LOCATION.--Lat 39°31'29", long 121°05'26", in NE¼SW¼ sec.9, T.19 N., R.8 E., Yuba County, Tahoe National Forest, on left bank 500 ft (152 m) upstream from Slate Creek, and 2.8 mi (4.5 km) southeast of Strawberry Valley.

DRAINAGE AREA.--351 mi^2 (909 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 1,953.44 ft (595.409 m) above mean sea level.

REMARKS.--Records good. Several small diversions above station for irrigation and mining. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--8 years, 1,268 ft^3/s (35.91 m^3/s), 918,700 acre-ft/yr (1.13 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,800 ft^3/s (1,010 m^3/s) Jan. 22, 1970, gage height, 19.91 ft (6.069 m), recorded; 20.7 ft (6.31 m), from floodmarks; minimum daily, 114 ft^3/s (3.23 m^3/s) Sept. 28, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 29.8 ft (9.08 m) from floodmarks, discharge, 63,400 ft^3/s (1,800 m^3/s) from slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,220 ft^3/s (91.2 m^3/s) Feb. 29, gage height, 9.36 ft (2.853 m), no peak above base of 4,500 ft^3/s (127 m^3/s); minimum daily, 114 ft^3/s (3.23 m^3/s) Sept. 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	217	493	348	302	267	2110	580	1140	380	172	126	126
2	217	444	350	297	267	1310	550	1160	356	172	129	124
3	217	410	347	313	263	1020	570	1110	344	172	129	122
4	217	383	346	309	284	840	600	1210	336	165	129	120
5	214	356	505	311	270	732	620	1180	324	162	129	120
6	231	337	515	313	263	702	580	1080	313	162	129	118
7	383	455	442	297	267	684	560	1080	306	162	127	116
8	276	563	414	295	270	673	630	1150	295	157	126	116
9	256	419	400	360	277	678	580	1120	302	154	126	116
10	843	571	384	340	295	690	580	1210	344	152	125	116
11	920	475	372	321	274	714	580	1180	344	152	122	189
12	476	435	415	317	270	684	570	1120	317	147	122	215
13	375	425	390	310	288	655	570	1110	291	147	120	157
14	346	422	352	310	468	650	580	1120	274	147	151	145
15	338	497	349	310	432	650	590	986	263	143	422	140
16	325	1530	353	313	432	696	560	874	256	138	292	138
17	315	901	349	321	464	801	540	827	250	138	190	131
18	310	639	338	324	512	950	560	744	243	138	345	129
19	298	537	329	321	763	847	610	684	237	138	196	129
20	285	531	321	310	616	763	760	627	234	138	175	129
21	278	480	316	299	522	757	810	589	234	136	157	126
22	284	447	392	288	473	763	860	562	227	133	157	124
23	292	425	363	288	445	769	920	526	221	131	178	124
24	273	407	351	288	423	795	1000	502	209	132	157	124
25	275	397	351	281	410	788	1080	482	203	133	152	122
26	1590	381	348	270	436	726	1020	454	197	128	145	120
27	931	395	348	274	445	696	980	436	192	126	140	118
28	536	393	347	274	814	667	920	418	189	125	138	114
29	440	339	352	274	2560	638	1030	405	189	126	133	116
30	750	359	352	271	---	600	1080	388	178	127	131	116
31	619	---	327	267	---	650	---	384	---	125	129	---
TOTAL	13327	14846	11466	9368	13770	24698	21470	25858	8048	4478	5027	3900
MEAN	430	495	370	302	475	797	716	834	268	144	162	130
MAX	1590	1530	515	360	2560	2110	1080	1210	380	172	422	215
MIN	214	337	316	267	263	600	540	384	178	125	120	114
AC-FT	26430	29450	22740	18580	27310	48990	42590	51290	15960	8880	9970	7740

CAL YR 1975 TOTAL 440756 MEAN 1208 MAX 7160 MIN 206 AC-FT 874200
WTR YR 1976 TOTAL 156256 MEAN 427 MAX 2560 MIN 114 AC-FT 309900

NOTE.--No gage-height record Mar. 30 to May 9.

11413100 NORTH YUBA RIVER ABOVE SLATE CREEK, NEAR STRAWBERRY VALLEY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years, 1969, 1972, 1975 to current year.
WATER TEMPERATURES: Water years 1969, 1975 to current year.
SEDIMENT RECORDS: Water year 1972.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: September 1968 to July 1969, October 1974 to current year.

INSTRUMENTATION.--Temperature recorder September 1968 to July 1969, and since October 1974.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.0°C July 26, 1976; minimum, 0.0°C Dec. 24, 31, 1974, Jan. 1-3, 1975.

EXTREMES FOR CURRENT YEAR:
WATER TEMPERATURES: Maximum, 26.0°C July 26; minimum, 0.5°C Jan. 2, 3.

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	15.5	13.5	7.5	6.0	4.5	3.5	1.5	1.0	5.5	4.5	4.5	3.5
2	15.5	14.0	7.5	7.0	4.5	4.0	1.0	0.5	5.0	4.5	3.5	2.5
3	15.5	14.0	7.5	6.5	4.5	4.0	2.0	0.5	5.0	4.0	4.0	2.0
4	15.5	13.5	8.0	7.0	5.0	4.0	2.5	1.5	5.0	1.5	4.0	2.0
5	15.0	13.5	8.0	6.5	6.0	5.0	4.0	2.5	1.5	1.0	4.0	2.5
6	15.0	13.0	9.0	8.0	6.0	5.0	4.5	3.5	1.5	1.0	4.5	2.5
7	13.0	11.0	9.0	8.5	5.0	4.5	4.0	3.0	2.5	1.0	5.0	3.0
8	11.5	10.0	8.5	7.0	5.0	4.5	4.0	3.0	3.5	2.0	6.5	4.5
9	11.0	10.0	7.0	6.0	5.0	4.5	4.0	3.0	4.5	3.0	6.5	4.5
10	10.0	9.5	6.0	5.5	4.5	4.0	3.0	2.5	4.5	3.0	7.0	5.0
11	9.5	9.0	5.5	4.5	4.5	3.5	3.5	2.5	3.5	2.5	7.0	5.5
12	9.5	8.5	5.0	4.0	4.5	4.0	3.5	3.0	4.5	3.5	6.5	4.5
13	10.0	8.5	5.0	4.5	4.0	3.0	4.0	3.0	5.0	4.0	7.0	5.0
14	10.0	8.5	5.5	4.5	3.0	1.5	3.5	3.0	5.5	4.5	7.5	5.5
15	10.5	9.5	6.5	5.5	2.0	1.0	3.5	3.0	4.5	3.5	8.0	5.5
16	10.5	9.5	7.0	6.5	2.5	1.5	4.0	3.5	4.0	3.5	9.0	7.0
17	10.5	9.5	6.5	4.0	2.5	2.5	4.5	3.5	5.5	4.0	9.0	7.5
18	11.0	10.0	3.5	2.5	2.5	2.0	4.5	3.5	6.5	5.5	8.5	6.0
19	10.5	9.5	3.5	2.0	2.5	2.0	4.5	3.5	6.0	4.5	6.0	4.5
20	11.0	9.5	4.0	3.0	2.5	2.0	4.0	3.0	4.5	3.5	7.0	4.0
21	11.0	9.5	3.5	3.0	3.5	2.0	3.0	2.5	5.0	3.0	7.5	5.0
22	11.0	9.5	3.5	3.0	4.5	3.5	3.0	2.5	5.0	3.5	8.0	6.0
23	9.5	7.5	4.0	3.0	3.5	3.0	4.0	2.5	4.5	3.5	8.5	7.0
24	7.0	6.0	4.5	3.5	4.0	3.5	3.5	3.0	5.0	3.5	8.0	7.0
25	7.5	6.5	5.0	4.0	4.0	3.5	3.0	2.5	5.5	4.5	7.5	5.5
26	8.5	7.5	5.5	4.5	5.0	4.0	2.5	2.0	6.5	5.0	7.0	5.0
27	8.0	7.0	6.0	5.5	5.5	5.0	3.0	2.0	7.0	6.0	7.5	6.0
28	7.0	5.5	5.5	3.5	5.0	4.5	4.0	2.5	7.0	6.5	7.5	5.5
29	6.5	5.0	3.5	2.5	5.5	5.0	4.5	3.5	6.5	4.5	8.5	5.5
30	7.5	6.5	4.0	2.5	5.5	4.5	5.0	3.5	---	---	9.0	6.0
31	7.0	6.5	---	---	4.0	2.0	5.0	4.0	---	---	8.5	6.5
MONTH	15.5	5.0	9.0	2.0	6.0	1.0	5.0	0.5	7.0	1.0	9.0	2.0

11413100 NORTH YUBA RIVER ABOVE SLATE CREEK, NEAR STRAWBERRY VALLEY, CA--Continued

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	8.0	5.5	12.5	10.0	17.5	13.0	20.5	16.5	22.0	19.5	21.5	18.0
2	8.5	5.5	12.0	10.0	17.5	13.5	21.0	16.0	23.0	19.0	21.5	18.0
3	7.5	6.5	13.0	9.5	17.0	13.0	21.5	17.0	21.5	19.0	21.5	18.5
4	8.0	6.0	12.0	9.5	17.5	12.5	22.0	17.5	21.5	18.0	22.0	18.5
5	7.5	6.5	12.5	10.5	17.5	13.0	23.0	18.0	21.0	17.5	21.5	19.0
6	7.0	6.0	12.5	10.0	17.0	13.0	23.5	19.0	20.5	17.0	21.0	18.0
7	8.0	6.5	13.5	9.5	17.5	13.5	23.0	19.0	20.5	17.0	20.5	17.0
8	8.0	6.0	13.5	11.0	16.5	13.5	23.5	18.5	21.5	17.0	20.5	17.0
9	9.0	5.5	14.0	10.5	15.0	13.5	24.0	19.5	22.0	17.5	20.5	17.0
10	8.0	6.5	13.5	11.0	13.5	12.0	24.0	19.5	22.5	18.5	19.5	18.0
11	7.5	6.0	14.5	11.0	16.0	11.5	23.5	20.0	23.0	19.0	19.0	16.5
12	7.0	6.0	15.0	11.0	17.5	13.0	24.0	20.0	22.5	19.0	18.0	15.5
13	8.0	5.5	15.5	12.5	19.5	14.5	24.5	20.0	21.0	18.5	19.0	16.0
14	9.5	6.0	15.5	12.5	19.5	14.5	24.5	20.0	20.0	17.0	19.0	16.5
15	8.5	6.5	15.0	12.0	20.0	15.0	24.5	20.0	16.5	14.5	18.0	16.5
16	7.5	5.0	16.0	12.0	21.0	16.0	25.0	21.0	15.0	13.5	16.5	15.0
17	7.5	5.0	15.0	11.5	22.0	17.0	24.5	21.0	15.5	13.0	17.0	14.0
18	10.5	7.0	15.0	11.0	22.5	18.0	24.5	20.5	15.5	14.0	17.5	14.5
19	11.5	8.0	15.0	11.0	22.5	18.0	24.5	20.0	19.0	14.5	17.5	15.0
20	12.5	9.0	15.0	11.0	22.0	18.0	24.0	20.0	20.5	16.0	18.0	15.0
21	11.0	9.0	15.0	12.5	21.5	18.5	24.0	19.5	21.5	17.5	17.0	14.5
22	11.5	9.0	16.5	12.5	21.5	17.0	24.0	19.5	20.5	19.0	16.5	14.5
23	11.5	8.5	16.5	12.5	22.0	17.0	24.5	20.5	20.0	16.5	16.0	13.5
24	12.0	9.0	16.5	13.0	22.5	17.5	24.5	20.5	21.0	17.0	16.0	13.5
25	10.5	8.5	17.5	13.0	23.0	18.0	25.5	21.0	21.0	17.5	16.0	13.5
26	9.5	6.5	18.5	14.0	23.0	18.0	26.0	21.5	20.5	17.0	16.0	14.0
27	10.0	6.5	18.5	15.0	23.0	18.0	25.5	21.5	21.0	17.0	16.5	15.0
28	9.5	6.5	17.5	14.5	23.5	18.5	24.5	22.0	21.5	17.5	17.0	15.0
29	11.5	7.0	16.5	13.0	22.5	18.5	24.0	20.5	21.5	17.5	16.5	14.5
30	12.5	9.0	16.0	13.0	21.5	17.5	24.5	20.5	21.5	17.5	17.0	15.0
31	---	---	17.0	13.5	---	---	23.0	20.5	21.5	18.0	---	---
MONTH	12.5	5.0	18.5	9.5	23.5	11.5	26.0	16.0	23.0	13.0	22.0	13.5

11413250 SLATE CREEK TUNNEL NEAR STRAWBERRY VALLEY, CA

LOCATION.--Lat 39°36'57", long 121°03'03", in SE¼SW¼ sec.2, T.20 N., R.8 E., Plumas County, Plumas National Forest, on right bank 30 ft (9 m) upstream from diversion dam on Slate Creek, 0.3 mi (0.5 km) upstream from Feney Ravine, and 4.5 mi (7.2 km) northeast of town of Strawberry Valley.

PERIOD OF RECORD.--October 1966 to current year. Records of daily discharge for December 1961 to September 1966 are in files of Geological Survey. Monthly diversion used to adjust Slate Creek below diversion dam near Strawberry Valley since February 1962.

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

REMARKS.--Records good. Tunnel diverts water from Slate Creek to Sly Creek Reservoir (station 11395400) for power development. See schematic diagrams of South Fork Feather and Yuba River basins.

AVERAGE DISCHARGE.--10 years, 108 ft^3/s (3.059 m^3/s), 78,250 acre-ft/yr (96.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 863 ft^3/s (24.4 m^3/s) Apr. 6, 1963; 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	.02	49	25	24	20	537	116	149	23	0		
2	0	40	25	27	20	314	108	149	14	0		
3	0	34	24	32	20	221	110	142	0	0		
4	0	29	25	28	21	170	108	137	0	0		
5	0	26	87	28	18	143	114	129	0	0		
6	5.5	25	68	27	19	126	115	118	0	0		
7	19	48	52	25	21	121	112	116	0	0		
8	5.7	41	46	24	21	121	156	120	0	0		
9	4.5	33	42	28	22	125	141	113	0	0		
10	170	42	39	24	24	132	145	107	0	0		
11	121	33	36	26	21	133	144	98	0	0		
12	42	34	40	24	22	118	147	89	0	0		
13	26	34	36	23	28	113	145	84	0	0		
14	20	34	27	24	64	113	145	78	0	0		
15	12	106	31	24	46	118	156	70	0	0		
16	12	281	32	24	44	138	137	58	0	0		
17	13	123	30	28	47	170	125	54	0	0		
18	12	75	28	28	89	198	127	50	0	0		
19	11	58	28	28	105	166	131	45	0	0		
20	9.2	54	27	26	76	149	153	42	0	0		
21	8.6	44	27	25	66	148	166	39	0	0		
22	12	40	36	24	61	149	169	39	0	0		
23	7.1	36	30	24	55	153	175	35	0	11		
24	4.1	34	31	24	50	172	181	32	0	0		
25	9.6	32	31	21	51	163	181	30	0	0		
26	256	30	32	23	61	145	155	28	0	0		
27	85	35	34	21	87	133	139	26	0	0		
28	44	30	34	20	348	123	124	25	0	0		
29	34	24	39	21	758	116	121	24	0	0		
30	110	27	37	21	---	116	133	23	0	0		
31	75	---	28	20	---	116	---	26	---	0		---
TOTAL	1128.32	1531	1107	766	2285	4960	4179	2275	37	11	0	0
MEAN	36.4	51.0	35.7	24.7	78.8	160	139	73.4	1.23	.35	0	0
MAX	256	281	87	32	758	537	181	149	23	11	0	0
MIN	0	24	24	20	18	113	108	23	0	0	0	0
AC-FT	2240	3040	2200	1520	4530	9840	8290	4510	73	22	0	0

CAL YR 1975 TOTAL 46322.86 MEAN 127 MAX 841 MIN 0 AC-FT 91880
WTR YR 1976 TOTAL 18279.32 MEAN 49.9 MAX 758 MIN 0 AC-FT 36260

11413300 SLATE CREEK BELOW DIVERSION DAM, NEAR STRAWBERRY VALLEY, CA

LOCATION.--Lat 39°36'52", long 121°03'04", in SE¼SW¼ sec.2, T.20 N., R.8 E., Plumas County, Plumas National Forest, on right bank 300 ft (91 m) downstream from diversion dam, 0.2 mi (0.3 km) upstream from Feney Ravine, and 4.5 mi (7.2 km) northeast of town of Strawberry Valley.

DRAINAGE AREA.--49.4 mi^2 (127.9 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 3,570 ft (1,088 m), from topographic map.

REMARKS.--Records good. Slate Creek tunnel (station 11413250) diverts at diversion dam, 300 ft (91 m) upstream, up to 900 ft^3/s (25.5 m^3/s) from Slate Creek Reservoir, capacity, 223 acre-ft (275,000 m^3) to Sly Creek Reservoir (station 11395400). Diversion began in February 1962. See schematic diagrams of South Fork Feather and Yuba River basins.

AVERAGE DISCHARGE (adjusted for diversion to Slate Creek tunnel).--16 years, 212 ft^3/s (6.004 m^3/s), 153,600 acre-ft/yr (189 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Creek only, maximum discharge, 13,100 ft^3/s (371 m^3/s) Dec. 22, 1964, gage height, 16.42 ft (5.005 m), from rating curve extended above 5,500 ft^3/s (156 m^3/s) on basis of computed flow over dam at gage heights 12.75 ft (3.886 m) and 15.90 ft (4.846 m); minimum, 0.3 ft^3/s (0.008 m^3/s) Mar. 4, 5, 1962.
Combined flow, maximum discharge, 13,900 ft^3/s (394 m^3/s) Dec. 22, 1964; minimum daily, 2.3 ft^3/s (0.065 m^3/s) Nov. 23, 1961.

EXTREMES FOR CURRENT YEAR.--Creek only, maximum discharge, 273 ft^3/s (7.73 m^3/s) Oct. 15, gage height, 4.10 ft (1.250 m); minimum daily, 2.9 ft^3/s (0.082 m^3/s) July 21.
Combined flow, maximum discharge, 945 ft^3/s (26.8 m^3/s) Feb. 29; minimum daily, 2.9 ft^3/s (0.082 m^3/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	9.4	10	10	8.7	9.7	10	9.7	10	9.7	12	8.1	7.0
2	9.0	10	10	8.7	9.7	9.7	9.7	10	16	12	8.4	6.7
3	12	10	10	8.7	9.7	9.7	9.7	10	27	12	8.0	6.8
4	8.9	10	10	8.7	9.7	9.7	9.7	10	25	12	7.9	6.7
5	9.0	10	10	8.7	9.7	9.7	9.7	10	24	11	7.6	6.7
6	9.1	10	10	8.7	9.7	9.7	9.7	10	23	11	7.5	6.6
7	9.0	10	10	8.7	9.7	9.4	9.7	10	22	10	7.4	6.4
8	9.0	9.7	10	8.7	9.7	9.4	9.8	10	22	10	7.4	6.4
9	9.0	9.7	10	8.7	9.7	9.4	9.7	10	25	10	7.3	6.4
10	9.4	11	10	8.7	9.7	9.4	9.9	10	28	9.8	7.1	6.7
11	9.1	12	10	8.7	9.7	9.4	9.9	10	27	9.4	7.0	15
12	9.0	11	11	9.0	9.7	9.4	10	10	24	10	6.8	14
13	9.0	11	11	9.0	9.8	9.4	10	10	23	9.7	6.7	9.4
14	9.0	11	11	9.0	9.7	9.4	10	10	21	9.7	13	9.5
15	25	11	11	9.0	9.7	9.4	10	9.9	20	9.7	33	8.1
16	12	11	11	9.0	9.7	9.4	10	9.7	18	9.5	19	7.0
17	8.7	11	11	9.0	9.1	9.4	10	9.7	18	9.4	12	6.7
18	8.7	11	10	9.0	9.4	9.4	10	9.7	17	9.4	13	6.8
19	8.7	11	9.7	9.0	11	12	10	9.7	17	9.2	13	6.7
20	8.7	11	9.5	9.0	11	10	10	9.7	16	9.0	11	6.4
21	8.7	11	9.0	9.4	11	10	10	9.7	16	6.1	9.8	6.3
22	8.7	11	8.7	9.4	11	10	10	9.7	15	2.9	11	6.2
23	15	11	8.5	9.4	11	10	10	9.7	15	8.9	12	5.9
24	12	11	8.3	9.4	11	10	10	9.7	14	8.3	9.8	6.1
25	10	10	8.3	9.4	11	10	10	9.7	13	8.1	9.1	6.0
26	10	11	8.3	9.4	11	10	10	9.7	13	8.0	8.6	5.9
27	10	10	8.3	9.4	11	9.7	10	9.7	13	7.7	8.2	6.0
28	10	10	8.3	9.4	11	9.7	10	9.7	13	7.6	7.9	6.1
29	10	10	8.3	9.4	22	9.7	10	9.7	12	7.8	7.7	6.3
30	10	10	8.7	9.7	---	9.7	10	9.7	12	7.6	7.4	6.0
31	10	---	8.7	9.7	---	9.7	---	9.7	---	7.5	7.3	---
TOTAL	316.1	316.4	298.6	280.7	305.8	301.8	297.2	305.1	558.7	285.3	310.0	216.8
MEAN	10.2	10.5	9.63	9.05	10.5	9.74	9.91	9.84	18.6	9.20	10.0	7.23
MAX	25	12	11	9.7	22	12	10	10	28	12	33	15
MIN	8.7	9.7	8.3	8.7	9.1	9.4	9.7	9.7	9.7	2.9	6.7	5.9
AC-FT	627	628	592	557	607	599	589	605	1110	566	615	430
MEAN ‡	46.7	61.7	45.4	33.8	89.4	170	149	83.3	19.8	9.56	10.0	7.23
AC-FT ‡	2870	3670	2790	2080	5140	10440	8880	5120	1180	588	615	430

CAL YR 1975 TOTAL 32195.58 MEAN 88.2 MAX 940 MIN .86 AC-FT 63860 MEAN ‡ 215 AC-FT ‡ 155800
WTR YR 1976 TOTAL 3792.50 MEAN 10.4 MAX 33 MIN 2.9 AC-FT 7520 MEAN ‡ 60.3 AC-FT ‡ 43780

‡ Adjusted for diversions to Slate Creek tunnel.

11413510 NEW COLGATE POWERPLANT NEAR FRENCH CORRAL, CA

LOCATION.--Lat 39°19'51", long 121°11'23", in NE¼SE¼ sec.16, T.17 N., R.7 E., Yuba County, at powerplant on right bank of Yuba River, 0.3 mi (0.5 km) upstream from Dobbins Creek, and 2.3 mi (3.7 km) northwest of French Corral.

PERIOD OF RECORD.--October 1966 to current year. Records of daily discharge for October 1960 to September 1966 are available in files of Geological Survey. Prior to October 1969, published as "Colgate powerplant."

GAGE.--Recorded output from powerplant turbines.

REMARKS.--Water is diverted from North Yuba River at New Bullards Bar Dam (station 11413515). Colgate powerplant was rebuilt during the 1970 water year with an increased capacity. Browns Valley ditch diverted up to 10 ft^3/s (0.28 m^3/s) at times from the head of the penstock for use in irrigation. This diversion discontinued Oct. 31, 1973. See schematic diagram of Yuba River basin.

COOPERATION.--Records collected by Yuba County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--10 years, 1,259 ft^3/s (35.65 m^3/s) 912,100 acre-ft/yr (1.12 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,200 ft^3/s (119 m^3/s) June 2, 1971; no flow for several 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	3080	2300	2220	1220	0	319	75	234	295	853	524	705
2	2670	2540	2710	1510	372	676	362	18	507	881	183	369
3	2910	2650	2430	1020	152	162	53	1230	107	587	247	82
4	2570	2650	2310	1170	615	183	99	1100	391	666	595	299
5	2710	2760	2310	1180	628	112	297	520	482	732	265	295
6	2200	2320	2420	1020	376	0	254	211	520	329	626	0
7	1340	2550	2170	670	0	2.0	1030	603	406	258	682	319
8	2270	2170	2470	1160	25	8.0	106	379	425	612	572	480
9	2870	2720	2600	576	258	99	52	87	926	670	716	486
10	2640	2360	2330	80	208	397	61	390	421	619	741	0
11	1790	2300	2340	1.0	153	83	0	676	834	600	677	0
12	2710	2490	2270	591	169	87	215	1010	414	665	521	0
13	2060	2420	2300	737	654	11	2.0	784	215	248	0	860
14	2650	2710	2330	1070	46	12	0	548	372	169	0	459
15	2510	2050	2320	1170	312	248	0	484	1020	316	126	502
16	2660	2150	1340	727	286	456	0	73	623	304	346	312
17	2720	2100	2630	87	600	296	0	111	274	609	642	729
18	2580	2340	1890	888	229	512	0	274	366	542	498	459
19	2450	2640	1660	771	421	555	202	224	189	786	219	292
20	2520	2450	2020	736	284	377	342	287	0	177	310	441
21	3040	2320	1710	727	217	122	333	580	413	363	192	895
22	2670	2420	1580	942	110	424	210	258	371	816	303	615
23	2570	2290	1280	723	404	414	180	91	875	1300	639	888
24	2530	2860	1840	912	220	55	402	425	566	83	645	805
25	2640	2120	1220	631	394	143	71	357	622	107	580	413
26	1670	2700	1820	488	75	0	687	628	248	664	420	285
27	2520	2640	1520	1010	159	0	1160	269	243	705	71	580
28	2530	2150	1640	390	285	0	1040	38	574	587	0	804
29	2280	2500	906	158	26	468	687	0	377	394	105	551
30	2320	2320	1760	211	---	608	796	0	0	301	590	809
31	2730	---	1530	0	---	46	---	0	---	462	363	---
TOTAL	77410	72990	61876	22576.0	7678	6875.0	8716.0	11889	13076	16405	12398	13734
MEAN	2497	2433	1996	728	265	222	291	384	436	529	400	458
MAX	3080	2860	2710	1510	654	676	1160	1230	1020	1300	741	895
MIN	1340	2050	906	0	0	0	0	0	0	83	0	0
AC-FT	153500	144800	122700	44780	15230	13640	17290	23580	25940	32540	24590	27240

CAL YR 1975 TOTAL 762512.00 MEAN 2089 MAX 3640 MIN 0 AC-FT 1512000
WTR YR 1976 TOTAL 325623.00 MEAN 890 MAX 3080 MIN 0 AC-FT 645900

11413515 NEW BULLARDS BAR RESERVOIR NEAR NORTH SAN JUAN, CA

LOCATION.--Lat 39°23'34", long 121°08'25", in SE¼NW¼ sec.25, T.18 N., R.7 E., Yuba County, Plumas National Forest, in center of dam on North Yuba River, 2.2 mi (3.5 km) upstream from Middle Yuba River, and 2.4 mi (3.9 km) northwest of North San Juan.

DRAINAGE AREA.--489 mi^2 (1,267 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Yuba County Water Agency).

REMARKS.--Reservoir is formed by concrete-arch dam with a concrete-sidehill spillway. Spill controlled by three 30-ft (9.1 m) by 53-ft (16.2-m) radial gates. Storage began in January 1969. Usable capacity, 727,380 acre-ft (897 hm^3) between elevations 1,732.0 ft (527.91 m) minimum power pool, and 1,955.0 ft (595.88 m) normal gross pool. Dead storage, 233,920 acre-ft (288 hm^3). Total capacity at normal gross pool, 961,300 acre-ft (1.19 km^3), elevation, 1,955.0 ft (595.88 m). Water is released to Colgate powerplant through a tunnel at the dam. Water is diverted into the reservoir from Middle Yuba River via Lohman Ridge tunnel to Oregon Creek then via Camptonville tunnel. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Yuba River basin.

COOPERATION.--Records collected by Yuba County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 964,757 acre-ft (1.19 km^3) June 30, 1975, elevation, 1,955.72 ft (596.103 m); minimum since reservoir first filled, 271,801 acre-ft (335 hm^3) Jan. 28, 1976, elevation, 1,750.80 ft (533.644 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 612,453 acre-ft (755 hm^3) Oct. 1, elevation, 1,871.15 ft (570.327 m); minimum, 271,801 acre-ft (335 hm^3) Jan. 28, elevation, 1,750.80 ft (533.644 m).

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

1600	64900	1750	270110
1630	90570	1800	389980
1660	122990	1850	539750
1690	162980	1900	721130
1720	211770	1960	985471

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	612453	495696	387690	293290	273499	301609	349401	389169	417803	404590	378710	363113
2	607283	491481	383010	290935	273711	303618	349401	391866	417803	403208	378551	362599
3	601859	487288	379027	289697	273988	306197	351838	393084	418000	401943	378313	362650
4	597380	482962	375335	288284	273541	308497	353150	392136	418085	400850	377178	362342
5	592641	478202	372189	286856	273456	310577	354186	393761	417662	399781	376915	361829
6	589147	474231	368281	285365	272776	312479	355198	395797	417381	399454	375861	362086
7	587230	470584	365330	284490	273456	314486	354819	396996	416678	399207	374679	361572
8	582024	467708	361316	282965	274094	316336	356721	398578	416116	398114	373891	360803
9	577191	463521	357230	282530	274009	318027	358503	400987	414573	396804	372660	359985
10	574784	460643	353427	283727	274671	319064	360215	402938	414713	395933	371275	360291
11	573411	456614	349401	284272	274990	321026	362086	404040	413593	394845	370102	360880
12	569987	453347	345904	284054	275102	322498	363628	404095	413537	393869	369113	361418
13	565896	449801	342430	283356	274884	324260	365433	404095	413593	393381	369421	359960
14	561484	445391	338465	282095	276059	326004	367322	405866	413397	393246	369841	359269
15	557263	442757	334699	280366	276702	327082	369321	407190	411916	392813	370623	358503
16	553060	442465	332874	279498	277560	328043	371144	408576	411079	392407	370754	358121
17	547978	440685	328404	280146	277775	329488	372712	409687	411190	391326	369841	356975
18	543854	437396	325645	279174	278851	330816	374547	411358	410689	390381	369217	356238
19	539748	433473	322545	278635	280362	331904	375703	412195	410801	389018	369217	355959
20	535565	430309	319347	277775	281661	333068	376968	412866	411219	388791	368983	355198
21	530160	426704	316172	277345	282703	334650	378234	413005	410801	388147	368723	353680
22	525341	423175	314766	276059	283836	335723	379955	414012	410244	386483	368801	352670
23	521260	419580	313040	275204	283901	336774	381839	414433	408854	384610	367684	351033
24	516076	414713	310114	274350	284862	338489	383400	414657	408021	384610	366571	349652
25	512298	411358	308843	273605	284927	339226	385947	414853	407467	384634	365769	349100
26	514057	406775	305395	273371	286285	342183	386885	414713	407190	383383	365329	348575
27	511499	402636	303795	272012	286899	343817	386483	414433	407190	382211	365433	347150
28	507838	398933	301178	271801	288483	345406	386215	414993	406082	381095	365691	345904
29	504508	395118	300091	272224	295881	346053	386751	416116	405475	380617	365691	345157
30	502612	391056	297789	272437	---	346651	387287	416959	405916	380246	364736	343668
31	498204	---	295321	273073	---	346901	---	417662	---	379478	364220	---
MAX	612453	495696	387690	293290	295881	346901	387287	417662	418085	404590	378710	363113
MIN	498204	391056	295321	271801	272776	301609	349401	389169	405475	379478	364220	343668
†	1837.10	1800.40	1761.60	1751.87	1761.85	1783.40	1799.00	1810.05	1805.84	1796.07	1790.23	1782.10
‡	-118870	-107148	-95735	-22248	+22808	+51020	+40386	+30375	-11746	-26438	-15258	-20552

CAL YR 1975 ‡+163678
WTR YR 1976 ‡-273406

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

11413520 NORTH YUBA RIVER BELOW NEW BULLARDS BAR DAM, NEAR NORTH SAN JUAN, CA

LOCATION.--Lat 39°22'48", long 121°08'19", in SW¼NE¼ sec.36, T.18 N., R.7 E., Yuba County, Plumas National Forest, on right bank 1.1 mi (1.8 km) downstream from New Bullards Bar Dam, and 2 mi (3 km) northwest of North San Juan.

DRAINAGE AREA.--490 mi^2 (1,269 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gages. Altitude of gage is 1,280 ft (390 m), from topographic map.

REMARKS.--Records good. Flow regulated by New Bullards Bar Reservoir since 1969 (station 11413515). Colgate powerplant (station 11413510) diverts from New Bullards Bar Dam 1.1 mi (1.8 km) upstream. Water is diverted out of basin through Slate Creek tunnel (station 11413250). See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE (since construction of Bullards Bar Dam, unadjusted).--7 years, corrected, (water years 1970-76), 349 ft^3/s (9.88 m^3/s), 252,900 acre-ft/yr (312 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,200 ft^3/s (1,590 m^3/s) Jan. 22, 1970, gage height, 35.29 ft (10.756 m), from rating curve extended above 40,000 ft^3/s (1,130 m^3/s) on basis of computation of flow over old Colgate Dam; minimum daily, 0.42 ft^3/s (0.012 m^3/s) Nov. 5, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 49.8 ft (15.18 m) from floodmarks, discharge, 91,000 ft^3/s (2,580 m^3/s), from computation of flow over old Colgate Dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24 ft^3/s (0.68 m^3/s) Oct. 26, gage height, 5.91 ft (1.801 m); minimum daily, 4.8 ft^3/s (0.14 m^3/s) Mar. 24, June 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	6.3	6.5	6.1	6.2	6.2	7.1	5.5	5.9	5.5	4.9	5.9	5.6
2	6.3	6.6	6.0	6.3	6.3	6.1	5.5	5.9	5.5	5.1	5.9	5.6
3	6.3	6.6	6.1	6.2	6.4	5.9	5.6	5.8	5.5	5.1	6.0	5.6
4	6.4	6.6	6.4	6.2	6.4	5.6	5.7	5.8	5.7	5.0	6.2	5.6
5	6.6	6.5	7.6	6.3	6.6	5.6	5.7	5.7	5.5	5.2	6.2	5.6
6	7.0	6.4	6.7	6.4	6.4	5.6	5.8	5.7	5.4	5.2	6.2	5.6
7	7.0	6.8	6.4	6.4	6.5	5.4	5.9	5.8	5.5	5.1	6.2	5.6
8	6.8	6.7	6.2	6.0	6.4	5.3	7.3	5.7	5.5	5.1	6.2	5.6
9	6.8	6.8	6.1	6.0	6.4	5.3	6.2	5.6	5.4	5.2	6.2	5.6
10	11	8.3	6.2	6.0	6.4	5.4	6.5	5.7	5.6	5.4	6.2	5.6
11	7.0	7.1	6.1	6.0	6.4	5.3	6.5	5.8	5.5	5.5	6.2	6.0
12	5.9	6.9	7.8	6.0	6.4	5.3	6.5	5.8	5.5	5.4	6.0	5.9
13	5.6	6.9	6.7	6.0	7.1	5.3	6.1	5.9	5.6	5.4	6.0	5.7
14	5.5	6.9	6.2	6.0	6.9	5.3	5.9	5.8	5.4	5.5	6.0	5.7
15	5.5	8.9	6.2	6.0	7.1	5.2	6.1	5.8	5.3	5.6	6.0	5.7
16	5.5	9.4	6.3	6.1	8.1	5.3	5.9	5.7	5.2	5.5	5.9	5.6
17	5.5	7.4	6.4	6.1	7.3	5.3	6.0	5.8	5.2	5.4	5.9	5.6
18	5.5	6.8	6.4	6.1	6.6	5.3	6.0	5.8	5.2	5.6	5.8	5.6
19	5.7	6.8	6.4	6.1	7.9	5.2	5.9	6.0	5.3	5.7	5.7	5.6
20	5.8	6.9	6.5	6.1	6.6	5.2	6.0	5.9	5.3	5.6	5.7	5.7
21	5.9	6.9	6.6	6.1	6.3	5.1	5.9	5.8	5.0	5.8	5.7	5.7
22	5.8	6.9	7.5	6.1	6.2	5.0	5.9	5.8	5.3	5.9	5.8	5.7
23	6.0	6.8	6.8	6.1	5.9	4.9	6.1	5.7	5.2	5.8	5.7	5.7
24	6.2	6.8	6.6	6.1	5.9	4.8	6.0	5.7	5.2	5.8	5.7	5.7
25	6.7	6.6	6.6	6.1	5.8	4.9	6.0	5.8	5.2	5.8	5.6	5.7
26	13	6.4	6.6	6.2	5.9	5.0	5.9	5.7	5.2	5.9	5.6	5.7
27	7.4	6.5	6.5	6.2	5.8	4.9	5.9	5.6	5.0	5.9	5.6	5.7
28	6.5	6.2	6.4	6.2	5.7	4.9	6.0	5.5	5.1	5.8	5.6	5.7
29	6.4	6.2	6.3	6.2	8.8	4.9	5.9	5.6	4.9	5.8	5.6	5.7
30	9.8	6.2	6.4	6.2	---	5.1	6.0	5.5	4.8	5.9	5.6	5.7
31	7.1	---	6.2	6.2	---	5.5	---	5.6	---	5.9	5.6	---
TOTAL	208.8	207.3	201.3	190.2	190.7	165.0	180.2	178.2	159.5	170.8	182.5	170.1
MEAN	6.74	6.91	6.49	6.14	6.58	5.32	6.01	5.75	5.32	5.51	5.89	5.67
MAX	13	9.4	7.8	6.4	8.8	7.1	7.3	6.0	5.7	5.9	6.2	6.0
MIN	5.5	6.2	6.0	6.0	5.7	4.8	5.5	5.5	4.8	4.9	5.6	5.6
AC-FT	414	411	399	377	378	327	357	353	316	339	362	337

CAL YR 1975 TOTAL 2846.5 MEAN 7.80 MAX 26 MIN 5.5 AC-FT 5650
WTR YR 1976 TOTAL 2204.6 MEAN 6.02 MAX 13 MIN 4.8 AC-FT 4370

11413520 NORTH YUBA RIVER BELOW NEW BULLARDS BAR DAM, NEAR NORTH SAN JUAN, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1966 to September 1969, July 1971 to current year.

INSTRUMENTATION.--Temperature recorder October 1966 to September 1969, and since July 1971.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1967-69, 1972-76), 25.0°C July 7, 9, 21, 1968; minimum, 2.0°C on many days in 1967 and 1968.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 19.0°C July 26, 27; minimum, 5.5°C Dec. 20, Jan. 1-4.

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	14.0	12.5	9.0	8.0	7.5	7.0	6.5	5.5	7.5	7.0	9.5	9.0
2	14.0	12.5	9.0	8.0	7.5	7.0	6.0	5.5	7.5	7.0	9.0	8.5
3	14.0	12.5	9.0	8.0	7.5	7.0	6.0	5.5	8.0	7.0	9.5	8.5
4	14.0	12.5	9.0	8.0	8.0	7.0	6.0	5.5	7.5	6.0	9.0	8.5
5	14.0	12.5	9.0	8.5	8.0	8.0	6.5	6.0	6.5	6.0	9.5	8.0
6	13.5	12.5	10.0	9.0	8.5	8.0	6.5	6.5	6.5	6.0	9.5	8.5
7	12.5	11.5	9.5	9.0	8.0	7.5	6.5	6.0	6.5	6.0	9.5	8.5
8	12.0	10.5	9.5	9.0	8.0	7.5	6.5	6.0	7.0	6.0	10.5	9.0
9	11.5	11.0	9.0	8.0	8.0	7.5	7.0	6.5	7.5	6.5	10.5	9.5
10	11.0	10.5	9.0	8.5	8.0	7.5	7.0	6.0	7.5	6.5	11.0	9.5
11	11.0	10.0	8.5	7.5	8.0	7.5	7.0	6.5	7.5	6.5	11.0	9.5
12	11.0	9.5	8.0	7.5	8.0	7.5	7.0	6.5	8.0	7.0	10.5	9.5
13	11.0	10.0	8.0	7.5	7.5	7.5	7.0	6.5	8.0	7.0	11.0	9.5
14	11.0	9.5	8.0	7.5	7.0	6.5	7.0	6.5	8.0	8.0	11.0	10.0
15	11.0	9.5	8.5	8.0	6.5	6.0	7.5	6.5	8.0	7.5	11.5	10.0
16	11.0	9.5	8.5	8.0	6.5	6.0	7.5	6.5	7.5	7.5	12.0	10.5
17	11.0	10.0	8.0	7.5	6.5	6.0	7.5	6.5	8.5	8.0	12.0	10.5
18	11.5	10.0	7.5	7.0	6.5	6.0	7.5	6.5	9.0	8.5	11.5	10.5
19	11.5	10.0	7.0	6.5	6.5	6.0	7.5	6.5	9.0	8.0	10.5	9.5
20	11.5	10.0	7.5	7.0	6.0	5.5	7.5	6.5	8.5	7.5	11.0	9.5
21	11.5	10.0	7.5	7.0	6.5	6.0	7.5	6.5	9.0	7.5	11.0	9.5
22	11.5	10.5	7.0	6.5	7.0	6.5	7.5	6.5	9.0	8.0	11.0	10.0
23	10.0	9.0	7.0	6.5	7.0	6.5	7.0	6.5	9.0	8.0	11.0	10.0
24	9.5	8.5	7.5	6.5	7.0	6.5	7.5	6.5	9.0	8.0	10.5	10.0
25	9.5	8.5	7.5	7.0	7.0	7.0	7.0	6.0	9.0	8.5	10.0	9.0
26	9.5	9.0	7.5	7.0	7.5	7.0	7.0	6.0	9.5	8.5	10.0	9.0
27	9.5	8.5	7.5	7.0	7.5	7.5	7.0	6.0	9.5	9.0	10.0	9.0
28	9.0	8.0	7.5	7.0	7.5	7.0	7.0	6.5	10.0	9.5	10.0	9.0
29	9.0	7.5	7.0	6.5	7.5	7.5	7.5	6.5	10.0	9.5	10.5	8.5
30	9.0	8.5	7.5	6.5	7.5	7.5	7.5	6.5	---	---	10.5	9.0
31	9.0	8.0	---	---	7.0	6.5	7.5	6.5	---	---	10.5	9.5
MONTH	14.0	7.5	10.0	6.5	8.5	5.5	7.5	5.5	10.0	6.0	12.0	8.0

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

11413700 YUBA RIVER BELOW COLGATE POWERHOUSE, NEAR FRENCH CORRAL, CA

LOCATION.--Lat 39°19'48", long 121°11'40", in NW¼SE¼ sec.16, T.17 N., R.7 E., Yuba County, on right bank 300 ft (90 m) upstream from Dobbins Creek, 0.3 mi (0.5 km) downstream from Colgate powerhouse, and 2.4 mi (3.9 km) northwest of French Corral.

DRAINAGE AREA.--717 mi^2 (1,857 km^2).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1974 to current year.

INSTRUMENTATION.--Temperature recorder since Oct. 9, 1974.

REMARKS.--Stream temperatures are affected by operation of Colgate powerplant.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 27.0°C July 25, 1976; minimum, 4.0°C Feb. 7, 1976.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.0°C July 25; minimum, 4.0°C Feb. 7.

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	7.0	7.0	13.0	12.0	7.5	7.5	8.0	7.5	7.5	5.5	9.0	7.0
2	7.0	7.0	12.5	12.0	7.5	7.5	8.0	7.0	8.5	6.0	7.0	7.0
3	7.5	7.0	12.5	12.5	7.5	7.5	7.5	7.0	8.5	6.0	9.0	6.5
4	7.5	7.5	12.5	12.5	7.5	7.5	7.5	7.0	7.0	6.5	8.5	6.0
5	7.5	7.5	13.0	7.5	7.5	7.5	7.5	7.0	8.0	5.5	9.5	6.0
6	8.0	7.5	7.5	7.5	7.5	7.5	7.5	7.5	8.0	5.0	8.5	6.0
7	8.5	7.5	7.5	7.5	8.0	7.5	7.5	7.0	5.5	4.0	9.0	6.0
8	8.0	8.0	7.5	7.5	7.5	7.5	7.5	7.0	7.5	4.5	10.0	7.5
9	8.0	8.0	7.5	7.5	8.0	7.5	7.5	5.5	8.5	5.5	11.0	7.5
10	8.5	8.0	7.5	7.5	8.0	7.5	8.5	5.5	8.0	5.5	9.5	6.5
11	9.5	8.5	7.5	7.5	8.0	7.5	6.5	5.5	8.0	5.5	12.0	7.0
12	9.0	8.5	7.5	7.5	8.0	7.5	7.5	5.5	9.0	6.0	11.0	7.0
13	9.0	8.5	7.5	7.5	8.0	7.5	8.0	7.0	7.5	6.0	11.5	7.0
14	9.0	9.0	7.5	7.5	8.0	7.5	7.5	7.0	7.5	7.0	12.0	7.5
15	9.5	9.0	7.5	7.5	8.0	7.5	7.5	7.0	8.0	7.0	10.0	7.0
16	9.5	9.0	7.5	7.5	8.0	7.5	7.5	6.0	7.5	7.0	9.5	7.0
17	9.5	9.5	7.5	7.5	8.0	8.0	8.0	6.0	7.5	7.0	12.5	6.5
18	10.0	9.5	7.5	7.0	8.0	7.5	7.5	6.0	8.0	7.0	11.5	6.5
19	10.0	9.5	7.5	7.5	8.0	7.5	8.0	7.0	8.5	7.0	10.0	6.5
20	10.0	10.0	7.5	7.5	8.0	7.5	7.5	6.0	7.5	6.5	10.5	6.5
21	10.5	10.0	7.5	7.5	8.0	7.5	7.5	6.0	8.0	6.0	12.5	7.0
22	10.5	10.5	7.5	7.5	8.0	7.5	7.5	7.0	8.5	6.5	10.0	6.5
23	10.5	10.5	7.5	7.5	8.0	5.5	7.5	7.0	7.0	6.5	9.5	6.5
24	11.0	10.5	7.5	7.5	8.0	7.5	7.5	7.0	8.0	6.0	11.5	7.5
25	11.0	10.5	7.5	7.5	8.0	7.5	7.5	7.0	7.5	7.0	11.5	7.0
26	11.5	11.0	7.5	7.5	8.0	7.5	7.5	6.5	9.0	7.0	12.0	7.0
27	11.5	11.0	7.5	7.5	8.0	7.5	7.0	6.0	10.5	7.0	13.0	9.5
28	11.5	11.0	7.5	7.5	8.0	7.5	8.0	6.5	9.5	7.0	13.5	10.0
29	11.5	11.5	7.5	7.5	8.0	7.5	7.5	5.0	10.0	7.5	13.0	6.5
30	12.0	11.5	7.5	7.5	8.0	7.5	7.5	5.5	---	---	11.5	6.5
31	12.0	12.0	---	---	8.0	7.5	7.5	5.5	---	---	11.5	6.5
MONTH	12.0	7.0	13.0	7.0	8.0	5.5	8.5	5.0	10.5	4.0	13.5	6.0

11413700 YUBA RIVER BELOW COLGATE POWERHOUSE, NEAR FRENCH CORRAL, CA--Continued

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	12.5	7.0	15.0	7.5	19.5	7.0	21.0	7.0	21.5	7.5	19.5	7.5
2	12.0	6.5	20.0	9.0	18.0	7.0	9.0	7.0	25.0	7.5	23.5	7.5
3	11.5	7.0	16.5	7.0	20.0	9.0	9.0	7.5	19.0	8.0	22.0	9.5
4	11.0	6.5	16.0	7.0	18.0	7.0	19.0	7.0	18.5	7.5	24.5	8.0
5	9.5	6.5	16.5	7.0	17.0	7.0	10.0	7.0	19.0	8.5	23.0	7.5
6	9.5	6.5	17.0	8.0	16.5	7.0	19.5	7.0	18.5	7.5	23.5	17.0
7	9.5	6.5	16.5	7.0	17.0	7.0	21.5	7.5	18.5	7.5	23.5	7.5
8	11.5	6.5	17.5	7.0	16.5	7.0	20.5	7.0	19.0	7.5	19.0	8.0
9	12.5	8.0	22.5	7.0	17.0	7.0	21.0	7.0	18.5	7.5	20.0	8.0
10	10.5	7.0	18.5	7.0	16.0	7.0	22.0	7.0	19.5	7.5	22.0	18.0
11	12.5	9.5	18.5	7.0	15.0	7.0	22.0	7.0	20.0	7.5	21.0	20.0
12	11.0	6.5	18.5	7.0	16.5	7.5	20.5	7.0	19.5	7.5	22.0	19.0
13	14.0	8.5	20.0	7.0	19.0	8.0	21.0	7.5	23.5	17.5	20.0	7.5
14	16.0	11.0	20.5	7.0	14.0	7.0	25.0	7.5	21.5	20.0	19.5	8.0
15	14.5	12.0	19.0	7.0	20.0	7.0	24.0	7.5	20.0	9.5	18.5	8.0
16	14.0	10.5	21.0	9.5	21.5	7.0	24.0	7.5	18.5	7.5	18.0	8.0
17	13.5	10.5	20.0	8.0	21.0	7.5	22.0	7.0	17.5	7.5	17.0	8.0
18	15.0	11.5	18.5	7.5	21.0	7.0	24.0	7.0	17.5	7.5	17.5	8.0
19	14.0	7.5	17.5	8.0	21.5	7.5	21.5	7.5	18.0	8.5	20.0	8.0
20	13.0	7.0	17.5	7.5	24.5	20.5	24.0	7.5	21.0	8.0	17.0	8.0
21	14.5	6.5	17.0	7.0	22.0	7.0	21.0	7.5	24.5	7.5	17.0	8.0
22	14.0	7.0	18.5	7.5	19.5	7.0	20.0	7.0	19.5	8.5	16.5	8.0
23	14.5	7.5	21.5	7.0	20.0	7.0	21.5	7.5	19.0	8.0	15.5	8.0
24	14.5	6.5	18.5	7.5	21.5	6.5	26.5	8.5	20.0	7.5	15.0	8.0
25	17.0	7.5	18.5	7.0	21.5	6.5	27.0	8.5	19.5	8.0	15.5	8.0
26	12.0	6.5	17.5	7.0	23.0	7.5	22.5	7.5	19.5	8.0	18.0	8.0
27	7.5	6.5	19.5	7.0	24.5	7.0	23.0	7.5	23.0	10.0	16.5	8.0
28	7.5	6.5	21.0	10.0	20.0	7.0	23.0	7.5	24.5	18.5	17.5	8.0
29	8.5	6.5	21.0	18.0	20.5	7.0	22.0	7.5	24.5	8.5	18.5	8.0
30	13.5	7.0	20.5	18.0	23.5	15.5	23.5	7.5	19.0	7.5	16.5	8.0
31	---	---	21.5	18.5	---	---	21.5	7.5	22.0	8.0	---	---
MONTH	17.0	6.5	22.5	7.0	24.5	6.5	27.0	7.0	25.0	7.5	24.5	7.5

11414000 SOUTH YUBA RIVER NEAR CISCO, CA

LOCATION.--Lat 39°19'12", long 120°33'38", in SE¼SW¼ sec.19, T.17 N., R.13 E., Nevada County, on right bank 0.7 mi (1.1 km) downstream from Rattlesnake Creek, 1.3 mi (2.1 km) west of Cisco Grove, and 1.5 mi (2.4 km) northwest of Cisco.

DRAINAGE AREA.--51.8 mi^2 (134.2 km^2).

PERIOD OF RECORD.--April 1942 to current year. Prior to October 1949, published as South Fork Yuba River near Cisco.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,520 ft (1,682 m), from river-profile map. Prior to October 1945, water-stage recorder at site 200 ft (61 m) upstream at same datum.

REMARKS.--Records excellent. Low flow regulated by Lake Van Norden, capacity, 4,320 acre-ft (5.33 hm^3), 5,260 acre-ft (6.49 hm^3) with flashboards. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--34 years, 199 ft^3/s (5.636 m^3/s), 144,200 acre-ft/yr (178 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft^3/s (521 m^3/s) Jan. 31, 1963, gage height, 19.6 ft (5.97 m) from floodmarks in gage house, 20.6 ft (6.28 m) from outside floodmarks, from rating curve extended above 4,600 ft^3/s (130 m^3/s) on basis of slope-area measurement at gage height 15.8 ft (4.81 m); minimum daily, 0.1 ft^3/s (0.003 m^3/s) Nov. 5-7, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,350 ft^3/s (38.2 m^3/s) Oct. 26, gage height, 6.20 ft (1.890 m), no peak above base of 1,500 ft^3/s (42.5 m^3/s); minimum daily, 9.9 ft^3/s (0.28 m^3/s) July 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	58	104	42	47	50	90	108	476	48	12	14	28
2	57	110	55	45	51	86	104	405	42	12	14	27
3	56	101	59	45	52	81	132	421	38	12	14	27
4	56	93	56	43	48	77	144	480	33	12	14	27
5	55	89	62	44	45	74	154	462	30	12	14	27
6	61	78	62	42	45	68	112	411	28	11	26	26
7	62	270	56	41	45	69	107	434	26	11	30	26
8	55	170	56	41	45	74	147	459	25	11	30	25
9	53	97	57	41	45	82	123	409	29	11	30	25
10	86	78	52	41	48	95	128	388	42	10	29	34
11	81	71	46	41	47	107	117	412	42	10	29	51
12	65	71	48	41	47	95	111	404	34	10	29	42
13	61	82	47	40	47	94	104	412	29	9.9	29	38
14	60	89	42	41	47	102	106	380	25	12	37	36
15	65	88	41	43	47	114	125	292	22	16	57	35
16	62	399	45	49	52	143	100	255	20	17	40	39
17	61	158	45	57	51	184	92	225	19	17	33	50
18	58	95	44	54	50	194	103	188	18	17	35	49
19	53	84	42	49	50	135	149	160	18	17	33	48
20	51	70	45	46	50	119	259	139	17	17	32	46
21	47	60	45	46	53	135	308	126	16	17	31	44
22	53	50	47	45	53	158	329	112	16	16	32	43
23	49	49	46	45	52	165	344	102	15	15	32	40
24	43	47	49	44	50	148	378	92	15	15	30	34
25	42	48	51	44	50	123	356	87	14	14	30	26
26	727	46	51	41	50	110	250	81	14	14	29	19
27	199	44	52	41	57	103	205	74	13	14	29	18
28	100	43	58	42	92	98	191	69	13	14	29	17
29	80	42	77	45	92	96	254	58	13	14	29	16
30	98	41	70	47	---	112	393	52	12	14	28	14
31	105	---	57	49	---	149	---	51	---	14	28	---
TOTAL	2759	2867	1605	1380	1511	3480	5533	8116	726	417.9	896	977
MEAN	89.0	95.6	51.8	44.5	52.1	112	184	262	24.2	13.5	28.9	32.6
MAX	727	399	77	57	92	194	393	480	48	17	57	51
MIN	42	41	41	40	45	68	92	51	12	9.9	14	14
AC-FT	5470	5690	3180	2740	3000	6900	10970	16100	1440	829	1780	1940

CAL YR 1975 TOTAL 79044.3 MEAN 217 MAX 1690 MIN 9.7 AC-FT 156800
WTR YR 1976 TOTAL 30267.9 MEAN 82.7 MAX 727 MIN 9.9 AC-FT 60040

11414100 FORDYCE CREEK BELOW FORDYCE DAM, NEAR CISCO, CA

LOCATION.--Lat 39°22'45", long 120°29'52", in NW¼SE¼ sec.34, T.18 N., R.13 E., Nevada County, Tahoe National Forest, on right bank 850 ft (259 m) downstream from Fordyce Dam, and 5.3 mi (8.5 km) northeast of Cisco.

DRAINAGE AREA.--31.7 mi^2 (82.1 km^2).

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

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

REMARKS.--Flow regulated by Fordyce Lake, usable capacity, 46,662 acre-ft (57.5 hm^3). See schematic diagram of Yuba 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.--10 years, 130 ft^3/s (3.682 m^3/s), 94,180 acre-ft/yr (116 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,660 ft^3/s (132 m^3/s) July 9, 1974, gage height, 7.90 ft (2.408 m) in gage well, 6.82 ft (2.079 m) from high-water marks, from rating curve extended above 1,000 ft^3/s (28.3 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 5.3 ft^3/s (0.15 m^3/s) Jan. 8, 9, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 504 ft^3/s (14.3 m^3/s) Oct. 1, gage height, 3.84 ft (1.170 m); minimum daily, 5.4 ft^3/s (0.15 m^3/s) Nov. 8-11.

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	492	351	7.4	11	12	14	16	23	36	36	34	32
2	486	346	7.4	11	12	14	16	24	37	36	34	32
3	486	342	8.7	11	12	14	16	24	37	36	34	32
4	480	332	9.6	11	12	14	16	25	37	36	34	32
5	480	328	10	11	12	14	17	26	37	36	34	32
6	474	323	10	11	12	14	17	27	37	36	34	32
7	468	153	10	11	12	14	16	27	37	36	34	32
8	462	5.4	10	11	12	14	17	27	37	36	34	32
9	462	5.4	10	11	12	14	17	28	37	36	34	31
10	462	5.4	10	11	12	14	17	29	37	36	34	31
11	456	5.4	10	11	12	14	17	30	37	36	34	32
12	451	5.8	10	11	12	14	17	30	37	36	34	32
13	445	6.1	10	11	12	14	17	32	37	36	34	32
14	434	6.3	10	12	12	14	17	32	37	36	33	32
15	434	6.3	10	12	12	15	18	33	36	36	34	32
16	428	9.0	11	12	12	15	17	33	36	36	34	31
17	423	7.2	11	12	12	15	17	34	36	36	33	31
18	417	7.2	11	12	13	15	17	34	36	35	33	30
19	412	7.2	11	12	13	15	17	35	36	35	33	30
20	407	7.2	11	12	13	15	18	35	36	35	33	30
21	401	7.2	11	12	13	15	18	35	36	35	33	30
22	396	7.2	11	12	13	15	19	35	36	35	33	30
23	391	7.2	11	12	13	16	20	35	36	35	33	30
24	386	7.2	11	12	13	16	21	35	36	35	32	30
25	381	7.4	11	12	13	16	21	35	36	35	32	30
26	391	7.4	11	12	13	16	21	35	36	35	32	30
27	381	7.4	11	12	13	16	21	36	36	35	32	30
28	376	7.4	11	12	15	16	21	36	36	34	32	30
29	371	7.4	11	12	15	16	22	36	36	34	32	30
30	366	7.4	11	12	---	16	23	36	36	34	32	30
31	361	---	11	12	---	16	---	36	---	34	32	---
TOTAL	13260	2332.1	319.1	359	364	460	544	978	1093	1098	1030	930
MEAN	428	77.7	10.3	11.6	12.6	14.8	18.1	31.5	36.4	35.4	33.2	31.0
MAX	492	351	11	12	15	16	23	36	37	36	34	32
MIN	361	5.4	7.4	11	12	14	16	23	36	34	32	30
AC-FT	26300	4630	633	712	722	912	1080	1940	2170	2180	2040	1840

CAL YR 1975	TOTAL	54508.3	MEAN 149	MAX 1060	MIN 5.4	AC-FT	108100	
WTR YR 1976	TOTAL	22767.2	MEAN 62.2	MAX 492	MIN 5.4	AC-FT	45160	

11414140 LAKE SPAULDING NEAR EMIGRANT GAP, CA

LOCATION.--Lat 39°19'35", long 120°38'32", in SE¼NE¼ sec.20, T.17 N., R.12 E., Nevada County, on left abutment of Spaulding Dam on South Yuba River, 2.5 mi (4.0 km) northeast of Emigrant Gap.

DRAINAGE AREA.--118 mi^2 (306 km^2).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,809.6 ft (1,465.97 m) above mean sea level (levels by Pacific Gas and Electric Co.). Prior to July 1968, nonrecording gage at same site and datum.

REMARKS.--Lake is formed by three concrete-arch dams with spillway on the middle arch. Storage began in 1913. Capacity, 74,773 acre-ft (92.20 hm^3) between gage heights 0.6 ft (0.18 m), bottom of outlet and 205.0 ft (62.48 m), top of radial gates. Released water flows through Spaulding powerhouses Nos. 1 and 2. Flow through powerhouse No. 1 is transported out of Yuba River basin by Drum Canal to Bear River basin. See schematic diagrams of Yuba River and Bear River basins.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Power Commission Project. Contents not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 75,100 acre-ft (92.6 hm^3) July 13, 1967, gage height, 205.5 ft (62.64 m); minimum, 914 acre-ft (1.13 hm^3) Feb. 28, 1976, gage height, 25.5 ft (7.77 ft).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 59,861 acre-ft (73.8 hm^3) June 9, gage height, 182.3 ft (55.57 m); minimum, 914 acre-ft (1.13 hm^3) Feb. 28, gage height, 25.5 ft (7.77 m).

Capacity table (gage height, in feet, and contents, in acre-feet)

11	329	50	4578
15	427	70	9632
20	566	100	19541
25	874	150	41545
30	1352	200	71329
40	2742	206	75473

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 1600

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33331	31358	11880	11045	6596	1775	2404	25255	56510	45512	40413	33751
2	33005	31087	11507	11168	6596	1711	3166	27205	57112	44705	40311	33471
3	32728	30862	11260	11600	6374	1711	3613	28270	57717	44705	40006	33098
4	32498	30683	10710	12068	5941	1442	4219	30193	58265	44545	39853	31994
5	32222	30282	10528	12068	5389	1755	4974	30997	58753	44331	39650	31994
6	32039	29927	10167	11291	4932	1841	5389	32959	59244	44224	39448	31087
7	31857	30282	9750	10588	5017	1660	5870	33892	59429	44068	39650	30683
8	31766	30237	9544	9988	4996	1736	6423	35171	59491	43799	39853	29927
9	31132	29050	9367	9544	4722	1685	7105	36619	59861	43640	39752	29575
10	31267	28443	9250	9988	4239	1755	7765	37502	59675	43534	39701	29181
11	31267	27417	9134	10377	3874	1711	8256	38945	59675	43428	39499	28876
12	31811	26533	9134	10347	3761	1775	8875	40618	59491	43164	39246	28443
13	31539	25911	9544	9602	3761	1711	9250	41493	58753	43164	39095	28056
14	31403	25133	10047	9105	3761	1749	9809	43006	57960	43111	39196	27417
15	31267	24446	10197	8201	3780	1749	10588	44171	57293	43006	38894	27163
16	31132	25052	9988	8009	3836	1815	10953	45027	56390	42743	38894	26492
17	30683	24607	9780	8507	3613	1815	11631	45783	55852	42953	38644	25255
18	30460	23808	9573	8990	4477	1802	12288	46764	54842	43217	37996	24930
19	30193	23296	9602	9105	4437	1525	12573	47423	54018	43111	37601	24007
20	29839	21941	10137	8479	3893	1408	13342	48252	53199	42638	37403	23335
21	29663	21029	10558	7846	2841	1711	14453	49145	52735	42272	38096	22828
22	29224	20058	11076	7131	2267	1788	15456	49651	52042	41804	38046	21864
23	28702	19395	11260	6849	1950	2091	16687	50215	51296	41545	37947	21331
24	28270	18380	11260	7002	1841	2048	17845	51582	50555	41804	37551	20466
25	27842	17562	10862	7157	1141	2267	18813	52214	49763	42168	36815	19984
26	32176	16445	10710	7157	1064	2048	20466	52793	48642	41597	36327	19212
27	32636	15591	10923	6874	1141	1923	20728	53374	47920	41132	35940	18740
28	32360	14453	11260	6547	914	1992	21559	54018	47093	40516	35699	17916
29	32222	13764	11229	6325	1466	1848	22286	54665	46218	40260	35028	17140
30	31675	12700	11045	6227	---	2020	23453	55316	45351	40006	34457	16033
31	31493	---	10649	6423	---	2178	---	55911	---	40107	34127	---
MAX	33331	31358	11880	12068	6596	2267	23453	55911	59861	45512	40413	33751
MIN	27842	12700	9134	6227	914	1408	2404	25255	45351	40006	34127	16033
†	129.3	80.0	73.4	58.2	25.5	36.4	110.3	175.8	157.2	147.2	135.0	90.1
‡	-2211	-18793	-2051	-4226	-4957	+712	+21275	+32458	-10560	-5244	-5980	-18094

CAL YR 1975 ‡ +691
WTR YR 1976 ‡ -17671

† Gage-height, in feet, at end of month.
‡ Change in contents, in acre-feet.

11414170 DRUM CANAL AT TUNNEL OUTLET, NEAR EMIGRANT GAP, CA

LOCATION.--Lat 39°19'03", long 120°39'08", in SE¼SW¼ sec.20, T.17 N., R.12 E., Nevada County, Tahoe National Forest, 100 ft (30 m) downstream from tunnel outlet, 1.0 mi (1.6 km) downstream from Spaulding No. 1 powerhouse, and 1.7 mi (2.7 km) northeast of Emigrant Gap.

PERIOD OF RECORD.--October 1964 to current year. Prior to October 1972, published as "Drum Canal at intake."

GAGE.--Water-stage recorder. Altitude of gage is 4,880 ft (1,487 m), from topographic map. Prior to Oct. 1, 1968, in powerhouse 0.7 mi (1.1 km) upstream at different datum.

REMARKS.--Canal diverts from Spaulding No. 1 powerhouse at Lake Spaulding Dam. Water is used for irrigation and power in the Bear River basin. See schematic diagrams of Yuba River and Bear River basins.

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.--12 years, 536 ft^3/s (15.18 m^3/s), 388,300 acre-ft/yr (479 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 848 ft^3/s (24.0 m^3/s) May 12, 1975; no flow for several 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	797	798	683	109	99	251	235	6.1	7.6	293	111	486
2	800	796	484	254	209	279	142	6.0	9.0	292	321	496
3	800	797	516	109	288	270	88	6.1	11	292	402	503
4	800	797	512	109	295	258	6.3	6.2	13	301	397	490
5	800	795	514	428	395	202	6.3	6.0	13	301	400	492
6	800	795	517	611	306	208	7.6	5.7	13	653	312	497
7	800	794	514	596	113	221	7.8	5.3	152	310	102	501
8	800	797	439	583	113	239	8.1	5.3	296	299	102	509
9	800	797	393	463	236	278	8.4	5.3	306	306	381	498
10	790	795	392	148	300	283	9.1	4.0	311	307	509	502
11	780	798	391	110	215	265	9.4	3.2	307	308	507	497
12	800	792	288	425	112	261	9.4	3.2	304	307	495	484
13	800	790	105	600	91	253	9.4	3.2	304	436	346	492
14	780	794	106	598	98	238	9.4	4.3	304	314	93	514
15	786	793	289	602	98	222	9.4	6.0	464	311	97	512
16	797	794	400	442	99	213	9.4	6.0	307	258	421	506
17	799	792	399	121	101	294	9.8	6.0	523	117	501	500
18	796	793	398	105	201	404	10	6.0	314	115	476	496
19	794	789	274	411	319	438	10	6.0	311	388	497	488
20	794	788	115	599	354	365	10	6.0	309	500	352	487
21	794	785	116	597	362	289	10	6.0	308	410	104	510
22	789	793	111	598	332	282	11	6.0	307	409	103	503
23	794	801	296	364	237	277	11	6.0	307	473	396	494
24	797	800	408	107	242	323	12	6.0	304	115	500	485
25	795	798	407	102	274	292	12	6.0	642	115	493	476
26	779	801	406	223	258	302	12	7.7	297	459	486	468
27	791	788	217	294	217	273	12	5.2	301	516	488	460
28	793	783	202	296	233	274	13	7.4	637	481	501	454
29	794	780	409	294	249	259	13	7.6	298	498	500	445
30	789	783	546	226	---	258	6.3	7.6	297	304	533	435
31	787	---	459	99	---	233	---	7.6	---	105	550	---
TOTAL	24615	23796	11306	10623	6446	8504	727.1	179.0	8276.6	10293	11476	14680
MEAN	794	793	365	343	222	274	24.2	5.77	276	332	370	489
MAX	800	801	683	611	395	438	235	7.7	642	653	550	514
MIN	779	780	105	99	91	202	6.3	3.2	7.6	105	93	435
AC-FT	48820	47200	22430	21070	12790	16870	1440	355	16420	20420	22760	29120

CAL YR 1975 TOTAL 207010.60 MEAN 567 MAX 848 MIN 0 AC-FT 410600
WTR YR 1976 TOTAL 130921.70 MEAN 358 MAX 801 MIN 3.2 AC-FT 259700

11414190 DRUM CANAL ABOVE DRUM FOREBAY, NEAR BLUE CANYON, CA

LOCATION.--Lat 39°15'50", long 120°43'47", in NE¼SW¼ sec.10, T.16 N., R.11 E., Placer County, on right bank 1.2 mi (1.9 km) west of Blue Canyon, and 1.5 mi (2.4 km) upstream from Drum Forebay.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,800 ft (1,463 m), from topographic map.

REMARKS.--Flow represents water diverted from South Yuba River through Spaulding No. 1 powerplant plus diversion from North Fork American River basin by way of Lake Valley Canal (station 11426190). Water from Drum Canal enters the Bear River at Drum Forebay. See schematic diagrams of Yuba River and Bear River basins.

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.--12 years, 543 ft^3/s (15.38 m^3/s), 393,400 acre-ft/yr (485 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 808 ft^3/s (22.9 m^3/s) June 14, 1975, Oct. 24, 1975; 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	797	804	719	133	106	241	234	22	0	303	111	486
2	800	802	523	255	219	287	118	21	0	303	320	496
3	800	802	558	139	221	290	37	19	0	295	401	503
4	800	802	552	142	304	264	33	20	0	310	403	490
5	799	801	541	389	335	217	33	20	0	311	402	492
6	798	801	515	591	251	238	33	20	0	451	328	497
7	794	802	506	580	125	262	33	19	82	318	102	501
8	795	804	451	569	124	252	12	19	205	311	102	509
9	797	804	402	473	157	272	19	19	246	314	380	498
10	795	796	417	168	308	284	19	13	323	317	510	502
11	784	805	402	124	225	268	20	0	320	317	516	500
12	790	797	312	381	118	281	19	0	316	318	516	485
13	789	795	117	583	99	292	20	0	315	450	345	493
14	790	799	118	581	107	293	21	0	315	329	93	521
15	795	800	281	583	107	293	20	10	458	330	97	531
16	805	802	404	444	108	295	19	9.6	321	263	420	529
17	807	799	403	135	108	299	20	5.4	510	117	500	524
18	805	796	398	115	230	450	21	.21	326	115	475	520
19	803	793	308	395	336	473	21	0	325	389	500	513
20	802	794	128	581	322	414	22	0	324	528	350	514
21	802	792	129	579	213	270	25	0	322	445	104	534
22	800	796	125	580	245	176	26	0	320	442	103	518
23	806	804	285	340	249	232	27	0	317	506	396	523
24	808	803	410	116	209	196	27	0	435	80	500	514
25	807	801	409	108	287	194	28	0	441	110	493	505
26	798	803	408	238	268	169	26	0	369	435	486	497
27	800	796	246	305	211	271	23	0	311	552	488	488
28	787	789	189	304	234	285	22	0	468	490	501	482
29	803	792	410	302	253	262	29	0	310	495	500	473
30	802	788	518	230	---	236	21	0	306	321	533	462
31	802	---	498	106	---	234	---	0	---	105	550	---
TOTAL	24760	23962	11682	10569	6079	8490	1028	217.21	7985	10370	11525	15100
MEAN	799	799	377	341	210	274	34.3	7.01	266	335	372	503
MAX	808	805	719	591	336	473	234	22	510	552	550	534
MIN	784	788	117	106	99	169	12	0	0	80	93	462
AC-FT	49110	47530	23170	20960	12060	16840	2040	431	15840	20570	22860	29950

CAL YR 1975 TOTAL 209523.00 MEAN 574 MAX 808 MIN 0 AC-FT 415600
WTR YR 1976 TOTAL 131767.21 MEAN 360 MAX 808 MIN 0 AC-FT 261400

11414200 SOUTH YUBA CANAL NEAR EMIGRANT GAP, CA

LOCATION.--Lat 39°18'45", long 120°39'45", in SE¼NE¼ sec.30, T.17 N., R.12 E., Nevada County, on left bank of concrete flume 400 ft (122 m) downstream from Bowman Lake Road, and 2.5 mi (4.0 km) northeast of Emigrant Gap.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,640 ft (1,414 m), from topographic map.

REMARKS.--Canal diverts from Spaulding No. 2 powerhouse at Lake Spaulding Dam. Water is diverted to Deer Creek powerhouse where it enters Deer Creek and about 30 ft^3/s (0.85 m^3/s) to Boardman Canal (station 11421720) via the Bear River. See schematic diagrams of Yuba River and Bear River basins.

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.--12 years, 101 ft^3/s (2.860 m^3/s), 73,170 acre-ft/yr (90.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 165 ft^3/s (4.67 m^3/s) Aug. 3, 1965; no flow Apr. 20-22, 1966 and Apr. 6-11, 1971.

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	90	72	65	67	57	82	27	55	81	89	97	92
2	86	66	63	66	57	78	24	54	84	91	94	94
3	86	71	63	65	58	72	27	58	82	93	92	97
4	85	73	62	65	71	60	28	59	83	94	89	97
5	86	73	62	67	72	67	10	56	83	95	91	97
6	85	73	62	67	62	56	2.5	62	84	98	93	96
7	85	73	62	67	63	47	2.6	71	83	97	93	97
8	85	73	62	67	63	39	4.6	74	83	96	91	97
9	85	74	63	84	62	35	11	73	84	96	93	96
10	72	74	63	66	60	34	48	68	85	97	94	96
11	62	71	62	66	58	23	53	59	85	97	93	92
12	62	69	70	69	57	22	25	62	84	95	93	93
13	62	66	73	68	58	22	15	66	83	95	91	93
14	62	65	65	67	64	22	11	73	85	96	93	93
15	62	63	64	66	69	22	11	81	86	96	93	94
16	61	62	63	62	67	22	17	78	84	97	91	94
17	62	63	64	59	59	23	46	72	84	93	90	91
18	62	64	64	61	54	35	51	69	85	96	90	90
19	62	63	63	62	66	33	20	69	88	95	90	89
20	63	70	63	62	55	23	21	68	87	96	90	90
21	60	65	65	62	50	22	49	68	85	97	92	90
22	57	64	67	61	48	25	52	68	89	96	92	91
23	57	64	66	62	45	28	51	68	92	97	92	93
24	64	64	66	62	48	28	51	69	93	98	91	95
25	68	64	64	60	51	27	51	69	92	98	91	94
26	66	65	64	58	51	26	51	70	94	96	90	92
27	66	83	66	58	53	24	52	71	94	96	90	91
28	71	94	66	58	53	24	51	82	90	96	90	89
29	70	91	65	58	75	23	46	81	90	95	89	89
30	72	79	65	57	---	25	51	81	90	96	91	89
31	71	---	65	57	---	28	---	81	---	97	92	---
TOTAL	2187	2111	1997	1976	1706	1097	959.7	2135	2592	2964	2841	2791
MEAN	70.5	70.4	64.4	63.7	58.8	35.4	32.0	68.9	86.4	95.6	91.6	93.0
MAX	90	94	73	84	75	82	53	82	94	98	97	97
MIN	57	62	62	57	45	22	2.5	54	81	89	89	89
AC-FT	4340	4190	3960	3920	3380	2180	1900	4230	5140	5880	5640	5540

CAL YR 1975 TOTAL 32254.8 MEAN 88.4 MAX 144 MIN 2.2 AC-FT 63980
WTR YR 1976 TOTAL 25356.7 MEAN 69.3 MAX 98 MIN 2.5 AC-FT 50300

11414250 SOUTH YUBA RIVER AT LANGS CROSSING, NEAR EMIGRANT GAP, CA

LOCATION.--Lat 39°19'07", long 120°39'27", in SW¼SW¼ sec.20, T.17 N., R.12 E., Nevada County, on right bank 150 ft (46 m) downstream from road bridge, 0.8 mi (1.3 km) downstream from Spaulding Nos. 1 and 2 powerplants, and 1.6 mi (2.6 km) northeast of Emigrant Gap.

DRAINAGE AREA.--120 mi^2 (311 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 4,432.44 ft (1,351.008 m) above mean sea level (levels by Pacific Gas and Electric Co.).

REMARKS.--Flow regulation by Lake Spaulding (station 11414140). See schematic diagrams of Yuba River and Bear River basins.

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.--10 years (water years 1967-76), 79.5 ft^3/s (2.251 m^3/s), 57,600 acre-ft/yr (71.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,700 ft^3/s (275 m^3/s) Jan. 22, 1970, gage height, 14.45 ft (4.404 m); minimum daily, 2.8 ft^3/s (0.079 m^3/s) Aug. 1, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 37 ft^3/s (1.05 m^3/s) Feb. 29, gage height, 2.49 ft (0.759 m); minimum daily, 3.1 ft^3/s (0.088 m^3/s) Feb. 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	5.3	6.7	5.8	4.8	4.1	18	5.8	3.9	5.9	5.2	5.7	5.2
2	5.1	6.3	6.1	4.7	4.1	11	4.8	4.6	6.2	6.1	5.5	5.3
3	5.0	5.9	5.7	4.6	4.0	6.4	4.7	5.8	6.1	7.1	5.5	6.5
4	4.4	5.5	5.6	4.6	4.4	8.1	4.7	5.6	7.0	7.5	5.2	5.7
5	4.4	5.3	7.7	5.0	3.8	7.7	5.5	5.5	7.1	7.8	5.5	5.3
6	4.5	5.2	6.5	5.0	3.1	7.4	6.5	5.3	7.0	8.2	6.1	5.3
7	5.1	6.8	6.0	4.7	3.2	7.7	6.3	5.2	6.6	8.1	5.8	5.4
8	5.1	6.5	5.7	4.7	3.6	8.3	7.0	5.2	6.0	7.9	5.3	5.3
9	6.0	6.0	5.6	6.0	4.1	8.6	5.0	5.3	7.2	6.4	5.3	5.1
10	16	8.1	5.3	4.9	3.6	8.9	5.0	5.3	8.0	4.9	5.5	5.2
11	15	7.7	5.1	5.0	3.5	8.4	5.8	5.4	7.6	4.8	5.4	7.6
12	7.1	7.6	6.0	5.2	3.6	7.2	6.7	5.7	7.2	4.8	5.5	6.1
13	5.6	7.7	6.0	4.8	4.6	6.8	6.3	5.6	6.3	4.7	5.5	5.6
14	4.9	7.5	5.4	5.1	6.6	6.4	5.8	5.5	5.5	4.7	7.6	5.3
15	4.5	8.0	5.2	5.2	6.2	6.2	6.1	5.6	5.3	4.6	11	5.4
16	4.3	16	5.3	5.4	5.5	6.3	5.9	5.5	5.3	4.6	7.5	5.1
17	4.3	9.7	5.4	5.0	6.5	6.2	6.2	5.3	5.9	4.5	6.5	4.8
18	4.2	8.0	5.1	4.8	7.6	7.4	6.0	5.2	6.5	4.4	6.3	4.9
19	5.7	7.2	5.0	4.7	11	7.6	4.9	5.5	6.6	5.0	6.0	5.2
20	5.4	7.0	4.9	4.6	8.3	7.3	4.3	5.8	6.6	5.6	5.9	5.7
21	3.9	6.3	4.7	4.4	7.1	7.0	4.8	6.2	6.4	5.4	5.7	5.6
22	4.2	6.0	5.6	4.2	6.4	6.4	4.8	6.3	6.3	5.3	6.0	5.5
23	3.9	5.6	5.5	4.0	5.8	5.8	5.1	6.4	7.7	5.3	5.9	5.4
24	3.9	5.3	6.5	3.8	5.1	6.0	5.7	6.3	12	5.3	5.9	5.2
25	4.2	5.2	6.0	3.6	4.9	6.0	5.8	6.3	6.5	5.3	5.9	5.5
26	7.3	5.2	5.6	3.4	5.1	5.5	5.6	6.3	5.4	5.1	5.8	6.5
27	4.8	6.8	5.5	3.3	5.4	5.0	5.1	6.0	5.4	4.8	5.6	6.0
28	4.5	7.5	5.4	3.3	8.8	4.7	5.0	6.2	5.2	5.3	5.6	5.5
29	5.6	6.9	5.3	3.3	26	4.4	4.5	6.1	5.0	5.8	5.5	5.3
30	11	6.3	5.3	3.6	---	4.7	3.6	6.0	5.0	5.6	5.5	5.3
31	8.3	---	4.9	4.1	---	5.3	---	6.2	---	5.7	5.4	---
TOTAL	183.5	209.8	173.7	139.8	176.0	222.7	163.3	175.1	194.8	175.8	185.4	165.8
MEAN	5.92	6.99	5.60	4.51	6.07	7.18	5.44	5.65	6.49	5.67	5.98	5.53
MAX	16	16	7.7	6.0	26	18	7.0	6.4	12	8.2	11	7.6
MIN	3.9	5.2	4.7	3.3	3.1	4.4	3.6	3.9	5.0	4.4	5.2	4.8
AC-FT	364	416	345	277	349	442	324	347	386	349	368	329

CAL YR 1975	TOTAL	29562.3	MEAN	81.0	MAX	2120	MIN	3.8	AC-FT	58640
WTR YR 1976	TOTAL	2165.7	MEAN	5.92	MAX	26	MIN	3.1	AC-FT	4300

11415500 BOWMAN LAKE NEAR GRANITEVILLE, CA

LOCATION.--Lat 39°27'01", long 120°39'10", in SE¼SW¼ sec.5, T.18 N., R.12 E., Nevada County, on right bank near rockfill portion of Bowman Dam on Canyon Creek, 4.5 mi (7.2 km) east of Graniteville, and 8 mi (13 km) south of Sierra City.

DRAINAGE AREA.--27.1 mi^2 (70.2 km^2).

PERIOD OF RECORD.--December 1926 to current year.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Nevada Irrigation District). Prior to Oct. 8, 1964, nonrecording gage at same site and datum.

REMARKS.--Lake is formed by one rockfill and one concrete-arch dam; storage began in November 1926. Total capacity, 68,200 acre-ft (84.1 hm^3) between elevations, 5,400 ft (1,645.9 m), bottom of outlet tunnel and 5,563 ft (1,695.6 m), crest of concrete-arch dam. Flashboards are occasionally added, increasing elevation to 5,565.8 ft (1,696.46 m) and capacity to 70,400 acre-ft (86.8 hm^3), all of which is available for release. Lake receives water from Middle Yuba River through Milton-Bowman tunnel (station 11408000), and releases it through Bowman-Spaulding Canal (station 11416000) which conveys it to reservoirs of Pacific Gas and Electric Co. Water is eventually used for irrigation by Nevada Irrigation District. See schematic diagram of Yuba River basin. Lake completely drained for inspection and repair Nov. 25 to Dec. 9, 1949, Oct. 1-20, 1966, Oct. 4-29, 1972.

COOPERATION.--Thirty-nine nonrecording gage readings furnished by Nevada Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 71,000 acre-ft (87.5 hm^3) May 30, 1965, elevation, 5,566.5 ft (1,696.67 m); minimum observed under normal operating conditions since reservoir first filled, 1,000 acre-ft (1.23 hm^3) Mar. 4, 1931, elevation, 5,430.1 ft (1,655.09 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 59,900 acre-ft (73.9 hm^3) Oct. 28, 29, elevation, 5,552.6 ft (1,692.43 m); minimum, 36,700 acre-ft (45.3 hm^3) Feb. 22-25, elevation, 5,521.1 ft (1,682.83 m).

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

5419.6	0	5460	6900
5425	500	5470	10200
5430	900	5480	14200
5435	1400	5510	30000
5440	2100	5540	49800
5450	4100	5570	73800

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	57900	59200	50800	45900	38800	37600	39600	44100	43900	46000	44800	43200
2	58000	58900	50500	45700	38500	37700	39700	44300	43600	45700	44800	43000
3	58100	58600	50400	45500	38300	37600	39900	44600	43200	45500	44800	42900
4	58200	58300	50400	45400	38200	37600	39900	44800	42900	45200	44900	42900
5	58400	58000	50300	45200	38000	37500	40100	45000	42500	45000	45000	42800
6	58400	57600	50200	45000	37900	37400	40200	45200	42200	44800	45000	42700
7	58600	57400	50000	44800	37800	37300	40300	45500	41800	44500	45000	42600
8	58700	57200	49900	44600	37600	37200	40400	45800	41500	44200	45000	42600
9	58800	56800	49700	44400	37500	37200	40600	46200	41200	44200	45000	42400
10	59200	56700	49600	44200	37400	37200	40700	46400	41000	44200	45000	42300
11	59300	56400	49400	44100	37300	37300	40800	46800	40700	44100	45000	42300
12	59300	56000	49300	43800	37200	37300	40900	47100	40800	44100	45000	42200
13	59200	55800	49200	43600	37200	37300	41000	47400	41100	44100	44800	42000
14	59200	55500	49000	43400	37200	37400	41100	47600	41400	44200	44800	41900
15	59000	55200	48900	43400	37100	37600	41300	47800	41600	44300	44800	41900
16	58700	55200	48700	43200	36900	37600	41300	47900	42000	44300	44700	42000
17	58300	55000	48500	42900	36800	37700	41400	48000	42200	44300	44600	42000
18	58000	54700	48400	42700	36800	37800	41500	47800	42500	44400	44500	42100
19	57700	54400	48200	42400	36800	38000	41600	47600	42900	44400	44400	42200
20	57400	54100	48000	42200	36800	38200	41800	47400	43200	44400	44300	42200
21	57100	53900	47800	41900	36800	38500	42100	47200	43500	44400	44200	42300
22	56800	53600	47700	41500	36700	38500	42400	46900	43800	44300	44100	42300
23	56700	53300	47600	41300	36700	38700	42700	46700	44100	44300	43900	42300
24	56700	53000	47400	41000	36700	38900	43100	46400	44400	44300	43800	42000
25	56600	52700	47200	40800	36700	39000	43400	46200	44800	44400	43700	41800
26	59300	52400	47000	40500	36800	39100	43600	45900	45000	44500	43600	41500
27	59800	52000	46900	40200	36800	39200	43700	45500	45200	44600	43600	41100
28	59900	51700	46600	39900	37000	39300	43700	45200	45500	44600	43500	40800
29	59900	51400	46500	39600	37400	39400	43800	45000	45700	44700	43400	40700
30	59800	51100	46300	39400	---	39400	43900	44600	46000	44700	43300	40700
31	59500	---	46100	39100	---	39600	---	44300	---	44800	43200	---
MAX	59900	59200	50800	45900	38800	39600	43900	48000	46000	46000	45000	43200
MIN	56600	51100	46100	39100	36700	37200	39600	44100	40700	44100	43200	40700
†	5552.1	5541.6	5534.7	5524.7	5522.3	5525.4	5531.6	5532.1	5534.5	5232.8	5230.6	5227.0
‡	+6700	-8400	-5000	-7000	-1700	+2200	+4300	+400	+1700	-1200	-1600	-2500

CAL YR 1975 ‡ +15300
WTR YR 1976 ‡ -17100

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

11416000 BOWMAN-SPAULDING CANAL INTAKE NEAR GRANITEVILLE, CA

LOCATION.--Lat 39°26'26", long 120°39'30", in NW¼SW¼ sec.8, T.18 N., R.12 E., Nevada County, Tahoe National Forest, on left bank 0.6 mi (1.0 km) downstream from Bowman Dam, 4.5 mi (7.2 km) east of Graniteville, and 8.5 mi (13.7 km) south of Sierra City.

PERIOD OF RECORD.--October 1927 to current year. Prior to October 1970, published as Bowman-Spaulding Canal at intake or Bowman-Spaulding Canal intake, near Sierra City.

REVISED RECORDS.--WSP 1395: 1935-36, 1940.

GAGE.--Water-stage recorder. Datum of gage is 5,390.39 ft (1,642.991 m) above mean sea level. Prior to July 1965 at site 0.3 mi (0.5 km) upstream at different datum.

REMARKS.--Records good. Canal diverts from left bank of Canyon Creek at diversion dam 500 ft (152 m) downstream from Bowman Dam. Water is diverted to Lake Spaulding and after passing through several powerhouses is used for irrigation by Nevada Irrigation District. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--49 years, 158 ft^3/s (4.475 m^3/s), 114,500 acre-ft/yr (141 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 339 ft^3/s (9.60 m^3/s) July 24, 1973; 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	305	300	304	295	163	63	21	108	292	113	297	293
2	307	301	302	298	163	93	20	109	291	262	297	288
3	307	300	301	301	123	95	20	109	293	310	295	289
4	305	299	300	301	98	95	20	109	295	310	294	291
5	304	299	302	300	98	95	20	109	297	308	303	293
6	305	299	300	298	99	95	20	110	300	308	306	292
7	305	282	300	298	98	95	21	110	298	307	304	292
8	305	283	298	297	99	96	21	110	298	307	304	292
9	307	297	297	296	99	72	21	114	297	304	304	291
10	253	294	297	296	94	50	21	116	291	300	307	291
11	256	288	297	295	76	42	22	117	285	300	311	292
12	295	288	296	295	65	33	21	120	124	300	311	290
13	304	291	296	295	65	33	22	123	1.1	300	311	290
14	304	290	296	294	66	30	21	124	.53	298	312	289
15	303	291	295	232	130	30	22	125	.50	291	300	215
16	303	293	294	301	148	30	21	127	.50	291	305	163
17	304	288	293	301	101	31	21	148	4.3	291	305	163
18	303	288	295	300	65	32	21	221	1.1	291	305	163
19	304	285	297	299	66	31	21	270	1.6	291	304	162
20	303	285	298	298	65	30	21	284	1.0	292	304	162
21	304	285	297	297	65	30	21	283	.34	292	303	162
22	305	286	298	208	65	30	21	283	.43	292	304	162
23	305	291	298	163	65	22	20	282	.40	292	303	161
24	304	292	298	163	39	14	21	288	.33	293	303	161
25	305	293	296	163	24	15	21	292	.34	294	303	161
26	233	291	295	163	24	13	21	291	.33	295	303	161
27	236	291	295	163	25	13	75	290	.33	295	304	161
28	300	290	296	163	28	13	111	290	.33	296	304	161
29	300	299	293	163	30	23	110	291	.33	296	304	56
30	271	305	292	163	---	32	108	293	.33	296	292	.49
31	302	---	295	163	---	26	---	292	---	296	288	---
TOTAL	9147	8764	9211	7862	2346	1402	947	5938	3375.12	9011	9390	6447.49
MEAN	295	292	297	254	80.9	45.2	31.6	192	113	291	303	215
MAX	307	305	304	301	163	96	111	293	300	310	312	293
MIN	233	282	292	163	24	13	20	108	.33	113	288	.49
AC-FT	18140	17380	18270	15590	4650	2780	1880	11780	6690	17870	18630	12790

CAL YR 1975 TOTAL 75042.90 MEAN 206 MAX 313 MIN 1.9 AC-FT 148800
WTR YR 1976 TOTAL 73840.61 MEAN 202 MAX 312 MIN .33 AC-FT 146500

11416100 BOWMAN-SPAULDING CANAL AT JORDAN CREEK SIPHON VENTURI, NEAR EMIGRANT GAP, CA

LOCATION.--Lat 39°20'32", long 120°38'26", in SW¼NW¼ sec.16, T.17 N., R.12 E., Nevada County, at outlet of Jordan Creek siphon 0.6 mi (1.0 km) downstream from Fuller Lake, and 3.5 mi (5.6 km) northeast of Emigrant Gap.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,440 ft (1,658 m), from topographic map.

REMARKS.--Records show water diverted from Bowman Lake (station 11415500) plus numerous small tributaries before it enters Lake Spaulding (station 11414140). See schematic diagram of Yuba 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.--12 years, 232 ft^3/s (6.570 m^3/s), 168,100 acre-ft/yr (207 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 330 ft^3/s (9.35 m^3/s) Dec. 22, 1964; 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	303	288	305	301	164	112	49	153	299	79	297	288
2	302	317	305	301	164	128	49	154	298	235	297	257
3	301	315	306	303	139	119	49	155	297	297	298	299
4	302	303	307	304	113	115	49	156	297	299	297	288
5	301	301	309	305	92	115	49	156	298	300	294	289
6	300	303	311	306	104	111	49	156	299	299	296	289
7	305	309	309	306	104	110	50	156	299	298	297	288
8	306	305	308	306	104	109	135	154	299	301	296	288
9	304	305	307	307	104	98	137	154	299	302	296	288
10	307	309	306	305	102	78	68	155	301	302	295	288
11	286	306	305	304	83	72	68	156	300	303	298	297
12	296	304	305	303	60	80	68	156	223	304	299	293
13	304	307	305	303	71	49	65	156	28	304	299	289
14	305	305	303	303	79	49	64	156	0	304	301	288
15	305	301	304	241	128	49	64	154	0	302	312	236
16	305	313	304	305	153	49	64	153	0	302	307	163
17	303	314	303	304	116	50	64	155	0	302	302	162
18	303	311	303	304	72	63	64	211	0	300	302	162
19	302	307	303	303	73	77	60	288	0	299	302	162
20	301	304	303	303	75	72	62	299	0	302	301	162
21	305	302	303	302	73	72	64	296	0	299	299	162
22	290	301	306	217	72	71	72	299	0	297	300	161
23	310	300	306	167	72	59	78	299	0	298	301	161
24	304	301	305	166	35	49	81	297	0	298	299	161
25	304	298	305	165	30	49	84	298	0	299	297	161
26	315	301	303	165	38	49	82	299	0	297	297	161
27	288	304	303	165	43	49	112	300	0	297	295	160
28	298	303	303	165	55	49	150	299	0	297	296	184
29	308	300	303	174	72	49	151	298	0	297	296	65
30	307	303	305	164	---	49	151	298	0	297	295	0
31	307	---	303	164	---	51	---	299	---	297	285	---
TOTAL	9377	9140	9456	8031	2590	2301	2352	6715	3537	9007	9246	6452
MEAN	302	305	305	259	89.3	74.2	78.4	217	118	291	298	215
MAX	315	317	311	307	164	128	151	300	301	304	312	299
MIN	286	288	303	164	30	49	49	153	0	79	285	0
AC-FT	18600	18130	18760	15930	5140	4560	4670	13320	7020	17870	18340	12800

CAL YR 1975 TOTAL 91467.03 MEAN 251 MAX 324 MIN 0 AC-FT 181400
WTR YR 1976 TOTAL 78204.00 MEAN 214 MAX 317 MIN 0 AC-FT 155100

11416500 CANYON CREEK BELOW BOWMAN LAKE, CA

LOCATION.--Lat 39°26'23", long 120°39'39", in NE¼SE¼ sec.7, T.18 N., R.12 E., Nevada County, on left bank 1 mi (2 km) downstream from Bowman Dam, 3 mi (5 km) upstream from Texas Creek, and 9 mi (14 km) south of Sierra City.

DRAINAGE AREA.--28.3 mi^2 (73.3 km^2).

PERIOD OF RECORD.--January 1927 to current year.

REVISED RECORDS.--WSP 1315-A: 1930(M). WSP 1931: Drainage area.

GAGE.--Water-stage recorder and concrete control. Concrete control covered with rocks Jan. 22, 1970. Altitude of gage is 5,100 ft (1,554 m), from topographic map.

REMARKS.--Records excellent. Flow regulated by French Lake, usable capacity, 13,840 acre-ft (17.1 hm^3), Bowman Lake (station 11415500), several smaller reservoirs, and diversion into Bowman-Spaulding Canal (station 11416000). See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--49 years, 37.7 ft^3/s (1.068 m^3/s), 27,310 acre-ft/yr (33.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,740 ft^3/s (106 m^3/s) Jan. 22, 1970, gage height, 9.42 ft (2.871 m) in gage well, 10.32 ft (3.416 m) from floodmarks, from rating curve extended above 1,500 ft^3/s (42.5 m^3/s) on basis of slope-area measurement of maximum flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44 ft^3/s (1.25 m^3/s) Oct. 26, gage height, 3.94 ft (1.201 m); minimum daily, 1.4 ft^3/s (0.040 m^3/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	3.7	2.5	2.1	2.2	2.6	4.4	2.7	3.1	2.8	3.3	2.0	2.1
2	3.7	2.3	2.2	2.1	2.6	3.3	3.5	3.1	2.8	3.4	2.0	2.1
3	3.8	2.2	2.2	2.1	2.2	2.9	3.4	3.1	3.1	3.5	3.1	2.1
4	3.7	2.2	2.1	2.1	1.9	2.6	3.4	3.0	3.7	3.5	4.0	1.7
5	3.7	2.1	3.0	2.1	1.8	2.5	3.4	3.0	3.7	3.5	3.4	1.5
6	4.2	2.0	2.5	2.1	1.7	2.6	3.4	3.0	3.7	3.5	3.5	1.5
7	4.0	3.0	2.2	2.1	1.8	2.6	2.9	2.9	3.7	3.5	3.5	1.5
8	3.9	2.6	2.1	2.1	1.9	2.7	3.4	3.0	3.7	2.9	3.3	1.5
9	4.2	2.2	2.0	2.2	1.9	2.9	3.4	2.9	4.0	2.3	3.3	1.5
10	7.7	2.3	1.9	2.1	2.0	3.1	3.5	2.9	4.1	2.3	3.4	1.6
11	6.3	2.1	1.8	2.1	1.8	3.1	3.6	2.9	4.0	2.1	3.4	2.5
12	4.1	2.2	2.0	2.1	1.8	2.7	3.6	2.9	3.8	2.0	3.4	1.9
13	3.8	2.4	2.0	2.1	1.9	2.7	3.5	2.8	3.7	2.0	3.2	1.8
14	3.6	2.4	1.9	2.1	2.2	2.8	3.3	2.8	3.5	1.7	4.0	1.7
15	3.5	3.1	1.8	2.0	2.3	2.9	3.6	2.8	2.9	1.7	5.3	1.6
16	3.4	7.7	1.9	2.3	2.3	3.3	3.3	2.8	2.6	2.5	3.8	1.4
17	3.4	3.1	2.0	2.4	2.5	3.6	3.1	2.7	3.1	2.5	3.6	1.7
18	3.6	2.5	1.8	2.4	3.1	3.9	3.1	2.7	3.0	2.5	3.8	1.7
19	4.0	2.3	1.8	2.3	2.9	3.2	3.1	2.9	3.0	2.4	3.6	1.7
20	4.1	2.3	2.0	2.2	2.5	3.0	3.1	2.9	3.4	2.4	3.5	1.7
21	4.1	2.2	2.0	2.2	2.4	3.0	3.0	2.9	3.8	2.4	3.4	1.7
22	4.3	2.1	2.2	2.6	2.4	3.0	3.2	2.9	4.2	2.3	3.6	1.7
23	4.3	2.1	2.2	3.4	2.3	2.9	3.7	2.9	4.1	2.2	3.4	2.3
24	4.3	2.1	2.4	3.4	2.2	2.8	3.5	2.9	3.5	2.3	3.3	2.9
25	4.7	2.0	2.4	3.4	2.3	2.8	3.2	2.9	2.9	2.3	3.3	2.9
26	21	2.0	2.4	3.3	2.3	2.5	3.1	2.9	2.9	2.1	2.9	2.9
27	6.3	2.1	2.4	3.1	2.8	2.4	3.2	2.8	3.0	1.9	2.4	3.0
28	4.9	2.1	2.4	2.6	7.0	2.3	3.3	2.8	3.1	2.0	2.3	3.1
29	4.4	2.0	2.4	2.6	9.6	2.2	3.2	2.8	3.2	1.9	2.3	2.9
30	4.8	2.0	2.3	2.6	---	2.3	3.1	2.9	3.2	2.0	2.3	2.9
31	3.0	---	2.2	2.6	---	2.4	---	2.9	---	2.0	2.1	---
TOTAL	148.5	74.2	66.6	75.0	77.0	89.4	98.8	89.8	102.2	76.9	100.4	61.1
MEAN	4.79	2.47	2.15	2.42	2.66	2.88	3.29	2.90	3.41	2.48	3.24	2.04
MAX	21	7.7	3.0	3.4	9.6	4.4	3.7	3.1	4.2	3.5	5.3	3.1
MIN	3.0	2.0	1.8	2.0	1.7	2.2	2.7	2.7	2.6	1.7	2.0	1.4
AC-FT	295	147	132	149	153	177	196	178	203	153	199	121

CAL YR 1975 TOTAL 4127.2 MEAN 11.3 MAX 510 MIN 1.8 AC-FT 8190
WTR YR 1976 TOTAL 1059.9 MEAN 2.90 MAX 21 MIN 1.4 AC-FT 2100

11417500 SOUTH YUBA RIVER AT JONES BAR, NEAR GRASS VALLEY, CA

LOCATION.--Lat 39°17'32", long 121°06'13", in NW¼SE¼ sec.32, T.17 N., R.8 E., Nevada County, on left bank at Jones Bar, 100 ft (30 m) upstream from Rush Creek, 0.9 mi (1.4 km) downstream from bridge on State Highway 49, and 5 mi (8 km) northwest of Grass Valley.

DRAINAGE AREA.--308 mi^2 (798 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to September 1948, April 1959 to current year. Published as South Fork Yuba River at Jones Bar 1940-48, and as South Yuba River at Jones Bar 1959-63.

REVISED RECORDS.--WSP 1315-A: 1942-43(M), drainage area at former site. WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,060 ft (323 m), from river-profile map. Oct. 1, 1940, to Sept. 30, 1948, at site 150 ft (46 m) upstream at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records excellent. Flow regulated by Lake Spaulding (station 11414040), Fordyce Lake, capacity, 46,700 acre-ft (57.6 hm^3), Bowman Lake (station 11415500), and many smaller reservoirs. Diversions into and out of basin for several powerhouses and for irrigation of about 20,000 acres (81 km^2) by the Nevada Irrigation District. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--25 years, 463 ft^3/s (13.11 m^3/s), 335,400 acre-ft/yr (414 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,600 ft^3/s (1,520 m^3/s) Dec. 22, 1964, gage height, 25.0 ft (7.62 m) from floodmarks, from rating curve extended above 23,000 ft^3/s (651 m^3/s) on basis of slope-area measurement of maximum flow; minimum, 1.0 ft^3/s (0.028 m^3/s) Sept. 10-13, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 30.7 ft (9.36 m) from floodmarks, present datum, at site 100 ft (30 m) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,530 ft^3/s (43.3 m^3/s) Oct. 26, gage height, 7.90 ft (2.408 m); minimum daily, 33 ft^3/s (0.93 m^3/s) July 17, 18, 28, 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	44	138	96	92	73	638	130	113	58	39	34	36
2	44	114	95	87	73	372	123	111	57	39	35	36
3	43	101	98	88	73	295	121	109	55	36	36	35
4	43	95	97	88	80	251	120	108	55	36	36	35
5	44	89	129	90	87	221	119	105	54	38	36	35
6	47	86	149	94	80	203	122	103	54	38	37	35
7	69	91	121	91	77	196	124	100	54	38	36	35
8	66	150	107	90	76	193	160	97	54	38	37	35
9	57	110	101	121	80	196	166	98	57	38	37	34
10	152	145	97	124	82	196	148	93	70	38	36	34
11	319	137	93	104	79	194	163	89	76	36	35	51
12	147	115	129	101	76	183	176	84	70	35	35	73
13	101	108	118	99	80	172	170	79	63	34	34	50
14	84	105	104	97	152	165	165	76	60	35	37	45
15	76	125	97	96	153	161	157	73	62	34	98	42
16	71	325	95	95	171	161	163	71	58	34	106	42
17	68	227	94	95	191	168	146	69	55	33	60	41
18	65	153	93	96	163	183	141	67	53	33	53	39
19	64	127	90	94	306	210	140	66	54	34	57	38
20	62	120	90	90	242	179	137	66	51	34	54	37
21	61	114	87	87	185	169	138	67	51	34	49	36
22	60	106	154	85	159	164	137	67	51	34	48	35
23	63	101	138	84	141	163	137	65	50	34	49	34
24	63	97	117	83	129	155	135	64	48	34	47	34
25	63	94	115	82	120	160	136	63	46	35	45	34
26	668	90	110	79	119	149	129	63	45	34	43	34
27	416	101	107	77	114	140	124	61	44	34	42	34
28	180	121	105	77	134	135	120	58	41	33	40	36
29	129	103	103	76	618	130	116	58	41	33	39	36
30	204	96	103	74	---	124	115	58	39	34	38	36
31	201	---	97	74	---	126	---	58	---	34	37	---
TOTAL	3774	3684	3329	2810	4113	6152	4178	2459	1626	1093	1406	1157
MEAN	122	123	107	90.6	142	198	139	79.3	54.2	35.3	45.4	38.6
MAX	668	325	154	124	618	638	176	113	76	39	106	73
MIN	43	86	87	74	73	124	115	58	39	33	34	34
AC-FT	7490	7310	6600	5570	8160	12200	8290	4880	3230	2170	2790	2290

CAL YR 1975	TOTAL	154232	MEAN 423	MAX 4740	MIN 43	AC-FT	305900	
WTR YR 1976	TOTAL	35781	MEAN 97.8	MAX 668	MIN 33	AC-FT	70970	

11417500 SOUTH YUBA RIVER AT JONES BAR, NEAR GRASS VALLEY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.
WATER TEMPERATURES: Water years 1965 to current year.
SEDIMENT RECORDS: Water years 1967-74.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: February 1965 to current year.

INSTRUMENTATION.--Temperature recorder since February 1965.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 27.5°C July 15-17, 1972, Aug. 1-5, 1974, July 26, 1976; minimum (water years 1966-74, 1976), 0.0°C on several days in most years.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.5°C July 26; minimum recorded, 2.0°C Jan. 26, 27.

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	18.5	16.5	9.5	8.0	---	---	---	---	5.5	4.0	7.0	4.5
2	18.5	16.5	10.0	8.5	---	---	---	---	6.0	4.5	4.5	3.5
3	18.5	17.0	10.0	8.5	5.0	4.5	---	---	6.0	4.5	5.0	3.5
4	18.5	16.5	10.0	8.5	6.0	4.5	---	---	5.5	3.5	5.5	3.0
5	18.5	16.5	10.0	8.5	---	---	4.0	3.0	4.0	3.0	5.5	3.0
6	17.5	16.0	11.0	9.5	---	---	5.0	4.0	3.5	2.5	6.0	3.5
7	16.0	14.0	11.0	10.0	---	---	4.5	3.5	3.5	2.5	7.0	4.0
8	14.5	12.5	10.5	8.0	---	---	4.5	3.5	5.0	3.5	8.0	5.5
9	13.5	13.0	8.5	8.0	---	---	5.0	4.5	6.0	4.5	9.0	6.0
10	13.0	12.5	9.0	7.0	---	---	5.0	3.5	5.5	4.0	9.0	6.5
11	12.5	11.5	7.5	6.0	---	---	4.5	3.5	5.5	3.5	9.0	7.0
12	12.0	10.5	6.5	5.5	---	---	4.0	3.5	6.0	4.0	8.5	6.0
13	12.5	10.5	6.5	5.5	---	---	4.0	3.5	6.0	4.0	9.0	6.0
14	12.5	10.5	7.0	5.5	---	---	4.0	3.5	6.5	6.0	9.5	7.0
15	13.0	11.0	9.0	7.0	---	---	4.5	3.5	6.5	6.0	9.5	7.0
16	13.0	11.0	9.0	7.0	---	---	4.5	3.5	6.0	5.5	11.5	8.5
17	13.5	11.5	7.0	4.5	---	---	5.0	4.0	7.0	5.5	12.0	9.5
18	14.0	12.0	5.0	3.0	---	---	5.0	4.0	8.0	6.5	11.5	9.0
19	13.5	12.0	---	---	---	---	4.5	3.5	7.5	6.5	9.5	7.5
20	13.5	11.5	---	---	---	---	4.0	3.0	6.5	5.5	9.5	6.0
21	14.0	12.0	---	---	---	---	4.0	3.0	6.5	4.5	10.0	6.5
22	13.5	11.5	---	---	---	---	4.0	3.0	6.5	5.0	10.0	8.0
23	11.5	9.5	---	---	---	---	4.0	3.0	6.0	5.0	11.5	9.0
24	9.5	8.0	---	---	---	---	4.5	3.0	6.5	4.5	10.0	9.0
25	9.5	8.5	---	---	---	---	3.5	2.5	6.5	6.0	10.5	7.5
26	10.5	9.5	---	---	---	---	3.5	2.0	8.5	6.5	9.5	7.5
27	10.5	9.0	---	---	---	---	3.5	2.0	9.0	7.0	10.0	7.5
28	9.0	7.5	---	---	---	---	4.0	3.0	9.0	8.5	10.5	8.0
29	9.0	7.0	---	---	---	---	4.5	3.0	9.5	7.0	11.0	8.0
30	9.5	8.5	---	---	---	---	5.0	3.5	---	---	12.0	8.5
31	9.5	8.0	---	---	---	---	5.0	3.5	---	---	11.0	8.5
MONTH	18.5	7.0	---	---	---	---	5.0	2.0	9.5	2.5	12.0	3.0

11417500 SOUTH YUBA RIVER AT JONES BAR, NEAR GRASS VALLEY, CA--Continued

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	7.5	17.5	14.0	20.5	17.0	23.0	19.0	24.5	22.5	23.5	19.5
2	11.0	7.5	17.5	14.5	20.5	16.5	23.0	19.0	24.5	21.0	23.5	20.0
3	10.0	8.5	18.0	14.5	20.5	16.5	23.5	19.0	23.0	20.5	24.0	20.0
4	10.0	8.0	18.0	15.0	20.5	16.0	24.0	19.5	23.5	19.5	24.0	20.5
5	9.5	9.0	19.0	16.0	20.5	16.5	25.0	20.5	23.0	19.5	22.5	20.5
6	10.5	8.5	18.5	16.0	20.0	16.5	25.0	21.0	23.0	19.5	23.0	19.5
7	11.0	9.0	19.0	15.0	20.0	17.0	25.5	22.5	24.0	19.5	22.5	19.0
8	10.5	9.5	20.0	16.5	19.5	16.5	25.0	21.0	23.0	19.0	22.5	19.0
9	11.5	8.5	21.0	17.5	18.5	17.0	26.0	23.0	23.5	19.0	22.5	19.0
10	10.5	9.0	20.5	17.5	17.0	16.0	26.0	23.0	24.0	20.0	21.5	19.5
11	10.0	8.5	21.0	17.0	18.5	15.0	25.5	21.5	24.5	20.5	20.5	19.0
12	10.5	9.0	21.5	17.0	20.5	16.0	26.0	22.0	24.5	20.5	20.5	18.0
13	11.0	8.0	22.5	18.5	21.5	17.5	26.0	23.0	23.0	20.0	21.0	18.0
14	11.0	8.0	22.0	18.5	22.0	17.5	26.0	23.0	21.0	19.5	21.0	18.5
15	11.0	9.5	22.0	18.0	22.5	18.5	26.0	23.0	19.5	18.0	19.5	18.0
16	10.5	7.5	21.5	18.0	23.5	19.0	26.5	22.5	18.0	17.0	18.5	17.0
17	10.5	7.5	21.0	17.0	24.5	20.0	26.0	22.5	18.0	15.5	19.0	16.5
18	13.0	9.5	20.0	16.0	24.5	20.5	26.0	22.0	18.0	16.5	19.5	16.5
19	14.5	10.5	20.0	16.0	24.5	20.5	26.0	22.0	21.0	17.0	20.0	17.0
20	15.5	12.0	20.0	16.0	24.5	20.5	26.0	21.5	22.5	18.5	20.0	17.0
21	14.5	12.5	20.0	17.0	24.0	21.0	25.5	21.5	23.0	20.0	19.5	16.5
22	15.5	12.5	21.0	17.0	23.5	20.0	25.5	21.0	22.5	21.0	18.5	16.5
23	15.5	12.5	21.0	17.0	24.0	20.0	26.0	22.5	22.5	19.5	18.0	15.5
24	16.0	13.0	21.0	17.0	24.5	20.0	26.5	22.0	23.0	19.5	18.5	15.5
25	15.0	12.5	21.5	17.5	24.5	20.5	27.0	23.0	23.5	20.0	18.5	15.5
26	14.5	11.5	22.5	17.5	24.5	20.0	27.5	23.0	22.5	19.5	18.5	15.5
27	14.5	11.0	22.5	18.5	25.0	20.0	27.0	23.0	22.5	19.0	18.5	16.5
28	14.5	11.0	21.5	18.0	25.0	21.0	25.0	23.0	23.0	19.5	19.0	17.0
29	15.0	11.5	20.0	17.0	24.5	21.0	26.0	22.5	23.5	21.5	18.0	17.0
30	16.5	12.5	19.5	17.0	23.5	21.0	25.5	22.5	23.5	21.0	18.5	16.5
31	---	---	21.0	17.5	---	---	23.5	22.0	23.5	21.5	---	---
MONTH	16.5	7.5	22.5	14.0	25.0	15.0	27.5	19.0	24.5	15.5	24.0	15.5
YEAR	27.5	2.0										

11418000 YUBA RIVER BELOW ENGLEBRIGHT DAM, NEAR SMARTVILLE, CA

LOCATION.--Lat 39°14'07", long 121°16'23", in NW¼NW¼ sec.23, T.16 N., R.6 E., Yuba County, on right bank 2,000 ft (610 m) downstream from Englebright Dam, 0.5 mi (0.8 km) upstream from Deer Creek, and 2.3 mi (3.7 km) northeast of Smartville.

DRAINAGE AREA.--1,108 mi^2 (2,870 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year. Prior to October 1953, published as "at Narrows Dam." October 1953 to Sept. 30, 1969, published as "at Englebright Dam." If records for Deer Creek near Smartville (station 11418500) since 1941 are added to records at this station, records equivalent to those published from 1903 to 1941 as Yuba River at Smartville (station 11419000) can be obtained.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 278.68 ft (84.942 m) above mean sea level (levels by International Engineering Co.). Prior to Sept. 19, 1958, at site 2,000 ft (610 m) upstream at datum 248.31 ft (75.685 m) higher and Sept. 19, 1958, to Sept. 30, 1969, at datum 278.68 ft (84.942 m) lower. Supplementary gage 2,000 ft (610 m) upstream since Oct. 1, 1969, at Englebright Dam at datum 248.31 ft (75.685 m) higher.

REMARKS.--Records good. Diversions out of basin for power and irrigation above station up to 1,800 ft^3/s (51.0 m^3/s), stations 11413250, 11414190, 11414200. Flow regulation by Lake Spaulding beginning in 1912 (station 11414140), Jackson Meadows Reservoir (station 11407800) since November 1964, New Bullards Bar Reservoir (station 11413515) since January 1969, Englebright Reservoir beginning in 1941, capacity, 70,000 acre-ft (86.3 hm^3), Bowman Lake (station 11415500), Fordyce Lake beginning in 1926, capacity, 46,700 acre-ft (57.6 hm^3), and many smaller reservoirs. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--35 years, 2,534 ft^3/s (71.76 m^3/s), 1,836,000 acre-ft/yr (2.26 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 171,000 ft^3/s (4,840 m^3/s) Dec. 22, 1964, gage height, 546.14 ft (166.463 m) site and datum then in use; no flow through powerplant, from rating curve extended above 25,000 ft^3/s (708 m^3/s) on basis of computation of peak flow over spillway of dam at gage heights 544.72 ft (166.031 m) and 546.14 ft (166.463 m); no flow at times in 1942, 1949, 1956, 1958-61, 1968-69.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,080 ft^3/s (87.2 m^3/s) Oct. 10, gage height, 7.45 ft (2.271 m); minimum daily, 222 ft^3/s (6.29 m^3/s) Sept. 12.

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	2830	2800	2740	1680	462	1830	394	695	546	588	565	378
2	2820	2800	2740	1590	453	2160	423	694	550	590	560	377
3	2810	2800	2740	1470	426	871	363	700	548	590	553	400
4	2820	2810	2740	1470	463	518	363	703	545	582	552	356
5	2810	2780	2740	1470	593	495	363	696	547	580	560	336
6	2810	2730	2740	1160	637	485	363	695	572	587	562	310
7	1380	2590	2740	1080	466	486	364	718	583	625	561	285
8	2820	2710	2730	1080	466	485	363	662	595	625	556	311
9	2790	2710	2740	1080	466	485	347	642	604	625	542	271
10	2770	2710	2730	1080	499	485	318	631	605	622	535	251
11	2690	2700	2730	1070	515	491	301	613	605	596	535	244
12	2690	2730	2740	1060	505	490	274	747	608	580	535	222
13	2700	2720	2730	1070	505	490	238	869	606	615	535	358
14	2710	2720	2740	1090	505	490	238	673	605	577	535	676
15	2750	2720	2490	1090	488	490	238	582	628	578	535	660
16	2770	2720	2280	1020	500	490	272	634	595	623	522	693
17	2770	2710	2240	914	503	490	296	651	632	580	508	706
18	2770	2710	2190	910	525	499	296	649	603	580	475	706
19	2760	2720	2030	910	525	493	353	639	616	580	466	705
20	2740	2710	2020	911	565	495	489	600	620	580	466	697
21	2750	2720	2020	910	519	494	603	600	626	580	466	678
22	2760	2720	1890	910	515	614	636	597	630	580	458	681
23	2750	2720	1850	835	515	809	625	587	630	580	485	684
24	2760	2720	1850	593	515	422	677	578	670	582	463	684
25	2790	2750	1850	593	515	364	651	567	648	583	426	684
26	2800	2760	1850	580	510	357	628	570	626	664	403	684
27	2820	2760	1860	568	499	364	605	560	647	600	403	684
28	2800	2500	1860	560	508	363	638	541	701	613	403	684
29	2800	2720	1750	510	1030	363	695	540	654	587	407	684
30	2790	2730	1680	465	---	360	705	540	638	570	432	698
31	2800	---	1680	462	---	367	---	541	---	563	414	---
TOTAL	84630	81700	71710	30191	15193	18095	13119	19714	18283	18405	15418	15787
MEAN	2730	2723	2313	974	524	584	437	636	609	594	497	526
MAX	2830	2810	2740	1680	1030	2160	705	869	701	664	565	706
MIN	1380	2500	1680	462	426	357	238	540	545	563	403	222
AC-FT	167900	162100	142200	59880	30140	35890	26020	39100	36260	36510	30580	31310

CAL YR 1975 TOTAL 984530 MEAN 2697 MAX 6030 MIN 1070 AC-FT 1953000
WTR YR 1976 TOTAL 402245 MEAN 1099 MAX 2830 MIN 222 AC-FT 797900

11418000 YUBA RIVER BELOW ENGLEBRIGHT DAM, NEAR SMARTVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1972 to current year.
INSTRUMENTATION.--Temperature recorder since October 1972.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1974-76), 20.0°C Oct. 1, 3, 5, 7, 11, 1974; minimum, 3.0°C Dec. 19, 20, 1973.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 14.5°C on several days during July and September; minimum, 7.0°C on many days during January and February.

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	10.5	10.5	8.5	8.5	7.5	7.5	7.5	7.5	7.5	7.0	8.0	7.5
2	10.5	10.0	8.5	8.5	7.5	7.5	7.5	7.5	7.5	7.0	8.5	8.0
3	10.0	10.0	8.5	8.5	8.0	7.5	7.5	7.5	7.5	7.0	8.5	8.0
4	10.0	9.5	8.5	8.5	8.0	7.5	7.5	7.5	7.5	7.0	8.5	7.5
5	10.0	9.5	8.5	8.5	8.0	8.0	7.5	7.5	7.5	7.0	8.5	7.5
6	10.0	9.5	8.5	8.0	8.0	8.0	7.5	7.5	7.5	7.0	8.5	7.5
7	10.0	9.5	8.5	8.0	8.0	8.0	7.5	7.5	7.5	7.0	8.5	7.5
8	10.0	9.5	8.5	8.5	8.0	8.0	7.5	7.5	7.5	7.0	8.0	7.5
9	9.5	9.5	8.5	8.5	8.0	8.0	7.5	7.5	7.5	7.0	8.5	7.5
10	9.5	9.0	8.5	8.0	8.0	8.0	7.5	7.0	7.5	7.0	8.5	7.5
11	9.5	9.5	8.5	8.0	8.0	8.0	7.5	7.0	8.0	7.0	8.5	7.5
12	9.5	9.0	8.5	8.0	8.0	8.0	7.5	7.0	8.0	7.0	8.5	8.0
13	9.5	9.0	8.5	8.0	8.0	8.0	7.5	7.0	7.5	7.0	9.0	8.0
14	9.5	9.0	8.5	8.0	8.0	8.0	7.5	7.0	7.5	7.0	9.0	8.0
15	9.5	9.0	8.5	8.0	8.0	7.5	7.5	7.0	7.5	7.0	9.0	8.0
16	9.5	9.0	8.5	8.0	8.0	7.5	7.5	7.0	7.5	7.5	9.0	8.0
17	9.5	9.0	8.5	8.0	7.5	7.5	7.5	7.0	7.5	7.0	9.0	8.0
18	9.0	9.0	8.0	8.0	7.5	7.5	7.5	7.0	8.0	7.0	9.0	8.0
19	9.0	9.0	8.0	8.0	7.5	7.5	7.5	7.5	7.5	7.0	9.5	8.5
20	9.0	9.0	8.0	7.5	7.5	7.5	7.5	7.0	8.5	7.0	9.0	8.0
21	9.0	8.5	8.0	8.0	7.5	7.5	7.5	7.0	8.0	7.5	9.5	8.5
22	9.0	8.5	8.0	8.0	7.5	7.5	7.5	7.0	8.0	7.5	9.5	8.5
23	9.5	9.0	8.0	8.0	7.5	7.5	7.5	7.0	8.0	7.5	10.0	9.0
24	9.0	8.5	8.0	7.5	7.5	7.5	7.5	7.0	8.0	7.5	9.0	8.5
25	9.0	8.5	8.0	7.5	7.5	7.5	7.5	7.0	7.5	7.5	10.0	8.5
26	8.5	8.0	8.0	8.0	7.5	7.5	7.5	7.0	8.0	7.5	10.0	8.5
27	9.0	8.0	8.0	7.5	7.5	7.5	7.5	7.0	8.0	7.5	10.0	8.5
28	9.0	8.5	7.5	7.5	7.5	7.5	7.5	7.0	8.0	7.5	10.0	9.0
29	9.0	8.5	7.5	7.5	8.0	7.5	7.5	7.0	8.0	7.5	10.5	9.0
30	8.5	8.5	7.5	7.5	8.0	7.5	7.5	7.0	---	---	10.0	8.5
31	9.0	8.5	---	---	7.5	7.5	7.5	7.0	---	---	9.0	8.0
MONTH	10.5	8.0	8.5	7.5	8.0	7.5	7.5	7.0	8.5	7.0	10.5	7.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	8.5	10.0	9.5	12.0	11.5	14.0	12.5	14.0	13.0	14.0	12.5
2	10.5	8.5	10.5	10.0	12.0	11.5	13.5	12.5	14.0	13.0	14.0	13.0
3	9.5	8.5	10.5	10.0	12.5	11.5	13.5	12.5	13.5	13.0	14.5	12.5
4	9.5	8.5	10.5	10.0	12.5	11.5	13.5	12.5	13.5	12.5	14.0	13.0
5	9.5	8.5	10.5	10.0	12.5	12.0	13.5	12.5	13.0	12.5	13.5	13.0
6	9.5	8.5	10.5	9.5	12.5	12.0	13.5	12.5	13.0	12.5	14.0	13.0
7	9.5	8.5	11.0	9.5	12.5	12.0	13.0	12.5	13.0	12.5	14.0	13.0
8	9.5	8.5	10.5	10.0	13.0	12.0	13.5	12.5	13.0	12.0	14.0	13.0
9	10.0	8.5	10.5	10.0	13.0	12.0	13.5	12.5	13.0	12.0	14.0	13.0
10	9.0	8.5	10.5	10.0	13.0	12.0	13.5	12.5	13.0	12.0	14.0	13.0
11	9.5	9.0	10.5	10.0	12.5	12.0	13.5	12.5	13.0	12.0	13.5	12.5
12	10.0	8.5	11.0	10.0	12.5	12.0	13.5	12.5	12.5	12.0	14.0	12.5
13	10.5	9.0	11.0	11.0	12.5	11.5	13.5	12.5	12.5	12.0	14.0	13.0
14	10.5	9.0	11.0	10.5	12.5	11.5	13.5	12.5	12.0	12.0	14.5	13.0
15	10.0	9.0	10.5	10.0	13.0	12.0	13.5	12.5	12.5	12.0	14.5	14.0
16	10.0	8.5	10.5	10.0	12.5	11.5	14.5	13.0	12.5	12.0	14.0	14.0
17	10.0	9.0	10.5	10.5	13.0	11.5	13.5	12.5	13.0	12.0	14.5	13.5
18	10.5	9.0	10.5	10.5	12.5	12.0	14.0	13.0	12.5	12.0	14.5	14.0
19	10.0	9.0	11.0	10.5	12.5	12.0	14.0	13.0	12.5	12.0	14.0	13.5
20	10.0	9.0	11.0	10.5	13.0	12.0	13.5	13.0	12.5	12.0	14.5	13.0
21	10.0	9.0	11.0	10.5	13.0	12.0	13.5	13.0	12.5	12.0	13.5	13.0
22	10.0	9.5	11.0	10.5	13.0	12.0	14.0	13.0	13.5	12.0	13.5	13.0
23	10.5	9.5	11.5	10.5	13.5	12.0	14.0	13.0	13.5	12.0	13.5	12.5
24	10.0	9.5	11.5	11.0	13.5	12.0	13.5	12.5	13.0	12.0	13.0	12.5
25	10.5	9.5	11.5	10.5	13.5	12.5	13.5	12.5	13.0	12.0	13.0	12.5
26	11.0	9.5	11.5	10.5	13.0	12.5	14.0	13.0	13.0	12.0	13.0	12.5
27	10.5	10.0	12.0	10.5	13.0	12.5	14.0	13.0	12.5	11.5	13.0	12.5
28	10.5	10.0	11.5	11.0	13.5	12.5	14.0	13.0	12.5	12.0	13.0	12.5
29	10.0	10.0	11.5	11.0	13.5	12.5	13.5	13.0	13.0	12.0	13.0	12.5
30	10.0	9.5	12.0	11.0	13.5	12.5	13.5	13.0	13.0	12.0	13.0	12.5
31	---	---	12.0	11.0	---	---	13.5	13.0	14.0	12.5	---	---
MONTH	11.0	8.5	12.0	9.5	13.5	11.5	14.5	12.5	14.0	11.5	14.5	12.5

11418500 DEER CREEK NEAR SMARTVILLE, CA

LOCATION.--Lat 39°13'28", long 121°16'03", in SW¼SE¼ sec.23, T.16 N., R.6 E., Nevada County, on left bank 400 ft (122 m) upstream from county road bridge, 0.9 mi (1.4 km) upstream from mouth, and 2 mi (3 km) northeast of Smartville.

DRAINAGE AREA.--84.6 mi^2 (219.1 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1935 to current year.

REVISED RECORDS.--WSP 1395: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 630 ft (192 m), from river-profile map. June 21, 1935, to Nov. 30, 1938, nonrecording gage at same site and datum.

REMARKS.--Records good. Natural flow of stream is affected by Scotts Flat Reservoir beginning in 1949, usable capacity, 26,300 acre-ft (32.4 hm^3), increased to 49,000 acre-ft (60.4 hm^3) in July 1964, Deer Creek Reservoir, capacity, 1,400 acre-ft (1.73 hm^3), Lake Wildwood, capacity, 3,840 acre-ft (4.73 hm^3) beginning in 1970, power developments, and diversion for irrigation. At times water from South Yuba River is diverted to Deer Creek and water from Deer Creek is diverted to Bear River. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--41 years, 130 ft^3/s (3.682 m^3/s), 94,180 acre-ft/yr (116 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft^3/s (329 m^3/s) Oct. 13, 1962, gage height, 13.77 ft (4.197 m), from rating curve extended above 5,200 ft^3/s (147 m^3/s); minimum daily, 0.1 ft^3/s (0.003 m^3/s) Aug. 4-6, 15, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1928 reached a stage of 14.5 ft (4.42 m) from floodmarks, discharge, 14,000 ft^3/s (396 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 592 ft^3/s (16.8 m^3/s) Feb. 29, gage height, 4.73 ft (1.442 m); minimum daily, 0.90 ft^3/s (0.026 m^3/s) Sept. 7-9.

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	69	47	7.8	16	12	180	8.6	5.8	3.6	2.4	2.4	1.2
2	100	39	7.8	15	12	103	6.0	5.8	3.6	2.4	2.4	1.0
3	100	9.7	8.3	15	12	92	5.6	5.8	2.4	2.2	2.2	1.0
4	99	9.1	7.5	15	13	50	5.3	5.8	2.1	2.0	2.5	.98
5	64	10	18	14	21	30	5.6	5.2	2.0	2.0	2.4	.94
6	4.4	8.8	14	15	17	33	7.3	9.1	2.0	2.0	2.3	.94
7	5.9	7.5	10	15	15	35	8.1	3.6	2.2	1.8	2.3	.90
8	7.5	9.7	8.8	16	14	32	55	2.8	2.2	1.8	2.4	.90
9	19	9.4	8.6	41	16	28	43	2.9	2.2	1.7	2.3	.90
10	52	15	9.1	42	17	26	26	3.8	2.2	1.6	2.3	.98
11	51	11	8.0	26	13	24	40	3.9	2.5	1.7	1.9	3.6
12	40	10	47	22	14	22	35	3.9	2.3	1.7	1.9	2.6
13	39	10	22	21	19	19	30	3.2	2.2	1.6	1.6	1.7
14	27	10	14	19	47	18	22	2.5	1.5	1.4	1.7	1.4
15	14	11	12	17	40	18	18	2.3	1.4	1.3	4.6	1.6
16	6.2	76	11	17	78	18	14	2.3	1.4	1.3	2.9	1.7
17	5.9	17	10	18	97	17	13	2.8	1.4	1.3	2.0	1.6
18	5.2	18	9.7	18	43	19	11	4.1	1.5	1.4	1.8	1.6
19	4.8	50	9.4	17	136	23	9.4	4.3	1.5	2.1	1.8	1.5
20	5.2	61	9.1	17	68	19	7.8	3.9	1.7	1.8	1.8	1.5
21	4.4	60	9.1	17	38	18	7.8	4.4	2.0	1.8	1.6	1.5
22	5.0	60	20	15	29	17	7.6	3.5	2.0	1.7	1.8	1.4
23	5.2	59	16	16	25	15	7.1	3.2	2.0	1.7	1.8	1.3
24	5.5	36	13	16	22	16	6.4	3.5	1.8	1.7	1.6	1.3
25	5.3	8.3	12	15	21	17	5.2	3.5	1.8	1.8	1.6	1.2
26	30	8.3	10	14	21	17	6.2	3.3	1.8	2.0	1.5	1.3
27	77	9.1	9.7	14	18	14	4.8	3.2	1.8	1.8	.98	1.2
28	45	10	12	14	20	13	4.4	2.6	1.8	1.7	.94	1.4
29	46	9.1	16	14	203	12	4.6	2.6	2.2	1.7	.94	1.5
30	87	8.0	17	13	---	11	5.3	3.5	2.3	2.8	.94	1.5
31	54	---	17	12	---	9.7	---	3.6	---	2.1	.98	---
TOTAL	1083.5	707.0	403.9	556	1101	965.7	430.1	120.7	61.4	56.3	60.18	42.14
MEAN	35.0	23.6	13.0	17.9	38.0	31.2	14.3	3.89	2.05	1.82	1.94	1.40
MAX	100	76	47	42	203	180	55	9.1	3.6	2.8	4.6	3.6
MIN	4.4	7.5	7.5	12	12	9.7	4.4	2.3	1.4	1.3	.94	.90
AC-FT	2150	1400	801	1100	2180	1920	853	239	122	112	119	84
‡	37730	42797	40271	41334	43661	44925	43462	38542	33060	26682	21800	17020

CAL YR 1975 TOTAL 39192.40 MEAN 107 MAX 2320 MIN 2.9 AC-FT 77740
WTR YR 1976 TOTAL 5587.92 MEAN 15.3 MAX 203 MIN .90 AC-FT 11080

‡ Contents, in acre-feet, at end of month for Scotts Flat Reservoir, furnished by Nevada Irrigation District.

11418500 DEER CREEK NEAR SMARTVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959, 1974 to current year.
CHEMICAL ANALYSES: Water year 1959.
WATER TEMPERATURES: Water years 1974 to current year.
SEDIMENT RECORDS: Water years 1974 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1973 to current year.
SEDIMENT RECORDS: October 1973 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 168 mg/L Mar. 1, 1974; minimum daily mean, 1 mg/L on many days each year.
SEDIMENT DISCHARGE: Maximum daily, 1,700 tons (1,540 tonnes) Mar. 1, 1974; minimum daily, 0 ton (0 tonne) on several days in 1976.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 51 mg/L Oct. 10; minimum daily mean, 1 mg/L on several days.
SEDIMENT DISCHARGE: Maximum daily, 54 tons (49 tonnes) Feb. 29; minimum daily, 0 ton (0 tonne) on several days during September.

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	14.5	14.0	8.5	---	9.0	8.0	13.0	21.0	---	---	24.0	27.0
2	---	12.5	8.0	---	9.0	6.0	14.0	---	22.0	25.5	---	---
3	13.5	13.5	8.0	---	10.0	7.0	12.0	---	---	---	22.0	28.0
4	---	---	8.5	5.0	7.0	7.0	13.0	16.0	23.0	---	---	---
5	---	12.5	10.0	6.5	6.0	8.0	11.5	22.0	---	26.0	25.0	---
6	---	14.0	7.5	6.0	5.5	9.5	13.5	---	23.0	---	---	---
7	---	---	---	6.0	7.0	9.0	13.5	---	---	28.0	---	---
8	---	---	8.0	6.0	9.0	10.0	11.5	24.0	22.5	---	---	26.5
9	13.5	9.5	8.0	6.5	10.0	11.0	13.5	---	---	---	26.0	---
10	13.5	11.0	7.0	6.5	8.5	11.0	---	---	22.5	---	---	23.5
11	---	9.5	6.0	6.5	8.5	11.0	---	25.0	---	---	27.0	---
12	---	9.0	---	6.5	6.0	10.5	---	---	---	29.5	---	22.5
13	14.5	10.0	---	6.5	---	11.0	---	---	---	---	---	---
14	---	9.0	---	6.0	---	12.0	---	26.0	26.0	29.5	20.5	23.5
15	16.5	10.0	5.0	7.0	---	12.0	---	---	---	---	---	---
16	---	10.0	5.0	7.0	8.0	13.5	---	25.0	27.5	---	---	20.5
17	16.5	8.5	5.0	8.0	10.0	16.0	---	---	---	---	21.0	---
18	---	6.5	5.0	7.5	11.0	12.0	---	---	29.0	28.5	---	---
19	---	9.0	5.0	7.5	8.0	8.5	18.5	22.0	---	---	25.5	---
20	---	---	6.0	6.5	8.0	11.5	18.0	---	---	---	---	22.0
21	---	---	6.0	6.0	8.5	11.5	17.0	---	---	---	---	---
22	---	10.0	7.5	8.0	8.5	12.0	17.5	---	19.5	---	---	22.0
23	12.0	10.0	7.0	7.5	8.5	12.0	18.5	---	---	28.5	---	---
24	---	10.0	---	7.0	9.0	11.0	19.0	23.5	28.0	---	28.0	23.0
25	10.0	9.5	5.5	6.0	9.0	10.0	17.0	---	---	---	---	---
26	---	8.5	7.0	6.0	11.0	11.0	18.0	25.5	---	29.5	25.5	22.5
27	12.5	8.0	8.5	7.0	12.0	12.0	18.0	---	28.5	---	---	---
28	---	7.0	8.0	8.0	11.0	14.0	19.0	---	---	25.5	25.0	22.0
29	---	6.0	8.0	8.0	8.0	---	20.0	---	28.0	---	---	---
30	12.0	7.0	7.0	8.5	---	15.0	22.0	---	24.5	28.0	28.0	21.0
31	---	---	3.0	9.0	---	12.5	---	24.5	---	---	---	---
MONTH	---	10.0	7.0	7.0	8.5	11.0	---	---	---	---	---	---

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

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (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									
10...	1720	13.5	89	92	22	99	100	--	--
FEB									
16...	1725	8.0	100	29	7.8	99	100	--	--
29...	2140	8.0	542	69	101	95	97	98	100

11418500 DEER CREEK NEAR SMARTVILLE, 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	69	20	4.9	47	8	1.0	7.8	2	.04
2	100	16	4.3	39	7	.80	7.8	2	.04
3	100	14	3.8	9.7	2	.05	8.3	2	.04
4	99	14	3.7	9.1	2	.05	7.5	2	.04
5	64	12	2.4	10	2	.05	18	4	.19
6	4.4	6	.07	8.8	3	.07	14	6	.23
7	5.9	5	.08	7.5	4	.08	10	4	.11
8	7.5	9	.25	9.7	3	.08	8.8	3	.07
9	19	10	.51	9.4	3	.08	8.6	6	.14
10	52	51	9.5	15	7	.28	9.1	6	.15
11	51	20	2.8	11	4	.12	8.0	3	.06
12	40	11	1.2	10	3	.08	47	27	5.1
13	39	10	1.1	10	1	.03	22	7	.42
14	27	9	.68	10	1	.03	14	4	.15
15	14	6	.23	11	3	.09	12	4	.13
16	6.2	3	.05	76	32	9.7	11	3	.09
17	5.9	2	.03	17	6	.28	10	4	.11
18	5.2	2	.03	18	5	.24	9.7	3	.08
19	4.8	2	.03	50	8	1.1	9.4	1	.03
20	5.2	3	.04	61	7	1.2	9.1	2	.05
21	4.4	3	.04	60	6	.97	9.1	4	.10
22	5.0	3	.04	60	4	.65	20	12	.76
23	5.2	4	.06	59	5	.80	16	5	.22
24	5.5	3	.04	36	6	.58	13	4	.14
25	5.3	2	.03	8.3	5	.11	12	2	.06
26	30	34	3.5	8.3	5	.11	10	2	.05
27	77	22	7.5	9.1	4	.10	9.7	2	.05
28	45	9	1.1	10	2	.05	12	2	.06
29	46	9	1.1	9.1	1	.02	16	3	.13
30	87	26	6.6	8.0	2	.04	17	3	.14
31	54	9	1.3	---	---	---	17	2	.09
TOTAL	1083.5	---	57.01	707.0	---	18.84	403.9	---	9.07

	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	16	2	.09	12	1	.03	180	18	11
2	15	2	.08	12	1	.03	103	9	2.5
3	15	2	.08	12	1	.03	92	8	2.0
4	15	3	.12	13	3	.11	50	7	.94
5	14	2	.08	21	6	.34	30	6	.49
6	15	2	.08	17	6	.28	33	6	.53
7	15	2	.08	15	3	.12	35	5	.47
8	16	2	.09	14	3	.11	32	5	.43
9	41	12	1.9	16	7	.30	28	5	.38
10	42	4	.45	17	5	.23	26	5	.35
11	26	3	.21	13	3	.11	24	4	.26
12	22	2	.12	14	5	.19	22	4	.24
13	21	2	.11	19	7	.54	19	4	.21
14	19	2	.10	47	11	1.4	18	5	.24
15	17	2	.09	40	6	.65	18	3	.15
16	17	2	.09	78	24	8.0	18	3	.15
17	18	3	.15	97	15	4.6	17	3	.14
18	18	4	.19	43	7	.81	19	3	.15
19	17	4	.18	136	25	10	23	6	.37
20	17	3	.14	68	8	1.5	19	5	.26
21	17	2	.09	38	7	.72	18	4	.19
22	15	3	.12	29	6	.47	17	4	.18
23	16	3	.13	25	5	.34	15	4	.16
24	16	4	.17	22	4	.24	16	3	.13
25	15	3	.12	21	5	.28	17	4	.18
26	14	2	.08	21	4	.23	17	5	.23
27	14	2	.08	18	4	.19	14	4	.15
28	14	2	.08	20	5	.27	13	4	.14
29	14	2	.08	203	49	54	12	3	.10
30	13	2	.07	---	---	---	11	4	.12
31	12	2	.06	---	---	---	9.7	3	.08
TOTAL	556	---	5.51	1101	---	86.12	965.7	---	22.92

11418500 DEER CREEK NEAR SMARTVILLE, CA--Continued

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	8.6	2	.05	5.8	2	.03	3.6	2	.02
2	6.0	3	.05	5.8	2	.03	3.6	2	.02
3	5.6	4	.06	5.8	1	.02	2.4	2	.01
4	5.3	4	.06	5.8	1	.02	2.1	3	.02
5	5.6	2	.03	5.2	2	.03	2.0	3	.02
6	7.3	6	.12	9.1	7	.26	2.0	3	.02
7	8.1	8	.17	3.6	7	.07	2.2	2	.01
8	55	17	2.5	2.8	6	.05	2.2	2	.01
9	43	10	1.2	2.9	5	.04	2.2	2	.01
10	26	9	.63	3.8	4	.04	2.2	2	.01
11	40	8	.86	3.9	4	.04	2.5	2	.01
12	35	7	.66	3.9	3	.03	2.3	2	.01
13	30	6	.49	3.2	2	.02	2.2	2	.01
14	22	5	.30	2.5	2	.01	1.5	5	.02
15	18	4	.19	2.3	3	.02	1.4	7	.03
16	14	4	.15	2.3	4	.02	1.4	7	.03
17	13	4	.14	2.8	4	.03	1.4	5	.02
18	11	4	.12	4.1	4	.04	1.5	3	.01
19	9.4	4	.10	4.3	4	.05	1.5	2	.01
20	7.8	3	.06	3.9	4	.04	1.7	2	.01
21	7.8	2	.04	4.4	4	.05	2.0	3	.02
22	7.6	4	.08	3.5	3	.03	2.0	3	.02
23	7.1	4	.08	3.2	3	.03	2.0	3	.02
24	6.4	4	.07	3.5	3	.03	1.8	3	.01
25	5.2	3	.04	3.5	3	.03	1.8	3	.01
26	6.2	3	.05	3.3	3	.03	1.8	3	.01
27	4.8	2	.03	3.2	3	.03	1.8	3	.01
28	4.4	2	.02	2.6	3	.02	1.8	2	.01
29	4.6	2	.02	2.6	3	.02	2.2	2	.01
30	5.3	2	.03	3.5	3	.03	2.3	3	.02
31	---	---	---	3.6	3	.03	---	---	---
TOTAL	430.1	---	8.40	120.7	---	1.22	61.4	---	.45

	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	2.4	5	.03	2.4	4	.03	1.2	3	.01
2	2.4	6	.04	2.4	3	.02	1.0	3	.01
3	2.2	7	.04	2.2	2	.01	1.0	2	.01
4	2.0	6	.03	2.5	1	.01	.98	2	.01
5	2.0	6	.03	2.4	1	.01	.94	2	.01
6	2.0	6	.03	2.3	1	.01	.94	3	.01
7	1.8	7	.03	2.3	2	.01	.90	3	.01
8	1.8	7	.03	2.4	2	.01	.90	4	.01
9	1.7	7	.03	2.3	2	.01	.90	3	.01
10	1.6	7	.03	2.3	2	.01	.98	2	.01
11	1.7	7	.03	1.9	2	.01	3.6	6	.07
12	1.7	7	.03	1.9	2	.01	2.6	3	.02
13	1.6	5	.02	1.6	2	.01	1.7	2	.01
14	1.4	3	.01	1.7	2	.01	1.4	2	.01
15	1.3	2	.01	4.6	4	.05	1.6	2	.01
16	1.3	2	.01	2.9	3	.02	1.7	2	.01
17	1.3	2	.01	2.0	3	.02	1.6	2	.01
18	1.4	2	.01	1.8	2	.01	1.6	1	0
19	2.1	3	.02	1.8	2	.01	1.5	1	0
20	1.8	4	.02	1.8	2	.01	1.5	1	0
21	1.8	6	.03	1.6	2	.01	1.5	1	0
22	1.7	7	.03	1.8	3	.01	1.4	1	0
23	1.7	8	.04	1.8	3	.01	1.3	1	0
24	1.7	8	.04	1.6	3	.01	1.3	1	0
25	1.8	7	.03	1.6	4	.02	1.2	2	.01
26	2.0	6	.03	1.5	5	.02	1.3	3	.01
27	1.8	5	.02	.98	3	.01	1.2	3	.01
28	1.7	4	.02	.94	2	.01	1.4	3	.01
29	1.7	3	.01	.94	2	.01	1.5	3	.01
30	2.8	2	.02	.94	3	.01	1.5	3	.01
31	2.1	3	.02	.98	3	.01	---	---	---
TOTAL	56.3	---	.78	60.18	---	.42	42.14	---	.30
YEAR	5587.92		211.04						

11420700 DRY CREEK NEAR BROWNS VALLEY, CA

LOCATION.--Lat 39°15'23", long 121°20'34", in NE¼SW¼ sec.7, T.16 N., R.6 E., Yuba County, on left bank 500 ft (150 m) upstream from diversion dam, and 3.6 mi (5.8 km) east of Browns Valley.

DRAINAGE AREA.--87.1 mi^2 (225.6 km^2).

PERIOD OF RECORD.--July 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 265 ft (80.8 m), from topographic map.

REMARKS.--Records good except those for the summer months, which are fair. Flow regulated by Lake Mildred, capacity, 1,500 acre-ft (1.85 hm^3) and Merle Collins Reservoir since 1963, capacity, 57,000 acre-ft (70.3 hm^3), 6.5 mi (10.5 km) upstream. Some diversion above station for irrigation. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE (unadjusted).--12 years, 82.7 ft^3/s (2.342 m^3/s), 59,920 acre-ft/yr (73.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,950 ft^3/s (169 m^3/s) Jan. 21, 1969, gage height, 10.38 ft (3.164 m); minimum daily, 1.2 ft^3/s (0.034 m^3/s) Dec. 12-15, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 37 ft^3/s (1.05 m^3/s) Oct. 10, gage height, 2.84 ft (0.866 m); minimum daily, 1.9 ft^3/s (0.054 m^3/s) Mar. 30, Apr. 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	7.7	6.3	2.6	2.2	2.5	12	1.9	6.3	5.8	5.6	8.7	6.4
2	7.6	5.9	2.6	2.2	2.5	9.9	1.9	6.7	5.3	5.8	8.7	5.8
3	7.3	5.7	2.6	2.2	2.5	14	1.9	6.5	5.7	6.9	8.8	5.8
4	7.2	5.6	2.7	2.2	2.5	6.0	1.9	6.5	5.8	7.2	8.7	5.9
5	7.0	5.6	6.7	2.2	2.4	4.0	2.1	6.8	5.7	7.5	8.4	6.2
6	7.7	5.6	4.4	2.1	2.4	3.2	2.2	7.0	6.0	7.5	7.6	7.0
7	9.2	5.6	3.3	2.1	2.3	2.9	2.9	6.7	5.5	7.4	7.7	7.9
8	8.7	5.4	2.9	2.1	2.3	2.7	11	6.4	5.6	7.5	8.3	7.8
9	9.2	4.1	2.7	4.5	2.3	2.5	7.1	6.6	6.0	7.5	8.1	7.4
10	24	5.6	2.6	4.2	2.3	2.2	5.2	6.7	6.3	7.4	7.8	7.6
11	15	4.9	2.6	3.2	2.3	2.5	6.1	7.6	5.6	7.5	8.2	12
12	10	4.4	4.0	2.9	2.4	2.8	8.3	5.9	5.5	7.6	6.7	7.7
13	8.2	3.9	4.2	2.6	3.0	2.4	6.9	5.5	5.4	7.5	7.1	8.6
14	8.5	3.7	3.3	2.5	3.9	2.4	6.1	5.7	4.7	7.5	8.6	7.2
15	8.1	5.3	2.9	2.5	3.0	2.3	5.5	5.6	4.8	7.5	12	7.9
16	8.7	9.6	2.8	2.4	4.3	2.3	4.5	6.0	5.6	7.5	8.0	7.1
17	8.4	4.9	2.6	2.4	6.3	2.4	4.4	6.2	5.5	7.8	7.5	7.2
18	8.6	3.8	2.6	2.4	4.1	2.3	4.8	6.0	5.3	8.9	7.3	7.0
19	8.3	3.3	2.6	2.2	3.5	2.4	4.7	5.2	4.7	8.8	7.6	6.7
20	8.2	3.3	2.5	2.2	3.1	2.2	4.6	5.8	4.7	8.4	8.0	6.7
21	8.1	2.9	2.5	2.1	2.9	2.1	4.7	5.6	4.7	7.9	8.2	6.7
22	8.0	2.7	3.4	2.1	2.7	2.1	6.1	5.8	4.9	8.0	9.3	6.5
23	7.9	2.7	3.0	2.1	2.6	2.1	6.4	6.5	5.5	7.8	7.4	6.6
24	8.0	2.6	2.7	2.1	2.5	2.2	5.2	5.1	5.4	7.7	6.7	6.3
25	6.9	2.6	2.6	2.2	2.6	2.1	3.5	5.9	5.6	7.8	7.0	6.1
26	8.4	2.6	2.5	2.3	2.5	2.2	3.6	6.7	5.5	7.8	6.2	6.1
27	6.5	2.6	2.5	2.2	2.5	2.2	4.2	7.0	6.3	7.8	6.0	7.1
28	6.0	2.6	2.3	2.2	2.5	2.1	4.3	6.9	5.9	7.8	5.9	7.5
29	5.8	2.5	2.3	2.4	8.6	2.1	4.5	6.9	5.5	8.1	5.6	8.0
30	16	2.6	2.3	2.5	---	1.9	5.0	6.4	5.6	8.3	5.8	8.1
31	7.5	---	2.2	2.5	---	2.0	---	6.0	---	8.4	6.5	---
TOTAL	276.7	128.9	91.5	76.0	89.3	106.5	141.5	194.5	164.4	236.7	238.4	214.9
MEAN	8.93	4.30	2.95	2.45	3.08	3.44	4.72	6.27	5.48	7.64	7.69	7.16
MAX	24	9.6	6.7	4.5	8.6	14	11	7.6	6.3	8.9	12	12
MIN	5.8	2.5	2.2	2.1	2.3	1.9	1.9	5.1	4.7	5.6	5.6	5.8
AC-FT	549	256	181	151	177	211	281	386	326	469	473	426

CAL YR 1975	TOTAL	25833.4	MEAN 70.8	MAX 2470	MIN 2.2	AC-FT	51240
WTR YR 1976	TOTAL	1959.3	MEAN 5.35	MAX 24	MIN 1.9	AC-FT	3890

11420800 YUBA RIVER AT DAQUERRA POINT DAM, NEAR BROWNS VALLEY, CA

LOCATION.--Lat 39°12'30", long 121°26'31", in SW¼SW¼ sec.29, T.16 N., R.5 E., Yuba County, on left end of Daquerra Point Dam, 2.9 mi (4.7 km) southwest of Browns Valley.

DRAINAGE AREA.--1,330 mi^2 (3,445 km^2).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1974 to current year.

INSTRUMENTATION: Temperature recorder since October 1974.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 21.5°C Oct. 1, 1974; minimum, 6.0°C on several days in 1975 and 1976.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.0°C on many days during July to September; minimum, 6.0°C on several days during January and February.

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	12.5	10.0	9.5	8.0	9.0	7.5	8.0	6.5	9.5	7.0	9.5	7.5
2	12.0	10.0	10.0	7.5	9.0	7.5	8.0	6.5	10.0	7.0	8.0	7.5
3	12.0	10.0	9.5	7.5	9.0	7.5	7.5	6.5	10.0	7.0	10.5	7.5
4	12.0	9.5	10.5	8.5	9.0	7.5	7.5	6.0	7.5	6.5	11.0	7.0
5	12.0	9.5	10.0	8.5	8.5	8.0	7.5	7.0	8.5	6.5	11.0	7.0
6	10.5	9.5	10.0	8.5	9.0	7.5	8.5	6.5	7.5	6.0	11.5	7.0
7	13.5	9.0	9.5	8.5	9.0	7.5	8.0	6.5	8.5	6.0	11.5	7.5
8	11.0	9.0	10.0	8.0	8.5	7.5	8.0	6.5	9.0	7.0	12.0	8.0
9	10.0	9.0	9.0	8.0	8.5	8.0	8.0	7.0	10.0	7.0	12.5	8.0
10	10.0	9.5	10.0	8.0	8.0	8.0	8.5	6.5	10.0	6.5	12.5	8.0
11	11.0	9.0	9.5	8.0	8.0	7.5	7.5	7.0	10.0	6.5	12.5	8.5
12	11.0	8.5	10.0	8.0	9.0	7.5	7.5	7.0	10.5	7.0	12.5	7.5
13	11.0	8.5	10.0	8.0	8.5	7.5	8.5	6.5	8.5	7.0	12.5	8.0
14	11.0	8.5	9.5	8.0	8.5	7.0	8.5	6.5	8.5	7.5	13.0	8.5
15	11.0	8.5	9.0	8.5	8.5	7.0	8.5	6.5	9.0	7.5	12.5	8.5
16	11.0	8.5	9.0	8.0	8.5	7.0	9.0	6.5	8.0	7.5	13.0	9.0
17	11.0	8.5	9.0	7.5	8.5	7.0	9.0	6.5	9.5	8.0	13.5	9.5
18	11.0	8.5	9.0	7.5	8.5	7.0	9.5	6.5	10.5	8.0	11.5	9.5
19	10.5	8.5	9.0	7.5	8.5	7.0	9.0	6.5	10.0	7.5	12.5	8.5
20	11.0	8.5	9.0	7.5	8.5	7.0	9.0	6.5	10.5	6.5	13.0	8.0
21	10.5	8.5	9.0	7.5	8.0	7.0	9.0	6.5	10.5	7.0	13.5	8.5
22	10.0	8.0	8.5	7.5	8.0	7.0	9.0	6.5	10.5	7.0	13.0	9.0
23	10.0	8.0	9.0	7.5	8.5	7.0	8.5	6.5	9.0	7.0	13.0	9.0
24	10.0	8.0	9.0	7.5	8.5	7.0	9.5	6.5	11.0	7.0	11.0	9.5
25	8.5	8.0	9.0	7.5	8.0	7.0	9.0	6.0	9.0	8.0	13.0	8.0
26	9.5	8.0	8.5	7.5	8.0	7.0	9.0	6.0	11.5	8.0	13.0	8.5
27	9.5	7.5	8.0	7.5	8.5	7.0	9.0	6.0	11.5	8.0	13.5	8.5
28	10.0	8.0	8.5	7.0	9.0	7.0	9.5	6.5	10.5	9.0	14.5	9.0
29	10.0	8.0	8.0	7.0	8.5	7.0	9.0	6.5	9.0	8.0	14.0	9.0
30	9.0	8.0	8.5	7.5	8.5	7.0	9.5	6.5	---	---	14.5	9.5
31	10.0	7.5	---	---	8.0	6.5	9.5	6.5	---	---	12.5	10.0
MONTH	13.5	7.5	10.5	7.0	9.0	6.5	9.5	6.0	11.5	6.0	14.5	7.0

11420800 YUBA RIVER AT DAQUERRA POINT DAM, NEAR BROWNS VALLEY, CA--Continued

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

11421000 YUBA RIVER NEAR MARYSVILLE, CA

LOCATION.--Lat 39°10'33", long 121°31'26", in New Helvetia Grant, Yuba County, on left bank 4.2 mi (6.8 km) northeast of Marysville, and 5 mi (8 km) downstream from Dry Creek.

DRAINAGE AREA.--1,339 mi^2 (3,468 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to September 1943 (low-water periods only), October 1943 to current year. Published as "at Marysville" October 1940 to September 1957. Records published for two sites August 1954 to September 1955. Yearly discharge for the 1945 water year published in WSP 1315-A.

REVISED RECORDS.--WSP 1715: 1956(M). WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2.95 ft (0.899 m) below mean sea level. Prior to August 1954 and Oct. 1, 1956, to Sept. 30, 1957, at Simpson Lane Bridge in Marysville 4.2 mi (6.8 km) downstream at same datum. Sept. 3, 1963, to Sept. 23, 1968, auxiliary water-stage recorder at Simpson Lane Bridge in Marysville 4.2 mi (6.8 km) downstream at same datum.

REMARKS.--Records good. Flow regulated by several reservoirs above station. Many diversions above station for power. Diversions for irrigation of about 13,000 acres (53 km^2) between stations at Englebright Dam and near Marysville. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--33 years (water years 1944-76), 2,555 ft^3/s (72.36 m^3/s), 1,851,000 acre-ft/yr (2.28 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (water years 1944, 1947-76), 180,000 ft^3/s (5,100 m^3/s) Dec. 22, 1964, gage height, 90.15 ft (27.478 m) from floodmarks, from rating curve extended above 91,000 ft^3/s (2,580 m^3/s) on basis of Corps of Engineers flood routing study; minimum recorded, 10 ft^3/s (0.28 m^3/s) July 2, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,910 ft^3/s (82.41 m^3/s) Oct. 27; minimum daily, 107 ft^3/s (3.03 m^3/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	2600	2860	2430	1350	490	1990	292	195	193	130	133	157
2	2680	2850	2430	1310	490	2110	316	190	196	116	128	135
3	2680	2820	2430	1160	473	1450	281	199	197	122	121	145
4	2670	2830	2420	1150	487	735	253	198	194	126	115	165
5	2610	2800	2470	1150	566	614	251	195	185	126	120	132
6	2550	2750	2440	962	693	590	249	202	187	127	132	129
7	1500	2580	2410	766	549	576	256	221	198	138	139	117
8	2840	2730	2390	792	498	565	340	251	195	139	139	107
9	2820	2730	2390	839	500	548	344	218	209	141	141	149
10	2860	2730	2380	849	502	537	297	203	212	144	122	130
11	2770	2720	2370	821	515	534	308	194	214	142	120	144
12	2750	2750	2410	810	480	529	332	193	214	124	124	171
13	2750	2740	2390	805	500	508	306	391	217	119	124	153
14	2750	2390	2370	825	549	502	278	333	217	141	133	454
15	2780	2420	2220	835	532	485	252	156	214	115	143	542
16	2790	2500	1990	904	563	486	237	178	223	120	144	567
17	2790	2430	1930	904	629	478	269	221	206	127	139	604
18	2790	2410	1900	896	573	466	247	215	217	117	136	608
19	2780	2430	1750	902	633	463	204	221	203	115	125	614
20	2760	2460	1720	899	678	450	206	209	206	118	129	616
21	2770	2450	1710	906	602	455	275	200	209	126	131	592
22	2780	2450	1640	910	568	452	309	200	212	125	140	601
23	2770	2450	1580	906	556	829	269	203	206	129	159	580
24	2780	2440	1560	652	553	439	253	208	203	129	171	561
25	2810	2410	1550	616	549	352	263	198	220	129	158	568
26	2840	2430	1540	614	549	312	247	197	188	147	133	575
27	2910	2440	1530	583	529	307	228	203	171	181	123	597
28	2860	2260	1540	586	539	314	190	193	174	162	131	619
29	2860	2380	1480	566	802	307	229	188	189	151	139	628
30	2900	2400	1370	507	---	297	212	189	164	139	151	629
31	2870	---	1370	488	---	286	---	194	---	128	163	---
TOTAL	84670	77040	62110	26263	16147	18966	7993	6556	6033	4093	4206	11789
MEAN	2731	2568	2004	847	557	612	266	211	201	132	136	393
MAX	2910	2860	2470	1350	802	2110	344	391	223	181	171	629
MIN	1500	2260	1370	488	473	286	190	156	164	115	115	107
AC-FT	167900	152800	123200	52090	32030	37620	15850	13000	11970	8120	8340	23380

CAL YR 1975 TOTAL 983784 MEAN 2695 MAX 9490 MIN 810 AC-FT 1951000
WTR YR 1976 TOTAL 325866 MEAN 890 MAX 2910 MIN 107 AC-FT 646400

NOTE.--No gage-height record Oct. 8 to Nov. 13.

11421000 YUBA RIVER NEAR MARYSVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1972 to current year.

INSTRUMENTATION.--Temperature recorder since November 1972.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 27.5°C July 26, 1976; minimum, 5.5°C Jan. 4-8, 1973, Feb. 5-7, 1976.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.5°C July 26; minimum, 5.5°C Feb. 5-7.

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	14.5	11.5	---	---	9.0	7.5	8.0	6.0	9.5	7.0	10.0	8.0
2	14.0	12.5	---	---	9.0	7.0	8.0	6.0	9.5	6.5	8.0	8.0
3	14.0	12.5	---	---	9.0	7.5	7.5	6.5	9.5	6.5	11.0	8.0
4	14.0	12.0	---	---	9.0	7.5	8.0	6.0	8.0	6.5	11.0	7.5
5	14.5	12.5	---	---	8.5	8.0	8.0	7.0	8.0	5.5	11.5	7.5
6	12.5	11.5	---	---	9.0	7.5	9.0	7.0	7.0	5.5	11.5	7.5
7	---	---	9.5	8.5	9.0	7.5	8.5	6.5	8.0	5.5	12.0	8.0
8	---	---	10.0	8.0	8.5	7.5	9.0	7.0	8.5	7.0	12.5	9.0
9	---	---	9.5	8.0	8.5	7.5	8.5	7.5	9.5	7.0	12.5	8.5
10	---	---	10.0	8.0	8.0	7.5	8.5	7.0	9.5	6.5	12.5	9.0
11	---	---	10.0	7.5	8.0	7.5	8.0	7.0	10.0	6.5	13.0	9.0
12	---	---	10.0	8.0	9.0	7.5	8.0	7.5	10.5	7.0	12.5	8.0
13	---	---	10.0	8.0	9.0	7.0	8.5	7.0	9.0	7.0	12.5	9.0
14	---	---	9.5	8.0	8.5	6.5	8.5	6.5	8.5	8.0	13.5	9.0
15	---	---	9.0	8.5	8.5	7.0	8.5	6.5	9.0	7.5	13.0	9.0
16	---	---	9.5	8.0	8.5	7.0	9.0	6.5	8.5	7.5	14.0	10.0
17	---	---	9.5	7.5	8.5	7.0	9.0	7.0	9.5	8.0	15.0	10.5
18	---	---	9.0	7.0	8.5	6.5	9.5	6.5	11.0	8.0	12.5	10.5
19	---	---	9.0	7.5	8.5	7.0	9.0	6.5	10.0	8.0	13.0	8.5
20	---	---	9.5	7.5	8.5	6.5	9.0	6.5	10.5	6.5	13.5	8.5
21	---	---	9.0	7.0	8.5	7.0	9.0	6.5	10.5	7.0	14.0	9.5
22	---	---	9.0	7.5	8.5	7.0	9.0	6.5	10.5	7.5	13.5	10.0
23	---	---	9.5	7.5	8.5	7.0	8.5	6.5	9.5	7.5	13.0	9.5
24	---	---	9.5	7.5	8.5	7.0	9.0	6.5	11.0	7.0	11.5	10.0
25	---	---	9.5	7.5	8.0	7.0	8.5	6.0	9.5	8.5	13.5	8.5
26	---	---	8.5	7.5	8.5	7.0	8.5	6.0	12.0	8.5	13.5	9.5
27	---	---	8.5	7.5	8.5	7.5	8.5	6.0	12.0	8.5	13.5	9.0
28	---	---	9.0	7.0	9.5	7.0	9.0	6.5	11.5	9.5	15.0	10.0
29	---	---	8.0	6.5	9.0	7.0	9.0	6.5	10.5	8.5	14.5	10.0
30	---	---	8.5	7.5	8.5	7.0	9.5	6.5	---	---	16.0	11.0
31	---	---	---	---	8.0	6.0	9.0	6.5	---	---	14.0	11.0
MONTH	---	---	10.0	6.5	9.5	6.0	9.5	6.0	12.0	5.5	16.0	7.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.5	9.5	20.0	14.0	21.5	15.5	24.5	18.0	25.0	19.0	25.0	19.5
2	15.0	10.0	20.0	14.5	21.5	16.0	24.5	18.0	25.5	19.5	25.5	20.0
3	13.5	10.5	20.0	14.0	21.5	15.0	25.0	18.5	22.0	18.5	25.0	19.5
4	14.5	10.5	19.0	14.0	22.0	16.0	25.5	19.0	25.0	18.5	24.0	19.0
5	12.5	11.0	20.0	14.0	22.0	16.0	26.0	19.5	25.0	19.0	24.0	19.5
6	14.0	11.0	19.5	14.5	21.5	15.5	26.0	19.5	24.0	18.5	24.5	19.0
7	12.5	11.5	20.5	14.5	21.0	15.5	25.0	19.5	24.5	19.0	24.5	19.5
8	13.5	11.0	20.5	15.0	21.0	15.5	25.5	19.5	25.0	19.0	25.0	19.5
9	15.5	10.5	21.5	15.0	21.0	16.5	26.0	20.0	25.0	19.5	24.5	19.5
10	13.0	11.0	20.5	15.5	21.0	16.0	26.0	19.5	25.5	20.0	23.0	20.0
11	15.0	10.0	21.0	15.5	21.5	15.5	24.5	19.0	25.5	19.5	21.0	19.5
12	15.0	11.0	22.0	15.5	22.5	16.5	26.5	19.5	25.5	19.5	22.5	18.5
13	16.0	11.0	20.5	14.5	22.0	17.0	26.5	20.0	23.0	18.5	24.0	19.0
14	16.5	12.0	20.0	14.5	22.5	16.0	26.0	19.5	21.0	19.0	21.0	16.5
15	15.5	12.0	22.0	15.5	23.0	17.0	26.5	20.0	21.5	18.5	19.0	16.5
16	15.0	10.5	21.5	16.0	23.5	17.0	26.0	20.5	22.5	18.0	19.0	16.0
17	16.0	11.0	20.5	14.5	24.0	18.0	25.5	19.0	22.5	18.5	20.0	15.5
18	17.5	12.5	20.5	14.5	23.5	17.5	26.0	20.0	21.5	18.5	20.0	15.5
19	18.5	12.5	20.5	14.5	23.0	17.5	26.5	19.5	24.5	19.0	20.0	16.0
20	18.5	13.5	21.0	15.0	22.5	17.0	26.5	19.5	25.0	19.5	19.5	15.5
21	16.5	13.0	21.0	15.5	22.5	16.5	26.0	19.5	24.5	20.0	19.5	15.0
22	17.5	12.0	21.5	15.5	23.0	17.0	26.5	20.0	23.5	19.5	19.0	15.0
23	18.0	12.5	21.5	15.0	23.0	17.5	26.5	21.0	24.5	19.0	19.0	15.0
24	18.0	13.5	21.0	15.0	24.0	17.5	26.5	20.5	24.5	19.0	19.0	15.0
25	16.5	11.5	22.0	16.0	24.0	18.0	27.0	21.0	24.5	19.0	19.0	15.0
26	16.5	11.5	22.5	16.5	24.5	18.0	27.5	21.0	24.5	19.0	19.0	15.0
27	18.0	12.0	22.5	16.5	25.0	18.5	26.0	20.0	25.0	19.0	18.0	15.5
28	19.0	13.0	21.5	15.5	25.0	18.5	24.5	20.5	25.5	19.5	18.5	15.5
29	18.5	13.0	20.5	15.5	23.5	17.5	25.5	20.0	25.0	19.5	18.0	15.0
30	19.0	13.0	20.5	15.5	23.0	17.5	25.0	19.5	25.0	19.5	18.5	15.0
31	---	---	22.0	15.5	---	---	22.5	19.5	25.5	19.0	---	---
MONTH	19.0	9.5	22.5	14.0	25.0	15.0	27.5	18.0	25.5	18.0	25.5	15.0

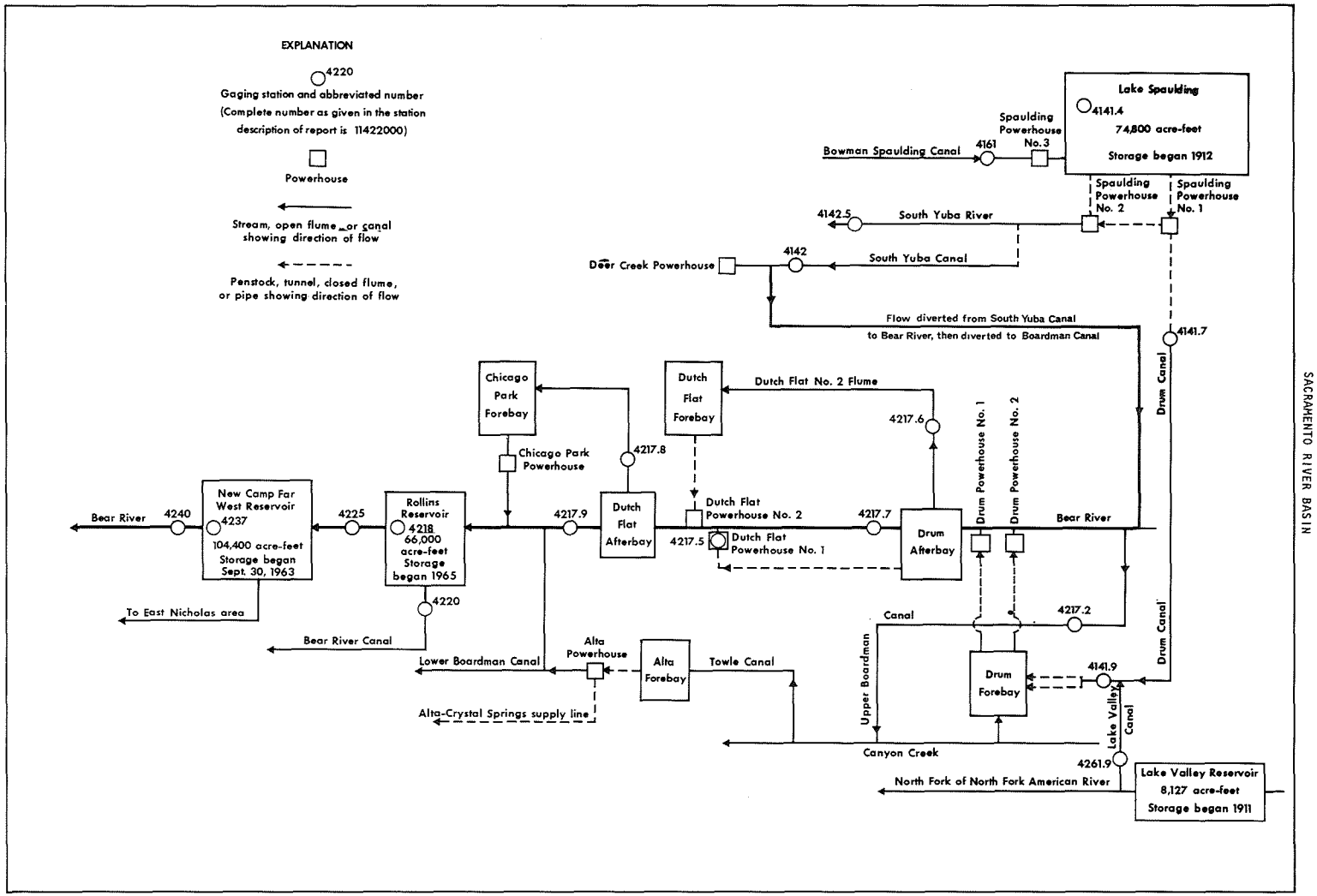

FIGURE 9.--Schematic diagram showing diversion and storage in Bear River basin.

11421700 FEATHER RIVER BELOW SHANGHAI BEND, NEAR OLIVEHURST, CA

LOCATION.--Lat 39°04'44", long 121°36'08", in New Helvetia Grant, Sutter County, on right bank 1.5 mi (2.4 km) downstream from Shanghai Bend, 3.0 mi (4.8 km) southeast of Olivehurst, and 3.4 mi (5.5 km) south of Yuba City.

DRAINAGE AREA.--5,334 mi^2 (13,815 km^2).

PERIOD OF RECORD.--June 1944 to September 1969 in reports of California Department of Water Resources, October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3.01 ft (0.917 m) below mean sea level (levels by California Department of Water Resources).

REMARKS.--Flow regulated by many reservoirs and powerplants. See schematic diagrams of South Fork Feather River, North Fork Feather River, and Yuba River basins and Feather River at Lake Oroville.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--7 years, 8,507 ft^3/s (240.9 m^3/s), 6,163,000 acre-ft/yr (7.60 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 133,000 ft^3/s (3,770 m^3/s) Jan. 22, 1970, gage height, 62.55 ft (19.065 m); minimum daily, 1,140 ft^3/s (32.3 m^3/s) Aug. 11, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,200 ft^3/s (346 m^3/s) Dec. 5, gage height, 38.96 ft (11.875 m); minimum daily, 1,140 ft^3/s (32 3 m^3/s) Aug. 11.

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	5650	5880	11700	5020	2500	3670	3260	2480	1610	3050	2870	2210
2	5690	5770	11700	4950	2500	3930	3600	2250	1450	3050	2890	2180
3	5730	5730	11800	4770	2620	3930	3630	2090	1340	3070	2530	2200
4	5690	5730	11800	4710	2940	2930	3650	2020	1260	3110	2260	2240
5	5650	5720	12200	4690	2970	2600	3680	1860	1470	3120	1930	2220
6	5610	5680	12200	4610	3120	2470	3730	1780	1700	3050	1790	2230
7	4900	5550	11800	4380	3040	2400	3750	1670	2080	3050	1560	2170
8	5150	5570	11100	4310	2950	2310	4020	1540	2130	3070	1350	2140
9	5690	5540	10800	4390	2980	2300	4060	1430	2030	3090	1320	2470
10	5880	5570	10100	4390	2930	2270	3970	1400	1840	3070	1220	2950
11	5670	5580	10100	4300	2960	2230	3910	1390	1630	3090	1140	3170
12	5570	5570	10100	4230	2950	2250	3880	1420	1460	3090	1160	3230
13	5570	5590	10000	4160	2960	2260	3160	1520	1380	3060	1160	3230
14	5560	5580	9910	3710	3100	2270	2660	1490	1330	2710	1260	3070
15	5590	5700	9810	3510	3040	2280	2570	1370	1280	2380	1340	2890
16	5630	6120	9430	3370	3070	2280	2560	1380	1220	2330	1320	2370
17	5650	6600	9320	3210	3170	2250	2590	1460	1170	2590	1300	2000
18	5640	6580	9310	3030	3160	2250	2560	1450	1190	2660	1330	1930
19	5630	6650	9140	2920	3170	2260	2480	1470	1830	2680	1330	1910
20	5580	6690	9020	2920	3150	2250	2490	1440	2180	2640	1320	1920
21	5620	6790	8620	2920	3060	2240	2510	1400	2240	2650	1320	2230
22	5600	7590	7680	2880	2990	2240	2590	1450	2200	2650	1370	2650
23	5600	8700	7010	2820	3030	2580	3210	1480	2170	2670	1380	2980
24	5620	10400	6970	2590	3060	2120	3350	1490	2380	2930	1380	3310
25	5650	11200	6940	2420	3050	2030	3350	1500	2660	3000	1350	3970
26	5740	11500	6910	2380	3080	1900	3330	1460	2690	2990	1300	4050
27	5820	11500	6930	2320	2820	1920	2950	1480	2870	3040	1590	4360
28	5800	11600	6550	2290	2570	1910	2840	1420	2930	3000	2030	4510
29	5760	11600	5690	2220	2540	1920	2870	1360	2920	3040	2160	4150
30	6060	11700	5090	2220	---	2460	2810	1660	3120	3030	2150	3690
31	5970	---	5030	2490	---	2800	---	1840	---	2880	2210	---
TOTAL	174970	219980	284760	109130	85480	75510	96020	49450	57760	89840	50620	84630
MEAN	5644	7333	9186	3520	2948	2436	3201	1595	1925	2898	1633	2821
MAX	6060	11700	12200	5020	3170	3930	4060	2480	3120	3120	2890	4510
MIN	4900	5540	5030	2220	2500	1900	2480	1360	1170	2330	1140	1910
AC-FT	347100	436300	564800	216500	169500	149800	190500	98080	114600	178200	100400	167900

CAL YR 1975 TOTAL 2656090 MEAN 7277 MAX 18700 MIN 3560 AC-FT 5268000
WTR YR 1976 TOTAL 1378150 MEAN 3765 MAX 12200 MIN 1140 AC-FT 2734000

11421720 BOARDMAN CANAL NEAR EMIGRANT GAP, CA

LOCATION.--Lat 39°17'49", long 120°42'08", in SE¼NE¼ sec.35, T.17 N., R.11 E., Placer County, on right bank 0.4 mi (0.6 km) downstream from Boardman diversion dam, and 1.8 mi (2.9 km) west of Emigrant Gap.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 5,020 ft (1,530 m), from topographic map. Prior to June 14, 1967, water-stage recorder 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Water is diverted from Bear River to be used for power development and irrigation in the Bear River basin. See schematic diagram of Bear 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.--12 years, 23.2 ft^3/s (0.657 m^3/s), 16,810 acre-ft/yr (20.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 43 ft^3/s (1.22 m^3/s) Dec. 21, 1964; no flow for several 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	.42	29	24	22	18	16	11	17	25	29	30	28
2	.42	29	24	22	18	18	11	16	29	30	29	29
3	.42	29	24	22	18	18	12	6.4	28	30	28	29
4	.36	30	23	22	22	17	12	7.9	29	30	26	29
5	.36	30	25	23	24	16	14	18	29	30	26	29
6	.36	30	25	23	23	16	18	18	29	30	26	29
7	.36	31	24	23	23	15	18	21	29	30	26	29
8	.30	30	23	23	24	12	18	24	29	30	26	29
9	.30	30	23	24	24	13	18	24	29	30	26	28
10	12	30	23	22	22	14	15	22	29	30	27	27
11	20	30	23	22	19	14	15	24	29	30	29	23
12	21	27	23	23	17	13	15	22	28	30	29	23
13	21	24	23	23	18	13	13	22	28	30	28	25
14	20	25	22	23	19	12	11	20	28	30	29	26
15	20	25	22	22	19	12	10	24	28	30	30	26
16	24	25	23	21	19	12	9.4	23	28	30	27	27
17	26	24	23	20	18	12	9.3	22	29	29	26	26
18	26	24	23	19	16	14	9.7	23	29	30	26	26
19	27	24	23	19	16	15	11	23	28	30	24	26
20	28	25	22	19	14	13	11	22	26	31	25	25
21	26	24	22	19	13	13	13	22	29	31	23	25
22	24	25	23	20	13	13	15	23	29	31	24	25
23	23	25	23	19	15	13	15	23	29	31	25	25
24	23	24	23	17	15	13	15	22	29	30	25	25
25	24	24	23	17	15	13	15	22	30	30	24	26
26	26	25	23	18	15	12	14	21	30	31	23	25
27	28	25	23	18	15	12	16	24	30	30	23	25
28	30	25	23	18	16	11	15	22	30	30	23	23
29	29	25	24	18	16	11	15	26	29	30	23	23
30	30	25	23	18	---	11	11	16	29	30	25	23
31	30	---	23	18	---	12	---	23	---	30	28	---
TOTAL	541.30	798	718	637	524	419	405.4	643.3	860	933	809	784
MEAN	17.5	26.6	23.2	20.5	18.1	13.5	13.5	20.8	28.7	30.1	26.1	26.1
MAX	30	31	25	24	24	18	18	26	30	31	30	29
MIN	.30	24	22	17	13	11	9.3	6.4	25	29	23	23
AC-FT	1070	1580	1420	1260	1040	831	804	1280	1710	1850	1600	1560

CAL YR 1975 TOTAL 8040.64 MEAN 22.0 MAX 34 MIN .30 AC-FT 15950
WTR YR 1976 TOTAL 8072.00 MEAN 22.1 MAX 31 MIN .30 AC-FT 16010

11421750 DUTCH FLAT NO. 1 POWERPLANT NEAR DUTCH FLAT, CA

LOCATION.--Lat 39°13'02", long 120°50'04", in SW¼SE¼ sec.27, T.16 N., R.10 E., Placer County, at powerplant 0.8 mi (1.3 km) north of Dutch Flat.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Recorded powerplant output.

REMARKS.--Water is diverted from Drum Afterbay through a tunnel to Dutch Flat No. 1 powerplant and returned to Dutch Flat Afterbay. See schematic diagram showing diversion and storage in Bear River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co. in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--12 years, 246 ft^3/s (6.967 m^3/s), 178,200 acre-ft/yr (220 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 548 ft^3/s (15.5 m^3/s) for several days in January, February, April 1965; 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	388	359	339	0	79	245	197	0	0	286	63	320
2	359	368	349	228	181	158	111	0	0	220	295	286
3	388	378	303	95	189	212	36	0	0	245	402	270
4	388	388	359	87	173	197	0	0	0	278	408	212
5	349	359	330	228	166	150	0	0	0	295	220	330
6	428	378	312	448	126	166	0	0	0	303	245	418
7	312	368	330	349	95	245	0	0	0	142	71	398
8	368	378	295	339	79	95	0	0	236	228	119	330
9	339	378	220	303	173	0	0	0	205	212	312	295
10	368	388	270	79	245	0	55	0	253	378	408	303
11	359	359	330	87	150	0	36	0	339	270	312	543
12	418	359	126	339	71	111	0	0	245	295	278	320
13	339	359	71	368	71	189	36	0	286	270	270	474
14	349	368	71	359	79	236	0	0	270	270	71	474
15	368	368	260	378	87	228	36	0	286	270	95	303
16	330	388	236	52	87	245	0	0	278	189	339	487
17	368	378	286	87	95	295	9.9	0	245	103	378	388
18	359	398	270	95	119	418	0	0	261	103	461	448
19	368	398	142	56	320	428	0	0	270	261	461	438
20	368	388	87	67	312	408	0	0	278	320	295	428
21	339	359	95	359	270	312	0	0	278	253	55	408
22	368	378	95	378	220	320	9.9	0	278	461	95	487
23	368	378	197	228	142	245	9.9	0	212	261	349	448
24	378	359	270	95	205	220	9.9	0	253	55	339	349
25	378	368	330	71	286	303	9.9	0	245	87	388	438
26	399	378	320	126	270	261	9.9	0	236	339	368	408
27	438	487	111	197	189	278	9.9	36	197	261	339	349
28	378	378	189	228	236	253	0	0	320	286	228	349
29	388	359	205	220	278	236	9.9	0	177	368	359	303
30	388	359	398	173	---	220	0	0	270	212	286	320
31	368	---	245	71	---	158	---	0	---	95	330	---
TOTAL	11503	11308	7441	6190	4993	6832	586.2	36	5918	7616	8639	11324
MEAN	371	377	240	200	172	220	19.5	1.16	197	246	279	377
MAX	438	487	398	448	320	428	197	36	339	461	461	543
MIN	312	359	71	0	71	0	0	0	0	55	55	212
AC-FT	22820	22430	14760	12280	9900	13550	1160	71	11740	15110	17140	22460

CAL YR 1975 TOTAL 99817.00 MEAN 273 MAX 542 MIN 0 AC-FT 198000
WTR YR 1976 TOTAL 82386.20 MEAN 225 MAX 543 MIN 0 AC-FT 163400

11421760 DUTCH FLAT NO. 2 FLUME NEAR BLUE CANYON, CA

LOCATION.--Lat 39°15'16", long 120°46'28", in SE¼NE¼ sec.18, T.16 N., R.11 E., Placer County, on left bank 600 ft (183 m) downstream from Drum Afterbay, and 3.6 mi (5.8 km) west of Blue Canyon.

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

GAGE.--Water-stage recorder. Datum of gage is 3,348.09 ft (1,020.498 m) above mean sea level (levels by Nevada Irrigation District).

REMARKS.--Records excellent except flows below 40 ft^3/s (1.13 m^3/s), which are estimated. Water is diverted from Drum Afterbay through the flume to Dutch Flat No. 2 powerplant and then to Dutch Flat Afterbay. See schematic diagram of Bear River basin.

AVERAGE DISCHARGE.--10 years, 376 ft^3/s (10.65 m^3/s), 272,400 acre-ft/yr (336 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 610 ft^3/s (17.3 m^3/s) Mar. 1, 1968; 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	347	414	276	18	14	49	74	10	6.3	5.9	.71	189
2	385	413	161	18	66	137	12	10	6.2	5.9	.71	150
3	394	425	165	18	73	113	12	10	6.0	5.9	.71	198
4	395	395	154	18	127	60	11	10	5.9	5.9	.71	193
5	402	413	208	167	213	46	11	9.9	5.9	5.9	.71	14
6	374	411	179	186	97	24	11	9.8	5.9	147	.71	14
7	404	395	174	206	15	23	11	9.7	5.9	5.0	.71	130
8	400	416	59	135	15	264	11	9.5	5.9	77	.71	177
9	371	412	92	85	74	273	11	9.4	5.9	5.0	.71	217
10	409	389	128	18	67	346	11	9.3	5.9	5.0	152	14
11	395	423	72	18	16	310	11	9.1	5.9	4.0	121	187
12	410	402	26	98	16	217	11	9.0	5.9	4.0	97	14
13	413	432	0	175	17	91	11	8.9	5.9	72	14	14
14	418	392	0	169	17	61	11	8.7	5.9	4.0	14	14
15	423	403	121	159	17	20	11	8.6	151	4.0	14	14
16	431	425	153	59	18	20	11	8.5	5.9	3.0	14	91
17	433	387	111	18	18	19	11	8.3	203	3.0	68	14
18	439	300	112	18	40	19	11	8.2	5.9	3.0	14	14
19	420	389	15	154	110	18	11	8.1	5.9	109	14	14
20	413	382	11	144	104	18	11	7.9	5.9	153	14	55
21	386	384	0	161	145	18	10	7.8	5.9	2.0	14	14
22	419	423	2.2	170	78	17	10	7.7	5.9	2.0	14	14
23	427	386	138	18	20	23	10	7.5	50	134	73	62
24	417	419	110	18	20	16	10	7.4	126	2.0	67	98
25	431	390	69	18	21	16	10	7.2	132	2.0	14	14
26	396	390	59	63	21	15	10	7.1	91	180	114	14
27	432	324	0	42	21	15	10	7.0	5.9	147	145	135
28	385	430	71	26	22	14	10	6.8	247	73	174	127
29	421	403	119	44	22	14	10	6.7	5.9	127	134	162
30	428	392	236	14	---	14	10	6.6	5.9	1.0	191	113
31	424	---	230	14	---	13	---	6.4	---	1.0	223	---
TOTAL	12642	11959	3251.2	2469	1504	2303	385	261.1	1136.5	1298.5	1705.39	2480
MEAN	408	399	105	79.6	51.9	74.3	12.8	8.42	37.9	41.9	55.0	82.7
MAX	439	432	276	206	213	346	74	10	247	180	223	217
MIN	347	300	0	14	14	13	10	6.4	5.9	1.0	.71	14
AC-FT	25080	23720	6450	4900	2980	4570	764	518	2250	2580	3380	4920

CAL YR 1975 TOTAL 116688.75 MEAN 320 MAX 586 MIN 0 AC-FT 231500
WTR YR 1976 TOTAL 41394.69 MEAN 113 MAX 439 MIN 0 AC-FT 82110

11421770 BEAR RIVER BELOW DRUM AFTERBAY, NEAR BLUE CANYON, CA

LOCATION.--Lat 39°15'16", long 120°46'26", in SW¼NW¼ sec.17, T.16 N., R.11 E., Placer County, on left bank 60 ft (18 m) below Drum Afterbay Dam, and 3.5 mi (5.6 km) west of Blue Canyon.

DRAINAGE AREA.--12.3 mi^2 (31.9 km^2).

PERIOD OF RECORD.--April 1966 to current year, low flows only April to September 1966.

GAGE.--Water-stage recorder and 4-ft (1.2-m) steel Cipolletti weir set in a concrete broad-crested weir. Altitude of gage is 3,300 ft (1,006 m), from topographic map. April 1966 to May 25, 1967, water-stage recorder at present site at different datum, May 26, 1967, to Feb. 11, 1968, water-stage recorder at site 1,000 ft (305 m) downstream at different datum.

REMARKS.--Water for Dutch Flat No. 1 powerplant (station 11421750) and Dutch Flat No. 2 flume (station 11421760) is diverted from Drum Afterbay just upstream from station. See schematic diagram of Bear 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.--10 years, 13.6 ft^3/s (0.385 m^3/s), 9,850 acre-ft/yr (12.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,880 ft^3/s (81.6 m^3/s) Jan. 21, 1970, gage height, 3.68 ft (1.122 m), from rating curve extended above 900 ft^3/s (25.5 m^3/s); minimum daily, 1.0 ft^3/s (0.028 m^3/s) Dec. 9, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15 ft^3/s (0.42 m^3/s) Aug. 26, gage height, 1.03 ft (0.314 m); minimum daily, 4.6 ft^3/s (0.13 m^3/s) Jan. 1-3, 6, Aug. 20, 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	6.5	5.2	5.2	5.1	5.4	5.4	5.3	5.4	4.6	4.9	5.1	4.8
2	5.1	5.1	5.2	5.2	5.3	5.4	5.3	5.4	4.6	5.3	5.1	4.7
3	5.1	5.1	5.2	5.2	5.3	5.4	5.3	5.4	4.6	5.2	5.1	4.9
4	5.1	5.1	5.1	5.2	5.3	5.3	5.3	5.4	4.7	5.2	5.1	4.9
5	5.1	5.1	5.1	5.2	5.3	5.3	5.3	5.4	4.7	5.2	5.3	4.9
6	5.1	5.1	5.1	5.1	5.3	5.4	5.3	5.4	4.6	5.3	5.2	5.2
7	5.1	5.2	5.1	5.2	5.3	5.4	5.2	5.3	4.8	5.2	5.2	5.1
8	5.1	5.2	5.2	5.2	5.3	5.3	5.3	5.3	5.2	5.4	5.2	5.2
9	5.2	5.2	5.1	5.2	5.3	5.4	5.4	5.4	5.3	5.1	5.1	4.9
10	5.2	5.2	5.1	5.2	5.2	5.3	5.3	5.4	5.4	4.9	5.1	5.0
11	5.2	5.1	5.1	5.2	5.2	5.3	5.4	5.3	5.3	5.1	5.0	5.2
12	5.1	5.1	5.2	5.2	5.3	5.3	5.3	5.2	5.2	5.0	5.2	5.1
13	5.2	5.1	5.2	5.2	5.3	5.3	5.3	5.2	5.3	5.1	5.4	5.0
14	5.2	5.1	5.2	5.2	5.3	5.3	5.4	5.2	5.2	4.9	5.4	5.0
15	5.2	5.1	5.2	5.2	5.3	5.3	5.3	5.2	5.1	4.9	5.3	5.0
16	5.1	5.1	5.1	5.2	5.3	5.3	5.4	5.1	5.2	4.9	5.3	4.6
17	5.1	5.1	5.2	5.2	5.4	5.3	5.3	5.0	5.2	5.1	5.2	5.0
18	5.1	5.2	5.2	5.2	5.3	5.3	5.3	4.9	5.2	5.0	5.1	5.0
19	5.1	5.1	5.2	5.1	5.3	5.3	5.4	5.0	5.4	5.1	4.8	5.4
20	5.1	5.2	5.2	5.0	5.3	5.3	5.4	5.1	5.4	5.1	4.6	5.6
21	5.2	5.2	5.2	4.7	5.3	5.3	5.4	5.1	5.4	5.0	5.1	5.6
22	5.1	5.1	5.2	4.9	5.4	5.3	5.3	5.1	5.4	5.0	5.3	5.5
23	5.2	5.2	5.2	5.0	5.3	5.3	5.3	5.1	5.4	4.9	4.9	5.4
24	5.1	5.1	5.2	4.8	5.4	5.3	5.4	5.1	5.3	4.9	4.8	5.4
25	5.1	5.1	5.2	4.8	5.4	5.3	5.3	5.1	5.3	4.9	4.8	5.6
26	5.1	5.2	5.2	5.1	5.4	5.3	5.3	5.1	5.3	4.8	5.5	5.4
27	5.1	5.2	5.2	5.3	5.3	5.3	5.2	5.1	5.4	4.9	5.0	5.5
28	5.2	5.1	5.2	5.2	5.3	5.3	5.3	5.0	5.2	5.1	5.0	5.5
29	5.1	5.1	5.2	5.3	5.3	5.3	5.4	4.9	5.0	5.1	5.0	5.6
30	5.2	5.1	5.1	5.2	---	5.3	5.4	4.8	4.9	5.1	4.9	5.7
31	5.2	---	5.1	5.3	---	5.3	---	4.7	---	5.1	5.0	---
TOTAL	160.6	154.1	160.2	159.1	154.1	164.9	159.8	160.1	153.6	156.7	158.1	155.7
MEAN	5.18	5.14	5.17	5.13	5.31	5.32	5.33	5.16	5.12	5.05	5.10	5.19
MAX	6.5	5.2	5.2	5.3	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.7
MIN	5.1	5.1	5.1	4.7	5.2	5.3	5.2	4.7	4.6	4.8	4.6	4.6
AC-FT	319	306	318	316	306	327	317	318	305	311	314	309

CAL YR 1975 TOTAL 3110.0 MEAN 8.52 MAX 14 MIN 4.9 AC-FT 6170
WTR YR 1976 TOTAL 1897.0 MEAN 5.18 MAX 6.5 MIN 4.6 AC-FT 3760

11421780 CHICAGO PARK FLUME NEAR DUTCH FLAT, CA

LOCATION.--Lat 39°12'55", long 120°50'23", in NW¼NE¼ sec.34, T.16 N., R.10 E., Nevada County, on left bank 670 ft (204 m) downstream from Dutch Flat Afterbay, and 0.6 mi (1.0 km) north of Dutch Flat.

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

GAGE.--Water-stage recorder. Altitude of gage is 2,600 ft (792 m), from topographic map. Prior to Sept. 8, 1968, at site 420 ft (128 m) upstream at same datum.

REMARKS.--Records good except flows below 70 ft^3/s (1.98 m^3/s), which are estimated. Flow regulated by Dutch Flat Afterbay. See schematic diagram of Bear River basin.

AVERAGE DISCHARGE.--10 years, 636 ft^3/s (18.01 m^3/s), 460,800 acre-ft/yr (568 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,080 ft^3/s (30.6 m^3/s) Nov. 12, 13, 1973; no flow for several 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	817	864	734	165	0	339	259	15	12	266	104	518
2	812	848	525	167	263	343	234	15	12	274	364	454
3	811	847	523	166	351	393	52	15	12	303	427	494
4	811	848	599	165	363	274	15	15	12	304	391	494
5	809	824	666	424	534	340	15	15	12	370	310	497
6	809	815	547	723	242	234	15	15	12	433	301	499
7	840	835	553	654	110	247	15	281	12	302	98	575
8	851	875	458	510	0	334	15	17	179	374	192	472
9	814	901	346	554	244	322	15	15	263	306	348	497
10	813	884	424	218	399	365	108	15	298	306	629	489
11	860	828	456	152	289	273	15	15	445	301	533	523
12	842	828	309	388	127	284	15	15	338	309	425	493
13	841	829	156	641	239	324	15	15	217	392	372	492
14	841	854	143	624	0	300	15	15	373	352	18	496
15	801	868	317	593	230	334	166	15	430	309	140	507
16	807	902	459	444	4.0	491	82	15	314	251	445	610
17	853	847	452	251	46	319	15	15	552	130	507	537
18	886	783	453	0	304	360	15	15	306	110	519	535
19	818	856	281	462	435	514	15	15	309	484	542	536
20	805	850	108	694	434	461	64	15	308	475	474	557
21	814	872	208	642	434	339	15	15	307	388	15	511
22	860	851	225	555	388	417	15	15	310	407	16	514
23	859	852	294	474	234	334	15	15	308	464	519	539
24	857	852	438	103	284	270	15	15	457	137	499	538
25	858	852	431	0	335	379	15	15	421	133	440	511
26	1060	856	486	255	327	317	73	64	314	580	532	537
27	868	880	198	347	188	316	159	48	394	448	509	549
28	739	902	319	329	282	317	55	12	527	396	438	508
29	889	872	452	299	360	313	15	12	289	569	492	471
30	881	866	584	222	---	274	26	12	266	313	562	441
31	897	---	564	225	---	258	---	12	---	132	622	---
TOTAL	26123	25641	12708	11446	7446.0	10385	1563	803	8009	10318	11783	15394
MEAN	843	855	410	369	257	335	52.1	25.9	267	333	380	513
MAX	1060	902	734	723	534	514	259	281	552	580	629	610
MIN	739	783	108	0	0	234	15	12	12	110	15	441
AC-FT	51810	50860	25210	22700	14770	20600	3100	1590	15890	20470	23370	30530

CAL YR 1975 TOTAL 244756.00 MEAN 671 MAX 1060 MIN 0 AC-FT 485500
WTR YR 1976 TOTAL 141619.00 MEAN 387 MAX 1060 MIN 0 AC-FT 280900

11421790 BEAR RIVER BELOW DUTCH FLAT AFTERBAY, NEAR DUTCH FLAT, CA

LOCATION.--Lat 39°12'55", long 120°50'23", in NE¼NW¼ sec.34, T.16 N., R.10 E., Placer County, at the left bank downstream end of spillway on Dutch Flat Afterbay Dam, 0.6 mi (1.0 km) north of Dutch Flat.

DRAINAGE AREA.--21.5 mi^2 (55.7 km^2).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 2,600 ft (790 m), from topographic map.

REMARKS.--Records excellent. Water is imported from South Yuba River basin via Drum Canal above forebay (station 11414190). Chicago Park flume (station 11421780) diverts above station to Chicago Park powerplant. Records include spill over Dutch Flat Afterbay Dam. This station measures flow from Dutch Flat Afterbay in connection with a Federal Power Commission Project. See schematic diagram of Bear River basin.

COOPERATION.--Records of elevations for Dutch Flat Afterbay furnished by Pacific Gas and Electric Co.

AVERAGE DISCHARGE.--10 years, 29.5 ft^3/s (0.835 m^3/s), 21,370 acre-ft/yr (26.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,500 ft^3/s (42.5 m^3/s) Jan. 20, 1969: minimum daily, 0.08 ft^3/s (0.002 m^3/s) Mar. 8-19, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10 ft^3/s (0.28 m^3/s) July 17, gage height, 0.85 ft (0.259 m); minimum daily, 5.2 ft^3/s (0.15 m^3/s) Nov. 1 to Jan. 18, Mar. 16-18.

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	8.8	5.2	5.2	5.2	5.4	5.4	5.4	7.5	9.6	9.4	9.9	9.9
2	8.8	5.2	5.2	5.2	5.4	5.4	5.4	9.6	9.6	9.6	9.9	9.9
3	8.8	5.2	5.2	5.2	5.4	5.4	5.4	9.6	9.6	9.6	9.9	9.9
4	8.8	5.2	5.2	5.2	5.4	5.4	5.4	9.6	9.6	9.6	9.9	9.9
5	8.6	5.2	5.2	5.2	5.4	5.4	5.4	9.6	9.6	9.6	9.9	9.9
6	8.8	5.2	5.2	5.2	5.4	5.4	5.4	9.6	9.9	9.6	9.9	9.9
7	8.8	5.2	5.2	5.2	5.4	5.4	5.4	9.6	9.9	9.6	9.9	9.9
8	8.8	5.2	5.2	5.2	5.4	5.4	5.4	9.4	9.9	9.6	9.9	9.6
9	8.8	5.2	5.2	5.2	5.4	5.4	5.4	9.4	9.9	9.6	9.9	9.9
10	8.8	5.2	5.2	5.2	5.4	5.4	5.6	9.4	9.9	9.6	9.9	9.9
11	8.8	5.2	5.2	5.2	5.4	5.4	5.6	9.4	9.9	9.6	9.9	10
12	8.8	5.2	5.2	5.2	5.4	5.4	5.6	9.4	9.6	9.6	9.9	10
13	8.8	5.2	5.2	5.2	5.4	5.4	5.6	9.4	9.6	9.6	9.6	10
14	8.6	5.2	5.2	5.2	5.4	5.4	5.8	9.4	9.6	9.6	9.9	9.9
15	8.6	5.2	5.2	5.2	5.4	5.4	5.8	9.4	9.6	9.6	9.9	9.9
16	8.8	5.2	5.2	5.2	5.4	5.2	5.6	9.4	9.6	9.6	9.9	9.9
17	8.8	5.2	5.2	5.2	5.6	5.2	5.6	9.4	9.6	9.6	9.9	9.9
18	8.6	5.2	5.2	5.2	5.6	5.2	5.6	9.4	9.6	9.6	9.9	9.9
19	8.6	5.2	5.2	5.4	5.6	5.4	5.6	9.4	9.6	9.6	9.9	9.9
20	8.6	5.2	5.2	5.4	5.6	5.4	5.6	9.4	9.6	9.9	9.9	9.9
21	8.8	5.2	5.2	5.4	5.6	5.4	5.6	9.6	9.4	9.9	10	9.9
22	8.8	5.2	5.2	5.4	5.4	5.4	5.6	9.6	9.4	9.9	10	9.6
23	8.8	5.2	5.2	5.4	5.4	5.4	5.6	9.6	9.4	9.9	10	9.6
24	8.8	5.2	5.2	5.4	5.4	5.4	5.6	9.6	9.4	9.9	10	9.6
25	8.6	5.2	5.2	5.4	5.4	5.4	5.8	9.6	9.4	9.9	10	9.6
26	8.6	5.2	5.2	5.4	5.4	5.4	5.6	9.6	9.4	9.9	10	9.6
27	8.6	5.2	5.2	5.4	5.4	5.4	5.4	9.6	9.4	9.6	10	9.6
28	8.6	5.2	5.2	5.4	5.4	5.4	5.4	9.6	9.4	9.9	10	9.4
29	8.6	5.2	5.2	5.4	5.4	5.4	5.4	9.6	9.4	9.9	10	9.4
30	8.8	5.2	5.2	5.4	---	5.4	5.4	9.6	9.4	9.9	10	9.4
31	6.9	---	5.2	5.4	---	5.4	---	9.6	---	9.9	10	---
TOTAL	268.7	156.0	161.2	163.8	157.6	166.8	166.0	292.9	287.8	300.7	307.7	293.7
MEAN	8.67	5.20	5.20	5.28	5.43	5.38	5.53	9.45	9.59	9.70	9.93	9.79
MAX	8.8	5.2	5.2	5.4	5.6	5.4	5.8	9.6	9.9	9.9	10	10
MIN	6.9	5.2	5.2	5.2	5.4	5.2	5.4	7.5	9.4	9.4	9.6	9.4
AC-FT	533	309	320	325	313	331	329	581	571	596	610	583

CAL YR 1975 TOTAL 3375.3 MEAN 9.25 MAX 141 MIN 3.2 AC-FT 6690
WTR YR 1976 TOTAL 2722.9 MEAN 7.44 MAX 10 MIN 5.2 AC-FT 5400

11421800 ROLLINS RESERVOIR NEAR COLFAX, CA

LOCATION.--Lat 39°08'05", long 120°56'54", in NE¼SE¼ sec.22, T.15 N., R.9 E., Placer County, on left bank just upstream from Rollins Dam on Bear River, 2.3 mi (3.7 km) north of Colfax.

DRAINAGE AREA.--104 mi^2 (269 km^2).

PERIOD OF RECORD.--December 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Nevada Irrigation District).

REMARKS.--Reservoir is formed by earthfill dam. Storage began Dec. 15, 1964. Usable capacity, 66,000 acre-ft (81.4 hm^3) between elevations 1,970.0 ft (600.46 m), invert of outlet tunnel and 2,171.0 ft (661.72 m), spillway crest, above mean sea level. Dead storage, 270 acre-ft (333,000 m^3). Several diversions into and out of basin upstream for power development and irrigation. Stored water is released into Bear River, part of which is diverted to Pacific Gas and Electric's Bear River Canal for power development. Water is later used for irrigation. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Bear River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 70,100 acre-ft (86.4 hm^3) Jan. 21, 1970, elevation, 2,175.8 ft (663.18 m); minimum since reservoir first filled, 20,000 acre-ft (24.7 hm^3) Aug. 15, 1976, elevation, 2,089.8 ft (636.97 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 66,900 acre-ft (82.5 hm^3) Oct. 30 to Nov. 4, elevation, 2,172.1 ft (662.06 m); minimum, 20,000 acre-ft (24.7 hm^3) Aug. 15, elevation, 2,089.8 ft (636.97 m).

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

2050	8940	2140	43800
2060	11200	2160	57300
2080	16800	2176	70200
2120	32700		

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	46300	66900	66400	58800	56300	58400	62700	55500	35000	29500	22600	23600
2	46800	66900	66200	58000	56300	57600	62800	54900	34300	29200	22500	23700
3	47300	66900	66200	57300	56600	57700	62700	54200	33600	28900	22500	23900
4	47800	66900	66200	56600	57000	57500	62500	53600	33000	28600	22400	24100
5	48300	66800	66400	56300	57700	57300	62200	52900	32300	28500	22100	24300
6	48900	66800	66300	56800	57700	57000	62000	52200	31700	28400	21900	24500
7	49500	66700	66200	57100	57600	56600	61800	52000	30900	28200	21200	24800
8	50100	66700	66200	57200	57200	56500	61600	51500	30500	28100	20700	24700
9	50700	66700	65700	57500	57100	56300	61500	50800	30400	27800	20500	24600
10	51500	66600	65700	56900	57100	56100	61300	50000	30300	27600	20900	24400
11	52200	66600	65600	56100	56900	55800	61200	49400	30500	27300	21200	24400
12	52900	66600	65300	55900	56200	55400	61100	48700	30600	27100	21200	24200
13	53500	66600	64600	56300	56000	55200	60900	48100	30300	27000	21200	24100
14	54200	66600	63900	56600	55400	54900	60800	47300	30400	26900	20500	23900
15	54700	66700	63500	56400	55100	54700	60800	46600	30500	26600	20000	23800
16	55200	66700	63400	56700	54600	54700	60800	46000	30500	26300	20100	23900
17	55800	66600	63300	56200	54800	55000	60600	45300	30800	25600	20500	23900
18	56300	66600	63200	55200	55500	55500	60400	44600	30700	24900	20800	23800
19	56600	66600	62800	55100	56900	56400	60100	43900	30500	24900	21300	23700
20	57000	66600	61900	55500	57900	57200	60000	43200	30400	25000	21700	23800
21	57500	66600	61300	55800	58100	57700	59600	42500	30200	25000	21000	23700
22	58200	66600	60800	56000	58400	58300	59300	41800	30100	24900	20300	23700
23	58800	66600	60500	56400	58300	58800	59000	41000	30000	25100	20600	23600
24	59400	66600	60400	56200	58100	59100	58700	40300	30100	24600	20900	23700
25	60100	66600	60300	55800	58000	59800	58300	39600	30200	23900	21200	23600
26	61800	66600	60300	55800	57800	60500	58100	39000	30100	24000	21600	23600
27	62700	66600	59600	56200	57400	61000	57900	38400	30100	24100	21900	23600
28	64100	66600	59200	56500	57200	61500	57500	37700	30300	24000	22100	23500
29	65800	66600	59100	56600	57500	61900	56800	37000	30200	24300	22400	23400
30	66900	66600	59200	56700	---	62300	56200	36300	29900	24100	22800	23300
31	66900	---	59500	56700	---	62500	---	35700	---	23400	23400	---
MAX	66900	66900	66400	58800	58400	62500	62800	55500	35000	29500	23400	24800
MIN	46300	66600	59100	55100	54600	54700	56200	35700	29900	23400	20000	23300
†	2172.1	2171.7	2162.9	2159.2	2160.2	2166.7	2158.5	2125.8	2114.0	2098.7	2098.7	2098.5
‡	+21200	-300	-7100	-2800	+800	+5000	-6300	-20500	-5800	-6500	0	-100

CAL YR 1975 ‡ +18000
WTR YR 1976 ‡ -22400

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

11422000 BEAR RIVER CANAL INTAKE NEAR COLFAX, CA

LOCATION.--Lat 39°07'58", long 120°57'12", in SW¼SE¼ sec.22, T.15 N., R.9 E., Placer County, on right bank 600 ft (183 m) downstream from canal inlet, 0.2 mi (0.3 km) below Rollins Dam, and 2.2 mi (3.5 km) north of Colfax.

PERIOD OF RECORD.--January 1912 to September 1953, October 1964 to current year. Monthly discharge only for some periods published in WSP 1315-A. Prior to October 1912, published as Pacific Gas and Electric Co.'s Canal near Colfax, October 1912 to September 1953, published as Bear River Canal near Colfax.

GAGE.--Water-stage recorder. Altitude of gage is 1,980 ft (604 m), from topographic map. Prior to Mar. 25, 1946, water-stage recorder at site 1.5 mi (2.4 km) downstream at different datum.

REMARKS.--Canal diverts from left bank of Bear River. Water is first used to develop power at Halsey and Wise powerhouse, part of it is then distributed for irrigation and part is eventually spilled into North Fork American River. See schematic diagram showing diversion and storage in Bear 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.--53 years (water years 1913-53, 1965-76), 291 ft^3/s (8.241 m^3/s), 210,800 acre-ft/yr (260 hm^3).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 499 ft^3/s (14.1 m^3/s) Apr. 20-22, 1966, Aug. 1-3, 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	468	19	486	490	206	444	147	256	310	374	374	346
2	473	30	488	488	206	457	150	259	308	375	375	359
3	480	27	488	487	206	453	151	273	311	376	376	366
4	479	25	488	487	206	453	152	278	311	376	376	368
5	477	17	489	486	206	453	155	278	311	377	372	369
6	476	47	489	487	206	453	159	288	312	378	366	370
7	476	159	489	491	206	452	158	305	312	374	364	394
8	476	303	489	491	206	458	156	302	312	363	361	470
9	476	351	488	494	286	461	156	301	312	357	364	442
10	475	437	480	496	406	461	156	301	311	356	367	457
11	475	478	487	496	406	461	156	296	312	355	366	472
12	475	478	487	453	406	460	156	286	312	355	357	471
13	475	478	487	444	406	460	156	286	312	358	344	470
14	475	478	487	494	405	460	156	285	312	364	336	476
15	475	478	487	495	405	459	156	284	318	364	333	480
16	475	478	487	493	399	430	156	292	334	365	318	471
17	475	478	487	491	24	255	156	309	346	365	302	459
18	476	483	487	487	23	124	157	308	347	364	304	464
19	476	488	487	477	24	122	157	308	348	364	302	469
20	476	483	487	474	39	122	181	315	348	366	304	466
21	475	488	487	482	412	122	198	325	349	366	298	455
22	475	488	488	483	339	123	199	324	349	367	290	449
23	475	488	489	319	293	102	200	323	349	367	289	450
24	475	486	490	204	408	87	200	314	347	367	292	450
25	475	483	490	203	407	72	200	309	347	364	293	450
26	476	483	490	193	407	88	213	309	348	365	294	451
27	476	484	490	188	407	88	224	311	348	372	296	464
28	30	483	490	188	407	89	232	311	352	376	298	490
29	.80	484	490	199	407	89	244	310	365	376	307	419
30	0	484	490	206	---	109	250	310	371	376	324	417
31	4.5	---	490	206	---	140	---	310	---	374	336	---
TOTAL	12871.30	11066	15128	12572	8364	9007	5287	9266	9924	11396	10278	13134
MEAN	415	369	488	406	288	291	176	299	331	368	332	438
MAX	480	488	490	496	412	461	250	325	371	378	376	490
MIN	0	17	480	188	23	72	147	256	308	355	289	346
AC-FT	25530	21950	30010	24940	16590	17870	10490	18380	19680	22600	20390	26050

CAL YR 1975 TOTAL 161338.30 MEAN 442 MAX 490 MIN 0 AC-FT 320000
WTR YR 1976 TOTAL 128293.30 MEAN 351 MAX 496 MIN 0 AC-FT 254500

11422500 BEAR RIVER BELOW ROLLINS DAM, NEAR COLFAX, CA

LOCATION.--Lat 39°07'53", long 120°57'29", in SE¼SW¼ sec.22, T.15 N., R.9 E., Nevada County, on right bank 65 ft (20 m) downstream from highway bridge, 0.5 mi (0.8 km) downstream from Rollins Dam, and 2.2 mi (3.5 km) north of Colfax.

DRAINAGE AREA.--105 mi^2 (272 km^2).

PERIOD OF RECORD.--January 1912 to September 1913, October 1913 to July 1915 (gage heights and discharge measurements only), August 1915 to June 1917, November 1949 to September 1953, August 1964 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to August 1964, published as Bear River near Colfax. Records for November and December 1911 include diversion to Bear River Canal and are not equivalent.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,927.41 ft (587.475 m) above mean sea level. Prior to Aug. 8, 1915, nonrecording gages at several sites above diversion dam 0.3 mi (0.5 km) upstream at different datums. Aug. 8, 1915, to June 30, 1917, nonrecording gage 0.7 mi (1.1 km) downstream at different datum. Nov. 1, 1949, to Sept. 30, 1953, at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Records good. Flow regulated by Rollins Reservoir (station 11421800) beginning Dec. 15, 1964. Bear River Canal (station 11422000) diverts above station. See schematic diagram of Bear River basin.

AVERAGE DISCHARGE (unadjusted).--17 years (water years 1913, 1916, 1951-53, 1965-76), 380 ft^3/s (10.76 m^3/s), 275,300 acre-ft/yr (339 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (prior to construction of Rollins Dam in 1964), 9,620 ft^3/s (272 m^3/s) Nov. 20, 1950, gage height, 21.40 ft (6.523 m) site and datum then in use, from rating curve extended above 3,600 ft^3/s (102 m^3/s) on basis of slope-area measurement of maximum flow; no flow at times in 1912, 1952. Maximum discharge since construction of Rollins Dam, 12,700 ft^3/s (360 m^3/s) Jan. 21, 1970, gage height, 11.72 ft (3.572 m), from rating curve extended above 6,000 ft^3/s (170 m^3/s); minimum daily, 0.5 ft^3/s (0.014 m^3/s) Nov. 17, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,060 ft^3/s (30.0 m^3/s) Oct. 31, gage height, 3.61 ft (1.100 m); minimum daily, 8.8 ft^3/s (0.25 m^3/s) Apr. 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	76	948	355	20	12	15	13	85	30	57	65	44
2	77	896	129	21	12	15	11	80	30	64	64	45
3	78	895	67	22	12	15	8.8	77	30	64	60	45
4	74	895	70	21	13	14	8.8	75	31	64	60	45
5	74	888	171	21	13	14	8.9	75	31	64	59	45
6	74	864	134	22	14	14	8.9	65	31	64	59	45
7	75	809	95	21	13	14	10	47	37	64	59	45
8	76	644	72	21	13	14	12	49	40	64	59	75
9	77	556	25	22	13	14	12	49	40	64	59	94
10	77	570	21	22	14	14	12	49	40	64	59	95
11	74	426	22	20	14	14	12	49	40	64	59	93
12	75	386	22	23	14	14	12	49	40	64	59	94
13	76	378	21	28	14	14	12	49	40	64	58	86
14	77	392	20	23	15	14	12	49	40	64	58	77
15	79	426	20	22	15	14	12	49	40	64	59	74
16	78	560	21	23	15	14	12	41	40	64	58	74
17	114	470	21	23	14	14	12	27	40	64	55	78
18	169	344	21	22	13	13	12	30	40	64	49	75
19	170	394	21	21	15	13	12	30	40	64	51	70
20	120	400	20	24	13	13	12	30	40	64	51	67
21	75	404	22	19	14	13	12	30	40	64	51	63
22	76	384	27	15	14	13	11	30	40	64	51	62
23	77	378	24	13	14	13	9.7	30	40	64	50	63
24	78	379	22	13	14	13	9.7	30	40	64	50	65
25	79	382	22	13	14	12	9.7	30	41	64	50	65
26	85	376	22	12	14	13	11	30	41	64	50	65
27	83	405	22	12	14	13	11	30	41	65	51	66
28	67	448	20	12	14	13	50	30	48	66	50	63
29	65	416	20	12	16	12	75	30	55	65	51	59
30	495	392	20	12	---	12	75	30	53	66	49	59
31	993	---	21	12	---	13	---	30	---	65	44	---
TOTAL	3963	16105	1590	587	399	420	499.5	1384	1179	1984	1707	1996
MEAN	128	537	51.3	18.9	13.8	13.5	16.7	44.6	39.3	64.0	55.1	66.5
MAX	993	948	355	28	16	15	75	85	55	66	65	95
MIN	65	344	20	12	12	12	8.8	27	30	57	44	44
AC-FT	7860	31940	3150	1160	791	833	991	2750	2340	3940	3390	3960

CAL YR 1975 TOTAL 124857.6 MEAN 342 MAX 4430 MIN 6.6 AC-FT 247700
WTR YR 1976 TOTAL 31813.5 MEAN 86.9 MAX 993 MIN 8.8 AC-FT 63100

11423700 NEW CAMP FAR WEST RESERVOIR NEAR WHEATLAND, CA

LOCATION.--Lat 39°03'01", long 121°18'53", in NE¼SW¼ sec.21, T.14 N., R.6 E., on Yuba-Placer County line, in center of New Camp Far West Dam on the Bear River, 6.4 mi (10.3 km) east of Wheatland, and 11.8 mi (19.0 km) northeast of Sheridan.

DRAINAGE AREA.--283 mi^2 (733 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by South Sutter Water District).

REMARKS.--Reservoir is formed by an earthfill dam. Storage began Sept. 30, 1963. Usable capacity, 102,200 acre-ft (126 hm^3) between elevations 175.0 ft (53.34 m) bottom of lowest river outlet, and 300.0 ft (91.44 m) crest of spillway. Dead storage, 2,200 acre-ft (2.71 hm^3). Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Bear River basin.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 120,200 acre-ft (148 hm^3) Jan. 21, 1970, elevation, 307.3 ft (93.66 m); minimum, 2,200 acre-ft (2.71 hm^3) Oct. 11, 1968, elevation, 175.0 ft (53.34 m), may have been lower during period of no record Oct. 12-16, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 105,500 acre-ft (130 hm^3) Nov. 28-30, Dec. 1, 2, elevation, 300.53 ft (91.602 m); minimum, 4,200 acre-ft (5.18 hm^3) Sept. 27-30, elevation, 186.40 ft (56.815 m).

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

170	1400	250	34200
180	3000	260	44000
190	4800	270	55500
200	7000	280	69500
210	9800	290	85600
220	14000	300	104400
230	19400	320	151000
240	25800		

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	65000	73400	105500	104800	104600	105300	103600	93700	72400	48900	23600	8100
2	64900	75500	105500	104800	104600	105300	103500	92700	71800	47800	22900	7800
3	64700	77400	105100	104800	104600	105300	103300	91800	71300	46900	22200	7500
4	64500	79300	105100	104800	104600	105100	103300	90900	70600	46100	21400	7100
5	64500	81100	105300	104800	104600	105100	103100	89700	69800	45300	20700	6800
6	64300	82900	105300	104800	104800	105100	103100	88800	69100	44300	20100	6600
7	64300	84600	105300	104800	104800	104800	102700	87900	68500	43500	19400	6400
8	64300	86400	105100	104800	104800	104800	102900	86900	68000	42700	18900	6200
9	64500	88000	105100	104800	104800	104800	103100	85800	67400	41900	18300	6000
10	64700	89500	104800	104800	104800	104800	103100	85000	66800	41100	17800	5800
11	65000	90700	104800	104800	104800	104800	103300	84200	66300	40300	17200	5700
12	65200	91800	105100	104800	104800	104800	103300	83500	65600	39600	16600	5600
13	65200	92600	105100	104800	104800	104800	103300	83000	64900	38900	16000	5500
14	65400	93500	104800	104800	104800	104800	103300	82200	64300	38300	15600	5400
15	65600	94400	104800	104800	104800	104800	103300	81600	63600	37300	15200	5300
16	65600	96700	104800	104800	105100	104800	103100	80800	62800	36400	14700	5100
17	65400	97800	104800	104800	105300	104800	102900	80100	61900	35500	14200	5000
18	65600	98800	104800	104800	105100	104600	102900	79600	61100	34600	13700	5000
19	65600	99500	104800	104800	105300	104600	102500	79000	60100	33800	13300	4900
20	65900	100500	104800	104600	105100	104600	102300	78500	59100	33000	12900	4800
21	66000	101200	104800	104600	105100	104600	102000	78000	58200	32400	12500	4700
22	66100	102100	105100	104600	105100	104600	101400	77700	57200	31600	12000	4600
23	66300	102900	105100	104600	104800	104400	100600	77200	56300	30800	11600	4500
24	66400	103600	104800	104600	104800	104400	99900	76700	55400	30000	11200	4400
25	66400	104400	104800	104600	104800	104200	99100	76300	54600	29300	10800	4300
26	67500	105300	104800	104600	104800	104200	98200	75800	53500	28300	10300	4300
27	68000	105300	104800	104600	104800	104000	97300	75100	52600	27500	9900	4200
28	68100	105500	104800	104600	104800	104000	96500	74700	51800	26600	9500	4200
29	68400	105500	104800	104600	105100	103800	95600	74200	50800	25700	9100	4200
30	69100	105500	104800	104600	---	103800	94600	73500	49900	25000	8800	4200
31	69500	---	104800	104600	---	103600	---	72900	---	24300	8400	---
MAX	69500	105500	105500	104800	105300	105300	103600	93700	72400	48900	23600	8100
MIN	64300	73400	104800	104600	104600	103600	94600	72900	49900	24300	8400	4200
†	281.02	300.49	300.21	300.12	300.32	299.60	294.78	282.14	265.08	237.61	205.11	186.40
‡	+4300	+36000	-700	-200	+500	-1500	-9000	-21700	-23000	-25600	-15900	-4200

CAL YR 1975 ‡ +4300
WTR YR 1976 ‡ -61000

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

11424000 BEAR RIVER NEAR WHEATLAND, CA

LOCATION.--Lat 39°00'01", long 121°24'21", in SE¼SW¼ sec.3, T.13 N., R.5 E., Placer County (revised), on right bank 100 ft (30 m) downstream from bridge on U.S. Highway 99E, 1 mi (2 km) southeast of Wheatland, and 6.5 mi (10.5 km) downstream from Rock Creek.

DRAINAGE AREA.--292 mi^2 (756 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to current year.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 71.92 ft (21.921 m) above mean sea level. See WSP 2131 for history of changes prior to May 28, 1970.

REMARKS.--Records good. Natural flow of stream affected by inflow from Yuba River and American River basins. Flow regulated by Lake Combie, usable capacity, 7,840 acre-ft (9.67 hm^3), Rollins Reservoir (station 11421800) since December 1964, and New Camp Far West Reservoir (station 11423700) since October 1963. Many diversions for irrigation and power. See schematic diagram of Bear River basin.

AVERAGE DISCHARGE (adjusted for diversions and change in contents in New Camp Far West Reservoir since 1966).--47 years, 456 ft^3/s (12.91 m^3/s), 330,400 acre-ft/yr (407 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft^3/s (935 m^3/s) Dec. 22, 1955, gage height, 19.30 ft (5.883 m) site and datum then in use; maximum gage height, 20.83 ft (6.349 m) Nov. 21, 1950, site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 428 ft^3/s (12.1 m^3/s) Dec. 1, gage height, 6.26 ft (1.908 m); minimum daily, 6.7 ft^3/s (0.190 m^3/s) Apr. 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	17	9.4	390	60	33	160	8.7	12	12	11	13	12
2	16	13	375	47	33	204	8.7	15	13	11	13	11
3	15	23	269	46	33	208	8.7	13	13	11	13	11
4	15	31	195	45	38	175	8.7	13	11	11	13	12
5	15	33	167	45	43	145	7.9	14	13	11	13	11
6	21	34	183	46	46	111	7.9	13	15	12	13	12
7	28	35	195	48	46	90	8.8	13	15	12	13	12
8	16	35	170	48	43	66	12	14	13	13	13	11
9	16	35	144	65	42	58	9.9	14	12	13	13	12
10	34	37	120	90	42	52	9.9	15	12	14	13	14
11	43	37	99	90	42	44	12	13	12	15	12	15
12	38	37	96	81	34	30	14	13	12	12	13	14
13	35	37	125	73	16	21	9.0	12	14	12	12	17
14	26	37	115	65	40	17	8.3	11	29	12	12	11
15	10	39	97	63	62	13	7.1	11	13	11	13	12
16	19	39	89	63	87	11	6.7	12	12	11	15	11
17	25	38	81	57	169	11	6.9	12	11	12	13	11
18	26	37	75	54	173	16	7.7	12	11	13	14	12
19	26	37	70	50	156	15	8.1	13	11	14	15	10
20	28	37	67	46	187	13	19	13	11	13	13	12
21	29	37	62	44	156	14	8.4	12	11	13	13	11
22	29	37	69	44	122	14	7.7	13	11	13	14	11
23	30	37	106	43	99	12	7.3	12	10	13	20	9.9
24	30	37	103	43	78	11	9.9	11	12	13	15	8.6
25	30	43	91	40	35	11	12	12	13	13	14	12
26	35	112	83	38	26	18	12	12	12	13	13	7.6
27	31	260	78	37	19	10	12	12	12	13	13	9.1
28	31	354	73	36	16	10	11	13	12	13	13	7.6
29	30	404	68	33	26	12	11	10	12	13	14	8.1
30	66	410	70	26	---	12	11	11	10	13	13	7.0
31	34	---	68	31	---	11	---	12	---	13	13	---
TOTAL	844	2391.4	3993	1597	1942	1595	292.3	388	380	387	417	334.9
MEAN	27.2	79.7	129	51.5	67.0	51.5	9.74	12.5	12.7	12.5	13.5	11.2
MAX	66	410	390	90	187	208	19	15	29	15	20	17
MIN	10	9.4	62	26	16	10	6.7	10	10	11	12	7.0
AC-FT	1670	4740	7920	3170	3850	3160	580	770	754	768	827	664
†	926	0	0	0	571	3183	11283	20670	21361	22104	14675	5890

CAL YR 1975 TOTAL 117028.4 MEAN 321 MAX 6700 MIN 9.4 AC-FT 232100 MEAN ‡ 515 AC-FT ‡ 372600
WTR YR 1976 TOTAL 14561.6 MEAN 39.8 MAX 410 MIN 6.7 AC-FT 28880 MEAN ‡ 94.4 AC-FT ‡ 68540

† Diversion, in acre-feet, to Camp Far West North and South Canals and South Sutter conveyance canal, furnished by South Sutter Water District.
‡ Adjusted for diversions and change in contents in New Camp Far West Reservoir.

11424000 BEAR RIVER NEAR WHEATLAND, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSES: Water years 1953 to current year.

COOPERATION.--Records furnished by California Department of Water Resources.

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)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT 16...	0830	20	113	7.3	17.0	0	9.1	52	9	9.9
NOV 13...	0945	37	76	7.3	12.0	0	11.2	27	2	5.8
DEC 18...	1130	75	59	7.4	10.0	0	12.2	23	2	5.7
JAN 23...	1030	44	122	7.2	9.0	1	9.7	30	5	6.1
FEB 20...	1000	188	82	7.2	10.0	1	11.5	25	3	5.3
MAR 12...	1000	37	80	7.3	12.0	1	11.3	32	5	6.9
APR 12...	1230	14	102	7.6	18.5	5	11.5	42	8	9.4
MAY 13...	0920	12	123	7.4	24.5	4	9.5	52	11	9.8
JUN 10...	1245	12	122	7.8	25.5	2	10.3	52	10	10
JUL 14...	1120	12	121	7.8	29.5	0	9.2	49	6	9.3
AUG 17...	1345	13	130	8.0	26.0	7	10.6	58	13	9.2
SEP 20...	1145	13	148	7.8	23.5	0	9.6	56	8	8.9

DATE	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 CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)
OCT 16...	--	4.2	--	52	0	43	4.4	80	.11	4.32
NOV 13...	--	3.4	--	30	0	25	3.1	50	.07	4.99
DEC 18...	--	4.0	--	26	0	21	4.0	37	.05	7.49
JAN 23...	--	3.4	--	31	0	25	3.5	46	.06	5.46
FEB 20...	--	2.6	--	27	0	22	3.1	38	.05	19.3
MAR 12...	3.6	3.4	.3	33	0	27	2.5	55	.07	5.49
APR 12...	--	4.6	--	41	0	34	6.9	64	.09	2.42
MAY 13...	--	5.0	--	50	0	41	7.9	78	.11	2.53
JUN 10...	6.6	4.6	.3	51	0	42	5.0	88	.12	2.85
JUL 14...	--	5.4	--	52	0	43	5.3	84	.11	2.72
AUG 17...	--	5.0	--	55	0	45	7.4	80	.11	2.81
SEP 20...	--	5.1	--	58	0	48	7.8	67	.09	2.35

11425000 FEATHER RIVER NEAR NICOLAUS, CA

LOCATION.--Lat 38°53'26", long 121°26'12", in SE¼NE¼ sec.14, T.12 N., R.3 E., Sutter County, on left bank 1.7 mi (2.7 km) southwest of Nicolaus, 4.2 mi (6.8 km) downstream from Bear River, and at mile 8.1 (13.0 km).

DRAINAGE AREA.--5,921 mi^2 (15,335 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1921 to December 1942 (low-water periods only), April 1943 to current year. Prior to October 1974, published as "at Nicolaus."

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3.30 ft (1.006 m) below mean sea level. Prior to November 1931, on middle fender pier of bridge 1.6 mi (2.6 km) upstream at same datum. November 1931 to September 1974, at highway bridge 1.3 mi (2.1 km) upstream at same datum.

REMARKS.--Records good. Flow partly regulated by many reservoirs, total capacity, 6,868,000 acre-ft (8.47 km^3), the largest of which are Lake Oroville (station 11406800) completed in 1968, Lake Almanor (station 11399000) completed in 1913, and New Bullards Bar Reservoir (station 11413515) completed in 1969. Diversions for irrigation of about 87,000 acres (352 km^2) between stations at Oroville and near Nicolaus.

REVISED RECORDS.--WSP 1931: Drainage area.

AVERAGE DISCHARGE.--33 years (water years 1944-76), 8,242 ft^3/s (233.4 m^3/s), 5,971,000 acre-ft/yr (7.36 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (water years 1944-76), 357,000 ft^3/s (10,100 m^3/s) Dec. 23, 1955; maximum gage height, 51.60 ft (15.728 m) Dec. 23, 1955; no flow Aug. 2-18, 1924, July 11-22, 24, 26, Aug. 1, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,500 ft^3/s (354 m^3/s) Dec. 6, gage height, 27.26 ft (8.309 m); minimum daily, 1,100 ft^3/s (31.2 m^3/s) June 17, 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	5810	5980	12300	4990	2630	3460	3010	2430	1620	2880	2710	2140
2	5890	5820	12300	4940	2600	3940	3590	2140	1410	2860	2750	2150
3	5970	5790	12200	4800	2590	4160	3700	1950	1260	2860	2540	2150
4	5980	5850	12100	4710	3020	3220	3640	1820	1200	2940	2260	2190
5	5910	5910	12300	4690	3120	2860	3670	1710	1230	3000	1970	2190
6	5860	5960	12400	4710	3250	2650	3720	1620	1510	2950	1750	2210
7	5610	5900	12200	4460	3250	2490	3680	1530	1730	2910	1670	2200
8	4860	5800	11100	4370	3090	2380	4040	1400	1980	2890	1440	2140
9	5880	5850	10800	4470	3080	2310	4250	1300	1950	2940	1390	2250
10	6130	5850	10100	4570	3060	2260	4170	1250	1810	2940	1340	2630
11	6050	5810	9980	4490	3060	2220	4110	1270	1610	2940	1240	3000
12	5770	5760	10000	4430	3060	2180	4040	1290	1460	2980	1230	3130
13	5590	5750	10100	4410	3030	2170	3560	1340	1330	2980	1220	3170
14	5570	5720	10000	4020	3200	2160	2720	1360	1280	2810	1270	2990
15	5590	5790	9900	3690	3230	2150	2530	1330	1210	2420	1380	2900
16	5660	6100	9610	3550	3220	2120	2490	1220	1170	2250	1400	2490
17	5680	6790	9490	3440	3420	2080	2490	1270	1100	2350	1390	2090
18	5720	6720	9450	3260	3490	2050	2510	1580	1100	2510	1410	1940
19	5680	6700	9370	3160	3420	2090	2440	1320	1330	2560	1440	1890
20	5640	6840	9340	3170	3460	2050	2400	1340	1900	2550	1470	1870
21	5670	7090	9190	3160	3340	2020	2410	1290	1990	2530	1420	2020
22	5690	8540	8190	3130	3180	2000	2420	1320	2020	2520	1440	2370
23	5690	10000	7360	3050	3170	2160	2790	1360	2010	2520	1500	2700
24	5670	11100	7260	2890	3190	2220	3250	1330	2100	2680	1490	2960
25	5680	11800	7240	2610	3150	2090	3230	1350	2340	2850	1470	3630
26	5760	11900	7170	2520	3160	1960	3250	1350	2440	2880	1450	3940
27	5870	12200	7210	2520	2960	1950	2940	1320	2590	2910	1510	4150
28	5890	12200	7030	2520	2650	1920	2650	1330	2740	2890	1900	4470
29	5810	12200	6020	2610	2500	1950	2680	1290	2720	2880	2140	4290
30	6050	12300	5240	2280	---	2140	2670	1320	2800	2880	2130	3800
31	6120	---	5000	2560	---	2710	---	1690	---	2780	2130	---
TOTAL	178750	230020	291950	114180	89580	74120	95050	45420	52940	85840	51850	82050
MEAN	5766	7667	9418	3683	3089	2391	3168	1465	1765	2769	1673	2735
MAX	6130	12300	12400	4990	3490	4160	4250	2430	2800	3000	2750	4470
MIN	4860	5720	5000	2280	2500	1920	2400	1220	1100	2250	1220	1870
AC-FT	354600	456200	579100	226500	177700	147000	188500	90090	105000	170300	102800	162700

CAL YR 1975 TOTAL 2717600 MEAN 7445 MAX 26200 MIN 3200 AC-FT 5390000
WTR YR 1976 TOTAL 1391750 MEAN 3803 MAX 12400 MIN 1100 AC-FT 2761000

11425000 FEATHER RIVER NEAR NICOLAUS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.
CHEMICAL ANALYSES: Water years 1951-66. Published as "at Nicolaus".
WATER TEMPERATURES: Water years 1951-58, 1960 to current year. Published as station 11425100 for period 1964-74.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1951 to September 1958, October 1960 to June 1966.
WATER TEMPERATURES: March 1951 to September 1958, November 1959 to current year.

INSTRUMENTATION.--Temperature recorder since November 1961.

REMARKS.--Prior to 1964 water year, thermograph located at gaging station "at Nicolaus", 1.3 mi (2.1 km) upstream. Records from October 1964 to September 1974 were obtained 2.5 mi (4.0 km) downstream and are considered equivalent.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 34.5°C July 21, 1961; minimum (water years 1952-58, 1960-66, 1968-76), 0.0°C Jan. 3-6, 1961.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 29.0°C June 17; minimum recorded, 5.5°C Jan. 1-4.

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	19.0	17.5	12.5	11.5	11.0	11.0	7.0	5.5			---	---
2	18.5	17.0	13.0	11.5	11.0	9.0	6.5	5.5			---	---
3	18.0	17.0	13.0	12.0	9.5	9.0	6.5	5.5			---	---
4	18.0	16.5	13.0	12.0	10.5	9.5	6.5	5.5			---	---
5	18.0	16.5	13.0	12.0	10.5	9.5	7.0	6.0			---	---
6	17.5	16.0	13.5	12.0	10.5	9.5	7.5	6.5			---	---
7	16.5	15.5	13.0	12.5	10.5	9.0	7.5	6.5			---	---
8	17.5	15.5	12.5	11.5	9.5	9.0	7.0	6.0			---	---
9	15.5	14.5	12.0	11.0	9.5	9.0	---	---			---	---
10	15.0	14.0	11.5	10.5	9.0	9.0	---	---			---	---
11	15.5	14.5	11.0	10.0	9.0	8.5	---	---			---	---
12	16.0	14.5	11.0	10.0	9.0	8.5	---	---			---	---
13	15.5	14.5	11.0	10.0	8.5	8.0	7.5	6.0			---	---
14	16.0	14.5	11.0	10.0	8.0	7.5	8.0	6.5			---	---
15	16.0	14.5	10.5	10.5	8.0	7.5	8.0	6.5			---	---
16	16.0	14.5	11.0	10.5	8.0	7.0	8.0	6.5			---	---
17	16.0	14.5	10.5	9.0	8.0	7.5	7.5	6.5			---	---
18	16.0	15.0	9.5	8.0	8.0	7.0	8.0	7.0			---	---
19	16.0	15.0	9.5	8.5	8.0	7.5	9.0	7.0			---	---
20	16.0	14.5	9.5	9.0	8.0	7.5	9.0	7.0			---	---
21	16.0	14.5	9.5	8.5	8.0	7.5	9.0	7.0			---	---
22	15.0	14.0	9.5	8.5	8.5	7.5	9.0	7.0			---	---
23	13.5	12.5	10.0	8.5	8.5	7.5	8.5	7.0			---	---
24	13.5	12.0	10.5	10.0	8.5	7.5	9.0	7.0			---	---
25	12.5	12.0	11.0	9.5	9.0	7.5	9.0	7.0			---	---
26	12.5	12.0	10.5	10.0	9.0	8.0	8.5	7.0			14.0	11.0
27	13.0	12.0	11.5	9.5	8.5	6.5	---	---			13.5	10.5
28	12.5	11.5	10.5	9.5	---	---	---	---			15.0	11.0
29	12.5	11.5	11.0	10.5	---	---	---	---			15.5	12.0
30	13.0	12.0	11.0	11.0	---	---	---	---			16.5	12.5
31	12.5	11.5	---	---	7.5	6.0	---	---			15.0	13.5
MONTH	19.0	11.5	13.5	8.0	11.0	6.0	---	---			---	---

11425000 FEATHER RIVER NEAR NICOLAUS, CA--Continued

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	15.0	12.0	20.5	16.5	23.5	18.5	25.0	21.0	23.5	20.0	27.5	23.5
2	15.0	12.0	21.5	17.0	24.0	18.5	24.5	20.5	24.5	20.5	27.5	23.0
3	13.5	12.0	22.5	17.5	24.0	18.0	24.5	20.5	22.5	20.5	26.5	22.0
4	13.5	12.0	22.0	17.0	25.0	19.5	25.0	21.0	24.5	20.0	26.0	22.0
5	12.5	12.0	22.0	17.0	24.0	19.5	25.5	22.0	25.0	20.0	25.0	22.0
6	13.5	11.5	21.0	18.0	23.5	18.5	26.5	22.0	25.0	20.0	25.0	20.5
7	12.5	12.0	23.0	17.5	22.0	17.5	26.0	22.5	26.0	21.0	25.5	21.5
8	12.5	11.5	23.5	19.0	22.5	18.0	26.5	22.5	27.0	22.0	26.0	21.5
9	14.0	11.0	24.0	19.0	23.0	19.0	26.0	22.5	27.5	22.5	25.5	22.0
10	13.0	12.0	23.5	19.0	22.5	19.0	26.5	22.5	28.0	23.0	23.5	22.0
11	13.5	11.0	23.5	20.0	23.0	17.5	25.0	22.0	28.0	22.5	22.0	20.0
12	14.0	11.5	25.0	19.5	24.5	19.0	26.0	22.0	28.0	23.0	21.5	19.5
13	15.5	12.0	25.5	21.5	24.5	21.0	27.0	23.0	24.5	21.5	22.0	19.0
14	16.5	13.0	25.5	21.0	24.5	19.0	27.5	23.5	23.0	21.0	22.5	19.5
15	15.5	13.5	25.5	20.5	26.5	21.0	27.5	23.0	23.5	20.0	21.5	20.0
16	15.0	11.5	24.5	20.5	28.0	21.5	26.5	23.0	23.0	19.0	21.0	19.0
17	16.0	12.0	23.5	18.5	29.0	23.5	26.5	22.0	23.5	19.5	22.5	19.0
18	17.5	13.5	23.5	18.0	27.5	22.5	26.5	22.0	23.0	20.0	23.0	19.0
19	18.5	14.0	23.5	18.0	27.0	22.0	27.0	22.5	25.5	20.5	23.0	19.5
20	19.5	15.0	24.5	19.5	24.5	21.0	27.0	22.5	27.0	21.5	23.0	19.0
21	19.5	16.5	24.0	19.5	24.5	19.5	27.0	23.0	27.0	22.0	22.5	19.0
22	19.5	16.0	25.0	19.5	25.5	21.0	27.5	23.0	25.5	22.0	22.0	19.0
23	19.5	16.0	24.5	19.5	25.0	21.0	27.5	24.0	27.0	22.0	22.0	19.0
24	19.5	17.0	24.0	19.0	25.5	21.0	28.0	23.5	27.5	22.5	22.0	19.0
25	17.5	15.0	24.5	19.5	26.5	22.5	28.0	24.5	27.5	22.0	21.0	19.0
26	16.5	13.5	26.5	21.0	26.5	22.5	28.5	24.0	27.0	22.5	20.5	18.0
27	17.5	13.5	25.5	21.0	27.5	23.0	28.0	24.5	27.5	22.0	20.0	18.5
28	18.0	14.5	25.0	20.0	27.5	23.5	26.0	24.0	27.0	22.5	19.5	18.0
29	18.5	14.5	24.0	20.5	26.0	23.0	26.0	23.0	27.0	22.5	19.5	18.0
30	20.0	15.5	23.5	19.0	24.5	21.5	24.5	21.5	27.5	23.0	19.5	18.0
31	---	---	23.5	19.0	---	---	23.0	21.0	28.0	23.0	---	---
MONTH	20.0	11.0	26.5	16.5	29.0	17.5	28.5	20.5	28.0	19.0	27.5	18.0

11425500 SACRAMENTO RIVER AT VERONA, CA

LOCATION.--Lat 38°46'51", long 121°36'12", in SW¼SE¼ sec.23, T.11 N., R.3 E., Sutter County, on left bank 0.8 mi (1.3 km) southeast of Verona, 1 mi (2 km) downstream from Feather River, 6.2 mi (10.0 km) east of Knights Landing, and at mile 19.6 (31.5 km) upstream from Sacramento.

DRAINAGE AREA.--21,257 mi^2 (55,056 km^2).

PERIOD OF RECORD.--May 1926 to September 1929 (low-water periods only), October 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3.00 ft (0.914 m) below mean sea level.

REMARKS.--Records excellent. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, return flow from irrigated areas, and bypassing for flood control. When discharge exceeds about 55,000 ft^3/s (1,560 m^3/s) flow begins over Fremont weir (just upstream) into Yolo Bypass (station 11453000). Gage height of crest of Fremont weir is 33.5 ft (10.21 m).

AVERAGE DISCHARGE.--47 years (water years 1930-76), 19,030 ft^3/s (538.9 m^3/s), 13,790,000 acre-ft/yr (17.0 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 79,200 ft^3/s (2,240 m^3/s) Mar. 1, 1940, gage height, 41.20 ft (12.558 m); minimum daily, 304 ft^3/s (8.61 m^3/s) July 23, 24, 1931; maximum reverse flow, 16,800 ft^3/s (476 m^3/s) Dec. 4, 1950, backwater from American River. Maximum combined discharge of Sacramento River at Verona and Fremont weir, about 322,000 ft^3/s (9,120 m^3/s) Dec. 25, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,100 ft^3/s (767 m^3/s) Dec. 8, gage height, 20.80 ft (6.340 m); minimum daily, 8,580 ft^3/s (243 m^3/s) Apr. 28, 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	15600	16900	24400	16300	10200	18600	9710	9230	9680	10100	12100	11700
2	15500	17600	24300	16100	10500	23600	9980	9520	9830	9960	12300	11800
3	15300	17200	24300	15600	10500	25000	10600	9580	9620	10000	12600	11900
4	15400	16500	24300	15100	10800	22200	11200	9290	9520	10300	12400	12100
5	15300	15600	24400	14500	11000	19700	11900	8970	9570	10700	12100	12500
6	15400	14800	24900	14000	11400	17400	12500	9070	9750	10900	12100	12800
7	15400	14100	25800	13600	11700	15300	12600	9880	10200	11000	12300	12900
8	14700	13800	27000	13400	11700	13500	13300	9960	10900	11200	12400	12900
9	15000	13800	26500	13400	11600	12300	14900	9530	11400	11300	12600	13000
10	15700	14600	25500	13800	11400	11500	17300	9580	11500	11400	12600	12800
11	16300	16200	24700	13800	11000	11300	18300	9670	11500	11400	12300	13000
12	16800	17000	24200	13800	10700	11200	17000	9850	11600	11600	11600	13400
13	17400	17400	23900	13600	10400	11200	15400	10200	11500	11600	11000	13000
14	17300	17600	23700	13400	10700	11600	14000	10300	11500	11300	11000	12900
15	16700	17800	23600	12900	11000	11400	13600	10100	11200	11000	11600	12800
16	16200	18200	23200	12600	11300	11000	12400	10100	10700	10700	12300	12500
17	16000	19100	22900	12600	11900	10800	11400	10000	10200	11000	13000	12000
18	15900	20300	22700	12500	12600	10700	11200	9930	9640	11500	13500	11800
19	15800	20500	22600	12600	13200	10600	11100	9780	9300	11700	13500	11400
20	15800	20200	22300	12600	13100	10400	10600	9770	9720	11500	13900	10700
21	15700	19800	21900	12900	12200	10300	9730	9810	9990	11600	14200	10200
22	15600	20300	21200	12800	11300	10100	9010	9940	10000	11600	14100	10200
23	15500	21700	20000	12600	10900	9920	8600	10200	9910	11600	13700	10000
24	15300	22800	19000	12300	11300	9930	8610	10300	9700	11700	13500	10000
25	15200	23700	18600	11500	11200	9580	8790	10300	9820	12000	12900	10100
26	15300	23900	18300	11100	11100	9280	9310	10300	9900	12200	12300	10500
27	15500	24200	18200	10700	10900	9060	9090	10300	9870	12400	11700	10500
28	16000	24400	18200	10300	12000	9020	8580	9810	9970	12300	11800	10400
29	16700	24300	17700	10100	15400	9320	8580	9200	10100	12200	11900	10600
30	16800	24400	17000	9980	---	9310	8890	8780	10100	12200	11900	10500
31	16700	---	16600	10000	---	9700	---	9130	---	12100	11700	---
TOTAL	491800	568700	691900	400480	333000	394820	348180	302380	308190	352060	386900	350900
MEAN	15860	18960	22320	12920	11480	12740	11610	9754	10270	11360	12480	11700
MAX	17400	24400	27000	16300	15400	25000	18300	10300	11600	12400	14200	13400
MIN	14700	13800	16600	9980	10200	9020	8580	8780	9300	9960	11000	10000
AC-FT	975500	1128000	1372000	794400	660500	783100	690600	599800	611300	698300	767400	696000

CAL YR 1975 TOTAL 8545500 MEAN 23410 MAX 63400 MIN 12700 AC-FT 16950000
WTR YR 1976 TOTAL 4929310 MEAN 13470 MAX 27000 MIN 8580 AC-FT 9777000

11426000 SACRAMENTO WEIR SPILL TO YOLO BYPASS, NEAR SACRAMENTO, CA

LOCATION.--Lat 38°36'25", long 121°33'15", unsurveyed, Sacramento County, 2 gages on right bank, one 100 ft (30 m) upstream from weir and one 100 ft (30 m) downstream from weir, 3.2 mi (5.1 km) upstream from American River, 4 mi (6 km) northwest of Sacramento, and at mile 4.2 (6.8 km) upstream from Sacramento.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for water years 1940-51, published in WSP 1735. Published as Sacramento weir near Sacramento 1939-61. Gage-height records collected at same site February 1926 to September 1934 and major flood flows only October 1934 to September 1939 are contained in reports of California Department of Water Resources.

GAGE.--Water-stage recorders and concrete weir crest. Datum of gage is 3.00 ft (0.914 m) below mean sea level. October 1939 to September 1942, October 1959 to September 1963, water-stage recorder or nonrecording gage at downstream end of weir. October 1942 to September 1959, water-stage recorder on left bank at Sacramento River opposite center of weir. Since February 1963, water-stage recorders on right bank 100 ft (30 m) upstream and 100 ft (30 m) downstream from ends of weir.

REMARKS.--No flow since Mar. 31, 1975. Crest of weir is at gage height 22.0 ft (6.71 m) and top of moveable gates at 28.0 ft (8.53 m). Weir consists of 48 gates each 38.1 ft (11.61 m) long. Flow over weir enters Yolo Bypass by way of Sacramento Bypass. Flow regulated by weir gates. Since February 1963, stage is obtained by averaging the stage obtained at sites above and below the weir. Figures for the calendar year 1975 are as follows: Maximum daily discharge, 178 ft^3/s (5.04 m^3/s); minimum, zero ft^3/s (zero m^3/s); mean, 3.66 ft^3/s (0.104 m^3/s); runoff, 2,650 acre-ft (3.27 hm^3).

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--37 years, 208 ft^3/s (5.891 m^3/s) 150,700 acre-ft/yr (1.86 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 118,000 ft^3/s (3,340 m^3/s) Mar. 26, 1928; maximum gage height, 33.01 ft (10.061 m) Dec. 23, 1955; no flow all or most of each year.

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

11426150 ONION CREEK NEAR SODA SPRINGS, CA

LOCATION.--Lat 39°16'02", long 120°21'50", in SE¼NE¼ sec.11, T.16 N., R.14 E., Placer County, Tahoe National Forest, on right bank 0.3 mi (0.5 km) upstream from unnamed tributary, 1 mi (2 km) upstream from mouth, and 4.0 mi (6.5 km) south of Soda Springs.

DRAINAGE AREA.--3.58 mi^2 (9.27 km^2).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,900 ft (1,798 m), from topographic map.

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

AVERAGE DISCHARGE.--17 years, 9.53 ft^3/s (0.270 m^3/s), 6,900 acre-ft/yr (8.51 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,750 ft^3/s (49.6 m^3/s) Dec. 23, 1964, gage height, 4.98 ft (1.518 m) in gage well, 6.82 ft (2.079 m) from floodmarks, from rating curve extended above 120 ft^3/s (3.40 m^3/s) on basis of slope-area measurement of maximum flow; minimum daily, 0.10 ft^3/s (0.003 m^3/s) for several days in 1959, 1961, 1973, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 74 ft^3/s (2.10 m^3/s) Oct. 26 (0915 hrs), gage height, 2.29 ft (0.698 m), no other peak above base of 50 ft^3/s (1.42 m^3/s); minimum daily, 0.10 ft^3/s (0.003 m^3/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	.39	3.3	2.6	1.7	1.7	3.2	6.6	17	2.0	.70	.28	.12
2	.37	2.9	2.6	1.6	1.7	3.1	7.2	15	1.9	.67	.30	.12
3	.37	2.5	2.4	1.6	1.7	3.1	7.6	15	1.8	.65	.29	.15
4	.38	2.2	2.3	1.6	1.7	3.0	8.0	15	1.7	.63	.23	.17
5	.48	1.9	2.4	1.7	1.7	3.1	7.6	14	1.7	.61	.20	.13
6	3.3	1.7	2.4	1.6	1.7	3.0	6.8	13	1.6	.58	.20	.20
7	1.2	7.1	2.4	1.5	1.7	3.1	7.1	13	1.6	.56	.19	.13
8	.64	3.1	2.3	1.5	1.7	3.2	8.0	14	1.5	.54	.18	.10
9	.59	2.3	2.3	1.5	1.8	3.6	8.0	13	1.8	.52	.15	.11
10	3.5	2.2	2.2	1.5	2.0	4.5	7.9	13	1.8	.50	.14	.13
11	2.3	2.2	2.1	1.5	2.1	4.6	7.5	12	1.7	.48	.13	5.8
12	1.5	2.7	2.4	1.5	2.1	4.5	7.2	11	1.6	.47	.12	.43
13	2.2	2.8	2.3	1.5	2.2	4.8	6.8	10	1.4	.46	.12	.28
14	3.6	2.5	2.2	1.5	2.1	5.5	7.4	8.9	1.3	.45	.70	.25
15	3.0	2.5	2.1	1.7	2.2	6.6	7.4	7.7	1.3	.43	4.4	.24
16	2.3	12	2.1	2.2	2.1	8.5	6.4	7.2	1.2	.42	.49	.24
17	1.7	4.1	2.0	2.2	2.2	10	6.5	6.5	1.2	.41	.35	.24
18	1.2	2.9	1.9	2.0	2.5	8.9	7.9	5.9	1.1	.39	.39	.23
19	1.1	2.7	1.9	1.9	2.2	7.0	11	5.3	1.1	.38	.34	.22
20	1.0	2.6	1.9	1.8	2.1	6.8	14	4.8	1.0	.36	.28	.22
21	.90	2.5	2.0	1.7	2.1	8.1	14	4.5	1.0	.35	.25	.21
22	1.1	2.4	2.1	1.7	2.1	9.2	15	4.2	.96	.34	.35	.22
23	.86	2.3	2.1	1.7	2.1	9.1	16	3.9	.93	.32	.30	.22
24	.81	2.4	2.0	1.6	2.2	8.4	18	3.7	.90	.28	.26	.23
25	.95	2.4	2.0	1.5	2.3	7.5	16	3.5	.84	.25	.25	.21
26	30	2.4	2.0	1.5	2.3	7.1	14	3.3	.82	.23	.24	.22
27	4.7	2.4	2.1	1.5	2.4	6.7	12	3.1	.80	.22	.25	.21
28	3.2	2.2	2.4	1.6	3.5	6.2	12	2.8	.77	.22	.19	.23
29	2.5	2.1	2.5	1.6	3.3	6.1	14	2.5	.75	.23	.17	.20
30	2.5	2.1	2.4	1.6	---	8.0	15	2.2	.73	.22	.13	.19
31	3.0	---	1.8	1.6	---	7.6	---	2.1	---	.24	.12	---
TOTAL	81.64	89.4	68.2	51.2	61.5	184.1	302.9	257.1	38.80	13.11	11.99	11.65
MEAN	2.63	2.98	2.20	1.65	2.12	5.94	10.1	8.29	1.29	.42	.39	.39
MAX	30	12	2.6	2.2	3.5	10	18	17	2.0	.70	4.4	5.8
MIN	.37	1.7	1.8	1.5	1.7	3.0	6.4	2.1	.73	.22	.12	.10
AC-FT	162	177	135	102	122	365	601	510	77	26	24	23

CAL YR 1975 TOTAL 3470.31 MEAN 9.51 MAX 103 MIN .37 AC-FT 6880
WTR YR 1976 TOTAL 1171.59 MEAN 3.20 MAX 30 MIN .10 AC-FT 2320

11426190 LAKE VALLEY CANAL NEAR EMIGRANT GAP, CA

LOCATION.--Lat 39°17'58", long 120°39'11", in NE¼NW¼ sec.32, T.17 N., R.12 E., Placer County, Tahoe National Forest, on right bank 500 ft (152 m) upstream from inlet to Carpenter Flat siphon, and 1 mi (2 km) east of Emigrant Gap.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,360 ft (1,634 m), from topographic map.

REMARKS.--Canal diverts from right bank of the North Fork of North Fork American River, 2.7 mi (4.3 km) downstream from Lake Valley Reservoir to the Drum Canal in the Bear River basin. See schematic diagram of Bear River and Yuba River basins.

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.--12 years, 13.5 ft^3/s (0.382 m^3/s), 9,780 acre-ft/yr (12.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 40 ft^3/s (1.133 m^3/s) Mar. 29, 1974; 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	32	36	37			0	10	15	.90	.55	1.0	.83
2	34	36	36			0	9.8	13	.76	.54	1.0	.82
3	34	36	36			0	10	12	.58	.54	1.0	.82
4	34	35	35			0	10	12	.39	.56	1.1	.82
5	34	35	24			0	11	13	.33	.54	1.0	.86
6	35	35	0			0	9.9	12	.30	.51	1.0	.87
7	34	37	0			0	10	12	.27	.47	1.0	.86
8	34	37	0			0	11	11	.21	.47	1.0	.83
9	35	36	0			0	11	13	.42	.45	.98	.81
10	38	36	0			0	11	15	1.1	.47	.97	.88
11	37	35	0			0	11	11	1.6	.48	.97	1.9
12	35	35	0			19	11	9.3	1.0	.47	.71	1.3
13	34	35	0			23	11	7.8	.76	.46	.20	1.1
14	34	35	0			30	12	6.9	.60	.45	1.3	6.7
15	36	35	0			30	13	5.9	.40	.45	3.0	19
16	36	36	0			30	12	5.1	.30	.42	.94	23
17	36	36	0			31	10	4.6	.31	.45	.97	24
18	36	34	0			32	12	4.0	.27	.45	1.5	24
19	36	34	0			30	13	3.2	.24	.45	1.4	25
20	36	34	0			27	15	2.4	.23	.86	.87	27
21	36	35	0			28	19	3.0	.22	.91	.20	24
22	36	35	0			29	19	2.8	.59	.92	.80	15
23	36	34	0			25	20	2.5	.66	.99	1.1	29
24	36	34	0			14	20	1.7	.60	.99	1.0	29
25	36	33	0			14	20	1.6	.59	.93	.96	29
26	36	33	0			12	16	1.4	.59	.94	.95	29
27	33	37	0			11	14	1.2	.59	.93	.89	28
28	37	36	0			9.7	12	1.2	.55	.97	.87	28
29	36	37	0			9.7	12	1.1	.55	.99	.88	28
30	38	36	0		---	11	14	1.0	.56	.95	.86	27
31	36	---	0		---	11	---	1.1	---	.99	.84	---
TOTAL	1096	1058	168	0	0	426.4	389.7	206.8	16.47	20.55	31.26	427.40
MEAN	35.4	35.3	5.42	0	0	13.8	13.0	6.67	.55	.66	1.01	14.2
MAX	38	37	37	0	0	32	20	15	1.6	.99	3.0	29
MIN	32	33	0	0	0	0	9.8	1.0	.21	.42	.20	.81
AC-FT	2170	2100	333	0	0	846	773	410	33	41	62	848

CAL YR 1975 TOTAL 6591.43 MEAN 18.1 MAX 38 MIN 0 AC-FT 13070
WTR YR 1976 TOTAL 3840.58 MEAN 10.5 MAX 38 MIN 0 AC-FT 7620

11426200 NORTH FORK FORBES CREEK NEAR DUTCH FLAT, CA

LOCATION.--Lat 39°08'37", long 120°45'30", in NW¼SE¼ sec.17, T.15 N., R.11 E., Placer County, Tahoe National Forest, on right bank 0.2 mi (0.3 km) downstream from Big Reservoir, and 6.0 mi (9.7 km) southeast of Dutch Flat.

DRAINAGE AREA.--1.68 mi^2 (4.35 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 3,980 ft (1,213 m), from topographic map.

REMARKS.--Flow regulated by Big Reservoir, capacity, 2,200 acre-ft (2.71 hm^3). Some diversion above station for mining.

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by Geological Survey.

AVERAGE DISCHARGE.--20 years, 4.56 ft^3/s (0.129 m^3/s), 3,300 acre-ft/yr (4.07 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 377 ft^3/s (10.7 m^3/s) Jan. 22, 1970, gage height, 4.76 ft (1.451 m); no flow many days in 1964-66.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 6.40 ft (1.951 m) probably Dec. 23, 1955, from flood-marks, discharge unknown.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7.2 ft^3/s (0.20 m^3/s) Oct. 26, gage height, 2.32 ft (0.707 m); minimum daily, 0.10 ft^3/s (0.003 m^3/s) on 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	1.9	2.3	.60	.40	.40	.30	.20	.80	.20	.20	.20	.20
2	1.9	.80	.60	.40	.20	.30	.20	.80	.20	.20	.20	.20
3	1.9	.80	.60	.40	.20	.20	.20	.80	.20	.20	.20	.20
4	1.9	.70	.60	.50	.20	.20	.20	.80	.20	.20	.20	.10
5	1.9	.70	.40	.50	.20	.20	.20	.80	.20	.20	.20	.10
6	2.0	.70	.60	.50	.20	.20	.20	.80	.20	.20	.20	.10
7	2.1	.80	.60	.50	.20	.20	.20	.70	.20	.20	.20	.10
8	2.0	.80	.60	.50	.20	.20	.20	.70	.20	.20	.20	.10
9	1.7	.80	.60	.50	.20	.20	.20	.70	.20	.20	.10	.10
10	1.9	.80	.50	.40	.20	.20	.20	.70	.20	.20	.10	.10
11	1.9	.70	.50	.40	.20	.20	.20	.70	.20	.20	.10	.20
12	1.8	.70	.60	.40	.20	.20	.20	.70	.20	.20	.10	.20
13	1.8	.60	.50	.50	.20	.20	.20	.70	.20	.20	.10	.20
14	1.8	.60	.50	.50	.30	.20	.20	.70	.20	.20	.20	.10
15	1.9	.70	.50	.50	.20	.20	.30	.70	.20	.20	.30	.10
16	1.9	.80	.50	.50	.20	.20	.30	.70	.30	.20	.20	.10
17	1.9	.60	.50	.50	.20	.10	.30	.70	.30	.20	.20	.10
18	1.9	.60	.40	.50	.20	.20	.30	.70	.30	.20	.20	.10
19	1.9	.70	.40	.50	.40	.20	.30	.70	.20	.20	.20	.10
20	1.9	.70	.40	.50	.30	.20	.30	.80	.20	.20	.20	.10
21	1.9	.70	.40	.50	.30	.20	.30	.80	.20	.20	.20	.10
22	2.0	.70	.50	.50	.30	.20	.30	.80	.20	.20	.20	.10
23	2.1	.60	.40	.50	.20	.20	.30	.80	.20	.20	.20	.10
24	2.4	.60	.40	.50	.20	.20	.70	.60	.20	.20	.20	.10
25	2.9	.60	.40	.50	.20	.20	1.1	.30	.20	.10	.20	.10
26	5.2	.60	.40	.50	.20	.20	1.1	.30	.20	.10	.20	.10
27	3.0	.70	.40	.40	.20	.20	1.1	.30	.20	.10	.20	.10
28	2.0	.60	.40	.40	.20	.20	1.1	.30	.20	.20	.20	.10
29	2.1	.60	.40	.40	.30	.20	1.0	.20	.20	.20	.20	.10
30	4.1	.60	.40	.40	---	.20	.90	.20	.20	.20	.20	.10
31	3.6	---	.40	.40	---	.20	---	.20	---	.20	.20	---
TOTAL	69.2	22.20	15.00	14.40	6.70	6.30	12.50	19.50	6.30	5.90	5.80	3.60
MEAN	2.23	.74	.48	.46	.23	.20	.42	.63	.21	.19	.19	.12
MAX	5.2	2.3	.60	.50	.40	.30	1.1	.80	.30	.20	.30	.20
MIN	1.7	.60	.40	.40	.20	.10	.20	.20	.20	.10	.10	.10
AC-FT	137	44	30	29	13	12	25	39	12	12	12	7.1

CAL YR 1975	TOTAL	1468.70	MEAN	4.02	MAX	55	MIN	.20	AC-FT 2910
WTR YR 1976	TOTAL	187.40	MEAN	.51	MAX	5.2	MIN	.10	AC-FT 372

11426400 NORTH SHIRTTAIL CREEK NEAR DUTCH FLAT, CA

LOCATION.--Lat 39°07'49", long 120°47'44", in NW¼SE¼ sec.24, T.15 N., R.10 E., Placer County, Tahoe National Forest, on right bank 200 ft (61 m) downstream from Forbes Creek, and 7.0 mi (11.3 km) southeast of Dutch Flat.

DRAINAGE AREA.--9.10 mi^2 (23.57 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 3,500 ft (1,067 m), from topographic map.

REMARKS.--Flow slightly regulated by Big Reservoir, capacity, 2,200 acre-ft (2.71 hm^3).

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--20 years, 20.7 ft^3/s (0.586 m^3/s), 15,000 acre-ft/yr (18.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,780 ft^3/s (50.4 m^3/s) Dec. 22, 1964, gage height, 7.56 ft (2.304 m), from rating curve extended above 590 ft^3/s (16.7 m^3/s) on basis of slope-area measurement at gage height 6.36 ft (1.939 m); minimum daily, 0.10 ft^3/s (0.003 m^3/s) many days in 1970 and 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 7.30 ft (2.225 m) from floodmarks, discharge, 1,650 ft^3/s (46.7 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 39 ft^3/s (1.10 m^3/s) Oct. 26, gage height, 2.02 ft (0.616 m); minimum daily, 0.10 ft^3/s (0.003 m^3/s) on 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	.50	5.6	2.9	3.1	1.4	20	4.3	1.6	.40	.20	.30	.20
2	.40	4.2	2.9	2.9	1.1	15	4.1	1.4	.40	.20	.30	.10
3	.40	3.6	2.9	2.8	1.0	12	3.9	1.4	.40	.10	.30	.10
4	.40	3.3	2.8	2.7	1.3	11	3.9	1.3	.40	.10	.20	.10
5	.40	3.1	3.8	2.9	1.2	10	3.8	1.3	.30	.10	.20	.10
6	1.1	3.0	3.6	2.8	1.1	9.7	3.8	1.2	.30	.10	.20	.10
7	1.4	4.5	3.3	2.6	1.1	9.5	3.6	1.1	.30	.10	.20	.10
8	1.0	4.3	3.2	2.4	1.1	9.0	5.3	1.0	.30	.10	.20	.10
9	1.3	3.9	2.9	2.7	1.3	8.7	5.5	1.1	.30	.10	.20	.10
10	6.8	6.5	2.8	2.7	1.3	8.1	5.3	1.0	.50	.10	.20	.10
11	7.2	5.1	2.6	2.5	1.3	7.6	6.2	1.0	.50	.10	.20	.80
12	3.7	4.4	3.5	2.5	1.3	7.2	7.1	.90	.40	.10	.20	.30
13	3.2	3.9	3.5	2.5	1.9	6.8	6.8	.80	.40	.10	.20	.20
14	3.0	3.5	3.3	2.5	7.1	6.2	5.8	.70	.30	.10	.60	.20
15	2.8	3.8	3.1	2.4	5.4	5.7	6.2	.70	.30	.10	2.4	.20
16	2.8	8.4	3.0	2.4	6.6	5.4	6.5	.60	.30	.10	.80	.20
17	2.8	5.9	2.9	2.4	8.6	5.0	5.8	.60	.30	.10	.60	.20
18	2.7	4.8	2.8	2.3	8.0	6.7	5.6	.60	.30	.10	.60	.20
19	2.5	4.2	2.8	2.1	24	7.2	4.8	.60	.30	.20	.50	.20
20	2.4	4.0	2.5	2.0	16	6.5	4.3	.50	.30	.20	.50	.20
21	2.4	3.6	2.5	1.9	11	5.9	3.8	.50	.30	.10	.40	.20
22	2.4	3.3	5.4	1.8	8.7	5.7	3.6	.40	.20	.10	.60	.20
23	2.4	3.1	4.8	1.8	7.2	5.5	3.3	.50	.20	.10	.50	.20
24	2.5	2.8	4.3	1.8	6.2	5.9	2.8	.50	.20	.10	.40	.20
25	2.8	2.7	4.0	1.6	5.7	6.1	2.7	.50	.20	.10	.40	.20
26	25	2.6	3.7	1.6	5.3	5.6	2.4	.40	.20	.10	.30	.20
27	11	3.4	3.6	1.6	5.0	5.3	2.2	.40	.20	.30	.30	.20
28	6.4	3.5	3.4	1.5	4.8	4.9	2.1	.40	.20	.30	.30	.20
29	5.4	3.2	3.3	1.5	18	4.7	2.0	.40	.20	.30	.30	.20
30	9.5	3.1	3.2	1.5	---	4.4	1.7	.40	.20	.30	.20	.20
31	6.7	---	3.2	1.4	---	4.3	---	.40	---	.30	.20	---
TOTAL	123.30	121.3	102.5	69.2	164.0	235.6	129.2	24.20	9.10	4.50	12.80	5.80
MEAN	3.98	4.04	3.31	2.23	5.66	7.60	4.31	.78	.30	.15	.41	.19
MAX	25	8.4	5.4	3.1	24	20	7.1	1.6	.50	.30	2.4	.80
MIN	.40	2.6	2.5	1.4	1.0	4.3	1.7	.40	.20	.10	.20	.10
AC-FT	245	241	203	137	325	467	256	48	18	8.9	25	12

CAL YR 1975 TOTAL 7271.10 MEAN 19.9 MAX 412 MIN .40 AC-FT 14420
WTR YR 1976 TOTAL 1001.50 MEAN 2.74 MAX 25 MIN .10 AC-FT 1990

11427000 NORTH FORK AMERICAN RIVER AT NORTH FORK DAM, CA

LOCATION.--Lat 38°56'10", long 121°01'22", in SW¼NW¼ sec.31, T.13 N., R.9 E., Placer County, on left bank 50 ft (15 m) upstream from spillway of North Fork Dam, 2 mi (3 km) upstream from Middle Fork, and 4 mi (6 km) northeast of Auburn.

DRAINAGE AREA.--342 mi^2 (886 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 715.0 ft (217.93 m) above mean sea level (levels by Corps of Engineers).

REMARKS.--Records good. Minor regulation by Lake Clementine, usable capacity, 12,800 acre-ft (15.8 hm^3) formed by North Fork Dam. Storage in Big Reservoir and Lake Valley Reservoir, combined capacity, 10,300 acre-ft (12.7 hm^3) above station. Lake Valley Canal (station 11426190) diverts from North Fork of North Fork American River into Bear River basin for power development in powerhouses of Pacific Gas and Electric Co. Combined storage and diversion have small effect on natural flow.

AVERAGE DISCHARGE.--35 years, 822 ft^3/s (23.28 m^3/s), 595,500 acre-ft/yr (734 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65,400 ft^3/s (1,850 m^3/s) Dec. 23, 1964, gage height, 11.87 ft (3.618 m), from rating curve extended above 24,000 ft^3/s (680 m^3/s) on basis of computed flow over spillway of dam at gage height 10.22 ft (3.115 m); no flow Aug. 27-30, Sept. 2-11, 1944, Oct. 5, 6, 1963, Nov. 7-10, 1965, caused by operation of valve in North Fork Dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,590 ft^3/s (102 m^3/s) Oct. 26, gage height, 3.17 ft (0.966 m), no peak above base of 4,300 ft^3/s (122 m^3); minimum daily, 27 ft^3/s (0.76 m^3/s) July 28-31.

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	50	309	171	162	122	1030	360	671	143	49	28	35
2	51	268	175	157	122	677	323	766	137	48	28	34
3	51	239	195	165	121	556	326	669	131	48	31	33
4	52	214	196	161	129	486	339	711	124	48	31	33
5	52	197	206	150	144	435	354	678	116	47	30	32
6	55	190	250	159	124	394	350	639	111	45	30	31
7	64	191	232	149	122	382	327	560	107	44	30	31
8	79	526	203	140	122	382	390	643	109	43	30	31
9	73	341	193	164	128	386	428	627	108	42	29	31
10	117	303	186	189	140	399	397	611	114	38	29	31
11	368	298	171	159	139	425	412	601	128	36	28	56
12	249	258	214	158	130	406	418	570	135	36	28	70
13	166	250	228	153	139	374	407	548	119	35	28	59
14	135	250	200	150	254	364	387	576	107	35	33	45
15	122	255	175	150	270	373	387	505	98	34	76	40
16	118	659	176	150	267	394	402	417	93	33	127	36
17	113	703	175	159	317	450	355	398	88	33	82	37
18	108	405	173	166	277	530	354	362	89	33	65	37
19	105	304	166	160	462	553	379	309	85	33	63	37
20	105	268	159	154	465	447	448	275	81	32	61	36
21	99	251	154	148	355	426	554	249	79	31	55	36
22	95	228	205	140	306	441	591	231	76	30	53	34
23	93	209	222	137	283	462	633	216	72	29	54	33
24	102	197	194	135	263	444	649	205	68	28	51	33
25	99	189	193	133	243	441	721	193	66	30	48	33
26	1200	183	191	127	232	395	610	186	60	29	45	32
27	1490	193	186	125	224	362	515	176	58	28	44	32
28	498	220	184	125	231	338	456	171	55	27	43	33
29	310	193	185	123	723	318	443	162	53	27	41	34
30	335	167	199	122	---	308	518	152	51	27	39	34
31	409	---	188	122	---	341	---	145	---	27	39	---
TOTAL	6963	8458	5945	4592	6854	13719	13233	13222	2861	1105	1399	1109
MEAN	225	282	192	148	236	443	441	427	95.4	35.6	45.1	37.0
MAX	1490	703	250	189	723	1030	721	766	143	49	127	70
MIN	50	167	154	122	121	308	323	145	51	27	28	31
AC-FT	13810	16780	11790	9110	13590	27210	26250	26230	5670	2190	2770	2200

CAL YR 1975 TOTAL 302150 MEAN 828 MAX 8620 MIN 46 AC-FT 599300
WTR YR 1976 TOTAL 79460 MEAN 217 MAX 1490 MIN 27 AC-FT 157600

11427000 NORTH FORK AMERICAN RIVER AT NORTH FORK DAM, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1959 to current year.

INSTRUMENTATION.--Temperature recorder since November 1959.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28.5°C July 26, 27, 1976; minimum, 4.5°C Jan. 21, 1967, Jan. 25, 1976.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 28.5°C July 26, 27; minimum, 4.5°C Jan. 25.

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	21.0	19.0	11.0	10.0			---	---	8.0	6.5	9.5	7.0
2	21.0	19.0	11.0	10.0			---	---	8.5	6.5	9.0	8.5
3	21.0	19.0	11.5	10.5			---	---	8.5	6.5	8.5	7.0
4	21.0	19.0	11.5	10.5			---	---	7.5	5.5	8.0	6.5
5	21.0	19.0	11.5	10.5			---	---	7.0	5.0	8.5	7.0
6	19.0	19.0	11.5	10.0			---	---	6.5	5.5	8.0	6.5
7	19.0	17.0	11.5	10.0			6.5	5.5	7.0	5.5	8.5	7.0
8	18.0	16.5	11.5	10.5			6.5	5.5	8.5	7.0	9.0	7.5
9	16.5	16.0	10.5	10.0			6.0	6.0	8.5	7.0	9.5	7.5
10	16.5	15.5	10.5	9.5			6.0	5.0	8.0	6.0	10.0	8.0
11	18.0	16.5	10.0	9.5			6.0	5.5	8.5	6.5	10.5	8.0
12	18.0	16.5	10.5	9.0			5.5	5.0	9.5	7.0	10.5	8.5
13	16.5	15.5	10.5	9.5			6.0	5.0	8.5	7.0	11.0	9.0
14	16.0	15.0	10.5	10.0			6.0	5.0	8.5	7.5	11.5	9.5
15	16.0	15.0	10.5	10.0			6.0	5.0	8.5	7.5	11.5	9.5
16	16.0	15.0	10.5	9.5			6.5	5.0	8.5	8.0	12.0	10.0
17	16.0	15.0	10.0	9.0			6.5	5.0	9.5	8.5	12.5	10.5
18	16.5	15.0	9.5	8.5			6.5	5.0	9.5	8.0	11.5	10.0
19	16.0	15.0	9.0	8.0			6.5	5.0	8.5	7.0	11.5	10.0
20	16.0	14.5	9.5	9.0			6.5	5.0	9.5	8.0	12.0	10.0
21	16.0	15.0	8.5	8.5			7.0	5.0	9.5	8.0	12.0	10.0
22	16.0	12.5	8.5	8.0			7.0	5.0	9.5	8.0	12.0	10.5
23	14.0	11.5	8.5	8.0			7.0	5.5	9.0	8.0	11.5	10.0
24	13.5	11.5	8.5	8.0			7.5	5.5	9.5	7.5	11.5	9.5
25	12.5	12.0	8.5	8.0			6.5	4.5	9.0	8.0	11.5	10.0
26	13.5	12.5	---	---			7.0	5.0	10.0	8.5	11.5	10.0
27	12.5	11.5	---	---			6.5	5.0	10.0	8.0	11.5	9.0
28	12.0	10.5	---	---			7.5	5.5	10.5	9.0	11.5	9.5
29	11.5	10.5	---	---			7.5	6.0	10.0	7.0	12.0	10.0
30	11.5	10.5	---	---			8.0	6.0	---	---	12.5	10.5
31	11.0	10.0	---	---			8.0	6.0	---	---	11.5	10.0
MONTH	21.0	10.0	11.5	8.0			8.0	4.5	10.5	5.0	12.5	6.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.0	10.0	15.5	13.5	21.0	18.0	23.5	19.0	25.5	20.0	25.5	19.5
2	12.5	10.0	16.0	14.0	21.0	18.0	23.5	19.0	26.0	19.5	25.5	20.0
3	11.5	10.5	16.5	14.0	20.5	17.0	24.0	19.5	22.5	19.0	25.5	20.0
4	12.0	10.0	16.0	13.5	20.5	17.0	24.5	20.0	24.5	18.0	25.5	20.0
5	11.0	10.0	16.5	14.0	20.5	17.5	25.0	20.5	25.0	18.5	25.0	20.5
6	11.5	10.0	17.5	14.5	20.0	17.0	25.5	21.0	24.5	19.0	25.0	19.5
7	11.5	9.5	17.0	15.0	20.0	17.0	25.5	21.0	25.0	18.0	25.0	18.5
8	11.0	10.0	17.5	15.0	19.5	16.5	25.5	20.5	25.0	18.0	25.0	18.5
9	12.0	10.5	17.5	15.0	20.0	17.5	26.0	22.0	25.5	18.5	25.0	19.0
10	11.0	10.5	18.0	16.0	19.5	17.5	26.0	21.5	25.5	19.5	23.0	20.0
11	12.0	10.0	18.5	16.0	20.0	17.0	26.0	21.0	26.0	20.0	21.0	19.0
12	12.0	10.0	18.5	16.0	21.0	17.5	26.5	21.0	26.0	19.5	22.5	20.5
13	12.5	10.5	19.5	16.5	21.5	18.5	26.5	21.0	25.0	19.0	23.5	20.0
14	13.0	11.0	19.5	17.0	21.5	18.0	26.5	21.0	20.5	18.5	23.5	20.0
15	12.0	11.0	20.0	17.5	22.0	18.5	26.5	21.5	20.5	18.5	22.5	18.5
16	12.5	10.5	20.0	17.0	22.5	19.0	26.5	22.5	22.0	20.0	22.0	18.0
17	13.0	11.0	19.5	16.5	23.0	19.5	26.0	21.0	21.0	19.5	22.5	18.0
18	13.5	11.5	19.5	17.0	23.5	20.5	26.0	20.5	22.0	19.5	23.0	17.5
19	14.0	11.5	19.5	17.0	23.0	20.5	26.5	21.0	23.5	20.0	23.0	18.0
20	15.0	12.5	19.5	17.0	23.5	20.5	27.0	21.0	24.0	20.0	23.0	17.5
21	15.0	13.5	20.0	17.5	23.0	20.0	26.5	21.0	24.5	21.0	23.0	17.0
22	15.0	13.5	20.5	17.5	23.0	20.0	27.0	20.5	23.5	20.0	22.5	16.5
23	15.0	13.5	20.5	17.5	23.5	20.0	27.0	23.0	24.0	19.0	22.5	16.5
24	15.5	12.5	20.5	18.0	23.5	20.0	28.0	22.0	24.5	19.5	22.5	16.5
25	14.5	12.5	21.0	18.0	24.5	21.0	28.0	22.5	24.5	20.0	22.5	16.5
26	15.0	13.0	22.0	18.5	24.5	20.5	28.5	23.0	24.5	19.0	22.0	16.5
27	14.5	12.5	22.0	19.0	24.5	20.5	28.5	22.5	24.0	19.0	21.5	17.0
28	14.5	12.5	21.0	18.0	24.5	21.0	26.0	23.0	24.5	19.5	21.5	18.0
29	15.0	12.5	20.5	18.0	24.5	21.0	26.5	22.5	25.0	20.0	21.0	17.5
30	15.5	13.0	21.0	18.5	23.5	19.5	26.5	21.5	25.0	20.0	21.0	17.5
31	---	---	21.0	18.0	---	---	24.5	20.5	25.5	20.0	---	---
MONTH	15.5	9.5	22.0	13.5	24.5	16.5	28.5	19.0	26.0	18.0	25.5	16.5

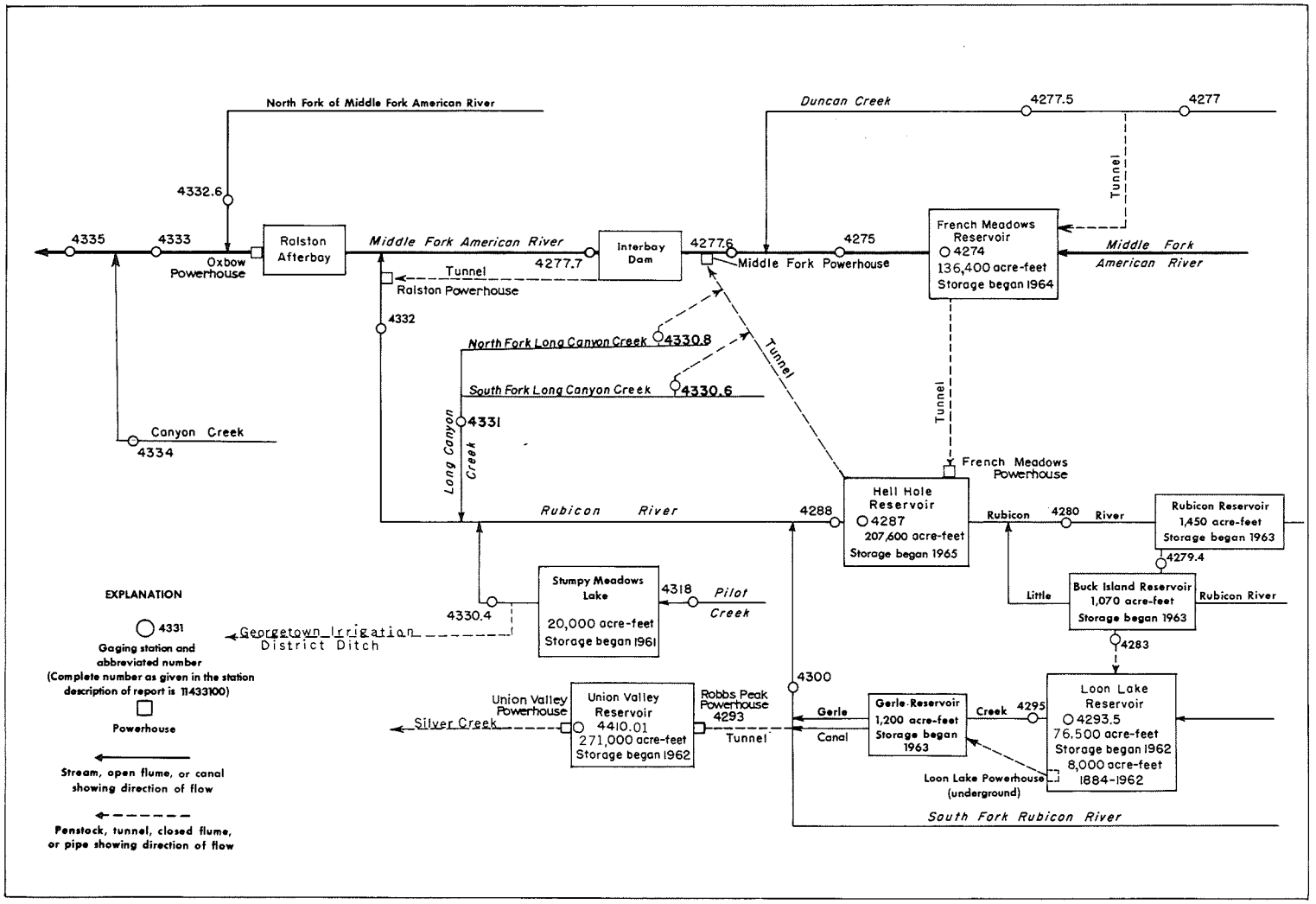

FIGURE 10.--Schematic diagram showing diversions and storage in Middle Fork American and Rubicon river basins.

11427400 FRENCH MEADOWS RESERVOIR NEAR FORESTHILL, CA

LOCATION.--Lat 39°06'32", long 120°25'49", in SW¼NE¼ sec.32, T.15 N., R.14 E., Placer County, Tahoe National Forest, on left bank 2.2 mi (3.5 km) upstream from dam on Middle Fork American River, 6.9 mi (11.1 km) upstream from Chipmunk Creek, and 21 mi (34 km) northeast of Foresthill.

DRAINAGE AREA.--47.0 mi^2 (121.7 km^2).

PERIOD OF RECORD.--December 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Placer County Water Agency).

REMARKS.--Reservoir is formed by rockfill dam with earth core. Storage began Dec. 21, 1964. Usable capacity, 125,601 acre-ft (155 hm^3) between elevations 5,125 ft (1,562.1 m), minimum operating level and 5,263 ft (1,604.2 m), top of radial gates. Dead storage, 10,804 acre-ft (13.3 hm^3). Reservoir is used to store water for hydroelectric power. Up to 400 ft^3/s (11.3 m^3/s) is diverted from Duncan Creek through a tunnel to reservoir. Water is released through a tunnel to French Meadows powerplant at Hell Hole Reservoir on the Rubicon River; releases began Dec. 13, 1965. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 137,700 acre-ft (170 hm^3) May 19, 1966, elevation, 5,263.9 ft (1,604.44 m); minimum since reservoir first filled, 39,483 acre-ft (48.7 hm^3) Mar. 15, 1973, elevation, 5,173.20 ft (1,576.79 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 94,456 acre-ft (116 hm^3) Oct. 1, elevation, 5,230.33 ft (1,594.204 m); minimum, 40,009 acre-ft (49.3 hm^3) Mar. 29, elevation, 5,173.89 ft (1,577.002 m).

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

5125	10804	5200	62447
5130	13075	5230	94074
5150	23743	5270	146502
5170	37085		

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	94456	78045	77813	79651	74663	54160	40677	50008	58303	56033	51776	50307
2	93971	77454	77887	79672	74074	53583	40862	50530	58377	56024	51758	49317
3	93416	76770	77950	79715	73374	52939	41125	51099	58441	56014	51750	48893
4	92874	76141	78034	79758	72789	52316	41366	51619	58487	56014	51732	48876
5	92219	75504	78130	79854	72095	51706	41599	52116	58543	55996	51689	48868
6	91944	74922	78320	79886	71384	51013	41817	52597	58579	55825	51663	48851
7	91224	74808	78331	80025	70777	50410	42029	53053	58635	55672	51654	48842
8	90493	75026	78342	80036	69901	49896	42343	53548	58670	55654	51628	48412
9	89906	75182	78395	80058	69171	49045	42626	54097	58762	55645	51610	47682
10	89556	75348	78448	80079	68404	48454	42824	54552	58838	55636	51602	47257
11	89048	75463	78490	80112	68077	47783	43070	55043	58912	55609	51572	47358
12	88441	75702	78618	80144	66795	47116	43309	55456	58958	55600	51532	47366
13	87858	75765	78692	80187	66109	46454	43540	55591	58995	55303	51505	47000
14	87143	75817	78724	80208	65427	45878	43763	55699	59023	54846	51600	46248
15	86554	75953	78767	80251	64748	45331	44036	55960	58764	54525	51837	45510
16	85932	76476	78809	80315	63977	44819	44229	56358	58349	54399	51854	44819
17	85291	76686	78862	80358	63210	44422	44430	56712	57908	54391	51871	44398
18	84652	76823	78905	80442	62447	44084	44649	56940	57743	54381	51897	44390
19	84036	76886	78937	80497	61878	43691	44916	57095	57743	54363	51915	44382
20	83391	76959	78980	80530	61114	43293	45266	57368	57752	54017	51915	43932
21	82736	77274	79049	80541	60270	42856	45665	57560	57762	53804	51915	43213
22	82106	77221	79129	80584	59533	42264	46108	57734	57762	53789	51915	42500
23	81435	77274	79182	80412	58783	41959	46569	57908	57560	53538	51906	41739
24	80734	77474	79235	79918	58046	41416	47058	58073	57186	53573	51906	41295
25	80090	77412	79299	79086	57286	41056	47540	58257	56803	53556	51906	41288
26	80907	77485	79342	78448	56549	40677	47933	58129	56803	53186	51897	41272
27	80617	77555	79406	77686	55717	40385	48294	58037	56803	52734	51880	41280
28	80113	77651	79459	77201	55177	40093	48648	57935	56503	52299	51863	41272
29	79557	77696	79534	76571	54846	40009	49003	58036	56204	52011	51863	41234
30	79088	77749	79587	75922	---	40224	49445	58129	56051	51802	51497	41218
31	78576	---	79640	75296	---	40485	---	58211	---	51784	50788	---
MAX	94456	78045	79640	80584	74663	54160	49445	58257	59023	56033	51915	50307
MIN	78576	74808	77813	75296	54846	40009	40677	50008	56051	51784	50788	41218
†	5216.03	5215.25	5217.03	5212.91	5191.76	5174.51	5185.57	5195.47	5193.10	5188.29	5187.14	5175.45
‡	-16567	-827	+1891	-4344	-20450	-14361	+8960	+8766	-2160	-4267	-996	-9570

CAL YR 1975 ‡ +28454
WTR YR 1976 ‡ -53925

† Elevation, in feet at end of month.
‡ Change in contents, in acre-feet.

11427500 MIDDLE FORK AMERICAN RIVER AT FRENCH MEADOWS, CA

LOCATION.--Lat 39°06'35", long 120°28'49", in SW¼NW¼ sec.36, T.15 N., R.13 E., Placer County, Tahoe National Forest, on left bank 0.6 mi (1.0 km) downstream from French Meadows Dam, 4.1 mi (6.6 km) upstream from Chipmunk Creek, and 14 mi (23 km) south of Cisco.

DRAINAGE AREA.--47.9 mi^2 (124.1 km^2).

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

REVISED RECORDS.--WSP 1445: 1953-54. WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,920 ft (1,500 m), from topographic map. Prior to Oct. 1, 1962, at site 0.8 mi (1.3 km) upstream at different datum.

REMARKS.--Flow regulated by French Meadows Reservoir (station 11427400) 0.6 mi (1.0 km) upstream beginning in December 1964. Diversions from Duncan Creek to French Meadows Reservoir since December 1964 and from French Meadows Reservoir to Hell Hole Reservoir since December 1965. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--13 years (water years 1952-64, prior to regulation by French Meadows Reservoir), 149 ft^3/s (4.22 m^3/s), 107,900 acre-ft/yr (133.0 hm^3/yr); 12 years (water years 1965-76), 23.1 ft^3/s (0.654 m^3/s), 16,740 acre-ft/yr (20.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,500 ft^3/s (609 m^3/s) Jan. 31, 1963, gage height, 14.20 ft (4.328 m), from rating curve extended above 1,100 ft^3/s (31.2 m^3/s) on basis of maximum flow at former site; minimum, 0.3 ft^3/s (0.008 m^3/s) Oct. 4, 5, 21-25, 1960, Oct. 5, 6, 1961. Maximum discharge since construction of French Meadows Dam in 1964, 1,310 ft^3/s (37.1 m^3/s) Apr. 30, 1965, gage height, 7.68 ft (2.341 m); minimum daily, 0.8 ft^3/s (0.023 m^3/s) Oct. 22-25, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27 ft^3/s (0.76 m^3/s) Aug. 24, gage height, 4.44 ft (1.353 m); minimum daily, 2.7 ft^3/s (0.077 m^3/s) May 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	5.1	9.8	9.5	9.9	9.5	9.7	9.5	9.5	3.6	3.8	3.8	3.8
2	5.1	9.5	9.5	9.9	9.5	8.9	9.3	6.8	3.6	3.8	3.8	3.8
3	5.1	9.5	9.5	9.9	9.5	8.8	9.2	2.7	3.7	3.8	3.8	3.8
4	5.1	9.5	9.5	9.9	9.5	8.8	9.2	3.3	3.7	3.8	3.8	3.8
5	5.0	9.5	9.9	9.8	9.5	8.4	9.2	3.7	3.7	3.8	3.8	3.8
6	5.1	9.5	9.9	9.9	9.2	8.4	9.2	3.7	3.7	3.8	3.7	3.8
7	5.1	10	9.9	9.9	9.2	8.5	9.2	3.7	3.7	3.8	3.7	3.8
8	5.1	9.9	9.9	9.9	8.9	8.8	8.8	4.0	3.7	3.8	3.7	3.8
9	5.2	9.9	9.9	9.7	9.2	8.8	9.5	3.8	3.7	3.8	3.7	3.8
10	5.9	10	9.9	9.2	8.8	8.5	9.5	3.8	3.6	3.8	3.7	3.8
11	5.7	10	9.9	9.2	8.8	8.8	9.5	3.7	3.5	3.8	3.7	4.2
12	5.3	9.9	9.9	9.2	8.8	8.9	9.7	3.7	3.5	3.8	3.7	4.0
13	5.1	10	9.9	9.2	8.5	8.2	9.6	3.7	3.5	3.8	3.7	4.0
14	5.1	9.9	9.5	9.2	8.8	7.5	9.7	3.7	3.6	3.8	4.0	3.9
15	5.1	9.9	9.5	9.2	8.8	7.3	9.6	3.7	3.8	3.8	4.4	3.8
16	5.1	12	9.5	9.2	8.8	7.6	9.5	3.7	3.8	3.8	4.0	3.8
17	5.1	11	9.5	9.2	8.8	7.9	9.5	3.7	3.8	3.8	4.0	3.7
18	5.1	10	9.5	9.2	8.5	9.3	9.5	3.7	3.8	3.8	4.0	3.7
19	5.0	10	9.5	9.2	8.6	9.5	9.5	3.7	3.8	3.8	4.0	3.7
20	4.9	10	9.5	9.3	8.4	9.0	9.5	3.7	3.8	3.8	3.9	3.7
21	4.9	9.5	9.5	9.2	8.4	9.6	9.5	3.7	3.8	3.8	3.8	3.7
22	5.1	9.5	9.7	9.2	8.4	9.7	9.5	3.8	3.8	3.8	3.8	3.7
23	5.1	9.5	9.5	9.2	8.1	9.9	9.5	3.8	3.8	3.8	3.8	3.7
24	5.1	9.5	9.5	9.2	8.1	8.8	9.5	3.8	3.8	3.8	4.2	3.7
25	5.1	9.5	9.5	9.3	8.1	8.2	9.5	3.7	3.8	3.8	3.8	3.7
26	13	9.5	9.5	9.6	8.1	9.9	9.5	3.7	3.8	3.8	3.8	3.7
27	7.7	9.5	9.9	9.5	8.1	9.7	9.5	3.7	3.8	3.8	3.8	3.7
28	9.2	9.5	9.9	9.5	8.5	9.5	9.5	3.7	3.8	3.8	3.8	3.7
29	9.2	9.5	9.9	9.5	11	9.5	9.5	3.6	3.8	3.8	3.8	3.7
30	11	9.5	9.9	9.5	---	9.5	9.5	3.6	3.8	3.8	3.8	3.8
31	10	---	9.9	9.5	---	9.5	---	3.5	---	3.8	3.8	---
TOTAL	188.7	294.8	300.3	293.3	256.4	275.4	283.2	122.6	111.6	117.8	119.1	113.6
MEAN	6.09	9.83	9.69	9.46	8.84	8.88	9.44	3.95	3.72	3.80	3.84	3.79
MAX	13	12	9.9	9.9	11	9.9	9.7	9.5	3.8	3.8	4.4	4.2
MIN	4.9	9.5	9.5	9.2	8.1	7.3	8.8	2.7	3.5	3.8	3.7	3.7
AC-FT	374	585	596	582	509	546	562	243	221	234	236	225
†	20460	4670	0	5710	21710	19100	0	1380	2850	3500	1020	8870

GAL YR 1975 TOTAL 3401.7 MEAN 9.32 MAX 32 MIN 4.9 AC-FT 6750
WTR YR 1976 TOTAL 2476.8 MEAN 6.77 MAX 13 MIN 2.7 AC-FT 4910

† Diversion, in acre-feet, from French Meadows Reservoir to Hell Hole Reservoir through French Meadows powerplant.

11427700 DUNCAN CREEK NEAR FRENCH MEADOWS, CA

LOCATION.--Lat 39°08'09", long 120°28'39", in NE¼NW¼ sec.24, T.15 N., R.13 E., Placer County, Tahoe National Forest, on left bank 0.2 mi (0.3 km) upstream from diversion dam, 0.5 mi (0.8 km) downstream from Little Duncan Creek, 2 mi (3 km) northwest of French Meadows, and 20 mi (32 km) northeast of Foresthill.

DRAINAGE AREA.--9.94 mi^2 (25.74 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 5,270 ft (1,606 m), from topographic map. Prior to Sept. 3, 1965, at site 150 ft (46 m) upstream at datum 9.56 ft (2.914 m) higher.

REMARKS.--No storage or diversion above station. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by the Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--16 years, 35.6 ft^3/s (1.008 m^3/s), 25,790 acre-ft/yr (31.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,650 ft^3/s (103 m^3/s) Dec. 22, 1964, gage height, 10.6 ft (3.23 m) from floodmarks, from rating curve extended above 400 ft^3/s (11.3 m^3/s) on basis of computation of flow over diversion dam; minimum daily, 0.2 ft^3/s (0.006 m^3/s) Sept. 23-25, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 237 ft^3/s (6.71 m^3/s) Oct. 26, gage height, 7.11 ft (2.167 m), no peak above base of 250 ft^3/s (7.08 m^3/s); minimum daily, 0.22 ft^3/s (0.006 m^3/s) Sept. 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	.82	15	10	8.5	5.7	17	22	60	6.1	1.4	.47	.54
2	.82	13	10	8.0	5.7	14	23	58	5.6	1.4	.48	.48
3	.82	11	10	8.0	5.7	15	24	60	5.3	1.4	.48	.48
4	.84	10	9.9	8.0	5.5	18	25	58	5.1	1.3	.48	.42
5	.82	9.3	13	8.0	5.6	15	25	56	4.8	1.2	.48	.32
6	2.2	8.7	11	9.0	5.6	14	23	52	4.6	1.2	.48	.32
7	3.6	29	10	8.0	5.6	14	25	51	4.4	1.1	.46	.32
8	1.5	20	9.8	8.0	5.6	15	27	52	4.2	1.1	.40	.32
9	1.5	15	9.4	8.0	5.6	17	26	52	4.8	1.0	.37	.32
10	17	14	8.9	10	5.6	19	26	49	5.1	.98	.32	.57
11	10	13	8.7	8.0	5.6	18	25	44	5.8	.91	.30	7.3
12	6.0	14	9.0	7.5	5.9	17	24	40	4.8	.91	.23	1.9
13	5.5	13	9.0	7.5	6.2	18	24	37	4.3	.82	.23	1.3
14	5.6	12	9.4	7.5	6.9	19	25	33	3.8	.82	4.8	1.0
15	5.1	14	9.4	8.0	6.6	21	25	28	3.5	.79	14	.96
16	4.4	49	9.0	8.0	6.7	25	22	24	3.2	.74	2.7	.91
17	4.1	22	8.7	7.9	7.1	30	22	21	3.0	.74	1.8	.85
18	3.6	17	8.0	7.5	8.6	29	25	18	2.9	.74	2.4	.82
19	3.1	16	7.4	7.2	8.5	25	30	16	2.7	.71	1.9	.74
20	2.7	14	7.4	6.9	9.8	25	37	15	2.6	.65	1.4	.22
21	2.5	13	7.1	7.6	9.4	28	41	13	2.4	.61	1.2	.74
22	3.3	12	8.7	6.6	8.5	30	46	12	2.3	.57	1.1	.71
23	2.8	11	8.0	6.4	8.4	29	49	11	2.2	.62	1.1	.65
24	2.6	11	8.0	6.3	8.2	27	54	10	2.0	.73	.99	.65
25	3.1	10	8.0	6.5	7.9	25	54	9.6	1.9	.61	.91	.58
26	138	9.9	8.0	6.5	8.0	24	48	8.9	1.8	.53	.88	.57
27	30	10	8.0	5.7	8.9	22	44	8.1	1.7	.45	.57	.57
28	15	9.7	10	5.7	20	21	41	7.6	1.6	.40	.37	.57
29	11	9.2	9.8	5.7	32	22	44	7.2	1.5	.40	.69	.57
30	14	9.0	9.4	5.7	---	25	52	6.7	1.4	.40	.65	.57
31	15	---	9.0	5.7	---	25	---	6.4	---	.40	.59	---
TOTAL	317.32	433.8	282.0	227.9	239.4	663	978	924.5	105.4	25.63	43.23	26.27
MEAN	10.2	14.5	9.10	7.35	8.26	21.4	32.6	29.8	3.51	.83	1.39	.88
MAX	138	49	13	10	32	30	54	60	6.1	1.4	14	7.3
MIN	.82	8.7	7.1	5.7	5.5	14	22	6.4	1.4	.40	.23	.22
AC-FT	629	860	559	452	475	1320	1940	1830	209	51	86	52

CAL YR 1975 TOTAL 13106.59 MEAN 35.9 MAX 300 MIN .76 AC-FT 26000
WTR YR 1976 TOTAL 4266.45 MEAN 11.7 MAX 138 MIN .22 AC-FT 8460

11427750 DUNCAN CREEK BELOW DIVERSION DAM, NEAR FRENCH MEADOWS, CA

LOCATION.--Lat 39°07'59", long 120°28'58", in NE¼SE¼ sec.23, T.15 N., R.13 E., Placer County, Tahoe National Forest, on right bank 800 ft (244 m) downstream from unnamed right bank tributary, 1,000 ft (305 m) downstream from Duncan Creek diversion dam, and 20 mi (32 km) northeast of Foresthill.

DRAINAGE AREA.--10.5 mi^2 (27.2 km^2).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,210 ft (1,588 m), from topographic map.

REMARKS.--Flow is diverted above station through Duncan Creek diversion tunnel to French Meadows Reservoir (station 11427400). Maximum design flow of tunnel is 400 ft^3/s (11.3 m^3/s). See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--12 years, 14.0 ft^3/s (0.396 m^3/s), 10,140 acre-ft/yr (12.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,640 ft^3/s (103 m^3/s) Dec. 22, 1964, gage height, 8.74 ft (2.664 m) in gage well, 10.0 ft (3.05 m) from floodmarks, from rating curve extended above 400 ft^3/s (11.3 m^3/s) on basis of computation of peak flow over diversion dam; no flow at times in 1965-66.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 197 ft^3/s (5.58 m^3/s) Oct. 26, gage height, 3.14 ft (0.957 m); minimum daily, 0.47 ft^3/s (0.013 m^3/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	.76	4.6	6.9	6.5	5.2	12	11	7.3	3.4	1.4	.67	.61
2	.73	4.0	7.3	6.5	5.2	12	8.7	7.3	3.4	1.4	.70	.60
3	.71	3.4	7.3	6.2	5.0	11	8.4	5.6	3.4	1.4	.65	.60
4	.71	3.0	7.1	6.1	5.2	10	8.4	3.8	3.4	1.3	.66	.57
5	.71	2.6	7.7	6.2	5.2	10	8.1	3.8	3.4	1.2	.65	.57
6	1.1	2.4	7.6	6.0	5.2	10	8.4	3.8	3.4	1.2	.61	.60
7	2.8	5.6	7.3	6.0	5.0	10	8.4	3.8	3.4	1.1	.60	.55
8	1.5	2.6	7.2	6.0	5.2	11	8.7	3.8	3.4	1.1	.56	.55
9	1.3	1.9	6.7	6.0	6.5	12	8.7	3.8	3.3	1.1	.55	.51
10	3.9	1.9	6.7	6.0	6.0	12	8.7	3.8	4.5	.99	.51	.52
11	3.4	1.8	6.5	6.0	5.5	12	8.7	3.7	4.3	.95	.51	3.3
12	2.9	1.8	6.7	5.9	5.5	12	8.7	3.6	4.3	.91	.47	2.6
13	2.8	1.9	6.7	5.7	5.7	12	8.7	3.6	3.7	.89	.47	1.3
14	2.7	1.9	6.7	5.9	6.5	12	8.7	3.6	3.4	.85	1.9	1.1
15	2.7	1.9	6.6	5.9	7.0	13	8.7	3.6	3.1	.82	4.5	.96
16	2.5	8.4	6.5	6.0	6.2	13	8.7	3.5	3.0	.79	3.3	.89
17	2.4	3.6	6.4	6.0	6.5	14	8.7	3.5	2.8	.82	1.8	.89
18	2.3	2.6	6.4	6.0	7.5	14	8.7	3.5	2.7	.76	2.1	.88
19	2.3	2.3	6.2	5.9	8.0	13	8.7	3.5	2.5	.76	2.0	.83
20	2.2	2.1	6.2	5.6	8.2	13	9.0	3.5	2.4	.75	1.5	.77
21	2.2	4.1	6.2	5.5	8.1	13	9.0	3.5	2.4	.70	1.2	.76
22	2.2	7.8	6.2	5.5	8.1	14	8.7	3.5	2.3	.67	1.1	.71
23	2.1	7.5	6.3	5.5	8.1	13	8.7	3.5	2.1	.72	1.2	.71
24	2.0	7.5	6.5	5.5	7.8	13	8.4	3.5	2.0	.85	1.0	.70
25	2.0	7.3	6.5	5.0	7.8	13	8.4	3.4	1.9	.74	.95	.65
26	81	7.0	6.5	5.0	7.5	12	7.9	3.4	1.8	.65	.89	.65
27	9.1	7.3	6.5	5.0	8.1	12	7.8	3.4	1.7	.60	.82	.65
28	3.5	7.1	6.8	5.2	10	12	7.7	3.4	1.6	.58	.76	.68
29	2.3	7.1	6.8	5.2	14	12	7.5	3.4	1.5	.60	.71	.69
30	3.2	7.0	6.5	5.7	---	12	7.5	3.4	1.5	.57	.70	.65
31	4.3	---	6.0	5.2	---	12	---	3.4	---	.57	.65	---
TOTAL	154.32	130.0	207.5	178.7	199.8	376	256.4	120.2	86.0	27.74	34.69	26.05
MEAN	4.98	4.33	6.69	5.76	6.89	12.1	8.55	3.88	2.87	.89	1.12	.87
MAX	81	8.4	7.7	6.5	14	14	11	7.3	4.5	1.4	4.5	3.3
MIN	.71	1.8	6.0	5.0	5.0	10	7.5	3.4	1.5	.57	.47	.51
AC-FT	306	258	412	354	396	746	509	238	171	55	69	52

CAL YR 1975 TOTAL 5081.87 MEAN 13.9 MAX 159 MIN .71 AC-FT 10080
WTR YR 1976 TOTAL 1797.40 MEAN 4.91 MAX 81 MIN .47 AC-FT 3570

11427760 MIDDLE FORK AMERICAN RIVER ABOVE MIDDLE FORK POWERHOUSE, NEAR FORESTHILL, CA

LOCATION.--Lat 39°01'31", long 120°35'40", in NW¼NW¼ sec.36, T.14 N., R.12 E., Placer County, Tahoe National Forest, on right bank 300 ft (91 m) upstream from Middle Fork powerhouse, 3.7 mi (6.0 km) upstream from Big Mosquito Creek, and 11 mi (18 km) east of Foresthill.

DRAINAGE AREA.--87.8 mi² (227.4 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 2,540 ft (774 m), from topographic map.

REMARKS.--Records good. Flow regulated by French Meadows Reservoir (station 11427400). See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--11 years, 97.9 ft³/s (2.773 m³/s), 70,930 acre-ft/yr (87.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,900 ft³/s (110 m³/s) Jan. 21, 1970, gage height, 8.00 ft (2.438 m); minimum daily, 12 ft³/s (0.340 m³/s) Aug. 31, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 381 ft³/s (10.8 m³/s) Oct. 26, gage height, 3.58 ft (1.091 m); minimum daily, 9.6 ft³/s (0.27 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	16	38	34	30	27	91	57	46	20	15	12	12
2	15	35	34	31	27	70	53	45	20	15	12	12
3	15	32	34	33	27	63	52	44	20	15	12	12
4	15	30	34	32	30	58	51	34	20	15	12	12
5	15	29	36	34	28	55	51	31	19	14	12	12
6	16	28	36	32	27	54	52	32	19	14	12	11
7	20	35	34	31	28	54	51	31	19	14	11	11
8	18	40	33	31	28	54	57	31	19	14	11	11
9	17	31	33	34	31	55	53	31	20	14	11	10
10	31	39	32	30	30	58	54	36	21	13	11	9.7
11	51	34	32	33	28	60	55	31	21	13	10	18
12	26	32	37	32	29	58	59	29	21	13	9.6	16
13	24	31	35	31	30	58	57	28	20	13	9.6	13
14	21	30	31	31	39	58	58	27	19	13	12	12
15	20	30	33	31	34	59	61	26	18	13	28	12
16	19	53	32	31	35	60	57	26	18	13	20	12
17	19	46	32	32	36	63	56	25	18	13	17	12
18	19	38	32	31	38	76	60	25	18	13	16	11
19	18	35	31	31	59	75	58	25	17	13	16	11
20	18	33	31	30	44	68	57	24	17	13	15	11
21	18	32	31	30	42	69	57	24	17	12	14	11
22	18	35	39	30	40	71	57	24	17	12	14	11
23	18	37	34	29	39	71	56	23	16	12	14	11
24	18	36	33	30	38	70	55	23	16	13	14	11
25	18	35	33	28	38	70	54	23	16	12	14	11
26	184	34	33	28	38	66	52	22	15	12	13	11
27	88	37	33	28	38	64	51	22	15	12	13	11
28	43	38	33	28	45	61	50	21	15	12	13	11
29	33	32	34	28	90	60	48	21	15	12	13	12
30	51	34	34	29	---	58	47	21	15	11	12	12
31	45	---	32	27	---	59	---	21	---	12	12	---
TOTAL	947	1049	1035	946	1063	1966	1636	872	541	405	415.2	352.7
MEAN	30.5	35.0	33.4	30.5	36.7	63.4	54.5	28.1	18.0	13.1	13.4	11.8
MAX	184	53	39	34	90	91	61	46	21	15	28	18
MIN	15	28	31	27	27	54	47	21	15	11	9.6	9.7
AC-FT	1880	2080	2050	1880	2110	3900	3250	1730	1070	803	824	700

CAL YR 1975 TOTAL 34913.0 MEAN 95.7 MAX 660 MIN 15 AC-FT 69250
WTR YR 1976 TOTAL 11227.9 MEAN 30.7 MAX 184 MIN 9.6 AC-FT 22270

11427770 MIDDLE FORK AMERICAN RIVER BELOW INTERBAY DAM, NEAR FORESTHILL, CA

LOCATION.--Lat 39°01'35", long 120°36'09", in SW¼SE¼ sec.26, T.14 N., R.12 E., Placer County, Tahoe National Forest, on right bank 500 ft (152 m) downstream from Interbay Dam, 3.3 mi (5.3 km) upstream from Big Mosquito Creek, and 10.6 mi (17.1 km) east of Foresthill.

DRAINAGE AREA.--89.1 mi^2 (230.8 km^2).

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

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Altitude of gage is 2,470 ft (753 m), from topographic map.

REMARKS.--Flow regulated by French Meadows Reservoir (station 11427400) and after Aug. 22, 1966, by Interbay Reservoir, capacity, 130 acre-ft (160,000 m^3) between normal operating limits of 2,502.0 ft (762.61 m) and 2,526.0 ft (769.92 m). Water is diverted from Hell Hole Reservoir through a tunnel to Middle Fork powerplant and re-diverted to Ralston powerplant. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--11 years, 47.6 ft^3/s (1.348 m^3/s), 34,490 acre-ft/yr (42.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,770 ft^3/s (107 m^3/s) Jan. 21, 1970, gage height, 6.95 ft (2.118 m); minimum daily, 1.0 ft^3/s (0.028 m^3/s) Oct. 25-30, 1966, Jan. 19, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 86 ft^3/s (2.44 m^3/s) Nov. 18, gage height, 2.58 ft (0.786 m); minimum daily, 7.6 ft^3/s (0.22 m^3/s) May 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	19	18	19	18	19	24	25	25	13	13	13	12
2	19	18	19	18	19	24	28	25	13	13	13	12
3	19	18	19	18	19	24	24	15	13	13	13	12
4	19	18	22	18	19	23	24	7.6	13	13	13	12
5	19	18	19	18	19	23	24	11	13	13	13	12
6	19	18	19	18	20	23	24	13	13	13	13	12
7	19	18	19	18	20	23	24	13	13	13	13	12
8	19	18	19	18	20	23	25	13	13	13	13	12
9	19	18	19	18	20	23	25	13	13	13	12	12
10	19	26	19	18	20	23	25	13	13	13	12	12
11	19	33	19	18	20	23	25	13	13	13	12	12
12	19	34	19	18	20	23	25	13	12	13	13	12
13	19	30	19	18	20	24	25	13	12	13	13	12
14	19	29	19	18	20	24	24	13	12	13	13	12
15	19	30	19	18	20	24	25	13	12	13	13	12
16	19	57	19	18	20	24	24	13	13	13	13	12
17	18	50	19	18	23	24	24	13	13	13	12	12
18	18	38	19	18	23	25	24	13	12	13	12	12
19	18	32	19	21	23	25	24	13	12	13	12	12
20	18	19	19	19	23	25	24	13	13	13	12	12
21	18	19	19	19	23	25	24	13	13	13	12	12
22	18	19	19	19	23	25	24	13	13	13	12	12
23	18	19	19	19	23	24	24	13	13	13	12	12
24	18	19	19	19	23	24	24	13	13	13	12	12
25	18	19	19	19	23	24	25	13	13	13	12	12
26	18	19	19	19	23	24	25	13	13	13	12	12
27	18	19	19	19	23	24	25	13	13	13	12	12
28	18	19	19	19	23	24	25	13	13	13	12	12
29	18	19	18	19	24	24	25	13	13	13	12	12
30	18	19	18	19	---	24	25	13	13	13	12	12
31	18	---	18	19	---	25	---	13	---	13	12	---
TOTAL	574	730	589	573	615	741	738	421.6	384	403	385	360
MEAN	18.5	24.3	19.0	18.5	21.2	23.9	24.6	13.6	12.8	13.0	12.4	12.0
MAX	19	57	22	21	24	25	28	25	13	13	13	12
MIN	18	18	18	18	19	23	24	7.6	12	13	12	12
AC-FT	1140	1450	1170	1140	1220	1470	1460	836	762	799	764	714
†	45500	615	867	16750	51660	52370	4110	5220	5840	2870	4750	25120

CAL YR 1975 TOTAL 7167.0 MEAN 19.6 MAX 103 MIN 18 AC-FT 14220
WTR YR 1976 TOTAL 6513.6 MEAN 17.8 MAX 57 MIN 7.6 AC-FT 12920

† Diversion, in acre-feet, to Ralston powerplant.

11427940 RUBICON-ROCKBOUND TUNNEL NEAR MEEKS BAY, CA

LOCATION.--Lat 38°59'20", long 120°13'31", in NE¼SE¼ sec.8, T.13 N., R.16 E., El Dorado County, Eldorado National Forest, on right bank at tunnel intake 100 ft (30 m) upstream from diversion dam on Rubicon River, 2.5 mi (4.0 km) upstream from Rubicon Springs, and 6.5 mi (10.5 km) southwest of Meeks Bay.

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

GAGE.--Water-stage recorder. Datum of gage is 6,533.23 ft (1,991.328 m) above mean sea level (levels by Sacramento Municipal Utility District). Auxiliary water-stage recorder since Aug. 26, 1966, 300 ft (91 m) downstream from tunnel outlet at different datum.

REMARKS.--Records good. Tunnel diverts water from Rubicon River to Rockbound Lake. See schematic diagram of Middle Fork American and Rubicon River basins.

AVERAGE DISCHARGE.--13 years, 105 ft^3/s (2.974 m^3/s), 76,070 acre-ft/yr (93.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,120 ft^3/s (31.7 m^3/s) Dec. 23, 1964; 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	0	59	15	12	11	28	37	285	60	5.9	.16	1.1
2	0	59	21	9.4	12	23	36	296	1.1	4.1	.14	.59
3	0	56	26	8.3	13	22	56	244	21	2.8	.14	.28
4	0	53	25	6.9	13	19	58	280	52	2.0	.12	.14
5	0	51	24	7.1	13	17	52	258	54	1.5	.12	.11
6	.02	43	25	7.5	12	15	40	237	51	1.1	.13	.10
7	.28	126	20	7.1	11	15	47	187	50	.77	.14	.10
8	.37	247	18	6.6	9.4	16	81	264	46	.40	.13	.10
9	.28	108	17	7.1	10	17	54	301	44	.28	.12	.10
10	1.0	62	17	7.3	11	19	48	289	46	.28	.12	.10
11	24	52	15	7.2	11	24	44	298	38	.27	.12	2.0
12	52	46	15	6.9	11	22	39	308	32	.27	.12	7.4
13	48	49	16	6.6	13	22	34	340	34	.26	.12	5.8
14	53	54	15	6.6	17	24	31	404	37	.24	.15	3.9
15	62	44	14	7.2	19	30	37	325	35	.24	359	2.5
16	59	208	14	9.3	18	39	32	261	44	.24	171	1.7
17	61	148	14	13	17	60	26	263	50	.24	72	1.3
18	54	61	13	15	16	74	35	222	47	.24	48	1.1
19	51	34	12	13	18	47	60	177	46	.24	39	.88
20	42	28	11	11	18	35	118	147	42	.24	29	.74
21	37	23	10	9.7	13	38	160	142	35	.24	21	94
22	100	20	11	9.0	13	49	168	126	29	.24	17	67
23	209	18	11	8.6	12	54	176	126	23	.21	16	16
24	80	17	12	8.9	11	48	201	123	19	.20	14	6.1
25	35	17	13	8.0	10	38	244	127	17	.20	9.9	2.9
26	714	16	13	7.0	9.8	30	166	136	16	.19	7.2	1.6
27	486	16	14	6.5	11	25	114	150	14	.19	5.3	1.0
28	165	16	15	6.8	19	21	100	148	12	.19	4.2	.67
29	93	14	21	8.6	38	21	124	102	10	.18	3.3	.37
30	71	14	21	10	---	27	213	88	8.1	.17	2.6	.25
31	67	---	16	11	---	48	---	85	---	.17	1.9	---
TOTAL	2564.95	1759	504	269.2	410.2	967	2631	6739	1013.2	23.79	822.23	219.93
MEAN	82.7	58.6	16.3	8.68	14.1	31.2	87.7	217	33.8	.77	26.5	7.33
MAX	714	247	26	15	38	74	244	404	60	5.9	359	94
MIN	0	14	10	6.5	9.4	15	26	85	1.1	.17	.12	.10
AC-FT	5090	3490	1000	534	814	1920	5220	13370	2010	47	1630	436

CAL YR 1975 TOTAL 41531.33 MEAN 114 MAX 864 MIN 0 AC-FT 82380
WTR YR 1976 TOTAL 17923.50 MEAN 49.0 MAX 714 MIN 0 AC-FT 35550

11428000 RUBICON RIVER AT RUBICON SPRINGS, NEAR MEEKS BAY, CA

LOCATION.--Lat 39°01'10", long 120°14'46", in SW¼NE¼ sec.31, T.14 N., R.16 E., El Dorado County, Eldorado National Forest, on right bank 200 ft (61 m) downstream from Rubicon Springs, 0.7 mi (1.1 km) upstream from Miller Creek, and 7 mi (11 km) west of Meeks Bay.

DRAINAGE AREA.--31.4 mi^2 (81.3 km^2).

PERIOD OF RECORD.--February 1910 to March 1914 (published as "at Rubicon Springs"), October 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,052.97 ft (1,844.945 m) above mean sea level. Feb. 1, 1910, to Mar. 31, 1914, nonrecording gage or water-stage recorder at site 0.4 mi (0.6 km) downstream at different datum.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. Low summer flow, beginning in 1950, augmented by release from streamflow maintenance dams on Lakes Clyd, Lois, Middle Velma, and Schmidell, total controlled capacity, 555 acre-ft (684,000 m^3). Flow below 1,200 ft^3/s (34.0 m^3/s) controlled by Rubicon diversion dam 5.5 mi (8.8 km) upstream. Diversion to Rubicon-Rockbound tunnel began Dec. 26, 1963 (station 11427940). See schematic diagram of Middle Fork American and Rubicon River basins.

AVERAGE DISCHARGE (adjusted for diversion to Rubicon-Rockbound tunnel).--23 years (water years 1911-13, 1957-76), 121 ft^3/s (3.427 m^3/s), 87,660 acre-ft/yr (108 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft^3/s (326 m^3/s) Feb. 1, 1963, gage height, 14.28 ft (4.353 m), from rating curve extended above 1,200 ft^3/s (34.0 m^3/s) on basis of slope-conveyance computation of maximum flow; no flow at times in some years prior to construction of Rubicon diversion dam in 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1955 reached a stage of 13.0 ft (3.96 m) from floodmarks, present site and datum, discharge, 9,270 ft^3/s (263 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,570 ft^3/s (72.8 m^3/s) Oct. 26, gage height, 7.86 ft (2.396 m); minimum daily, 0.58 ft^3/s (0.016 m^3/s) Aug. 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	2.1	18	10	7.4	7.2	19	15	34	7.6	7.7	9.1	.78
2	2.2	16	14	7.2	7.2	15	16	29	7.9	7.8	8.8	1.6
3	2.2	14	15	7.2	7.3	13	21	26	8.2	7.7	8.4	1.8
4	2.2	13	13	7.0	7.5	11	20	25	8.6	7.8	5.4	1.8
5	2.2	13	14	7.4	7.0	10	18	22	8.6	7.7	4.3	1.8
6	6.7	13	12	7.1	6.7	10	14	24	8.6	7.6	4.1	1.8
7	7.6	16	10	6.9	6.6	11	19	22	8.6	7.6	3.8	2.0
8	2.1	22	9.7	6.9	7.0	12	24	31	8.6	7.6	3.5	2.0
9	1.9	17	9.4	7.4	9.3	14	17	35	9.2	7.3	3.5	2.0
10	31	20	9.0	7.0	8.9	17	17	25	9.3	7.3	3.3	2.0
11	21	20	8.6	7.1	7.8	19	17	20	9.2	7.2	3.3	3.2
12	11	22	9.3	6.7	8.2	16	19	17	8.8	7.4	3.3	2.3
13	8.9	23	9.3	6.7	10	15	18	15	9.3	7.2	3.3	1.7
14	7.3	23	8.4	6.9	14	17	17	15	10	7.1	5.6	1.6
15	6.5	22	8.3	7.3	11	21	20	13	10	7.0	39	1.4
16	4.8	90	8.3	8.4	9.4	25	16	12	9.9	7.1	5.0	1.4
17	4.2	25	8.4	9.1	9.7	33	14	11	9.0	7.3	2.2	1.4
18	3.8	13	8.0	8.7	9.7	31	20	11	7.2	7.2	1.7	1.4
19	3.2	10	7.8	8.0	10	21	30	10	7.1	7.2	1.5	1.4
20	3.1	9.2	7.5	7.5	9.2	20	43	9.5	7.7	7.1	1.3	1.4
21	3.1	8.4	7.4	6.9	9.2	23	46	9.2	8.3	7.1	1.1	1.3
22	4.4	7.8	8.0	6.5	9.4	29	47	8.8	8.3	7.0	1.0	1.4
23	4.2	7.4	7.8	6.7	9.1	28	44	8.5	8.3	7.8	1.1	1.6
24	3.3	7.3	8.3	6.9	8.5	23	48	8.2	8.2	9.1	.99	1.4
25	2.7	7.4	8.5	6.5	8.3	20	38	8.1	8.1	9.7	.84	1.4
26	792	7.8	8.4	6.4	8.3	16	26	7.9	8.1	9.8	.74	1.4
27	56	8.4	8.7	6.3	10	14	21	7.8	7.8	9.8	.63	1.3
28	17	9.0	10	6.4	21	12	21	7.6	7.8	8.3	.58	1.3
29	11	8.2	12	6.7	33	12	24	7.5	7.8	8.0	.63	1.7
30	25	8.3	11	7.1	---	16	32	7.6	7.8	8.0	.64	2.7
31	22	---	8.7	7.3	---	21	---	7.6	---	8.1	.64	---
TOTAL	1074.7	499.2	298.8	221.6	290.5	564	742	495.3	253.9	240.6	129.29	50.28
MEAN	34.7	16.6	9.64	7.15	10.0	18.2	24.7	16.0	8.46	7.76	4.17	1.68
MAX	792	90	15	9.1	33	33	48	35	10	9.8	39	3.2
MIN	1.9	7.3	7.4	6.3	6.6	10	14	7.5	7.1	7.0	.58	.78
AC-FT	2130	990	593	440	576	1120	1470	982	504	477	256	100
MEAN ‡	117	75.3	25.9	15.8	24.2	49.4	112	233	42.2	8.52	30.7	9.01
AC-FT‡	7220	4480	1590	974	1390	3040	6690	14350	2510	524	1890	536

CAL YR 1975 TOTAL 8316.00 MEAN 22.8 MAX 792 MIN 1.9 AC-FT 16490 MEAN ‡ 138 AC-FT ‡ 100200
WTR YR 1976 TOTAL 4860.17 MEAN 13.3 MAX 792 MIN .58 AC-FT 9640 MEAN ‡ 62.2 AC-FT ‡ 45190

‡ Adjusted for diversion to Rubicon-Rockbound tunnel.

11428300 BUCK-LOON TUNNEL NEAR MEEKS BAY, CA

LOCATION.--Lat 39°00'15", long 120°15'20", in SE¼NW¼ sec.6, T.13 N., R.16 E., El Dorado County, Eldorado National Forest, on right bank at tunnel intake near left abutment of diversion dam, 7.6 mi (12.2 km) southwest of Meeks Bay.

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

GAGE.--Water-stage recorder. Datum of gage is 6,425.0 ft (1,958.34 m) above mean sea level (levels by Sacramento Municipal Utility District).

REMARKS.--Records good except those for the period June 1 to Sept. 20, which are fair. Tunnel diverts water from Buck Island Lake and discharges into Loon Lake. Gates are closed in the tunnel entrance during the summer and opened each fall to raise the level of Buck Island Lake for recreation purposes. See schematic diagram of Middle Fork American and Rubicon River basins.

AVERAGE DISCHARGE.--13 years, 135 ft^3/s (3.823 m^3/s), 97,810 acre-ft/yr (121 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,240 ft^3/s (35.1 m^3/s) Dec. 23, 1964; 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	.39	83	18	22	14	60	58	349	50	6.4	.72	3.0
2	.36	79	22	17	15	45	52	403	1.1	5.0	.70	2.7
3	.33	76	29	14	16	35	62	335	1.4	4.2	.68	2.4
4	.30	71	35	12	18	31	75	364	7.8	3.0	.65	2.0
5	.27	69	35	12	19	27	77	353	45	2.5	.62	2.0
6	.28	63	36	12	16	23	66	330	53	2.1	.60	1.9
7	.43	88	34	11	14	21	59	261	53	1.9	.57	1.9
8	.53	306	28	10	12	20	91	339	49	1.8	.54	1.8
9	.60	192	26	11	13	22	89	412	47	1.8	.52	1.8
10	.99	78	24	12	15	24	71	382	50	1.6	.50	1.7
11	4.7	76	22	11	14	29	66	382	47	1.6	.48	1.8
12	23	66	24	10	14	32	62	384	38	1.5	.46	1.8
13	59	63	23	9.8	16	31	55	401	34	1.4	.42	1.9
14	66	68	22	9.8	23	32	48	484	35	1.4	.42	2.8
15	78	66	20	9.5	27	35	50	432	35	1.3	162	4.0
16	79	188	18	10	25	45	51	338	37	1.2	304	4.0
17	79	256	18	12	22	61	48	328	45	1.2	118	3.6
18	76	125	18	17	20	90	48	293	48	1.2	70	3.2
19	66	64	17	18	24	85	60	238	46	1.1	56	2.8
20	57	45	16	17	22	60	120	193	44	1.1	40	2.6
21	48	37	14	14	19	52	198	177	39	1.1	29	108
22	73	31	16	13	18	58	229	169	32	1.0	22	118
23	274	26	16	12	18	69	248	156	25	1.0	19	54
24	198	24	15	12	17	69	273	152	20	1.0	17	24
25	85	22	16	12	16	62	306	152	17	.95	13	12
26	612	21	17	11	15	50	227	159	15	.90	10	6.7
27	861	21	18	10	15	42	157	172	13	.88	7.7	4.0
28	321	24	20	9.8	19	35	129	180	11	.83	6.4	2.7
29	154	22	26	9.8	48	32	135	144	9.4	.80	5.0	2.0
30	144	19	31	11	---	32	218	114	7.4	.78	4.4	1.6
31	94	---	28	12	---	50	---	103	---	.74	3.6	---
TOTAL	3456.18	2369	702	383.7	544	1359	3428	8679	955.1	53.28	894.98	382.7
MEAN	111	79.0	22.6	12.4	18.8	43.8	114	280	31.8	1.72	28.9	12.8
MAX	861	306	36	22	48	90	306	484	53	6.4	304	118
MIN	.27	19	14	9.5	12	20	48	103	1.1	.74	.42	1.6
AC-FT	6860	4700	1390	761	1080	2700	6800	17210	1890	106	1780	759

CAL YR 1975 TOTAL 55251.48 MEAN 151 MAX 1140 MIN .27 AC-FT 109600
WTR YR 1976 TOTAL 23206.94 MEAN 63.4 MAX 861 MIN .27 AC-FT 46030

11428700 HELL HOLE RESERVOIR NEAR MEEKS BAY, CA

LOCATION.--Lat 39°03'54", long 120°24'50", in SE¼NW¼ sec.16, T.14 N., R.14 E., Placer County, Eldorado National Forest, on right bank 0.3 mi (0.5 km) upstream from Hell Hole Dam on Rubicon River, and 15.6 mi (25.1 km) west of Meeks Bay.

DRAINAGE AREA.--114 mi^2 (295 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Placer County Water Agency).

REMARKS.--Reservoir is formed by rockfill dam with earth core. Storage began Dec. 6, 1965. Usable capacity, 207,342 acre-ft (256 hm^3) between elevations 4,287.65 ft (1,306.876 m), invert of river outlet and 4,630.0 ft (1,411.22 m), crest of ogee spillway, above mean sea level. Dead storage, 248 acre-ft (306,000 m^3). Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 209,500 acre-ft (258 hm^3) June 17, 1967, elevation, 4,631.5 ft (1,411.68 m); minimum since reservoir first filled, 37,499 acre-ft (46.2 hm^3) Mar. 23, 1973, elevation, 4,428.28 ft (1,349.740 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 152,754 acre-ft (188 hm^3) Jan. 18-20, elevation, 4,582.25 ft (1,396.670 m); minimum, 99,892 acre-ft (123 hm^3) Apr. 2, elevation, 4,522.15 ft (1,378.351 m).

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

4340	5220	4500	83025
4360	9835	4550	122720
4380	16250	4600	171865
4400	24160	4650	233420
4450	49610		

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	151275	136994	148148	151478	142164	119530	100057	113482	128076	127577	128182	125194
2	149759	137915	148208	151539	141141	119100	99892	114393	128217	127210	128164	125211
3	148417	138870	148397	151600	139869	118450	100246	115140	128340	127385	128147	125643
4	147145	139774	148557	151662	138804	117729	100640	115973	128463	127385	128103	125600
5	145862	140627	148587	151712	137747	117042	100877	116866	128560	127297	128085	125429
6	144513	141512	148707	151854	136633	116182	101193	117486	128657	127489	128059	125410
7	143455	142404	149207	151905	135646	115307	101272	118174	128745	127592	128007	124451
8	142358	142851	149250	151967	134674	114476	101526	119066	128797	127542	127989	123318
9	141252	143097	149360	151987	133800	113730	101747	119935	128877	127229	127586	122447
10	140665	143445	149378	152007	132859	113168	102056	120688	129044	127219	127350	121400
11	140570	143658	149408	152222	131897	112797	102557	121418	129168	127210	127377	121477
12	139718	143872	149458	152293	130933	112080	102867	121545	129292	127096	127210	121528
13	138401	144085	149759	152344	130079	111341	103126	121741	129371	127245	127236	120832
14	137324	144328	149789	152405	129142	110604	103408	122737	128789	127542	127184	119935
15	136125	144571	149921	152488	128437	109893	103791	123224	128411	127840	127673	118956
16	135095	145715	150001	152559	127595	109192	104087	123832	128042	127954	127735	117947
17	133955	146177	150091	152661	126730	108590	104335	124365	128042	127945	127742	116607
18	132796	146256	150162	152754	126442	108128	104687	124874	128226	127892	127774	116540
19	131629	146374	150243	152754	125912	107706	104887	125237	128305	127945	127744	116365
20	130452	146749	150313	152754	125141	107011	105465	125522	128375	128085	127498	115556
21	129230	147066	150384	152498	124305	106342	106060	125843	128437	128340	127455	114601
22	127910	147363	150546	152447	123823	105738	107011	126181	128455	127998	127472	113648
23	127035	147165	150627	151631	122951	105457	107827	126460	128419	127577	127367	112673
24	126125	147304	150717	150657	122328	104895	108346	126756	128331	127525	127297	111752
25	125402	147383	150809	149629	121732	104279	109265	127009	128085	127385	127035	111727
26	130621	147492	150900	148557	120832	103440	110252	127044	127998	127305	126747	111702
27	132886	147512	151001	147452	119962	102453	110767	127166	127910	127560	126321	111669
28	133166	147512	151123	146463	119521	101439	111202	127411	127735	127998	126016	111644
29	134009	147512	151255	145408	119606	100632	111702	127603	127647	128437	125375	111284
30	135240	148058	151387	144289	---	100246	112451	127752	127647	128877	124980	109469
31	136134	---	151428	143194	---	100262	---	127972	---	128279	124934	---
MAX	151275	148058	151428	152754	142164	119530	112451	127972	129371	128877	128182	125643
MIN	125402	136994	148148	143194	119521	100246	99892	113482	127647	127096	124934	109469
†	4565.16	4577.60	4580.95	4572.64	4546.33	4522.62	4537.75	4556.07	4555.70	4556.42	4552.58	4534.11
‡	-16374	+11924	+3370	-8234	-23588	-19344	+12189	+15521	-325	+632	-3345	-15465

CAL YR 1975 ‡ †46493
WTR YR 1976 ‡ -43039

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

11428800 RUBICON RIVER BELOW HELL HOLE DAM, NEAR MEEKS BAY, CA

LOCATION.--Lat 39°03'24", long 120°24'25", in NE¼NE¼ sec.21, T.14 N., R.14 E., Placer County, Eldorado National Forest, on right bank 600 ft (183 m) downstream from outlet of dam, and 15.3 mi (24.6 km) west of Meeks Bay.

DRAINAGE AREA.--114 mi^2 (295 km^2).

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

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 4,231.52 ft (1,289.767 m) above mean sea level (levels by Placer County Water Agency).

REMARKS.--Flow regulated by Hell Hole Reservoir (station 11428700) beginning December 1965. Water is diverted out of the basin above the station through Buck-Loon tunnel (station 11428300). Water is diverted from Middle Fork American River basin by tunnel from French Meadows Reservoir (station 11427400) to Hell Hole Reservoir. Water is diverted from Hell Hole Reservoir through a tunnel to Middle Fork powerplant. Diversion began Sept. 8, 1966. During years when Hell Hole Dam spills, records include flow which bypasses the station. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--10 years, 25.3 ft^3/s (0.716 m^3/s), 18,330 acre-ft/yr (22.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,290 ft^3/s (64.8 m^3/s) June 18, 1967, including flow over spillway; no flow Aug. 25 to Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30 ft^3/s (0.85 m^3/s) May 4, gage height, 4.26 ft (1.298 m); minimum daily, 7.0 ft^3/s (0.198 m^3/s) June 11-17.

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	7.5	14	15	15	18	19	17	19	8.2	8.2	8.3	8.7
2	7.5	14	15	15	18	19	17	19	8.2	8.3	8.3	8.7
3	7.5	14	15	15	18	18	17	15	8.0	8.3	8.3	8.8
4	7.5	14	15	15	18	18	17	17	8.0	8.3	8.3	8.8
5	7.5	14	15	15	18	18	17	17	8.5	8.3	8.3	8.8
6	7.5	14	15	15	18	18	17	17	9.0	8.3	8.3	8.8
7	7.5	14	15	15	18	18	18	17	9.0	8.3	8.3	8.8
8	7.5	15	15	15	18	18	18	17	9.0	9.0	8.3	8.8
9	7.5	14	15	15	18	18	18	17	9.0	9.5	8.3	8.8
10	7.7	15	15	15	18	18	18	17	8.0	10	8.3	8.8
11	8.2	15	15	15	18	18	18	17	7.0	10	8.3	8.9
12	7.5	15	15	15	19	18	18	16	7.0	11	8.3	8.9
13	7.5	15	15	15	19	18	18	16	7.0	9.5	8.3	8.9
14	7.5	15	15	15	19	18	19	16	7.0	8.3	8.3	8.9
15	7.5	15	15	15	19	17	18	16	7.0	8.3	8.3	8.9
16	7.5	15	15	15	19	17	18	16	7.0	8.3	8.3	8.9
17	7.4	15	15	15	19	17	18	16	7.0	8.3	8.3	8.9
18	7.1	15	15	15	19	18	18	16	7.5	8.3	8.3	8.8
19	7.3	15	15	15	20	18	19	16	8.0	8.3	8.3	8.8
20	7.5	15	15	15	19	17	19	13	8.0	8.3	8.3	8.8
21	7.5	15	15	15	19	17	19	8.6	8.0	8.3	8.3	8.7
22	7.5	15	15	15	19	17	19	8.4	8.0	8.3	8.3	8.7
23	7.5	15	15	15	19	17	19	8.2	8.0	8.3	8.3	8.7
24	7.5	15	15	15	19	17	19	8.2	8.0	8.3	8.5	8.6
25	7.5	15	15	15	18	17	19	8.2	8.0	8.3	8.7	8.6
26	11	15	15	15	18	17	19	8.2	8.1	8.3	8.7	8.6
27	9.7	15	15	15	18	17	19	8.2	8.1	8.3	8.7	8.5
28	11	15	15	15	18	17	19	8.2	8.1	8.3	8.7	8.5
29	11	15	15	15	19	17	19	8.2	8.1	8.3	8.7	8.5
30	11	15	15	16	---	17	19	8.2	8.1	8.3	8.7	8.4
31	12	---	15	18	---	17	---	8.2	---	8.3	8.7	---
TOTAL	253.4	442	465	469	537	545	547	420.8	237.9	266.4	260.3	262.3
MEAN	8.17	14.7	15.0	15.1	18.5	17.6	18.2	13.6	7.93	8.59	8.40	8.74
MAX	12	15	15	18	20	19	19	19	9.0	11	8.7	8.9
MIN	7.1	14	15	15	18	17	17	8.2	7.0	8.2	8.3	8.4
AC-FT	503	877	922	930	1070	1080	1080	835	472	528	516	520
†	42690	30	0	15230	48430	49370	2280	4260	5640	2900	4730	24930

CAL YR 1975 TOTAL 5492.2 MEAN 15.0 MAX 33 MIN 5.9 AC-FT 10890
WTR YR 1976 TOTAL 4706.1 MEAN 12.9 MAX 20 MIN 7.0 AC-FT 9330

† Diversion, in acre-feet, from Hell Hole Reservoir to Middle Fork powerplant, furnished by Placer County Water Agency.

11429300 ROBBS PEAK POWERPLANT NEAR KYBURZ, CA

LOCATION.--Lat 38°53'46", long 120°22'40", in SE¼SW¼ sec.11, T.12 N., R.14 E., El Dorado County, Eldorado National Forest, in powerhouse on shore of Union Valley Reservoir, 9.5 mi (15.3 km) northwest of Kyburz.

PERIOD OF RECORD.--October 1962 to current year. Prior to October 1965, published as Robbs Peak tunnel near Riverton.

GAGE.--Discharge computed from powerplant output. Altitude of gage is 4,880 ft (1,487 m), from topographic map. Prior to October 1965, water-stage recorder and concrete control in abandoned section of canal 0.5 mi (0.8 km) upstream at different datum.

REMARKS.--Tunnel diverts at South Fork Rubicon River diversion dam in NE¼ sec.27, T.13 N., R.14 E., and discharges into Union Valley Reservoir (station 11441001). Water is imported from Rubicon River basin via Rubicon-Rockbound tunnel and Buck-Loon tunnel to Loon Lake, then via Loon Lake powerplant or Gerle Creek to Robbs Peak tunnel and powerplant. The water is later used in the South Fork American River basin for power development. See schematic diagrams of Middle Fork American and Rubicon River basins and South Fork American River basin.

COOPERATION.--Records furnished by Sacramento Municipal Utility District, rounded to Geological Survey standards.

AVERAGE DISCHARGE.--14 years, 240 ft^3/s (6.797 m^3/s) 173,900 acre-ft/yr (214 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,440 ft^3/s (40.8 m^3/s) Dec. 22-24, 1964; no flow many days during 1965-76.

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	1.0	174	280	105	48	178	88	155	37	262	0	333
2	0	150	356	139	135	371	54	149	160	237	130	336
3	0	129	377	180	183	173	99	158	210	221	155	320
4	0	204	349	111	185	191	80	108	160	0	173	332
5	0	200	365	106	323	164	110	163	199	0	150	18
6	0	203	354	187	191	163	86	127	0	243	168	0
7	0	218	113	182	81	83	88	130	179	162	0	339
8	0	276	273	185	0	111	178	87	165	140	0	268
9	0	101	340	195	56	147	69	210	102	183	173	337
10	0	180	391	176	125	104	124	106	0	171	153	369
11	129	202	352	64	75	173	138	119	117	0	174	401
12	40	232	248	111	153	159	78	147	100	169	184	66
13	0	222	359	162	197	175	86	180	0	220	165	79
14	0	215	115	157	211	120	127	91	116	176	184	0
15	0	216	286	147	70	150	172	89	124	180	76	0
16	0	261	400	154	66	184	92	41	116	142	231	0
17	0	199	414	177	128	213	45	74	183	128	175	0
18	0	213	531	111	139	245	108	64	119	0	213	0
19	0	184	412	199	278	192	194	11	106	166	259	0
20	0	216	336	186	195	173	169	91	0	152	230	0
21	0	206	168	161	196	155	221	0	106	174	204	0
22	0	225	326	154	72	170	179	73	243	172	0	0
23	0	86	396	148	169	232	156	0	181	172	281	0
24	0	144	411	152	200	233	199	54	203	185	255	0
25	0	208	169	50	213	206	220	37	164	0	238	0
26	406	213	268	125	194	178	128	61	184	164	258	0
27	247	82	357	155	200	139	115	8.0	0	165	230	0
28	65	136	86	151	216	58	106	0	205	147	267	0
29	0	194	308	152	222	95	79	88	174	164	0	0
30	103	90	419	155	---	80	169	0	194	145	193	0
31	29	---	341	143	---	117	---	0	---	188	274	---
TOTAL	1020.0	5579	9900	4580	4521	5132	3757	2621.0	3847	4628	5193	3198
MEAN	32.9	186	319	148	156	166	125	84.5	128	149	168	107
MAX	406	276	531	199	323	371	221	210	243	262	281	401
MIN	0	82	86	50	0	58	45	0	0	0	0	0
AC-FT	2020	11070	19640	9080	8970	10180	7450	5200	7630	9180	10300	6340

CAL YR 1975 TOTAL 115849.00 MEAN 317 MAX 983 MIN 0 AC-FT 229800
WTR YR 1976 TOTAL 53976.00 MEAN 147 MAX 531 MIN 0 AC-FT 107100

11429350 LOON LAKE NEAR MEEKS BAY, CA

LOCATION.--Lat 39°00'17", long 120°18'30", in SW¼NW¼ sec.4, T.13 N., R.15 E., El Dorado County, Eldorado National Forest, on right bank at Loon Lake Dam on Gerle Creek, 2.3 mi (3.7 km) upstream from Jerrett Creek, and 11 mi (18 km) southwest of town of Meeks Bay.

DRAINAGE AREA.--7.96 mi^2 (20.62 km^2), revised.

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Sacramento Municipal Utility District).

REMARKS.--Reservoir is formed by an earthfill dam completed Dec. 27, 1963. Storage began Dec. 5, 1963. Prior to September 1962, reservoir was formed by granite-block dam built in 1884, capacity, 8,000 acre-ft (9.86 hm^3). Usable capacity, 74,100 acre-ft (91.4 hm^3) between elevations 6,325 ft (1,927.9 m), invert of fishwater release valve and 6,410 ft (1,953.8 m) crest of spillway, above mean sea level. Dead storage, 2,360 acre-ft (2.91 hm^3). Lake receives water from Rubicon River via Rubicon-Rockbound tunnel to Buck Island Lake and from Buck Island Lake to Loon Lake via Buck-Loon tunnel (stations 11427940, 11428300). Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Middle Fork American and Rubicon River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 77,700 acre-ft (95.8 hm^3) June 6, 1969, elevation, 6,411.1 ft (1,954.10 m); minimum since reservoir first filled, 3,690 acre-ft (4.55 hm^3) Nov. 3, 1970, elevation, 6,330.3 ft (1,929.48 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 59,100 acre-ft (72.9 hm^3) Oct. 31, Nov. 2, elevation, 6,397.2 ft (1,949.87 m); minimum, 20,100 acre-ft (24.8 hm^3) Sept. 17-20, elevation, 6,360.6 ft (1,938.71 m).

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

6330	3600
6340	7200
6350	12500
6360	19600
6370	28500
6390	50000
6412	79000

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	51800	59000	55300	38900	31600	26100	25100	34900	52300	45600	35800	26300
2	51800	59100	55700	38600	31300	25600	25200	35600	51900	45100	35500	25600
3	51600	59000	54000	38200	31000	25400	25500	36400	51500	44600	35200	24700
4	51600	58700	53500	38200	30700	25200	25700	37200	51100	44600	34800	24000
5	51600	58500	52900	38000	30000	25000	25900	38000	50800	44500	34500	23900
6	51600	58200	52400	37600	29700	24800	26100	38800	50900	44000	34000	23900
7	51500	58100	52400	37300	29700	24800	26200	39400	50600	43700	34000	23100
8	51500	58300	51800	37000	29700	24700	26500	40100	50400	43400	34000	22500
9	51500	58900	51100	36700	29800	24600	26700	41000	50300	43000	33600	21600
10	51800	58700	50500	36500	29600	24500	27000	41800	50400	42600	33200	20900
11	51900	58600	49800	36500	29600	24400	27200	42700	50400	42600	32800	20300
12	51900	58300	49400	36200	29300	24300	27400	43200	50300	42200	32400	20300
13	52000	58100	48900	36000	29000	24200	27600	43900	50300	41700	32100	20300
14	52100	57800	48900	35600	28800	24200	27700	45000	50100	41400	31900	20200
15	52400	57700	48200	35400	28800	24100	27800	45900	50000	41000	32300	20200
16	52500	58200	47400	35200	28900	24100	27900	46600	49900	40700	32700	20200
17	52600	58300	46600	34800	28700	24100	28000	47400	49600	40300	32600	20100
18	52900	58200	45700	34800	28600	24300	28200	48000	49500	40300	32400	20100
19	53000	58100	45100	34400	28000	24400	28400	48400	49300	39900	32000	20100
20	53000	57800	44500	34000	27700	24400	28800	48800	49400	39500	31600	20100
21	53200	57600	44400	33800	27500	24600	29300	49300	49200	39100	31200	20300
22	53300	57300	43600	33500	27500	24600	29900	49500	48800	38800	31200	20400
23	53700	57300	42800	33300	27200	24600	30500	49900	48600	38400	30800	20600
24	54200	57100	42100	33000	26800	24600	31200	50300	48200	38000	30300	20600
25	54300	56700	42100	33000	26500	24600	32000	50500	47700	38000	29800	20600
26	55900	56300	41400	32800	26200	24500	32400	50800	47400	37500	29300	20600
27	57600	56300	41000	32500	25900	24600	32700	51100	47400	37200	28800	20600
28	58300	56000	40900	32300	25700	24600	33100	51500	47000	36900	28300	20600
29	58600	55700	40200	32100	26100	24600	33400	51800	46500	36600	28300	20500
30	58900	55700	39600	31800	---	24800	33900	51900	46200	36300	27700	20500
31	59100	---	38900	31600	---	24900	---	52100	---	35800	27100	---
MAX	59100	59100	55700	38900	31600	26100	33900	52100	52300	45600	35800	26300
MIN	51500	55700	38900	31600	25700	24100	25100	34900	46200	35800	27100	20100
†	6397.2	6394.5	6380.3	6373.2	6367.4	6366.2	6375.6	6391.7	6386.8	6377.4	6368.5	6361.1
‡	+7200	-3400	-16800	-7300	-5500	-1200	+9000	+18200	-5900	-10400	-8700	-6600

CAL YR 1975 ‡ -21600
WTR YR 1976 ‡ -31400

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

11429500 GERLE CREEK BELOW LOON LAKE DAM, NEAR MEEKS BAY, CA

LOCATION.--Lat 39°00'20", long 120°18'52", in NE¼NE¼ sec.5, T.13 N., R.15 E., El Dorado County, Eldorado National Forest, on right bank 0.3 mi (0.5 km) downstream from Loon Lake Dam, and 11 mi (18 km) southwest of Meeks Bay.

DRAINAGE AREA.--8.01 mi^2 (20.7 km^2).

PERIOD OF RECORD.--July 1910 to April 1914 (fragmentary), August 1962 to current year. Prior to August 1962, published as "near Rubicon Springs."

GAGE.--Water-stage recorder and V-notch concrete weir. Altitude of gage is 6,250 ft (1,905 m), from topographic map. Prior to August 1962, nonrecording gage at site 1,400 ft (427 m) upstream at different datum.

REMARKS.--Records excellent. Beginning in 1884, flow regulated by Loon Lake (station 11429350). Original dam was dismantled during September and October 1962 to permit construction of a new earthfill dam which was completed Dec. 27, 1963. Storage began Dec. 5, 1963. Loon Lake receives water from Rubicon River via Rubicon-Rockbound tunnel to Buck Island Lake and from Buck Island Lake to Loon Lake via Buck-Loon tunnel (stations 11427940, 11428300). Diversion to Loon Lake powerplant starting August 1971, bypasses station and returns to Gerle Creek at Gerle Creek Dam. See schematic diagram of Middle Fork American and Rubicon River basins.

AVERAGE DISCHARGE.--9 years (water years, 1911, 1963-70, prior to diversion to Loon Lake powerplant), 132 ft^3/s (3.738 m^3/s), 95,630 acre-ft/yr (118 hm^3/yr); 6 years (water years 1971-76), 21.9 ft^3/s (0.620 m^3/s), 15,870 acre-ft/yr (19.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,240 ft^3/s (91.8 m^3/s), unregulated, Feb. 1, 1963, gage height, 12.65 ft (3.856 m), from rating curve extended above 600 ft^3/s (17.0 m^3/s) on basis of slope-area measurement of maximum flow; no flow Oct. 15, 1913. Maximum discharge since construction of Loon Lake Dam in 1963, 1,050 ft^3/s (29.7 m^3/s) June 5, 1969, gage height, 9.03 ft (2.752 m); minimum daily, 5.2 ft^3/s (0.15 m^3/s May 5, 6, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11 ft^3/s (0.31 m^3/s) Oct. 26, gage height, 2.06 ft (0.628 m); minimum daily, 6.4 ft^3/s (0.18 m^3/s) Nov. 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	8.2	6.6	8.4	8.2	8.5	8.2	8.4	8.7	8.2	8.5	8.5	7.5
2	8.2	6.4	8.4	8.2	8.5	8.2	8.4	8.7	8.2	8.4	8.4	7.6
3	8.5	7.0	8.4	8.2	8.5	8.2	8.5	8.7	8.2	8.4	8.4	7.7
4	8.5	7.6	8.5	8.0	8.4	8.2	8.5	8.7	8.2	8.4	8.2	7.7
5	8.5	7.6	8.7	7.9	8.2	8.2	8.5	8.7	8.2	8.2	8.0	7.7
6	9.0	7.6	8.7	7.9	8.2	8.3	8.5	8.4	8.2	8.3	8.0	7.7
7	8.8	8.0	8.7	7.9	8.2	8.3	8.5	7.9	8.2	8.7	8.0	7.7
8	8.7	7.8	8.7	7.9	8.2	8.3	8.5	7.9	8.2	8.7	8.0	7.7
9	8.6	7.8	8.5	8.1	8.3	8.3	8.5	8.1	8.2	8.7	8.0	7.6
10	10	7.8	8.5	8.2	8.2	8.3	8.5	8.2	8.2	8.7	8.0	7.9
11	9.3	7.8	8.6	8.2	8.2	8.3	8.5	8.2	8.2	8.7	8.0	8.3
12	9.2	7.8	8.7	8.2	8.2	8.3	8.5	8.2	8.2	8.7	8.0	7.7
13	9.1	7.8	8.4	8.2	8.3	8.3	8.5	8.1	8.2	8.7	8.0	7.7
14	9.0	7.8	8.3	8.2	8.3	8.3	8.5	7.9	8.5	8.7	8.6	7.7
15	9.0	8.0	8.3	8.2	8.2	8.3	8.5	7.9	8.5	8.7	9.1	7.7
16	9.0	8.0	8.2	8.2	8.2	8.3	8.5	7.9	8.5	8.7	8.0	7.7
17	9.0	8.0	8.2	8.2	8.2	8.3	8.5	7.9	8.5	8.7	8.0	7.7
18	9.0	8.0	8.3	8.2	8.2	8.3	8.6	7.9	8.5	8.7	8.0	7.7
19	9.0	8.0	8.5	8.2	8.2	8.3	8.7	7.9	8.5	8.7	8.0	7.7
20	9.0	8.0	8.5	8.2	8.2	8.4	8.9	7.9	8.5	8.7	8.0	7.7
21	9.0	8.0	8.5	7.9	8.2	8.4	8.8	7.9	8.5	8.7	8.0	7.7
22	9.0	8.0	8.7	8.0	8.2	8.4	8.9	7.9	8.5	8.7	8.0	7.7
23	9.0	8.0	8.7	8.2	8.2	8.4	8.9	7.9	8.5	8.5	8.0	7.8
24	9.0	8.0	8.6	8.2	8.2	8.4	8.9	8.2	8.6	8.4	7.8	8.0
25	9.1	8.0	8.5	8.2	8.2	8.4	9.0	8.2	8.7	8.4	7.7	8.0
26	11	8.0	8.5	8.2	8.2	8.4	8.8	8.2	8.7	8.4	7.7	8.0
27	9.5	8.2	8.5	8.2	8.2	8.4	8.7	8.2	8.7	8.4	7.7	8.0
28	9.3	8.2	8.6	8.2	8.2	8.4	8.7	8.2	8.7	8.4	7.7	8.0
29	9.3	8.2	8.5	8.2	8.2	8.4	8.8	8.2	8.7	8.4	7.7	8.0
30	8.3	8.2	8.2	8.5	---	8.4	8.9	8.2	8.7	8.4	7.7	8.2
31	6.6	---	8.2	8.5	---	8.4	---	8.2	---	8.4	7.7	---
TOTAL	276.7	234.2	263.0	252.8	239.2	258.0	258.9	253.1	252.4	265.1	248.9	233.8
MEAN	8.93	7.81	8.48	8.15	8.25	8.32	8.63	8.16	8.41	8.55	8.03	7.79
MAX	11	8.2	8.7	8.5	8.5	8.4	9.0	8.7	8.7	8.7	9.1	8.3
MIN	6.6	6.4	8.2	7.9	8.2	8.2	8.4	7.9	8.2	8.2	7.7	7.5
AC-FT	549	465	522	501	474	512	514	502	501	526	494	464
†	24	8880	18340	8030	7050	4790	14	470	7550	9350	10390	6560

CAL YR 1975 TOTAL 3110.7 MEAN 8.52 MAX 12 MIN 5.3 AC-FT 6170
WTR YR 1976 TOTAL 3036.1 MEAN 8.30 MAX 11 MIN 6.4 AC-FT 6020

† Diversion, in acre-feet, to Loon Lake powerplant, furnished by Sacramento Municipal Utility District.

11430000 SOUTH FORK RUBICON RIVER BELOW GERLE CREEK, NEAR GEORGETOWN, CA

LOCATION.--Lat 38°57'17", long 120°24'02", in SW¼SW¼ sec.22, T.13 N., R.14 E., El Dorado County, Eldorado National Forest, on left bank 600 ft (183 m) downstream from Gerle Creek, and 18 mi (29 km) east of Georgetown.

DRAINAGE AREA.--47.6 mi^2 (123 km^2).

PERIOD OF RECORD.--February 1910 to June 1914 (published as Little South Fork Rubicon River below Gerle Creek near Quintette), August 1961 to current year.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,970 ft (1,515 m), from topographic map. Feb. 1, 1910, to June 21, 1914, nonrecording gage at site about 700 ft (213 m) downstream at different datum.

REMARKS.--Records good. Beginning in 1884, flow regulated by Loon Lake (station 11429350). Original dam was dismantled during September and October 1962 to permit construction of a new earthfill dam which was completed Dec. 27, 1963. Loon Lake receives water from Rubicon River via Rubicon-Rockbound tunnel to Buck Island Lake and from Buck Island Lake to Loon Lake via Buck-Loon tunnel (stations 11427940, 11428300). Prior to Dec. 3, 1961, water was diverted out of the basin in Georgetown Divide ditch. Robbs Peak tunnel 1.2 mi (1.9 km) upstream (station 11429800) began diversion of up to 1,320 ft^3/s (37.4 m^3/s) to Silver Creek basin October 1962. See schematic diagram of Middle Fork American and Rubicon River basins.

AVERAGE DISCHARGE (unadjusted).--14 years (water years 1963-76), 21.2 ft^3/s (0.600 m^3/s), 15,360 acre-ft/yr (18.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft^3/s (326 m^3/s) Jan. 31, 1963, gage height, 12.32 ft (3.755 m), from rating curve extended above 2,500 ft^3/s (70.8 m^3/s) on basis of slope-area measurement of maximum flow; minimum, 0.8 ft^3/s (0.023 m^3/s) Sept. 21, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30 ft^3/s (0.85 m^3/s) Dec. 26, gage height, 2.21 ft (0.674 m); minimum daily, 4.8 ft^3/s (0.14 m^3/s) Apr. 2, 6, 7, 10, May 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	10	5.4	5.6	6.9	5.7	8.1	4.9	5.0	5.0	5.5	5.9	6.0
2	10	5.2	5.6	6.3	5.8	7.0	4.8	5.0	5.0	5.2	5.7	6.0
3	10	5.0	5.6	5.2	5.8	6.6	4.9	5.0	5.0	5.2	5.9	6.0
4	10	5.1	5.6	5.2	5.9	6.5	4.9	4.9	4.9	5.1	6.1	6.1
5	10	5.8	5.7	5.3	5.7	6.1	4.9	4.8	5.2	5.0	6.2	6.1
6	11	6.5	5.6	5.2	5.6	6.2	4.8	4.9	5.0	5.1	6.3	5.9
7	11	6.6	5.6	5.2	5.5	6.1	4.8	5.1	5.1	5.2	6.2	5.9
8	11	6.4	5.6	5.2	5.7	6.3	5.3	5.6	4.9	5.2	6.1	5.7
9	11	6.4	5.6	5.6	5.8	6.4	4.9	6.4	5.0	5.4	6.1	5.7
10	13	7.6	5.2	5.6	5.6	6.5	4.8	5.7	5.0	5.6	6.1	5.9
11	13	6.6	5.5	5.4	5.6	6.5	4.9	5.6	5.0	5.5	6.2	7.2
12	12	6.4	5.9	5.4	5.6	6.4	5.0	5.6	5.0	5.4	6.3	5.9
13	11	6.2	5.8	5.4	5.9	6.4	5.1	5.5	5.0	5.6	6.3	8.5
14	11	6.2	5.6	5.4	6.2	6.3	5.4	5.4	5.0	5.6	7.3	6.3
15	11	6.2	5.6	5.4	5.8	6.4	6.1	5.6	5.0	5.5	8.4	5.3
16	11	7.3	5.6	5.5	6.0	6.5	5.7	5.4	5.0	5.4	6.6	5.4
17	11	6.4	5.6	5.5	5.9	6.6	5.6	5.2	5.0	5.6	6.3	5.5
18	11	6.2	5.6	5.4	6.0	6.7	5.9	5.2	5.2	5.6	6.6	5.4
19	11	6.8	5.6	5.4	7.0	5.5	5.8	5.2	5.0	5.7	6.3	5.3
20	11	6.0	5.6	5.5	6.2	5.4	5.7	5.2	5.0	5.9	6.2	5.2
21	11	5.8	5.6	5.4	6.1	5.5	5.7	5.0	5.0	6.4	6.1	5.3
22	12	5.7	5.8	5.4	6.0	5.6	5.6	5.2	5.3	6.1	6.1	5.2
23	12	5.6	5.7	5.4	5.9	5.6	5.6	5.2	5.2	6.2	6.0	5.4
24	12	5.6	5.6	5.4	5.9	5.7	5.5	5.3	5.2	6.1	5.8	5.4
25	12	5.7	5.4	5.3	5.9	5.5	5.3	5.2	5.2	6.0	5.8	5.7
26	16	5.6	6.5	5.3	5.9	5.2	5.2	5.2	5.2	6.0	5.8	5.4
27	13	5.8	5.2	5.4	6.0	5.1	5.2	5.1	5.3	6.1	5.9	6.1
28	11	5.7	5.2	5.4	6.5	5.0	5.2	5.0	5.4	6.1	5.9	8.8
29	11	5.6	6.1	5.4	8.6	5.1	5.2	5.1	5.4	6.1	5.7	8.9
30	12	5.6	7.2	5.7	---	5.1	5.2	5.0	5.5	6.0	5.5	7.4
31	10	---	7.0	5.7	---	4.9	---	5.0	---	6.0	5.9	---
TOTAL	352	181.0	177.4	169.8	174.1	186.8	157.9	162.6	153.0	175.4	191.6	182.9
MEAN	11.4	6.03	5.72	5.48	6.00	6.03	5.26	5.25	5.10	5.66	6.18	6.10
MAX	16	7.6	7.2	6.9	8.6	8.1	6.1	6.4	5.5	6.4	8.4	8.9
MIN	10	5.0	5.2	5.2	5.5	4.9	4.8	4.8	4.9	5.0	5.5	5.2
AC-FT	698	359	352	337	345	371	313	323	303	348	380	363

CAL YR 1975 TOTAL 3811.2 MEAN 10.4 MAX 85 MIN 5.0 AC-FT 7560
WTR YR 1976 TOTAL 2264.5 MEAN 6.19 MAX 16 MIN 4.8 AC-FT 4490

11431800 PILOT CREEK ABOVE STUMPY MEADOWS LAKE, CA

LOCATION.--Lat 38°53'41", long 120°34'02", in NE¼NW¼ sec.18, T.12 N., R.13 E., El Dorado County, on right bank 2.1 mi (3.4 km) upstream from Stumpy Meadows Dam, and 12.5 mi (20.1 km) east of Georgetown.

DRAINAGE AREA.--11.7 mi^2 (30.3 km^2).

PERIOD OF RECORD.--October 1960 to current year. Prior to October 1971, published as "above Stumpy Meadows Reservoir."

GAGE.--Water-stage recorder. Altitude of gage is 4,280 ft (1,305 m), from topographic map.

REMARKS.--Records good. No regulation or diversion above station. See schematic diagram of Middle Fork American and Rubicon River basins.

AVERAGE DISCHARGE.--16 years, 24.3 ft^3/s (0.688 m^3/s), 17,610 acre-ft/yr (21.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,380 ft^3/s (67.4 m^3/s) Dec. 23, 1964, gage height, 5.92 ft (1.804 m) in gage well, 6.6 ft (2.01 m) from floodmarks, from rating curve extended above 170 ft^3/s (4.81 m^3/s) on basis of slope-area measurement of maximum flow; maximum gage height, 8.05 ft (2.454 m) Jan. 31, 1963; minimum daily discharge, 0.86 ft^3/s (0.024 m^3/s) July 27, Aug. 13, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 47 ft^3/s (1.33 m^3/s) Oct. 11, gage-height, 1.92 ft (0.585 m), no peak above base of 100 ft^3/s (2.83 m^3/s); minimum daily, 0.86 ft^3/s (0.024 m^3/s) July 27, 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	4.2	9.7	6.7	6.6	5.2	24	9.7	8.1	4.0	2.1	1.2	1.6
2	4.1	8.7	6.9	7.0	5.2	16	9.4	7.7	3.9	2.1	1.3	1.5
3	4.2	8.0	6.9	7.3	5.1	13	9.3	7.5	3.8	2.0	1.1	1.5
4	4.2	7.5	6.7	7.4	5.7	12	9.1	7.2	3.8	2.0	1.3	1.5
5	4.2	7.2	7.2	6.7	5.7	11	9.1	6.9	3.8	2.0	1.3	1.5
6	5.4	6.9	7.1	6.5	5.2	9.9	9.2	6.9	3.7	1.9	1.2	1.6
7	9.0	7.5	6.7	6.4	7.0	9.6	9.0	6.7	3.8	1.8	1.2	1.5
8	6.1	7.8	6.4	6.4	5.8	9.4	10	6.7	3.9	1.7	1.2	1.4
9	6.0	7.0	6.4	6.7	6.9	9.3	10	6.7	4.2	1.7	1.1	1.3
10	16	12	6.3	7.6	6.6	9.4	10	6.6	4.9	1.6	1.1	1.4
11	24	9.1	6.1	6.4	6.0	9.3	11	6.1	4.7	1.5	.98	7.2
12	12	8.3	7.1	6.3	5.9	9.0	11	5.9	4.2	1.5	.91	3.5
13	9.7	7.9	6.9	6.2	6.4	8.9	11	5.6	3.9	1.5	.86	2.9
14	8.2	7.7	7.1	6.1	9.7	9.0	12	5.3	3.7	1.4	3.4	2.6
15	7.7	7.6	6.3	6.1	8.1	9.0	13	5.1	3.4	1.3	13	2.6
16	7.2	12	6.7	6.1	7.6	9.4	12	5.1	3.3	1.3	5.1	2.5
17	6.9	9.5	6.7	6.1	7.9	9.9	11	4.9	3.2	1.3	3.3	2.5
18	6.7	8.3	6.7	6.1	7.9	13	12	4.8	3.1	1.4	3.4	2.5
19	6.5	7.8	6.0	6.0	14	13	12	4.7	2.9	1.3	3.4	2.5
20	6.2	7.5	5.9	5.7	10	12	12	4.6	2.8	1.2	3.0	2.3
21	6.1	7.3	6.0	5.8	9.4	11	12	4.6	2.8	1.1	2.8	2.2
22	6.0	7.1	7.3	5.7	8.7	12	11	4.5	2.7	1.1	2.7	2.1
23	6.0	6.9	6.6	5.7	8.1	12	11	4.3	2.6	1.1	2.8	2.1
24	6.0	6.7	6.8	5.8	7.6	12	10	4.3	2.5	1.5	2.6	2.0
25	6.1	6.9	6.7	6.4	7.4	13	10	4.3	2.4	1.2	2.4	2.0
26	26	6.9	6.7	5.1	7.4	12	9.6	4.1	2.4	1.0	2.3	1.9
27	20	7.4	6.7	5.3	7.4	11	9.3	4.0	2.2	.86	2.2	2.0
28	12	7.2	6.7	5.3	8.3	10	9.0	3.9	2.2	.88	2.0	2.2
29	9.6	7.0	7.1	5.3	20	10	8.7	3.9	2.1	.94	1.9	2.8
30	15	6.7	6.9	5.3	---	9.9	8.4	4.0	2.1	.89	1.8	2.7
31	13	---	6.3	5.3	---	10	---	4.1	---	.99	1.7	---
TOTAL	284.3	238.1	206.6	190.7	226.2	349.0	310.8	169.1	99.0	44.16	74.55	67.9
MEAN	9.17	7.94	6.66	6.15	7.80	11.3	10.4	5.45	3.30	1.42	2.40	2.26
MAX	26	12	7.3	7.6	20	24	13	8.1	4.9	2.1	13	7.2
MIN	4.1	6.7	5.9	5.1	5.1	8.9	8.4	3.9	2.1	.86	.86	1.3
AC-FT	564	472	410	378	449	692	616	335	196	88	148	135

CAL YR 1975 TOTAL 8093.90 MEAN 22.2 MAX 177 MIN 4.1 AC-FT 16050
WTR YR 1976 TOTAL 2260.41 MEAN 6.18 MAX 26 MIN .86 AC-FT 4480

11433040 PILOT CREEK BELOW MUTTON CANYON, NEAR GEORGETOWN, CA

LOCATION.--Lat 38°55'25", long 120°38'27", in NE¼NW¼ sec.4, T.12 N., R.12 E., El Dorado County, Eldorado National Forest, on left bank 450 ft (137 m) downstream from Mutton Canyon, 500 ft (150 m) downstream from Georgetown Divide diversion dam, 2.5 mi (4.0 km) downstream from Stumpy Meadows Dam, and 10 mi (16 km) east of Georgetown.

DRAINAGE AREA.--21.1 mi^2 (54.6 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 3,760 ft (1,146 m), from topographic map.

REMARKS.--Records good. Flow regulated by Stumpy Meadows Lake, usable capacity, 20,000 acre-ft (24.7 hm^3) completed in November 1961. Georgetown Irrigation District ditch, capacity, about 20 ft^3/s (0.57 m^3/s) diverts water out of Pilot Creek, 500 ft (150 m) above station. See schematic diagram of Middle Fork American and Rubicon River basins.

AVERAGE DISCHARGE.--15 years, 28.9 ft^3/s (0.818 m^3/s), 20,940 acre-ft/yr (25.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,430 ft^3/s (154 m^3/s) Dec. 22, 1964, gage height, 9.60 ft (2.926 m), from rating curve extended above 300 ft^3/s (8.50 m^3/s) on basis of slope-area measurement at gage height 5.00 ft (1.524 m); maximum gage height, 10.06 ft (3.066 m) Dec. 23, 1964; minimum daily discharge, 0.20 ft^3/s (0.006 m^3/s) Sept. 24, Nov. 1-5, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36 ft^3/s (1.02 m^3/s) Oct. 26, gage height, 3.28 ft (1.000 m); minimum daily, 0.62 ft^3/s (0.018 m^3/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	1.3	6.7	3.0	2.3	1.9	10	2.1	1.9	1.2	.76	.70	.67
2	1.3	6.4	2.9	2.2	1.9	5.7	2.1	1.9	1.2	.82	.68	.67
3	1.5	6.7	2.9	2.2	1.9	4.5	2.1	1.8	1.1	.81	.68	.66
4	1.6	5.3	2.6	2.2	2.4	3.9	2.1	1.8	1.1	.79	.69	.66
5	3.2	5.2	2.1	2.5	2.1	3.6	2.1	1.8	1.1	.78	.68	.67
6	5.9	5.1	2.0	2.4	2.0	3.4	2.3	1.8	1.1	.77	.68	.65
7	5.6	6.8	1.9	2.2	2.1	3.2	2.1	1.7	1.1	.75	.68	.65
8	4.5	6.0	1.9	2.2	2.4	3.1	2.7	1.8	1.1	.74	.66	.64
9	4.3	5.5	1.8	2.5	2.6	3.0	2.8	1.7	1.1	.74	.65	.63
10	11	8.0	2.0	2.3	2.3	2.9	2.7	1.7	1.2	.74	.64	.65
11	10	6.2	3.1	2.3	2.2	2.6	3.2	1.6	1.2	.72	.63	1.8
12	4.2	5.7	4.4	2.2	2.2	2.5	3.3	1.5	1.1	.72	.62	.83
13	3.7	5.5	3.9	2.1	3.1	2.5	3.2	1.6	1.1	.71	.62	.77
14	6.6	5.4	3.5	2.2	6.5	2.4	3.0	1.7	.99	.70	2.4	.74
15	8.8	5.5	3.3	2.2	3.9	2.3	3.2	1.5	.98	.70	4.8	.74
16	7.4	8.1	3.3	2.1	4.1	2.3	2.9	1.4	.90	.69	1.1	.74
17	6.5	6.1	3.2	1.8	4.1	2.2	2.6	1.4	.90	.70	.91	.74
18	4.8	5.6	3.2	1.9	3.8	3.1	3.7	1.4	.83	.70	.89	.73
19	3.3	4.6	3.1	1.9	10	3.2	4.6	1.4	.87	.68	.86	.71
20	3.2	3.3	3.0	1.8	5.4	2.7	5.9	1.4	.83	.70	.81	.70
21	3.2	3.2	3.1	1.8	4.4	2.7	5.5	1.4	.83	.71	.80	.70
22	2.9	3.0	5.3	1.8	3.9	2.6	5.0	1.4	.84	.70	.82	.69
23	3.8	3.0	3.4	1.8	3.3	2.5	5.3	1.3	.80	.71	.81	.68
24	5.2	2.9	2.8	1.9	2.5	2.5	5.2	1.3	.78	.70	.77	.67
25	5.4	2.9	2.6	1.9	2.5	2.6	5.1	1.3	.78	.68	.76	.66
26	22	2.8	2.5	2.0	2.5	2.4	5.0	1.2	.78	.67	.74	.66
27	10	3.8	2.5	2.0	2.4	2.3	4.9	1.2	.76	.66	.72	.67
28	7.3	3.4	2.5	2.0	2.6	2.2	3.6	1.2	.75	.67	.73	.69
29	6.6	3.0	2.6	1.9	14	2.2	2.1	1.2	.75	.66	.71	.70
30	11	3.0	2.5	1.9	---	2.1	1.9	1.2	.75	.67	.69	.71
31	7.6	---	2.4	1.9	---	2.1	---	1.2	---	.69	.68	---
TOTAL	183.7	148.7	89.3	64.4	105.0	95.3	102.3	46.7	28.82	22.24	28.61	21.88
MEAN	5.93	4.96	2.88	2.08	3.62	3.07	3.41	1.51	.96	.72	.92	.73
MAX	22	8.1	5.3	2.5	14	10	5.9	1.9	1.2	.82	4.8	1.8
MIN	1.3	2.8	1.8	1.8	1.9	2.1	1.9	1.2	.75	.66	.62	.63
AC-FT	364	295	177	128	208	189	203	93	57	44	57	43

CAL YR 1975 TOTAL 8713.00 MEAN 23.9 MAX 314 MIN 1.3 AC-FT 17280
WTR YR 1976 TOTAL 936.95 MEAN 2.56 MAX 22 MIN .62 AC-FT 1860

11433060 SOUTH FORK LONG CANYON CREEK DIVERSION TUNNEL NEAR VOLCANOVILLE, CA

LOCATION.--Lat 39°03'04", long 120°28'14", in SW¼NE¼ sec.24, T.14 N., R.13 E., Placer County, Eldorado National Forest, on right bank at diversion dam, 3.3 mi (5.3 km) upstream from confluence with North and South Forks Long Canyon Creek, and 17.2 mi (27.7 km) east of Volcanoville.

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

GAGE.--Water-stage recorder and sharp-crested weir. Altitude of gage is 4,630 ft (1,411 m), from topographic map.

REMARKS.--Tunnel completed in September 1965; diversion began in February 1966. Flow is diverted from South Fork Long Canyon Creek to a tunnel from Hell Hole Reservoir to Middle Fork powerplant on the Middle Fork American River. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--11 years, 9.31 ft^3/s (0.264 m^3/s), 6,750 acre-ft/yr (8.32 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 251 ft^3/s (7.11 m^3/s) Nov. 12, 1973; no flow for part of 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	5.6	4.5	9.6	2.2			
2					0	4.0	4.3	9.6	2.0			
3					0	3.0	4.5	10	1.8			
4					0	2.4	4.0	12	1.8			
5					0	1.8	4.0	12	1.6			
6					0	1.6	4.0	12	1.4			
7					0	2.0	3.8	11	1.4			
8					0	2.6	5.0	11	1.4			
9					0	3.5	4.8	12	1.6			
10					0	4.3	5.0	11	1.8			
11					0	4.5	5.3	9.3	1.8			
12					0	3.5	5.9	8.3	1.6			
13					0	3.8	6.5	7.7	1.2			
14					0	4.3	7.4	7.4	.84			
15					0	4.5	8.3	6.8	.39			
16					0	5.0	6.5	6.2	0			
17					0	5.6	5.6	5.6	0			
18					0	7.7	6.5	5.3	0			
19					.85	6.5	7.1	5.0	0			
20					0	6.8	7.1	4.8	0			
21					0	7.7	7.4	4.3	0			
22					0	8.3	8.3	4.3	0			
23					0	8.0	9.6	3.8	0			
24					0	7.4	9.6	3.5	0			
25					0	7.1	10	3.5	0			
26					0	6.2	9.6	3.5	0			
27					0	5.6	9.3	2.8	0			
28					2.4	4.8	9.0	2.8	0			
29					8.0	4.5	9.0	2.6	0			
30					---	4.5	9.0	2.4	0			
31		---			---	5.3	---	2.4	---			---
TOTAL	0	0	0	0	11.25	152.4	200.9	212.5	22.83	0	0	0
MEAN	0	0	0	0	.39	4.92	6.70	6.85	.76	0	0	0
MAX	0	0	0	0	8.0	8.3	10	12	2.2	0	0	0
MIN	0	0	0	0	0	1.6	3.8	2.4	0	0	0	0
AC-FT	0	0	0	0	22	302	398	421	45	0	0	0

CAL YR 1975 TOTAL 4699.68 MEAN 12.9 MAX 130 MIN 0 AC-FT 9320
WTR YR 1976 TOTAL 599.88 MEAN 1.64 MAX 12 MIN 0 AC-FT 1190

11433080 NORTH FORK LONG CANYON CREEK DIVERSION TUNNEL NEAR VOLCANOVILLE, CA

LOCATION.--Lat 39°02'57", long 120°28'56", in SW¼NW¼ sec.24, T.14 N., R.13 E., Placer County, Eldorado National Forest, on left bank at diversion dam, 3.2 mi (5.1 km) upstream from confluence of North and South Forks Long Canyon Creek, and 16.9 mi (27.2 km) east of Volcanoville.

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

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 4,700 ft (1,430 m), from topographic map.

REMARKS.--No regulation or diversion above station. Tunnel completed in September 1965 and diversions began in February 1966. Flow is diverted from North Fork Long Canyon Creek to a tunnel from Hell Hole Reservoir to Middle Fork powerplant on the Middle Fork American River. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--11 years, 3.19 ft^3/s (0.090 m^3/s), 2,310 acre-ft/yr (2.85 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 55 ft^3/s (1.56 m^3/s) May 18, 1975; no flow for part of 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	1.7	0	.02			0	
2					0	.32	0	.01			0	
3					0	.02	0	0			0	
4					0	0	0	0			0	
5					0	0	0	0			0	
6					0	0	0	0			0	
7					0	0	0	0			0	
8					0	.08	.02	0			0	
9					0	.53	.39	.24			0	
10					0	1.4	.22	0			0	
11					0	1.1	.13	0			0	
12					0	.52	.37	0			0	
13					0	.52	.62	0			0	
14					0	.79	1.5	0			0	
15					0	1.2	1.7	0			.11	
16					0	1.8	.81	0			0	
17					0	2.3	.46	0			0	
18					0	2.9	1.2	0			0	
19					0	1.5	1.4	0			0	
20					0	2.2	1.6	0			0	
21					0	3.4	1.5	0			0	
22					0	3.2	1.4	0			0	
23					0	2.4	1.6	0			0	
24					0	1.6	1.0	0			0	
25					0	1.3	1.0	0			0	
26					0	.82	.45	0			0	
27					0	.32	.21	0			0	
28					1.2	.05	.05	0			0	
29					3.2	.02	.02	0			0	
30					---	.17	.08	0			0	
31		---			---	.21	---	0	---		0	---
TOTAL	0	0	0	0	4.4	32.37	17.73	.27	0	0	.11	0
MEAN	0	0	0	0	.15	1.04	.59	.009	0	0	.004	0
MAX	0	0	0	0	3.2	3.4	1.7	.24	0	0	.11	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	8.7	64	35	.5	0	0	.2	0

CAL YR 1975	TOTAL	1622.51	MEAN 4.45	MAX	55	MIN 0	AC-FT	3220
WTR YR 1976	TOTAL	54.88	MEAN .15	MAX	3.4	MIN 0	AC-FT	109

11433100 LONG CANYON CREEK NEAR FRENCH MEADOWS, CA

LOCATION.--Lat 39°01'16", long 120°30'53", in SE¼NW¼ sec.34, T.14 N., R.13 E., Placer County, Eldorado National Forest, on right bank 75 ft (23 m) downstream from North Fork Long Canyon, 6.5 mi (10.5 km) south of French Meadows, and 18 mi (29 km) east of Foresthill.

DRAINAGE AREA.--18.0 mi^2 (46.6 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 4,100 ft (1,250 m), from topographic map.

REMARKS.--Water is diverted above this station to a diversion tunnel from Hell Hole Reservoir to Middle Fork American River powerplant via South Fork and North Fork Long Canyon diversion tunnels (stations 11433060, 11433080); diversions began in February 1966. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE (since diversion to Middle Fork American River powerplant).--10 years (water years 1967-76), 31.2 ft^3/s (0.884 m^3/s) 22,600 acre-ft/yr (27.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,690 ft^3/s (133 m^3/s) Dec. 23, 1964, gage height, 11.20 ft (3.414 m), from rating curve extended above 300 ft^3/s (8.50 m^3/s) on basis of slope-area measurements at gage heights 6.62 ft (2.018 m) and 10.27 ft (3.130 m); minimum daily, 0.08 ft^3/s (0.002 m^3/s) Sept. 27, 28, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 131 ft^3/s (3.71 m^3/s) Oct. 26, gage height, 4.48 ft (1.366 m); minimum daily, 0.94 ft^3/s (0.27 m^3/s) Sept. 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	1.7	30	17	13	5.8	28	18	16	4.8	2.7	1.4	1.5
2	1.7	26	19	13	5.7	23	17	16	4.6	2.7	1.4	1.5
3	1.5	23	19	13	5.5	20	17	15	4.6	2.5	1.2	1.5
4	1.5	22	18	13	6.1	18	16	11	4.5	2.5	1.4	1.5
5	1.5	20	23	13	5.5	17	16	11	4.4	2.5	1.2	1.5
6	1.9	20	19	13	5.4	17	16	11	4.4	2.3	1.2	1.5
7	2.1	29	18	13	5.5	17	16	9.7	4.3	2.3	1.2	1.5
8	1.7	29	17	13	6.1	18	19	9.6	4.2	2.1	1.2	1.4
9	1.7	25	16	13	7.7	19	17	10	4.9	2.1	1.2	1.2
10	5.4	29	15	13	7.4	20	18	11	5.3	2.1	1.1	1.2
11	10	25	15	13	6.6	20	18	9.2	5.1	2.1	1.1	4.5
12	5.1	25	17	13	6.5	19	19	8.4	4.7	1.9	1.1	2.5
13	4.2	25	16	12	7.0	19	21	8.0	4.5	1.9	1.1	2.1
14	3.3	24	14	11	11	19	21	7.5	4.2	1.9	2.3	1.9
15	2.8	25	14	7.7	9.3	19	23	7.2	3.9	1.7	6.9	1.7
16	2.6	45	15	7.6	9.4	19	21	6.9	4.2	1.7	3.4	1.7
17	2.4	31	15	8.0	10	19	21	6.7	3.9	1.7	2.5	1.7
18	2.3	26	15	7.7	12	22	22	6.4	3.7	1.7	2.3	1.5
19	2.2	24	14	7.5	20	21	22	6.2	3.4	1.7	2.3	1.4
20	2.1	23	14	7.1	15	21	22	6.2	3.4	1.5	2.1	1.4
21	2.1	22	14	6.8	13	22	21	6.0	3.4	1.5	1.9	1.4
22	2.2	21	15	6.5	13	22	19	5.8	3.4	1.4	2.1	1.2
23	2.3	20	14	6.5	13	22	17	5.7	3.2	1.5	2.1	1.2
24	2.3	19	15	6.5	12	22	17	5.5	3.2	1.5	1.9	1.1
25	2.4	18	15	6.1	12	21	17	5.5	3.2	1.4	1.9	.94
26	79	18	15	6.0	11	20	18	5.3	2.9	1.4	1.9	1.1
27	29	19	15	5.8	12	20	18	5.1	2.9	1.2	1.7	1.2
28	13	18	15	5.8	16	19	17	5.0	2.9	1.2	1.7	1.1
29	9.4	17	16	5.8	26	19	17	5.0	2.7	1.2	1.7	1.1
30	29	17	15	5.8	---	18	16	5.2	2.7	1.2	1.7	1.1
31	33	---	14	5.8	---	19	---	4.8	---	1.2	1.5	---
TOTAL	261.4	715	493	292.0	295.5	619	557	251.9	117.5	56.3	57.7	46.14
MEAN	8.43	23.8	15.9	9.42	10.2	20.0	18.6	8.13	3.92	1.82	1.86	1.54
MAX	79	45	23	13	26	28	23	16	5.3	2.7	6.9	4.5
MIN	1.5	17	14	5.8	5.4	17	16	4.8	2.7	1.2	1.1	.94
AC-FT	518	1420	978	579	586	1230	1100	500	233	112	114	92

CAL YR 1975 TOTAL 9600.40 MEAN 26.3 MAX 197 MIN 1.5 AC-FT 19040
WTR YR 1976 TOTAL 3762.44 MEAN 10.3 MAX 79 MIN .94 AC-FT 7460

11433200 RUBICON RIVER NEAR FORESTHILL, CA

LOCATION.--Lat 38°59'33", long 120°43'14", in SE¼NW¼ sec.11, T.13 N., R.11 E., Placer County, Eldorado National Forest, on right bank 0.6 mi (1.0 km) upstream from Ralston powerhouse, 1.2 mi (1.9 km) upstream from confluence of Rubicon River and Middle Fork American River, and 5.6 mi (9.0 km) southeast of Foresthill.

DRAINAGE AREA.--315 mi^2 (816 km^2).

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

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,200 ft (366 m), from topographic map. October 1958 to May 17, 1963, at site 2.0 mi (3.2 km) upstream, 150 ft (46 m) downstream from Ralston Bridge, and May 17, 1963, to Mar. 30, 1965, at site 2.1 mi (3.4 km) upstream, 100 ft (30 m) upstream from Ralston Bridge at datum 1,362.20 ft (415.199 m) above mean sea level.

REMARKS.--Flow regulated by Hell Hole Reservoir (station 11428700), Loon Lake (station 11429350), and Stumpy Meadows Lake, capacity, 20,000 acre-ft (24.7 hm^3). Water is imported from French Meadows Reservoir on Middle Fork American River through a tunnel to French Meadows powerplant on shore of Hell Hole Reservoir. Water is diverted from Hell Hole Reservoir through a tunnel to Middle Fork powerplant on Middle Fork American River. Robbs Peak tunnel and powerplant (station 11429800) divert water to South Fork American River basin. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE (prior to construction of Hell Hole Dam).--7 years (water years 1959-65), 609 ft^3/s (17.2 m^3/s), 440,900 acre-ft/yr (544 hm^3/yr); 11 years (water years 1966-76), 286 ft^3/s (8.100 m^3/s), 207,200 acre-ft/yr (255 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, unknown, Dec. 23, 1964, gage height, 55.4 ft (16.89 m) from floodmarks, caused by overtopping of the partly constructed Hell Hole Dam; next highest peak discharge, 83,000 ft^3/s (2,350 m^3/s) Feb. 1, 1963, gage height, 35.0 ft (10.67 m) former site and datum; minimum daily, 10 ft^3/s (0.28 m^3/s) Sept. 20-27, 1962. Maximum discharge since construction of Hell Hole Dam in 1965, 15,100 ft^3/s (428 m^3/s) Jan. 21, 1970, gage height, 14.60 ft (4.450 m); minimum daily, 24 ft^3/s (0.68 m^3/s) Sept. 12, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of December 1937, November 1950, and December 1955 had approximate discharges of 44,000 ft^3/s (1,250 m^3/s), 56,000 ft^3/s (1,590 m^3/s), and 73,000 ft^3/s (2,070 m^3/s), respectively, on basis of 1958-64 stage-discharge relation and U.S. Forest Service floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 341 ft^3/s (9.66 m^3/s) Oct. 26, gage height, 8.04 ft (2.451 m); minimum daily, 22 ft^3/s (0.62 m^3/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	45	115	81	77	63	241	99	92	36	23	22	22
2	46	101	81	75	63	161	98	90	34	23	22	22
3	46	93	81	73	61	136	96	89	34	23	22	22
4	46	89	81	73	67	123	96	84	34	23	22	22
5	46	87	82	73	71	117	96	73	32	23	22	22
6	48	84	84	77	70	112	97	70	31	23	22	22
7	66	86	83	77	68	108	96	68	31	23	22	22
8	60	105	81	76	68	108	103	67	31	23	22	22
9	55	96	79	79	69	108	108	66	31	23	22	22
10	95	118	77	81	72	108	103	75	35	23	22	22
11	170	116	76	77	73	105	108	71	36	23	22	37
12	97	102	87	76	71	105	112	65	35	23	22	51
13	78	98	92	76	71	103	110	62	32	23	22	34
14	70	93	85	76	102	102	120	59	31	23	24	27
15	68	93	81	74	99	99	125	59	29	23	61	26
16	67	117	79	71	90	96	126	58	28	23	62	26
17	63	122	79	71	93	96	117	56	27	23	41	26
18	61	103	79	70	93	107	124	54	26	23	33	26
19	59	94	76	68	151	134	123	54	26	23	33	26
20	57	92	76	68	137	117	118	54	25	23	32	26
21	56	89	76	68	114	111	115	54	26	23	28	26
22	56	85	99	66	104	111	114	50	26	23	28	26
23	56	84	94	66	98	111	108	45	26	23	28	25
24	56	84	86	66	93	111	106	42	25	23	28	25
25	56	82	83	66	90	111	105	41	25	23	26	25
26	178	80	81	66	89	110	103	39	25	23	25	25
27	205	80	81	66	87	106	101	37	25	23	25	25
28	112	87	81	63	87	102	98	36	25	22	24	25
29	88	85	81	63	165	102	95	36	25	22	23	26
30	135	81	81	63	---	99	93	36	24	22	23	28
31	139	---	81	63	---	99	---	36	---	22	23	---
TOTAL	2480	2841	2544	2204	2579	3559	3213	1818	876	709	853	781
MEAN	80.0	94.7	82.1	71.1	88.9	115	107	58.6	29.2	22.9	27.5	26.0
MAX	205	122	99	81	165	241	126	92	36	23	62	51
MIN	45	80	76	63	61	96	93	36	24	22	22	22
AC-FT	4920	5640	5050	4370	5120	7060	6370	3610	1740	1410	1690	1550

CAL YR 1975 TOTAL 89857 MEAN 246 MAX 2480 MIN 42 AC-FT 178200
WTR YR 1976 TOTAL 24457 MEAN 66.8 MAX 241 MIN 22 AC-FT 48510

11433260 NORTH FORK OF MIDDLE FORK AMERICAN RIVER NEAR FORESTHILL, CA

LOCATION.--Lat 39°01'27", long 120°43'03", in NE¼NW¼ sec.35, T.14 N., R.11 E., Placer County, Tahoe National Forest, on right bank 1.0 mi (1.6 km) downstream from El Dorado Canyon, and 4.8 mi (7.7 km) east of Foresthill.

DRAINAGE AREA.--88.9 mi^2 (230.3 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 1,300 ft (396 m), from topographic map.

REMARKS.--No storage or diversion above station. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--11 years, 257 ft^3/s (7.278 m^3/s), 186,200 acre-ft/yr (230 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft^3/s (385 m^3/s) Jan. 21, 1970, gage height, 12.80 ft (3.901 m) in gage well, 13.5 ft (4.11 m) from floodmarks; minimum daily, 16 ft^3/s (0.45 m^3/s) Aug. 12, 13, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,080 ft^3/s (30.6 m^3/s) Oct. 21, gage height, 6.23 ft (1.899 m); minimum daily, 16 ft^3/s (0.45 m^3/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	25	108	51	49	34	396	146	145	48	25	18	18
2	25	92	51	48	34	272	140	146	46	25	19	18
3	26	71	52	50	34	213	135	138	45	25	19	17
4	26	60	52	47	37	183	135	135	44	24	19	17
5	26	53	58	47	37	166	132	129	44	24	19	17
6	27	51	61	49	34	155	132	124	43	23	18	17
7	40	57	54	45	33	152	129	115	43	23	18	17
8	32	113	52	45	33	154	151	114	43	22	18	17
9	30	74	50	53	37	160	140	114	43	22	18	18
10	77	95	48	48	37	166	146	123	48	22	17	18
11	171	87	48	45	35	177	153	107	48	22	17	30
12	64	76	69	45	34	169	166	99	45	21	16	50
13	55	68	60	45	36	161	165	91	42	21	16	30
14	43	66	52	44	82	159	168	85	40	21	22	23
15	39	66	49	42	63	158	177	81	38	20	94	19
16	37	179	49	42	60	160	170	77	37	20	53	19
17	36	157	49	42	79	172	162	72	35	22	31	19
18	35	126	47	42	74	207	171	69	34	22	28	19
19	34	106	46	42	195	209	168	68	33	19	29	19
20	33	94	45	40	159	183	171	65	32	19	26	19
21	32	83	43	40	137	184	179	62	31	19	24	19
22	32	73	72	40	121	188	180	61	31	19	24	18
23	32	66	62	39	113	188	181	59	31	19	24	18
24	32	59	56	39	106	184	176	57	29	19	23	18
25	32	55	55	38	98	191	180	57	28	19	22	18
26	516	53	53	36	92	174	165	55	28	18	21	18
27	330	60	53	36	87	165	153	52	27	18	20	18
28	144	68	53	35	100	157	147	52	27	17	20	18
29	103	53	57	35	306	150	140	51	26	18	20	19
30	139	52	56	35	---	148	141	50	25	18	19	20
31	137	---	54	35	---	148	---	49	---	17	19	---
TOTAL	2410	2421	1657	1318	2327	5649	4699	2702	1114	643	751	605
MEAN	77.7	80.7	53.5	42.5	80.2	182	157	87.2	37.1	20.7	24.2	20.2
MAX	516	179	72	53	306	396	181	146	48	25	94	50
MIN	25	51	43	35	33	148	129	49	25	17	16	17
AC-FT	4780	4800	3290	2610	4620	11200	9320	5360	2210	1280	1490	1200

CAL YR 1975	TOTAL	92544	MEAN 254	MAX	3280	MIN 25	AC-FT	183600
WTR YR 1976	TOTAL	26296	MEAN 71.8	MAX	516	MIN 16	AC-FT	52160

11433300 MIDDLE FORK AMERICAN RIVER NEAR FORESTHILL, CA

LOCATION.--Lat 39°00'23", long 120°45'40", in NW¼NW¼ sec.4, T.13 N., R.11 E., Placer County, Tahoe National Forest, on right bank 1.7 mi (2.7 km) downstream from Oxbow powerhouse, and 3.2 mi (5.1 km) east of Foresthill.

DRAINAGE AREA.--524 mi^2 (1,357 km^2).

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

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,060 ft (323 m), from topographic map. Prior to Oct. 22, 1965, at site 3.2 mi (5.1 km) downstream at different datum.

REMARKS.--Flow regulated by French Meadows Reservoir (station 11427400), Hell Hole Reservoir (station 11428700), Loon Lake (station 11429350), Stumpy Meadows Lake, usable capacity, 20,000 acre-ft (24.7 hm^3), and Ralston and Oxbow powerplants. Robbs Peak tunnel (station 11429800) and Georgetown Divide ditch, capacity, about 25 ft^3/s (0.71 m^3/s) divert water out of basin above station. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Power Commission Project.

AVERAGE DISCHARGE.--18 years, 1,096 ft^3/s (31.04 m^3/s), 794,100 acre-ft/yr (979 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 310,000 ft^3/s (8,780 m^3/s) Dec. 23, 1964, gage height, 69.0 ft (21.03'm) from floodmarks, site and datum then in use, caused by overtopping of the partly constructed Hell Hole Dam on the Rubicon River, from rating curve extended above 28,000 ft^3/s (793 m^3/s) on basis of slope-area measurement at gage height 38.0 ft (11.58 m) and slope-conveyance study at gage height 69.0 ft (21.03 m) at site and datum then in use; next highest peak, 113,000 ft^3/s (3,200 m^3/s) Feb. 1, 1963, gage height, 38.00 ft (11.582 m) site and datum then in use; minimum, 35 ft^3/s (0.99 m^3/s) Oct. 10, 20, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,920 ft^3/s (54.4 m^3/s) Oct. 26, gage height, 8.13 ft (2.478 m); minimum daily, 64 ft^3/s (1.81 m^3/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	1130	294	189	200	1100	1580	601	278	114	93	65	290
2	1130	255	211	142	1110	1410	522	312	121	131	66	406
3	1130	233	198	183	1110	1360	315	404	84	86	67	76
4	1130	215	191	227	1120	1330	304	293	123	87	67	78
5	1130	198	214	161	1130	1250	380	284	84	315	67	106
6	1080	175	206	181	1110	1270	291	340	118	80	67	78
7	1170	253	203	164	1100	1300	515	324	105	80	79	471
8	1150	464	198	194	1110	1300	360	252	128	77	67	866
9	1130	611	195	167	1120	1300	310	258	83	79	67	863
10	938	227	183	537	1140	1300	346	312	124	82	69	861
11	1310	122	158	631	1120	1060	349	280	121	82	71	113
12	1220	121	264	183	1120	1310	412	550	114	82	71	135
13	1220	118	210	119	1130	1310	416	738	116	81	72	647
14	1170	117	200	116	1200	1300	396	258	448	80	78	937
15	1150	121	190	106	1200	1300	400	269	464	80	144	947
16	1150	430	166	89	1210	1300	386	169	490	80	117	970
17	1140	320	186	91	1150	1310	355	154	413	80	90	974
18	1130	292	164	325	1010	1320	388	157	74	79	87	123
19	1130	274	160	91	1340	1280	521	176	75	79	87	119
20	1120	227	200	75	1290	1330	397	172	93	78	86	648
21	1120	228	170	354	1270	1320	370	192	89	78	85	946
22	1120	222	245	233	1080	1290	375	146	82	300	84	920
23	1120	209	188	212	1240	1140	348	130	190	181	104	941
24	950	292	217	992	1090	1310	358	129	367	201	131	787
25	907	186	197	1070	1070	1330	347	135	414	209	145	75
26	1090	187	183	1090	1220	1310	314	369	249	218	225	77
27	742	243	207	1080	1210	1300	347	323	208	234	270	79
28	379	206	193	1020	1090	1300	365	193	360	233	213	82
29	272	186	205	1100	1420	1110	347	118	122	125	383	136
30	412	200	177	1080	---	635	335	93	92	64	451	1020
31	365	---	209	1060	---	518	---	114	---	65	418	---
TOTAL	31335	7226	6077	13273	33610	38783	11470	7922	5665	3819	4093	14771
MEAN	1011	241	196	428	1159	1251	382	256	189	123	132	492
MAX	1310	611	264	1100	1420	1580	601	738	490	315	451	1020
MIN	272	117	158	75	1010	518	291	93	74	64	65	75
AC-FT	62150	14330	12050	26330	66670	76930	22750	15710	11240	7570	8120	29300

CAL YR 1975	TOTAL	379937	MEAN	1041	MAX	7880	MIN 117	AC-FT	753600
WTR YR 1976	TOTAL	178044	MEAN	486	MAX	1580	MIN 64	AC-FT	353200

11433400 CANYON CREEK NEAR GEORGETOWN, CA

LOCATION.--Lat 38°56'03", long 120°52'21", in SW¼NW¼ sec.33, T.13 N., R.10 E., El Dorado County, Eldorado National Forest, on right bank 0.7 mi (1.1 km) downstream from West Canyon, and 2.6 mi (4.2 km) northwest of Georgetown.

DRAINAGE AREA.--12.5 mi^2 (32.4 km^2)

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 1,995 ft (608 m), from topographic map.

REMARKS.--Records good. Small diversions above station for irrigation and domestic purposes. See schematic diagram of Middle Fork American and Rubicon River basins.

AVERAGE DISCHARGE.--10 years, 19.4 ft^3/s (0.549 m^3/s), 14,060 acre-ft/yr (17.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,300 ft^3/s (36.8 m^3/s) Jan. 21, 1970, gage height, 11.01 ft (3.356 m); minimum daily, 0.80 ft^3/s (0.023 m^3/s) July 27, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 58 ft^3/s (1.64 m^3/s) Oct. 26, gage height, 5.87 ft (1.789 m), no peak above base of 170 ft^3/s (4.81 m^3/s); minimum daily, 0.80 ft^3/s (0.023 m^3/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	2.8	11	9.8	6.6	4.8	21	3.1	7.0	2.2	1.3	2.0	1.6
2	2.8	10	9.8	6.5	4.4	13	3.1	6.5	2.1	1.3	1.5	1.6
3	3.1	10	9.5	5.9	4.5	14	3.1	6.5	2.2	1.4	1.6	1.6
4	6.9	8.8	9.5	6.0	5.8	14	3.1	6.3	2.4	1.8	1.7	1.5
5	7.3	9.7	9.9	6.3	5.6	12	3.4	6.6	3.1	1.6	1.5	1.4
6	6.3	12	9.1	6.5	5.4	11	3.5	5.4	3.1	1.4	1.4	1.3
7	7.3	12	8.6	6.4	5.2	9.4	3.3	3.9	2.8	1.3	1.4	1.3
8	6.3	9.9	8.3	6.3	5.6	8.9	6.2	3.5	2.9	1.2	1.3	1.3
9	6.4	8.5	8.3	7.8	5.8	8.4	5.5	3.5	3.6	1.1	1.2	1.2
10	19	15	8.1	7.4	5.5	8.0	5.2	3.5	4.1	1.1	1.1	1.3
11	15	11	8.0	6.7	5.3	7.3	8.2	6.3	3.6	1.0	.89	6.1
12	7.7	8.9	14	6.6	5.2	5.6	8.5	3.8	3.6	1.4	.85	3.2
13	6.0	12	12	6.5	6.5	5.1	8.7	3.6	3.1	1.7	.89	2.2
14	6.0	12	10	6.2	14	4.8	10	3.4	2.8	1.9	2.0	2.2
15	4.5	11	9.5	6.3	11	4.6	8.7	3.0	2.9	1.4	9.4	3.4
16	3.3	19	8.4	6.0	11	4.3	7.3	2.8	2.3	1.3	3.6	3.3
17	3.1	13	8.5	6.1	12	4.0	6.6	2.7	1.8	1.4	4.0	2.8
18	3.3	12	8.6	5.9	10	4.3	7.7	2.7	1.9	1.5	4.0	2.4
19	3.2	11	9.8	5.7	27	5.8	6.9	2.7	2.1	1.4	4.1	2.2
20	4.0	11	8.7	5.7	15	5.1	5.0	3.1	2.0	1.3	3.8	2.0
21	5.2	10	8.5	5.7	12	4.3	8.6	3.7	2.1	1.2	3.6	1.8
22	5.6	9.9	17	5.6	11	4.0	5.8	3.6	2.1	1.1	4.1	1.8
23	3.6	9.8	13	5.3	11	3.7	5.3	4.0	2.0	.98	3.6	1.8
24	3.6	9.8	11	5.4	9.5	3.6	6.8	3.6	1.8	.96	2.9	1.8
25	4.8	10	9.5	5.3	8.6	3.6	6.5	2.7	1.6	.98	3.1	1.8
26	30	11	9.3	5.3	8.1	3.8	6.6	2.6	1.3	.93	3.0	1.7
27	11	12	9.3	5.0	7.6	3.5	6.7	2.4	1.3	.80	3.0	1.8
28	5.0	12	8.5	5.0	7.5	3.4	6.8	2.4	1.2	.83	2.3	1.8
29	6.3	11	8.5	4.9	23	3.3	8.0	2.4	1.2	.88	2.1	2.0
30	18	9.8	9.3	4.8	---	3.3	7.2	2.4	1.3	.89	1.9	2.0
31	13	---	6.9	4.8	---	3.1	---	2.3	---	1.5	1.7	---
TOTAL	230.4	333.1	299.2	184.5	267.9	210.2	185.4	118.9	70.5	38.85	79.53	62.2
MEAN	7.43	11.1	9.65	5.95	9.24	6.78	6.18	3.84	2.35	1.25	2.57	2.07
MAX	30	19	17	7.8	27	21	10	7.0	4.1	1.9	9.4	6.1
MIN	2.8	8.5	6.9	4.8	4.4	3.1	3.1	2.3	1.2	.80	.85	1.2
AC-FT	457	661	593	366	531	417	368	236	140	77	158	123

CAL YR 1975 TOTAL 5299.80 MEAN 14.5 MAX 403 MIN 2.8 AC-FT 10510
WTR YR 1976 TOTAL 2080.68 MEAN 5.68 MAX 30 MIN .80 AC-FT 4130

11433400 CANYON CREEK NEAR GEORGETOWN, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: July 1966 to current year.
INSTRUMENTATION.--Temperature recorder since July 1966.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1967-72, 1974-76), 23.5°C July 22, 1966; minimum, 0.5°C Jan. 2, 3, 31, Feb. 1, 1975.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 22.0°C July 26; minimum, 1.0°C Jan. 2.

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	13.5	10.5	9.0	7.5	6.0	5.0	2.5	1.5	6.0	3.5	7.0	4.5
2	14.0	11.0	9.0	7.5	6.5	5.0	2.5	1.0	5.5	3.5	5.0	4.0
3	14.0	11.0	9.5	7.5	6.5	5.0	3.5	1.5	5.5	3.0	6.0	4.0
4	13.5	10.5	9.5	8.0	7.0	5.0	3.5	1.5	5.0	3.0	5.5	3.5
5	13.5	10.5	10.0	7.5	8.5	7.0	4.5	3.5	4.0	3.0	6.0	3.0
6	12.0	11.0	10.5	9.0	8.5	6.5	4.0	3.0	4.5	3.0	6.5	3.0
7	11.5	9.0	11.0	9.0	6.5	5.5	4.0	2.5	4.5	2.5	7.0	3.5
8	11.0	8.5	10.5	8.5	6.5	5.0	4.0	2.5	6.5	3.5	7.5	4.5
9	10.0	8.5	8.5	7.0	6.5	5.0	4.5	3.5	6.5	4.5	8.0	4.0
10	10.5	9.5	9.5	8.0	6.5	4.5	4.0	3.0	5.5	3.5	8.0	4.5
11	10.5	9.0	8.0	6.5	6.5	4.5	4.5	3.0	5.5	3.0	8.5	5.5
12	10.0	7.5	8.0	6.0	7.5	6.0	4.5	3.0	5.5	3.5	8.5	4.0
13	9.5	7.5	8.0	6.0	6.5	5.0	4.0	3.0	6.0	3.5	9.0	4.5
14	9.5	7.0	9.0	6.5	5.0	3.5	4.0	3.0	6.5	5.5	9.0	5.0
15	10.0	7.5	9.5	8.0	4.0	3.0	4.5	3.0	6.5	5.5	9.5	4.5
16	10.0	7.5	10.0	8.5	4.0	3.0	4.5	3.0	6.0	5.0	10.5	6.5
17	11.5	7.5	8.5	6.0	4.0	3.0	5.0	3.0	7.5	5.5	11.0	7.0
18	12.0	9.5	6.0	5.0	3.5	2.5	5.0	3.0	8.5	6.5	8.5	7.0
19	11.5	9.0	6.0	4.0	4.0	3.0	4.5	3.0	7.0	5.5	9.0	6.0
20	11.5	9.0	7.0	6.0	3.5	2.5	4.0	2.5	6.5	4.0	9.0	5.0
21	11.5	9.5	6.0	5.0	4.5	3.0	4.0	2.5	6.5	4.0	10.0	5.0
22	11.5	9.0	6.5	5.0	6.0	4.5	4.0	2.5	6.5	4.0	10.0	5.5
23	9.5	7.5	6.5	5.0	5.5	4.5	5.0	2.5	6.0	3.5	10.5	7.5
24	9.0	7.0	6.5	5.0	5.5	4.0	4.5	3.0	6.5	3.5	9.5	6.0
25	9.5	7.5	7.0	5.5	5.5	4.0	3.5	2.0	7.0	5.0	9.0	5.0
26	10.5	8.5	7.5	5.5	6.0	4.0	4.0	2.0	8.5	5.5	9.5	5.0
27	10.0	8.0	8.0	7.0	6.5	5.0	4.5	2.0	8.0	5.0	9.5	5.5
28	9.0	7.0	7.0	5.5	6.0	4.5	4.5	2.5	9.5	7.0	10.0	5.5
29	9.0	6.5	6.0	4.0	5.5	4.5	5.5	2.5	8.0	7.5	10.5	5.0
30	9.5	8.0	6.5	5.0	5.5	4.0	5.5	3.5	---	---	11.0	5.5
31	9.0	7.5	---	---	4.0	2.5	5.5	3.0	---	---	8.5	6.0
MONTH	14.0	6.5	11.0	4.0	8.5	2.5	5.5	1.0	9.5	2.5	11.0	3.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.0	5.0	16.0	9.5	16.0	10.0	17.5	11.5	19.5	15.5	17.5	13.0
2	10.5	5.0	15.5	9.5	16.0	10.0	18.0	11.5	19.5	14.5	17.5	13.0
3	9.0	5.5	16.0	10.0	15.5	9.5	18.5	12.0	17.0	15.0	17.5	13.0
4	9.0	5.5	16.0	10.5	15.5	9.5	19.0	12.5	18.0	13.0	17.5	13.0
5	8.0	6.5	16.0	11.5	15.5	9.5	19.5	13.0	17.5	13.0	17.0	14.0
6	10.5	7.0	16.0	11.0	15.5	10.0	19.5	13.0	17.5	13.5	17.0	13.0
7	11.5	6.0	17.0	10.5	15.0	10.0	19.5	13.0	17.5	13.0	17.0	12.5
8	9.0	7.5	17.0	11.0	15.0	10.0	20.0	13.0	18.0	13.0	17.0	13.0
9	11.0	6.0	17.5	11.5	14.5	11.5	20.5	15.0	18.5	13.0	17.0	12.5
10	8.5	7.0	17.0	12.0	14.0	10.5	20.5	13.0	19.0	13.5	16.0	13.0
11	10.0	7.0	17.0	11.5	15.0	10.0	20.0	13.5	19.0	13.0	15.5	14.0
12	10.5	7.5	18.0	11.5	16.0	10.0	19.5	14.5	19.0	13.5	15.5	13.0
13	11.0	6.5	19.0	12.0	17.0	11.5	19.5	13.0	17.5	13.5	15.5	12.0
14	11.5	6.5	17.5	12.0	17.5	11.0	19.5	12.5	16.0	14.5	16.0	12.5
15	10.5	7.5	17.5	10.5	18.0	11.5	19.5	14.5	15.0	13.5	15.5	12.5
16	10.0	5.5	17.5	11.0	18.5	11.5	20.5	16.0	15.0	13.0	14.5	12.0
17	11.5	5.5	16.5	10.0	18.5	12.0	19.5	14.5	14.5	12.0	15.0	12.5
18	12.5	8.5	15.5	9.5	19.0	12.5	20.0	14.0	15.0	11.5	15.0	12.0
19	13.5	8.0	15.5	9.5	18.5	12.5	19.5	14.0	16.5	11.5	15.0	12.0
20	14.5	8.0	15.5	9.5	18.5	12.5	20.0	14.5	17.5	13.0	15.0	12.0
21	13.5	8.5	16.0	11.5	17.5	13.0	20.0	13.5	17.5	12.5	14.5	11.5
22	14.5	9.0	16.5	11.0	18.0	12.0	20.0	13.5	16.5	14.5	14.0	10.5
23	14.5	8.5	16.0	10.5	19.0	11.5	21.0	16.5	17.0	13.0	14.0	10.5
24	15.5	9.5	15.5	10.0	19.0	12.5	21.0	15.5	17.5	13.0	14.0	10.5
25	14.0	9.0	16.5	11.0	19.5	12.5	21.5	16.0	17.5	13.0	14.0	10.5
26	13.0	8.0	17.5	11.0	19.0	12.0	22.0	17.0	17.0	13.0	14.0	11.0
27	13.0	7.5	17.5	11.5	19.5	11.5	21.5	16.0	17.0	13.0	14.5	11.5
28	13.5	7.5	15.5	10.0	19.5	12.5	20.0	17.0	17.5	13.0	15.0	11.5
29	14.0	8.0	15.5	9.5	19.0	13.5	20.5	17.0	17.5	13.0	14.0	11.5
30	15.5	9.0	16.0	10.5	18.0	12.5	19.5	16.0	17.5	12.5	14.5	11.0
31	---	---	16.5	11.5	---	---	18.0	15.0	17.5	13.0	---	---
MONTH	15.5	5.0	19.0	9.5	19.5	9.5	22.0	11.5	19.5	11.5	17.5	10.5

11433420 MAINE BAR CANYON CREEK NEAR GREENWOOD, CA

LOCATION.--Lat 38°55'34", long 120°56'51", in NW¼NW¼ sec.2, T.12 N., R.9 E., El Dorado County, on right bank 2.8 mi (4.5 km) northwest of Greenwood, and 4.5 mi (7.2 km) northeast of Cool.

DRAINAGE AREA.--0.76 mi^2 (1.97 km^2).

PERIOD OF RECORD.--March to September 1972 (discharge measurements only), October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,520 ft (463 m), from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 79 ft^3/s (2.24 m^3/s) Jan. 12, 1973, gage height, 1.82 ft (0.555 m); no flow July 26-28, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6.4 ft^3/s (0.18 m^3/s) Nov. 16, gage height, 0.70 ft (0.213 m), no peak above base of 20 ft^3/s (0.57 m^3/s); no flow July 26-28.

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	.03	.21	.15	.15	.15	1.1	.14	.13	.03	.02	.03	.01
2	.04	.17	.11	.15	.15	1.1	.14	.13	.03	.02	.02	.01
3	.09	.15	.11	.15	.15	1.0	.15	.13	.03	.02	.04	.01
4	.14	.15	.11	.15	.19	.79	.15	.13	.03	.02	.03	.01
5	.15	.16	.25	.15	.17	.63	.15	.13	.03	.02	.02	.01
6	.14	.21	.16	.13	.15	.53	.15	.13	.03	.02	.03	.01
7	.15	.41	.15	.11	.15	.46	.17	.11	.04	.02	.02	.01
8	.14	.33	.15	.11	.15	.41	.49	.11	.04	.01	.02	.01
9	.14	.31	.15	.34	.15	.37	.25	.10	.04	.02	.02	.01
10	.90	.72	.15	.22	.15	.33	.35	.10	.05	.01	.01	.01
11	.33	.33	.15	.18	.15	.30	.31	.09	.04	.01	.01	.47
12	.19	.25	1.2	.15	.15	.27	.30	.08	.03	.02	.01	.10
13	.11	.21	.50	.15	.45	.27	.24	.07	.03	.02	.01	.06
14	.11	.21	.31	.15	.92	.21	.20	.05	.02	.01	.07	.06
15	.11	.95	.27	.15	.48	.20	.21	.08	.02	.01	.35	.07
16	.08	1.9	.21	.15	.92	.18	.18	.08	.02	.01	.06	.04
17	.07	.49	.21	.15	.76	.18	.18	.08	.02	.01	.05	.04
18	.08	.38	.18	.15	.53	.23	.19	.09	.02	.02	.06	.04
19	.10	.31	.15	.15	1.4	.19	.15	.09	.02	.02	.04	.03
20	.10	.27	.15	.15	.74	.18	.15	.09	.02	.02	.04	.03
21	.11	.27	.15	.15	.54	.15	.15	.08	.03	.02	.04	.03
22	.11	.21	.46	.15	.44	.15	.15	.08	.02	.01	.05	.03
23	.15	.21	.26	.15	.37	.15	.14	.08	.02	.01	.04	.03
24	.17	.18	.21	.15	.31	.15	.14	.08	.02	.01	.04	.03
25	.23	.17	.21	.15	.27	.15	.14	.08	.02	.01	.03	.03
26	1.8	.19	.20	.15	.27	.15	.14	.07	.01	0	.03	.04
27	.35	.28	.15	.15	.27	.15	.14	.07	.01	0	.03	.04
28	.18	.22	.15	.15	.27	.15	.14	.08	.01	0	.02	.04
29	.14	.21	.15	.15	1.7	.14	.14	.08	.01	.01	.02	.05
30	.90	.17	.15	.15	---	.13	.13	.08	.02	.01	.02	.04
31	.30	---	.15	.15	---	.15	---	.05	---	.02	.01	---
TOTAL	7.64	10.23	7.06	4.84	12.50	10.55	5.66	2.83	.76	.43	1.27	1.40
MEAN	.25	.34	.23	.16	.43	.34	.19	.091	.025	.014	.041	.047
MAX	1.8	1.9	1.2	.34	1.7	1.1	.49	.13	.05	.02	.35	.47
MIN	.03	.15	.11	.11	.15	.13	.13	.05	.01	0	.01	.01
AC-FT	15	20	14	9.6	25	21	11	5.6	1.5	.9	2.5	2.8

CAL YR 1975 TOTAL 286.58 MEAN .79 MAX 19 MIN .02 AC-FT 568
WTR YR 1976 TOTAL 65.17 MEAN .18 MAX 1.9 MIN 0 AC-FT 129

11433500 MIDDLE FORK AMERICAN RIVER NEAR AUBURN, CA

LOCATION.--Lat 38°55'05", long 121°00'51", in NE¼SW¼ sec.6, T.12 N., R.9 E., Placer County, on right bank at Mountain Quarry Co. plant, 1.4 mi (2.2 km) upstream from mouth, and 3.3 mi (5.3 km) northeast of Auburn.

DRAINAGE AREA.--614 mi^2 (1,590 km^2).

PERIOD OF RECORD.--October 1911 to current year. Prior to October 1934, published as "near East Auburn."

REVISED RECORDS.--WSP 861: 1928. WSP 1315-A: 1913-15, 1919, 1921, 1923(M), 1929(M), 1930. WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 552.35 ft (168.356 m) above mean sea level (levels by Murray Engineers). Prior to December 1930, nonrecording gages near present site at different datums. December 1930 to Mar. 1, 1963, water-stage recorder at site 0.4 mi (0.6 km) upstream at different datum.

REMARKS.--Records good. Natural flow of stream affected by French Meadows Reservoir (station 11427400), Hell Hole Reservoir (station 11428700), Loon Lake (station 11429350), Stumpy Meadows Lake, usable capacity, 20,000 acre-ft (24.7 hm^3), diversion dams on Rubicon and Little Rubicon Rivers, and Ralston and Oxbow powerplants. Robbs Peak powerplant (station 11429300) diverts water out of basin. See schematic diagram of Middle Fork American and Rubicon River basin.

AVERAGE DISCHARGE.--65 years, 1,328 ft^3/s (37.61 m^3/s), 962,100 acre-ft/yr (1.19 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 253,000 ft^3/s (7,160 m^3/s) Dec. 23, 1964, gage height, 60.4 ft (18.41 m) from floodmarks, from rating curve extended above 69,000 ft^3/s (1,950 m^3/s) on basis of slope-area measurement of maximum flow (caused by overtopping of the partly constructed Hell Hole Dam); next highest peak, 121,000 ft^3/s (3,430 m^3/s) Feb. 1, 1963, gage height, 43.1 ft (13.14 m) from floodmarks, site and datum then in use; minimum, 20 ft^3/s (0.57 m^3/s) Sept. 6, 1931, Sept. 19, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,800 ft^3/s (51.0 m^3/s) Oct. 26, gage height, 8.15 ft (2.484 m); minimum daily, 60 ft^3/s (1.70 m^3/s) July 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	990	341	196	227	1010	1530	546	336	101	85	62	306
2	989	282	203	155	1020	1340	479	280	86	85	64	368
3	987	256	195	181	1020	1270	460	355	99	116	64	268
4	992	237	217	243	1030	1240	281	339	95	82	63	79
5	994	211	207	138	1050	1180	352	283	85	106	63	75
6	958	198	221	208	1030	1160	300	312	99	252	63	96
7	1030	224	208	192	1020	1190	479	305	83	77	63	115
8	1020	321	196	178	1020	1190	322	303	99	72	74	797
9	1010	555	193	205	1030	1190	320	242	104	69	64	798
10	879	503	199	325	1040	1190	310	280	114	69	63	782
11	1210	163	185	688	1030	1050	350	302	119	70	64	439
12	1100	141	253	369	1030	1110	375	304	97	70	68	139
13	1100	137	244	147	1040	1180	401	705	109	70	66	262
14	1060	134	223	134	1140	1180	381	499	213	70	72	869
15	1060	139	201	122	1110	1180	408	230	371	70	93	868
16	1050	281	202	112	1130	1180	394	255	501	72	163	901
17	1050	443	208	103	1080	1190	349	163	435	72	104	893
18	1060	308	188	268	979	1190	374	152	281	72	93	460
19	1050	267	190	156	1250	1170	542	153	80	72	90	88
20	1050	247	198	103	1240	1200	314	175	75	72	90	290
21	1080	244	186	188	1180	1200	392	165	98	72	86	863
22	1080	230	252	334	1050	1200	358	171	78	122	86	839
23	1060	212	261	173	1090	1130	349	133	77	217	90	866
24	1060	212	225	691	1020	1120	339	134	228	205	104	818
25	920	273	212	1000	993	1210	330	122	377	182	131	327
26	829	214	218	1010	1070	1190	326	145	313	179	134	83
27	1090	209	205	1010	1100	1180	313	421	230	206	233	78
28	508	237	206	947	1020	1180	366	233	247	206	205	78
29	325	222	206	1020	1260	1140	348	169	270	196	214	79
30	376	199	209	1010	---	555	324	107	113	74	412	645
31	438	---	184	1000	---	591	---	106	---	60	421	---
TOTAL	29405	7640	6491	12637	31082	35806	11182	7879	5277	3442	3662	13569
MEAN	949	255	209	408	1072	1155	373	254	176	111	118	452
MAX	1210	555	261	1020	1260	1530	546	705	501	252	421	901
MIN	325	134	184	103	979	555	281	106	75	60	62	75
AC-FT	58320	15150	12870	25070	61650	71020	22180	15630	10470	6830	7260	26910

CAL YR 1975 TOTAL 382919 MEAN 1049 MAX 9900 MIN 125 AC-FT 759500
WTR YR 1976 TOTAL 168072 MEAN 459 MAX 1530 MIN 60 AC-FT 333400

11433800 NORTH FORK AMERICAN RIVER BELOW AUBURN DAMSITE, NEAR AUBURN, CA

LOCATION.--Lat 38°52'20", long 121°03'18", in SE¼SW¼ sec.23, T.12 N., R.8 E., Placer County, on right bank 1,080 ft (329 m) upstream from Knickerbocker Creek, and 2.0 mi (3.2 km) southeast of Auburn.

DRAINAGE AREA.--973 mi^2 (2,520 km^2).

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

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

REMARKS.--Records good. Natural flow of stream affected by many reservoirs and diversions (see REMARKS for stations 11427000, 11433500).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,100 ft^3/s (966 m^3/s) Jan. 17, 1974, gage height, 79.37 ft (24.192 m); minimum daily, 89 ft^3/s (2.52 m^3/s) July 31, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,770 ft^3/s (135 m^3/s) Oct. 26, gage height, 65.77 ft (20.047 m); minimum daily, 89 ft^3/s (2.52 m^3/s) July 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	1030	637	378	377	1140	2630	887	967	251	136	90	402
2	1030	550	382	350	1160	2070	830	1020	230	133	90	334
3	1030	495	402	354	1160	1700	796	964	248	165	92	384
4	1030	449	419	398	1170	1290	630	1060	222	132	93	114
5	1040	408	415	319	1210	1480	683	930	217	126	94	106
6	1020	382	469	369	1170	1540	669	912	213	327	90	124
7	1090	386	451	353	1160	1600	777	850	195	123	90	104
8	1110	745	417	348	1150	1600	733	912	207	116	100	763
9	1080	847	405	367	1160	1610	763	842	217	112	92	824
10	989	822	399	487	1190	1620	681	846	202	112	92	814
11	1580	466	374	861	1190	1540	758	873	233	112	94	577
12	1390	395	456	576	1170	1510	762	825	240	112	94	210
13	1280	379	495	342	1190	1590	801	1190	225	109	92	243
14	1200	375	442	303	1400	1580	775	1120	221	108	100	942
15	1160	390	405	286	1400	1590	758	735	487	106	172	917
16	1150	824	385	275	1410	1610	792	677	551	106	302	944
17	1140	1170	391	263	1410	1650	702	562	532	105	200	933
18	1130	719	368	372	1300	1750	703	526	456	105	155	602
19	1130	585	371	393	924	1760	877	477	154	105	145	134
20	1120	528	366	265	1070	1700	765	456	141	104	141	235
21	1110	496	344	270	1190	1670	936	431	158	101	135	907
22	1110	468	443	498	1350	1690	934	418	143	103	132	908
23	1100	437	495	352	1360	1660	972	374	138	296	134	901
24	1110	420	437	750	1320	1580	971	351	231	219	149	842
25	964	469	411	1160	1260	1690	1040	335	400	219	175	442
26	1660	395	422	1160	1300	1630	951	334	432	218	168	120
27	2680	396	399	1160	1360	1590	828	557	288	236	231	112
28	1000	468	402	1110	1300	1560	791	458	244	240	287	112
29	631	426	400	1140	1910	1520	776	363	382	235	220	112
30	672	372	418	1150	---	885	827	272	164	114	405	583
31	815	---	401	1150	---	923	---	265	---	89	458	---
TOTAL	35581	15899	12762	17558	36484	49818	24168	20902	8022	4624	4912	14745
MEAN	1148	530	412	566	1258	1607	806	674	267	149	158	492
MAX	2680	1170	495	1160	1910	2630	1040	1190	551	327	458	944
MIN	631	372	344	263	924	885	630	265	138	89	90	104
AC-FT	70570	31540	25310	34830	72370	98810	47940	41460	15910	9170	9740	29250

CAL YR 1975 TOTAL 681267 MEAN 1866 MAX 17500 MIN 255 AC-FT 1351000
WTR YR 1976 TOTAL 245475 MEAN 671 MAX 2680 MIN 89 AC-FT 486900

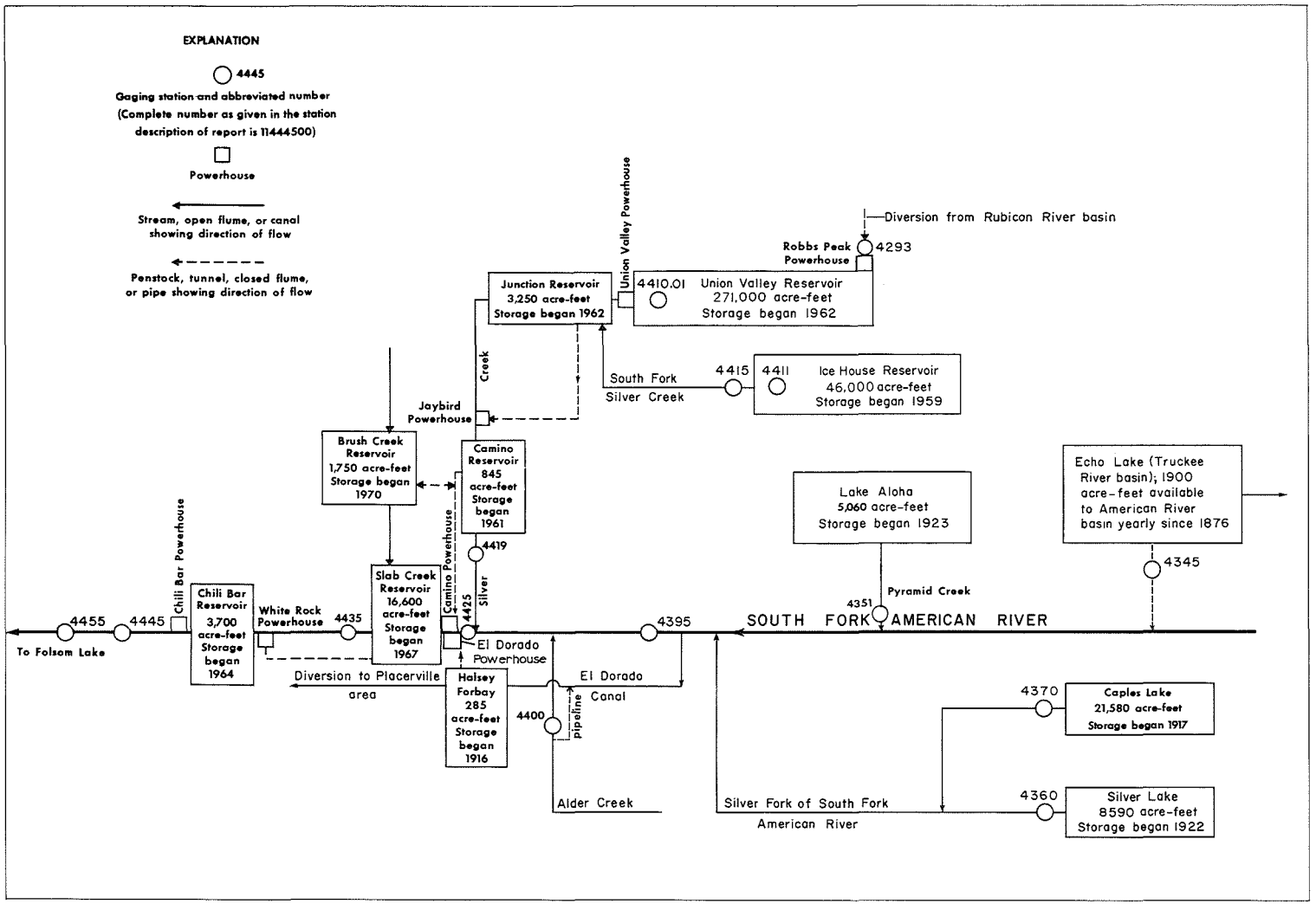

FIGURE 11.--Schematic diagram showing diversions and storage in South Fork American River basin.

11434500 ECHO LAKE CONDUIT NEAR PHILLIPS, CA

LOCATION.--Lat 38°49'52", long 120°02'12", in NW¼ sec.6, T.11 N., R.18 E., El Dorado County, Eldorado National Forest, on right bank in Berkeley Municipal Camp, 0.5 mi (0.8 km) downstream from intake, and 2.4 mi (3.9 km) northeast of Phillips.

PERIOD OF RECORD.--August 1923 to current year. Prior to October 1974 diversion seasons only. Monthly discharge only for July 1933, published in WSP 1315-A. Published as Echo Lake flume near Vade prior to 1943 and as Echo Lake conduit near Vade for seasons 1944-53.

GAGE.--Water-stage recorder. Altitude of gage is 7,420 ft (2,262 m), from topographic map. Prior to July 16, 1929, nonrecording gage at site 0.4 mi (0.6 km) upstream at different datum.

REMARKS.--Conduit diverts from Echo Lake, capacity, 1,900 acre-ft (2.34 hm^3) in Truckee River basin into basin of South Fork American River for power and irrigation. See schematic diagram of South Fork American 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 daily discharge, 31 ft^3/s (0.88 m^3/s) Sept. 10, 1963, Sept. 13-15, 1971; no flow for most of 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	.43	25	12	4.9	3.6	7.1	5.0					0
2	.36	25	11	4.9	3.5	7.5	5.0					0
3	.27	25	11	4.7	3.5	7.5	5.0					0
4	.25	24	11	4.5	3.8	7.5	5.0					0
5	.20	24	10	4.6	3.8	7.7	5.0					0
6	.50	23	9.6	4.7	3.8	7.8	5.1					0
7	.64	23	9.4	4.6	3.8	7.9	5.2					15
8	.45	24	9.0	4.4	3.8	8.0	5.3					27
9	.38	24	8.6	4.3	3.9	8.1	5.6					27
10	.74	24	3.4	4.4	4.2	8.1	5.5					27
11	.88	23	.81	4.3	4.0	8.3	5.5					11
12	.77	23	.67	4.2	4.1	8.0	5.6					0
13	.74	23	.74	4.2	4.1	7.5	2.0					0
14	.81	22	.88	4.0	4.6	7.1	0					0
15	.84	21	7.0	4.0	5.0	6.7	0					0
16	.88	22	7.4	4.2	5.2	6.4	0					0
17	.88	22	7.5	4.1	5.2	6.0	0					0
18	14	21	7.4	4.0	5.2	5.6	0					0
19	20	21	7.1	4.0	5.4	5.6	0					0
20	19	20	6.7	3.9	5.5	6.5	0					0
21	18	20	6.5	3.9	5.5	6.5	0					0
22	15	19	6.7	3.8	5.3	6.4	0					0
23	15	18	6.6	3.8	5.1	6.2	0					0
24	16	17	6.4	3.8	4.7	6.1	0					0
25	16	16	6.3	3.8	4.9	5.9	0					0
26	20	9.4	6.0	3.8	5.2	5.7	0					0
27	18	12	5.7	3.8	5.1	5.6	0					0
28	22	15	5.6	3.7	5.1	5.4	0					10
29	26	14	5.5	3.7	5.5	5.2	0					27
30	25	13	5.2	3.6	---	5.1	0					27
31	25	---	4.9	3.6	---	4.8	---		---			---
TOTAL	279.02	612.4	206.60	128.2	132.4	207.8	64.8	0	0	0	0	171
MEAN	9.00	20.4	6.66	4.14	4.57	6.70	2.16	0	0	0	0	5.70
MAX	26	25	12	4.9	5.5	8.3	5.6	0	0	0	0	27
MIN	.20	9.4	.67	3.6	3.5	4.8	0	0	0	0	0	0
AC-FT	553	1210	410	254	263	412	129	0	0	0	0	339

CAL YR 1975 TOTAL 1823.52 MEAN 5.00 MAX 27 MIN 0 AC-FT 3620
WTR YR 1976 TOTAL 1802.22 MEAN 4.92 MAX 27 MIN 0 AC-FT 3570

11435100 PYRAMID CREEK AT TWIN BRIDGES, CA

LOCATION.--Lat 38°48'57", long 120°06'58", in NW¼SW¼ sec.9, T.11 N., R.17 E., El Dorado County, Eldorado National Forest, on right bank 0.5 mi (0.8 km) northeast of Twin Bridges, and 2.2 mi (3.5 km) west of Phillips.

DRAINAGE AREA.--8.76 mi^2 (22.69 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 6,320 ft (1,926 m), from topographic map.

REMARKS.--Flow regulated by Lake Aloha, capacity, 5,060 acre-ft (6.24 hm^3); no contents Sept. 30, 1975, and 588 acre-ft (688,000 m^3) Sept. 30, 1976. Lake of the Woods, Ropi Lake, and Toem Lakes (unknown capacities) are also regulated at times. See schematic diagram of South Fork American River basin. +588

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, 858 ft^3/s (24.3 m^3/s) June 26, 1971, gage height, 4.62 ft (1.408 m), from rating curve extended above 160 ft^3/s (4.53 m^3/s); minimum daily, 0.22 ft^3/s (0.006 m^3/s) Sept. 25, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 502 ft^3/s (14.2 m^3/s) Oct. 26, gage height, 3.80 ft (1.158 m), from rating curve extended as explained above; minimum daily, 1.2 ft^3/s (0.034 m^3/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	3.3	25	15	16	9.8	20	14	71	27	59	4.7	2.3
2	3.3	26	18	14	9.9	21	16	63	25	58	3.2	2.3
3	3.1	25	17	10	10	19	18	62	23	58	2.5	2.3
4	3.0	25	16	9.1	10	15	17	66	21	57	2.0	2.4
5	2.9	24	15	9.9	11	13	15	64	20	57	1.8	2.4
6	5.6	22	14	11	11	12	13	55	19	58	1.6	2.2
7	15	74	13	9.8	10	12	16	49	20	65	1.5	2.2
8	8.5	57	12	9.2	9.4	13	19	69	19	64	1.4	2.1
9	6.4	26	12	10	9.9	13	17	73	20	66	1.4	2.1
10	25	23	12	12	10	15	16	73	20	72	1.4	2.3
11	36	20	11	9.8	12	15	14	74	20	71	1.4	4.3
12	25	20	12	9.5	11	15	13	74	18	69	1.3	4.6
13	24	21	12	9.4	12	14	13	85	18	68	1.2	3.9
14	27	20	15	9.5	13	15	15	90	18	67	34	3.4
15	28	17	11	10	13	17	15	71	20	69	131	3.0
16	28	62	11	12	13	20	14	68	30	77	43	2.7
17	28	29	11	12	12	23	15	66	25	74	21	2.4
18	25	24	10	11	12	21	18	55	23	72	13	2.2
19	21	21	11	10	13	18	24	46	39	70	12	2.1
20	19	15	11	10	14	17	34	34	39	68	9.2	2.0
21	17	14	9.7	9.9	12	18	39	27	38	70	6.8	1.9
22	40	13	11	9.5	11	20	40	30	36	75	5.6	1.9
23	22	13	12	9.5	11	19	42	35	35	70	4.8	1.8
24	22	13	11	9.8	11	17	50	36	37	59	4.2	1.8
25	21	13	11	11	9.8	15	46	37	45	52	3.6	1.8
26	263	12	11	9.8	10	13	31	38	45	49	3.2	1.9
27	73	12	11	8.9	11	12	23	41	44	16	2.9	1.9
28	34	13	12	9.3	14	12	23	26	48	12	2.7	1.9
29	25	17	13	9.9	16	12	34	17	60	7.1	2.6	31
30	25	14	12	10	---	15	55	26	60	10	2.4	44
31	24	---	15	9.8	---	17	---	27	---	7.2	2.4	---
TOTAL	903.1	710	387.7	321.6	331.8	498	719	1648	912	1746.3	329.8	143.1
MEAN	29.1	23.7	12.5	10.4	11.4	16.1	24.0	53.2	30.4	56.3	10.6	4.77
MAX	263	74	18	16	16	23	55	90	60	77	131	44
MIN	2.9	12	9.7	8.9	9.4	12	13	17	18	7.1	1.2	1.8
AC-FT	1790	1410	769	638	658	988	1430	3270	1810	3460	654	284

CAL YR 1975 TOTAL 15958.3 MEAN 43.7 MAX 263 MIN 2.2 AC-FT 31650
WTR YR 1976 TOTAL 8650.4 MEAN 23.6 MAX 263 MIN 1.2 AC-FT 17160

11436000 SILVER LAKE OUTLET NEAR KIRKWOOD, CA

LOCATION.--Lat 38°40'17", long 120°07'18", in SW¼ sec.32, T.10 N., R.17 E., Amador County, Eldorado National Forest, on right bank 1,000 ft (305 m) downstream from Silver Lake Dam, and 3.5 mi (5.6 km) southwest of Kirkwood.

DRAINAGE AREA.--15.2 mi^2 (39.4 km^2).

PERIOD OF RECORD.--September 1922 to current year. Records for water year 1923 incomplete, yearly estimate published in WSP 1315-A.

REVISED RECORDS.--WDR CA-75-4: 1927(M), 1929(M), 1932(M), 1937-38(M), 1940-45(M), 1950-53(M), 1955-58(M), 1963(M), 1965(M), 1967(M), 1969-70(M), 1973(M).

GAGE.--Water-stage recorder. Datum of gage is 7,199.5 ft (2,194.41 m) above mean sea level, unadjusted.

REMARKS.--Flow regulated by Silver Lake 1,000 ft (305 m) upstream, capacity, 3,840 acre-ft (4.73 hm^3) at spillway level and 8,590 acre-ft (10.6 hm^3) with 11 ft (3.4 m) of flashboards; contents in Silver Lake, 3,280 acre-ft (4.04 hm^3) Sept. 30, 1975, and 4,450 acre-ft (5.49 hm^3) Sept. 30, 1976. Some water, in addition to that released through dam and over spillway, escapes from Silver Lake through porous rock formation. See schematic diagram of South Fork American River basin.

X 1170

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.--54 years, 34.3 ft^3/s (0.971 m^3/s), 24,850 acre-ft/yr (30.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft^3/s (31.2 m^3/s) Nov. 21, 1950, gage height, 6.03 ft (1.838 m), from rating curve extended above 430 ft^3/s (12.2 m^3/s); no flow many days in February, March 1948, Jan. 13, 14, 1954, Nov. 3, 1959, to Feb. 5, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 60 ft^3/s (1.70 m^3/s) Sept. 7, gage height, 1.66 ft (0.506 m); minimum daily, 1.7 ft^3/s (0.048 m^3/s) May 20, June 3, July 24, 25, 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	2.0	2.2	21	33	2.6	2.8	4.0	2.4	2.1	2.3	1.9	2.2
2	2.2	2.2	21	33	2.6	3.0	2.9	2.5	1.9	2.2	2.2	2.1
3	2.1	2.2	21	32	2.6	3.1	2.0	2.4	1.7	2.1	2.6	2.0
4	2.0	2.1	21	31	2.6	3.0	1.9	2.4	2.2	2.8	2.8	2.0
5	1.8	2.0	21	30	2.6	3.0	1.9	2.2	2.6	3.1	2.7	2.2
6	2.3	7.1	20	30	2.7	3.0	1.9	2.2	2.2	3.0	2.6	2.2
7	2.2	12	20	29	2.6	3.1	2.1	2.0	1.9	3.0	2.1	26
8	2.0	7.0	20	28	2.7	3.2	2.2	2.1	2.0	2.9	1.9	59
9	2.1	3.5	20	27	2.6	3.3	2.1	2.3	2.1	2.8	2.4	58
10	2.4	7.3	27	27	2.6	3.3	2.0	2.4	2.0	2.8	2.3	21
11	2.2	14	36	26	2.6	3.3	2.0	2.6	1.8	2.8	1.9	2.2
12	2.2	13	36	25	2.6	7.8	1.9	2.2	2.3	2.7	1.9	2.2
13	2.2	8.8	36	24	2.7	18	1.9	2.0	2.6	2.5	2.1	2.2
14	2.2	10	35	23	2.8	18	2.0	2.0	2.2	2.4	2.4	2.1
15	2.0	11	35	22	2.8	15	2.0	1.9	2.4	2.4	2.7	2.0
16	2.0	18	34	21	2.8	7.8	2.0	2.0	2.9	2.4	2.6	1.9
17	2.0	22	34	21	2.8	2.2	2.0	1.9	2.7	2.3	2.6	1.9
18	2.0	17	34	20	2.8	2.2	1.9	1.9	2.6	2.2	2.5	1.8
19	15	14	40	19	2.9	2.2	1.9	1.8	2.4	2.1	2.4	2.1
20	57	12	43	18	2.8	2.2	1.9	1.7	2.3	1.9	2.4	2.3
21	56	10	42	17	2.8	2.2	1.9	1.8	2.2	1.9	2.4	2.2
22	56	8.8	41	17	2.8	2.2	2.0	1.8	2.0	1.8	2.3	2.2
23	55	17	40	13	2.8	2.2	2.1	2.0	1.9	1.8	2.2	2.1
24	54	23	39	8.7	2.8	2.2	2.0	2.1	1.8	1.7	2.2	2.0
25	53	22	32	8.3	2.9	2.2	2.0	2.3	2.3	1.7	2.1	2.0
26	25	22	24	8.3	2.9	2.2	2.0	2.4	2.8	1.9	2.0	2.0
27	2.6	21	37	8.2	2.9	2.2	2.0	2.6	2.7	2.2	2.0	1.9
28	13	21	37	7.9	3.0	2.2	2.1	2.4	2.6	2.2	2.0	1.9
29	35	21	36	7.9	2.9	2.2	2.1	2.2	2.5	2.0	1.9	1.8
30	2.3	21	35	4.9	---	3.2	2.3	2.2	2.4	1.9	2.0	1.7
31	2.2	---	34	2.6	---	4.0	---	2.2	---	1.9	2.2	---
TOTAL	464.0	374.2	972	622.8	79.6	136.5	63.0	66.9	68.1	71.7	70.3	217.2
MEAN	15.0	12.5	31.4	20.1	2.74	4.40	2.10	2.16	2.27	2.31	2.27	7.24
MAX	57	23	43	33	3.0	18	4.0	2.6	2.9	3.1	2.8	59
MIN	1.8	2.0	20	2.6	2.6	2.2	1.9	1.7	1.7	1.7	1.9	1.7
AC-FT	920	742	1930	1240	158	271	125	133	135	142	139	431

CAL YR 1975 TOTAL 14486.4 MEAN 39.7 MAX 448 MIN 1.0 AC-FT 28730
WTR YR 1976 TOTAL 3206.3 MEAN 8.76 MAX 59 MIN 1.7 AC-FT 6360

11437000 CAPLES LAKE OUTLET NEAR KIRKWOOD, CA

LOCATION.--Lat 38°42'29", long 120°03'00", in SW¼SW¼ sec.18, T.10 N., R.18 E., Alpine County, Eldorado National Forest, on right bank 500 ft (152 m) downstream from main dam and outlet gate of Caples Lake, and 1.3 mi (2.1 km) east of Kirkwood.

DRAINAGE AREA.--13.5 mi^2 (35.0 km^2).

PERIOD OF RECORD.--September 1922 to current year. Records for water year 1945 incomplete, yearly estimate published in WSP 1315-A. Prior to October 1969, published as Twin Lakes Outlet near Kirkwood.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder and concrete control for outlet, and water-stage recorder for spillway. Altitude of gage is 7,700 ft (2,347 m), from topographic map.

REMARKS.--Flow regulated by Caples Lake 500 ft (152 m) upstream, capacity, 19,750 acre-ft (24.4 hm^3), spillway level, 21,580 acre-ft (26.6 hm^3) with 3 ft (0.9 m) of flashboards, contents of which were 18,400 acre-ft (22.7 hm^3) Sept. 30, 1975, and 11,700 acre-ft (14.4 hm^3) Sept. 30, 1976. There was no flow over Caples Lake spillway during current year. No diversion above station. See schematic diagram of South Fork American River basin.

- 6700

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 (including flow over Caples Lake spillway).--54 years, 36.9 ft^3/s (1.045 m^3/s), 26,730 acre-ft/yr (33.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum combined daily discharge for outlet and spillway, 669 ft^3/s (18.9 m^3/s) June 3, 1969; minimum daily, 0.1 ft^3/s (0.003 m^3/s) Mar. 25-31, 1944, Nov. 27, 28, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum combined daily discharge for outlet and spillway, 98 ft^3/s (2.78 m^3/s) Feb. 6, Aug. 11; minimum daily, 2.3 ft^3/s (0.065 m^3/s) June 16, 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	3.3	3.9	32	53	2.5	75	2.8	2.6	3.3	3.0	85	94
2	3.3	3.4	20	53	3.1	66	2.7	2.6	3.3	3.0	84	93
3	3.3	3.4	10	53	9.5	58	2.5	2.6	3.3	3.0	84	86
4	3.3	3.4	10	39	24	58	2.5	2.6	3.3	3.0	87	81
5	3.3	3.4	18	22	70	57	2.5	2.6	3.4	3.0	90	80
6	3.4	3.4	25	34	98	56	2.5	2.6	3.4	3.0	90	80
7	3.4	3.4	24	45	90	56	2.5	2.6	3.4	3.0	89	45
8	3.4	3.5	31	45	88	55	2.5	2.6	3.4	3.0	89	3.0
9	3.3	3.5	35	45	79	54	2.8	2.6	3.4	3.0	88	3.0
10	3.3	3.8	35	45	73	46	3.1	2.6	3.4	3.0	94	3.0
11	3.3	3.8	35	45	85	25	3.0	2.6	3.4	3.0	98	3.0
12	3.3	3.6	35	45	93	16	3.0	2.6	3.4	3.0	97	3.0
13	3.3	3.4	35	57	83	16	3.0	2.5	3.4	3.0	94	3.0
14	3.3	3.5	35	68	78	16	3.0	2.5	6.6	3.0	85	3.0
15	3.3	3.7	35	64	78	7.9	3.0	2.6	10	3.1	34	2.9
16	3.3	4.2	35	59	78	3.0	3.0	2.6	2.3	3.1	15	2.9
17	3.3	4.4	35	59	77	3.1	3.0	2.6	2.3	3.1	48	2.9
18	3.3	4.1	34	58	76	3.1	3.0	2.6	2.9	3.0	54	3.1
19	3.3	4.0	34	58	65	3.0	3.1	2.6	3.5	3.0	60	3.3
20	3.3	4.0	34	59	70	3.1	3.2	2.6	3.5	3.0	65	3.3
21	16	4.0	34	66	80	3.1	3.3	2.6	3.5	3.0	78	3.3
22	27	4.0	34	46	79	3.1	3.3	2.9	3.5	3.0	86	3.3
23	27	3.9	34	8.9	79	3.1	3.4	3.1	3.5	3.1	82	3.3
24	33	3.7	34	3.1	79	3.1	3.4	3.1	3.5	3.1	78	3.3
25	37	12	34	3.0	78	3.1	3.3	3.3	3.6	3.0	78	3.2
26	19	26	34	15	77	3.1	3.3	3.3	3.6	30	81	3.1
27	4.3	33	34	23	76	3.1	2.8	3.3	3.6	57	86	3.1
28	4.2	33	34	17	76	3.1	2.5	3.3	3.4	71	93	3.1
29	4.2	33	29	13	75	3.1	2.6	3.3	3.0	76	97	3.1
30	4.2	33	24	7.3	---	2.9	2.6	3.3	3.0	82	94	3.1
31	4.2	---	39	2.5	---	2.8	---	3.3	---	85	90	---
TOTAL	246.4	259.4	951	1210.8	2019.1	710.8	87.2	86.6	109.1	476.5	2473	630.3
MEAN	7.95	8.65	30.7	39.1	69.6	22.9	2.91	2.79	3.64	15.4	79.8	21.0
MAX	37	33	39	68	98	75	3.4	3.3	10	85	98	94
MIN	3.3	3.4	10	2.5	2.5	2.8	2.5	2.5	2.3	3.0	15	2.9
AC-FT	489	515	1890	2400	4000	1410	173	172	216	945	4910	1250

CAL YR 1975 TOTAL 8627.8 MEAN 23.6 MAX 209 MIN 2.3 AC-FT 17110
WTR YR 1976 TOTAL 9260.2 MEAN 25.3 MAX 98 MIN 2.3 AC-FT 18370

11439500 SOUTH FORK AMERICAN RIVER NEAR KYBURZ, CA

LOCATION.--Lat 38°45'49", long 120°19'39", in SW¼SW¼ sec.29, T.11 N., R.15 E., El Dorado County, Eldorado National Forest, on right bank beside U.S. Highway 50, 0.8 mi (1.3 km) downstream from Silver Fork of South Fork, and 1.9 mi (3.1 km) southwest of Kyburz.

DRAINAGE AREA.--193 mi^2 (500 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August to December 1907, October 1922 to current year. Prior to October 1956, records for river and El Dorado Canal published separately; combined flow only, October 1956 to September 1960.

REVISED RECORDS.--WSP 1445: 1923(M), 1925(M), 1927(M), 1928 (river only), 1935-37(M). WSP 1515: 1928 (combined). WSP 1931: Drainage area.

GAGE.--Water-stage recorder on river; water-stage recorder for canal diversion. Altitude of gage is 3,840 ft (1,170 m), from topographic map. Prior to Oct. 1, 1962, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Flow at low and medium stages greatly regulated by four reservoirs since beginning of record, total capacity, 37,100 acre-ft (45.7 hm^3). See schematic diagram of South Fork American River basin. For records of combined discharge of river and canal, 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: 54 years (water years 1923-76), 289 ft^3/s (8.184 m^3/s), 209,400 acre-ft/yr (258 hm^3/yr).
Combined river and diversion: 54 years (water years 1923-76), 405 ft^3/s (11.47 m^3/s), 293,400 acre-ft/yr (362 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 17,400 ft^3/s (493 m^3/s) Dec. 23, 1964, gage height, 10.92 ft (3.328 m), from rating curve extended above 6,300 ft^3/s (178 m^3/s) on basis of contracted-opening measurement at gage height 10.40 ft (3,170 m); minimum daily, 0.3 ft^3/s (0.008 m^3/s) Nov. 9-11, 1928.
Combined flow, maximum discharge, 17,500 ft^3/s (496 m^3/s) Dec. 23, 1964; minimum daily, 10 ft^3/s (0.28 m^3/s) Oct. 17, 19, 1929.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 2,060 ft^3/s (58.3 m^3/s) Oct. 26 (1700 hrs), gage height 5.83 ft (1.777 m), peak above base of 2,000 ft^3/s (57 m^3/s); minimum daily, 6.2 ft^3/s (0.18 m^3/s) Jan. 25.
Combined flow, maximum discharge, 2,230 ft^3/s (63.2 m^3/s) Oct. 26; minimum daily, 28 ft^3/s (0.79 m^3/s) Sept. 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	30	21	17	22	7.0	32	27	413	28	9.4	9.3	8.5
2	30	30	31	43	7.1	36	25	391	20	9.4	20	9.6
3	30	21	15	55	7.1	23	47	356	10	9.4	9.3	10
4	30	13	6.8	38	7.3	18	44	383	9.6	9.2	9.1	10
5	29	6.7	6.7	15	7.2	14	33	361	9.5	9.2	8.9	10
6	33	6.6	7.8	7.6	31	11	13	338	9.2	8.8	8.8	10
7	77	85	6.7	9.5	20	11	16	268	9.2	9.4	8.8	11
8	50	154	6.7	7.7	18	16	77	362	9.2	9.4	8.8	11
9	42	30	6.7	9.1	25	20	45	448	9.3	9.1	8.8	11
10	94	15	6.7	11	8.6	25	52	447	9.3	9.1	8.9	11
11	211	7.9	8.8	8.8	9.5	29	42	412	9.2	9.9	10	26
12	119	21	13	7.4	21	9.1	38	403	8.9	9.6	9.0	13
13	94	24	9.1	7.4	24	11	36	432	9.0	9.6	8.8	30
14	88	24	9.4	12	23	18	33	445	8.9	9.6	17	37
15	97	13	24	8.7	14	26	45	350	8.9	9.6	338	35
16	94	186	21	7.8	13	32	26	303	9.0	11	34	34
17	95	122	13	8.7	14	48	23	281	8.9	11	8.2	33
18	54	30	7.1	7.8	9.7	76	33	229	9.1	9.9	7.8	33
19	14	22	8.1	7.8	21	39	55	187	9.4	10	7.8	32
20	11	18	9.6	7.6	12	26	135	153	9.3	9.6	7.6	32
21	10	7.1	8.0	7.5	20	31	194	126	9.2	9.6	7.8	31
22	33	6.7	15	7.8	19	46	212	119	9.2	9.6	9.2	30
23	21	6.7	14	15	16	52	233	110	9.2	9.7	11	30
24	9.3	6.7	17	12	13	47	282	100	9.2	9.6	8.2	29
25	17	6.6	14	6.2	10	37	297	95	9.3	9.4	8.1	29
26	925	6.6	13	7.1	8.1	24	193	85	9.7	9.0	8.1	28
27	311	9.5	12	10	10	12	138	82	9.7	9.5	8.2	28
28	66	15	11	7.1	18	9.2	122	74	9.4	9.0	8.4	29
29	57	13	20	7.1	58	8.3	164	39	9.6	9.2	8.5	20
30	44	17	7.9	7.1	---	11	292	40	9.5	9.1	8.5	14
31	26	---	7.0	7.1	---	52	---	36	---	10	8.5	---
TOTAL	2841.3	945.1	373.1	395.9	471.6	849.6	2972	7868	307.9	295.9	643.4	675.1
MEAN	91.7	31.5	12.0	12.8	16.3	27.4	99.1	254	10.3	9.55	20.8	22.5
MAX	925	186	31	55	58	76	297	448	28	11	338	37
MIN	9.3	6.6	6.7	6.2	7.0	8.3	13	36	8.9	8.8	7.6	8.5
AC-FT	5640	1870	740	785	935	1690	5890	15610	611	587	1280	1340

CAL YR 1975 TOTAL 121169.6 MEAN 332 MAX 3190 MIN 6.3 AC-FT 240300
WTR YR 1976 TOTAL 18638.9 MEAN 50.9 MAX 925 MIN 6.2 AC-FT 36970

11439500 SOUTH FORK AMERICAN RIVER NEAR KYBURZ, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF SOUTH FORK AMERICAN RIVER AND EL DORADO CANAL NEAR KYBURZ, CA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 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	31	186	171	159	78	185	181	568	191	106	119	117
2	31	195	185	171	78	191	180	546	180	104	136	116
3	31	186	168	170	79	178	202	511	166	103	119	105
4	31	177	156	163	86	173	199	538	157	100	114	99
5	31	167	151	147	95	168	190	516	149	99	120	100
6	35	156	160	134	175	163	174	493	141	101	118	103
7	80	241	153	154	170	164	177	423	137	106	116	100
8	52	319	148	156	168	171	232	517	133	105	114	113
9	44	195	157	159	179	175	200	603	140	104	113	111
10	98	180	156	152	155	183	207	602	150	110	113	105
11	218	167	162	157	148	189	197	567	158	109	124	88
12	125	181	167	151	176	154	193	558	138	107	121	57
13	97	178	163	148	179	169	191	590	126	106	119	44
14	91	178	149	167	178	178	188	604	118	104	125	39
15	101	167	166	167	169	186	200	506	112	102	457	37
16	97	341	169	162	166	191	178	460	110	121	152	36
17	98	276	170	167	172	203	169	438	99	124	103	35
18	95	183	164	162	172	227	188	386	97	112	100	35
19	104	171	161	157	176	188	210	344	112	107	101	34
20	135	172	168	151	147	174	290	309	116	103	102	34
21	146	152	167	149	174	186	349	283	113	102	110	32
22	191	141	173	161	174	201	367	276	110	111	126	31
23	185	135	169	119	169	207	388	267	103	110	129	30
24	161	148	172	98	166	202	437	257	97	106	113	29
25	182	145	169	79	165	192	453	253	104	89	107	29
26	1090	150	168	83	162	179	349	246	107	79	105	28
27	476	162	167	97	168	165	293	243	104	99	114	28
28	230	169	166	105	179	156	276	234	99	95	115	29
29	222	151	178	99	213	154	318	199	109	109	126	47
30	209	170	162	97	---	165	447	201	109	106	123	93
31	191	---	133	85	---	207	---	197	---	122	113	---
TOTAL	4908	5539	5068	4326	4516	5624	7623	12735	3785	3261	3967	1884
MEAN	158	185	163	140	156	181	254	411	126	105	128	62.8
MAX	1090	341	185	171	213	227	453	604	191	124	457	117
MIN	31	135	133	79	78	154	169	197	97	79	100	28
AC-FT	9740	10990	10050	8580	8960	11160	15120	25260	7510	6470	7870	3740

CAL YR 1975 TOTAL 168732 MEAN 462 MAX 3330 MIN 31 AC-FT 334700
WTR YR 1976 TOTAL 63236 MEAN 173 MAX 1090 MIN 28 AC-FT 125400

11439500 SOUTH FORK AMERICAN RIVER NEAR KYBURZ, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1966 to current year.
INSTRUMENTATION.--Temperature recorder since August 1966.
EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1968-69, 1971-76), 25.0°C July 16-18, 1972; minimum, 0.0°C on many days in most years.
EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 24.0°C July 26, 27; minimum, 0.0°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	14.0	10.5	5.5	3.5	1.5	1.0	0.5	0.5	3.5	2.5	2.0	1.0
2	14.5	10.5	5.5	4.0	2.5	1.5	0.5	0.0	3.0	2.5	1.0	0.5
3	14.0	11.0	6.0	4.5	2.5	2.0	0.0	0.0	3.0	2.0	1.5	0.5
4	14.5	11.0	6.0	4.5	3.0	2.5	0.5	0.0	2.5	1.5	2.0	0.5
5	14.0	10.5	6.0	4.5	4.0	3.0	1.5	0.5	1.5	1.0	2.5	1.0
6	12.0	10.5	6.0	5.0	3.5	3.0	1.5	1.0	1.0	0.5	3.0	1.0
7	10.5	8.0	6.5	5.5	3.0	2.0	1.0	0.5	1.5	0.5	3.5	1.5
8	9.5	6.5	6.5	5.0	3.0	2.5	1.5	1.0	2.5	1.0	4.0	1.5
9	9.5	7.0	5.0	3.5	2.5	2.5	1.5	1.0	3.0	2.5	4.5	2.0
10	8.5	7.5	5.0	3.5	3.0	2.5	1.0	0.5	2.5	2.0	5.0	2.5
11	7.0	5.0	4.5	2.5	2.5	2.0	1.5	0.5	2.5	1.5	4.5	2.5
12	6.5	5.0	3.0	2.0	3.0	2.0	1.5	1.0	3.0	1.5	5.0	2.5
13	6.5	4.5	3.5	2.5	2.0	1.5	1.5	0.5	3.5	2.0	5.5	3.0
14	7.0	4.5	4.5	3.0	1.5	0.5	1.5	1.0	3.5	2.5	5.5	2.5
15	7.5	5.0	5.0	3.5	0.5	0.5	1.5	1.0	3.0	2.0	5.5	3.0
16	7.5	5.5	5.0	4.5	1.0	0.5	2.0	1.5	2.5	2.0	6.0	3.5
17	8.0	6.0	4.5	2.0	1.0	1.0	2.5	1.5	3.5	2.0	6.5	4.5
18	8.5	6.0	2.0	1.0	1.0	0.5	2.0	1.5	4.0	3.0	5.0	3.0
19	8.5	6.0	1.5	1.0	1.0	0.5	2.5	2.0	3.5	2.5	5.0	2.5
20	9.0	6.5	2.5	1.5	1.0	0.5	2.0	1.0	2.5	1.5	5.5	2.0
21	9.0	6.5	2.5	2.0	1.5	0.5	1.5	1.0	2.5	1.0	6.0	3.0
22	8.5	6.5	2.5	1.5	1.5	1.0	1.5	1.0	3.0	1.5	6.0	3.5
23	6.0	5.0	2.5	2.0	1.5	1.0	2.0	1.0	3.0	1.5	6.0	4.0
24	5.5	3.5	2.5	2.0	2.0	1.0	2.0	2.0	3.0	1.5	5.0	4.0
25	5.5	3.5	3.0	2.5	2.0	1.5	2.0	1.0	4.0	2.5	6.0	3.0
26	6.0	5.5	3.5	3.0	2.5	1.5	1.5	0.5	5.0	3.5	5.0	3.0
27	5.5	4.0	3.5	2.0	3.0	2.0	2.0	1.0	4.5	3.0	6.0	3.5
28	4.5	3.5	2.5	1.5	3.0	2.0	2.0	1.5	5.0	4.0	6.5	3.5
29	4.5	3.0	1.5	0.5	3.0	3.0	2.5	1.5	4.5	2.5	7.0	4.0
30	5.0	4.0	1.5	0.5	3.0	2.5	3.0	2.0	---	---	7.5	4.5
31	5.0	3.0	---	---	2.0	0.5	3.0	2.5	---	---	6.0	4.5
MONTH	14.5	3.0	6.5	0.5	4.0	0.5	3.0	0.0	5.0	0.5	7.5	0.5

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

11440000 ALDER CREEK NEAR WHITE HALL, CA

LOCATION.--Lat 38°45'19", long 120°22'17", in NE¼SE¼ sec.35, T.11 N., R.14 E., El Dorado County, Eldorado National Forest, on right bank 0.9 mi (1.4 km) upstream from mouth, and 2.2 mi (3.5 km) southeast of White Hall.

DRAINAGE AREA.--22.1 mi^2 (57.2 km^2).

PERIOD OF RECORD.--October 1922 to current year (includes diversions by pipeline).

REVISED RECORDS.--WSP 1215: 1928(M). WSP 1445: 1925(M), 1929, 1935-36(M), 1938(M), 1940-43(M), 1945(M).

GAGE.--Water-stage recorder. Broad-crested weir with V-notch since Aug. 28, 1964. Altitude of gage is 3,840 ft (1,170 m), from topographic map. Prior to July 23, 1924, nonrecording gage at same site and datum.

REMARKS.--Records include flow diverted 1,300 ft (396 m) above station by pipeline into El Dorado Canal from Oct. 18 to Mar. 3, Mar. 5 to June 14.

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 (including diversions by pipeline).--54 years, 37.5 ft^3/s (1.062 m^3/s), 27,170 acre-ft/yr (33.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Creek only, maximum discharge, 5,500 ft^3/s (156 m^3/s) Dec. 23, 1955, gage height, 8.40 ft (2.560 m) from floodmarks, from rating curve extended above 600 ft^3/s (17.0 m^3/s); no flow at times in several years.

EXTREMES FOR CURRENT YEAR.--Creek only, maximum discharge, 52 ft^3/s (1.47 m^3/s) Oct. 26, gage height, 2.48 ft (0.756 m), no peak above base of 170 ft^3/s (4.8 m^3/s); minimum daily, 0.06 ft^3/s (0.002 m^3/s) Oct. 20, 23-25.

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	2.1	17	9.2	4.8	4.6	23	25	34	6.3	2.1	1.3	1.4
2	2.1	15	9.6	4.8	4.6	20	23	34	5.8	2.1	1.3	1.3
3	2.1	13	9.6	4.6	4.6	19	23	33	5.5	2.1	1.3	1.3
4	1.8	12	9.8	5.5	5.4	16	22	31	5.5	2.0	1.3	1.2
5	2.1	11	10	7.9	4.8	19	22	29	5.3	1.8	1.3	1.2
6	2.9	11	9.7	5.4	4.8	16	21	29	5.2	1.8	1.3	1.1
7	4.0	10	9.3	5.3	4.8	17	20	26	5.1	1.8	1.3	1.1
8	2.1	11	9.1	5.3	5.4	18	24	28	5.0	1.6	1.3	1.0
9	3.1	11	8.7	5.3	5.9	20	23	33	5.2	1.5	1.2	1.0
10	11	10	8.6	5.5	6.1	22	24	30	5.4	1.5	1.2	1.0
11	23	10	8.4	8.9	6.1	24	24	26	5.5	1.5	1.2	5.5
12	11	10	8.7	9.9	7.1	26	26	23	5.1	1.5	1.2	8.5
13	8.8	11	8.3	9.0	7.2	23	27	20	4.8	1.4	1.1	4.5
14	7.1	11	8.2	5.4	7.9	23	29	18	6.5	1.4	1.1	2.3
15	6.2	10	8.0	4.6	8.6	29	34	16	3.5	1.3	15	1.5
16	5.6	19	8.1	4.6	13	33	31	15	3.2	1.3	12	1.0
17	5.1	18	8.1	5.0	9.9	29	31	14	3.2	1.3	9.0	.70
18	7.8	14	5.3	5.4	10	31	32	13	3.0	1.3	5.0	.60
19	5.0	13	5.2	5.4	14	29	34	12	2.8	1.3	3.5	.40
20	4.8	14	5.5	5.5	14	27	37	11	2.8	1.3	3.0	.35
21	4.5	12	6.4	3.2	12	28	40	11	2.8	1.3	2.8	.25
22	4.8	11	6.6	3.2	10	29	41	10	2.8	1.3	2.3	.25
23	4.6	10	6.6	3.5	9.9	29	42	9.3	2.8	1.3	2.0	.24
24	4.5	10	6.4	3.8	9.3	29	42	9.1	2.6	1.3	1.9	.23
25	4.5	9.6	6.4	4.1	11	30	43	8.7	2.5	1.3	1.8	.22
26	33	9.3	6.4	4.1	11	27	40	8.2	2.5	1.3	1.5	.21
27	33	9.5	7.5	3.8	14	26	37	7.5	2.5	1.2	1.5	.20
28	18	9.5	11	4.6	16	23	35	7.2	2.3	1.2	1.5	.20
29	15	9.1	10	4.9	24	24	33	6.8	2.1	1.2	1.5	.30
30	24	9.1	8.7	4.9	---	24	32	6.3	2.1	1.2	1.5	.30
31	21	---	4.8	4.9	---	26	---	6.3	---	1.3	1.4	---
TOTAL	284.6	350.1	248.2	163.1	266.0	759	917	565.4	119.7	45.8	84.6	39.35
MEAN	9.18	11.7	8.01	5.26	9.17	24.5	30.6	18.2	3.99	1.48	2.73	1.31
MAX	33	19	11	9.9	24	33	43	34	6.5	2.1	15	8.5
MIN	1.8	9.1	4.8	3.2	4.6	16	20	6.3	2.1	1.2	1.1	.20
AC-FT	565	694	492	324	528	1510	1820	1120	237	91	168	78

CAL YR 1975	TOTAL	15147.70	MEAN 41.5	MAX 320	MIN 1.8	AC-FT	30050
WTR YR 1976	TOTAL	3842.85	MEAN 10.5	MAX 43	MIN .20	AC-FT	7620

NOTE.--No gage-height record Aug. 5 to Sept. 30.

11441001 UNION VALLEY RESERVOIR NEAR RIVERTON, CA

LOCATION.--Lat 38°51'49", long 120°26'15", in NW¼NW¼ sec 29, T.12 N., R.14 E., El Dorado County, Eldorado National Forest, in valve control house near left bank at Union Valley Dam on Silver Creek, 0.7 mi (1.1 km) upstream from Little Silver Creek, and 6.6 mi (10.6 km) north of Riverton.

DRAINAGE AREA.--83.6 mi^2 (216.5 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Sacramento Municipal Utility District).

REMARKS.--Reservoir is formed by earthfill dam completed in December 1962. Storage began in May 1962. Usable capacity, 264,000 acre-ft (326 hm^3) between elevations 4,645.0 ft (1,415.80 m), minimum operating level and 4,870.0 ft (1,484.38 m), top of radial spillway gates, above mean sea level. Dead storage, 7,000 acre-ft (8.63 hm^3). Reservoir receives water from the South Fork Rubicon River via Robbs Peak powerplant (station 11429800). Water is used for power development in the South Fork American River basin. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Middle Fork American and Rubicon River basins and South Fork American River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 272,600 acre-ft (336 hm^3) July 9, 1974, elevation, 4,870.6 ft (1,484.56 m); minimum since reservoir first filled, 33,700 acre-ft (41.6 hm^3) Sept. 30, 1976, elevation, 4,717.4 ft (1,437.86 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 153,800 acre-ft (190 hm^3) Oct. 31, Nov. 2, 3, 9, elevation, 4,820.4 ft (1,469.26 m); minimum, 33,700 acre-ft (41.6 hm^3) Sept. 30, elevation, 4,717.4 ft (1,437.86 m).

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

4700	25000	4800	117000
4720	35000	4820	153000
4740	48000	4840	196000
4760	65000	4870	271000
4780	88000		

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	144700	153200	148300	125100	113800	108000	116700	132100	137500	124000	83200	50600
2	144700	153800	147100	124000	113400	108200	117400	133200	135900	122900	81600	50600
3	144700	153800	146700	123300	112800	108200	117900	133900	135700	121300	80100	50600
4	144500	153600	146000	123700	112800	107700	118400	133900	135500	120600	78600	50600
5	144700	153400	145300	122800	112400	107600	119000	134600	135200	120200	77300	50400
6	144700	153400	144500	122200	111800	107600	119500	134800	135000	119200	75800	50100
7	144700	153400	144000	121700	111400	107800	119900	135000	134600	119000	74100	49900
8	144900	153200	143100	121000	111300	107700	120600	135900	134300	115600	73700	49800
9	145100	153800	142200	121000	110800	107700	121000	137500	133900	114300	72300	49300
10	145400	153400	141700	120400	110100	107800	121500	137700	133600	112800	71200	49300
11	146000	152500	140800	120600	109500	108300	122000	137900	133200	112400	69800	49400
12	146300	153400	139700	120100	108900	108600	122600	137900	132700	111000	68500	49300
13	146300	152100	139000	119700	108600	108600	122900	137900	132500	109600	67000	48600
14	146500	151700	138600	118800	108300	109000	123300	137900	132100	108200	65800	47500
15	146500	151900	137500	118600	108600	109500	124000	138200	131400	106500	66200	46600
16	146700	153400	136800	118100	108900	110000	124400	138800	131400	105300	65800	45600
17	147100	153200	135900	117500	108800	110200	124700	139000	130000	103600	64500	44700
18	147100	152500	135500	118100	108800	111300	125300	138600	129800	102900	63500	43700
19	147200	152500	134500	118100	108800	111800	126000	138600	129400	101400	62800	43300
20	147400	151900	133600	117500	108600	112000	126900	138400	129100	100000	61400	42300
21	147400	151400	132800	117000	108200	112600	128000	138600	128500	98600	60300	41400
22	147600	151400	132300	116600	108400	113100	128200	138800	128200	97200	60000	40300
23	147600	151700	131400	116200	108000	113600	128900	139000	127800	95700	59100	39400
24	147600	150800	130500	115800	108000	114000	129800	139000	127400	94200	57900	38400
25	147800	150700	130100	116000	107600	114300	130900	139300	127100	93300	56700	37300
26	151000	149900	128900	115400	107200	114600	131200	139000	126700	91800	55700	36900
27	152300	150300	128500	114900	107000	115200	131400	138800	126400	90100	54600	36100
28	152600	149800	127800	114800	107000	115400	131400	138400	126000	88300	53600	35100
29	152800	149000	126500	114400	108000	115800	131400	138400	125600	86700	53300	34200
30	153600	149200	126000	114200	---	116100	131600	138600	125300	85200	52200	33700
31	153800	---	124700	113800	---	116600	---	138600	---	83800	51000	---
MAX	153800	153800	148300	125100	113800	116600	131600	139300	137500	124000	83200	50600
MIN	144500	149000	124700	113800	107000	107600	116700	132100	125300	83800	51000	33700
†	4820.4	4817.9	4804.3	4797.9	4794.0	4799.7	4808.1	4812.0	4804.6	4776.5	4743.8	4717.4
‡	+9100	-4600	-24500	-10900	-5800	+8600	+15000	+7000	-13300	-41500	-32800	-17300

CAL YR 1975 ‡ +21300
WTR YR 1976 ‡ -111000

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

11441100 ICE HOUSE RESERVOIR NEAR KYBURZ, CA

LOCATION.--Lat 38°49'26", long 120°21'34", in SE¼SW¼ sec.1, T.11 N., R.14 E., El Dorado County, Eldorado National Forest, on left bank at Ice House Dam on South Fork Silver Creek, 0.5 mi (0.8 km) upstream from Peavine Creek, and 4.8 mi (7.7 km) northwest of Kyburz.

DRAINAGE AREA.--27.2 mi^2 (70.4 km^2).

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

REVISED RECORDS.--WSP 1931: 1960.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Sacramento Municipal Utility District).

REMARKS.--Reservoir is formed by earthfill dam. Storage began Dec. 15, 1959. Usable capacity, 45,800 acre-ft (56.5 hm^3) between elevations 5,327.5 ft (1,623.82 m), centerline of fishwater outlet, and 5,450.0 ft (1,661.16 m), top of spillway gates. Dead storage, 160 acre-ft (197,000 m^3). Reservoir is used to store water for power development. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of South Fork American River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 46,400 acre-ft (57.2 hm^3) June 27, 1971, elevation, 5,450.6 ft (1,661.34 m); minimum since reservoir first filled, 1,740 acre-ft (2.15 hm^3) Oct. 5-9, 1962, elevation, 5,349.85 ft (1,630.634 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 34,300 acre-ft (42.3 hm^3) Oct. 1, elevation, 5,432.3 ft (1,655.77 m); minimum, 13,300 acre-ft (16.4 hm^3) Feb. 2-5, elevation, 5,389.6 ft (1,642.75 m).

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

5349	1600	5400	17600
5350	1760	5420	27400
5360	3840	5450	46000
5380	9600		

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	34300	23400	22200	19700	13400	14400	16300	20600	26600	27400	27000	23600
2	33600	23400	22200	19600	13300	14500	16400	21000	26700	27400	27000	23500
3	33000	23400	22200	19300	13300	14500	16500	21300	26700	27400	26800	23400
4	32200	23400	22100	19100	13300	14500	16500	21600	26800	27400	26700	23200
5	31600	23200	22000	18900	13300	14600	16600	21900	26800	27400	26600	23000
6	30900	23200	22000	18700	13400	14700	16700	22200	26800	27400	26400	22800
7	30300	23200	21800	18500	13400	14700	16800	22500	26800	27300	26300	22700
8	29800	23300	21800	18300	13500	14700	16900	22800	26800	27300	26200	22600
9	29200	23200	21700	18100	13500	14800	17000	23200	26900	27300	26000	22400
10	28700	23200	21600	17900	13500	14800	17100	23600	26900	27400	25900	22200
11	28700	23200	21500	17600	13600	14900	17200	23900	27000	27300	25800	22100
12	28700	23200	21400	17400	13600	14900	17300	24200	27000	27300	25600	22000
13	28700	23200	21400	17200	13700	14900	17400	24500	27100	27300	25400	21900
14	28800	23100	21200	17000	13700	15000	17500	24800	27200	27300	25300	21800
15	28900	23000	21200	16800	13700	15100	17500	25000	27200	27300	25500	21600
16	28800	23200	21200	16600	13800	15200	17600	25200	27200	27200	25600	21400
17	28200	23200	21100	16400	13900	15300	17700	25400	27300	27200	25400	21300
18	27600	23200	21000	16200	13900	15300	17800	25500	27300	27200	25400	21200
19	27200	23100	20800	16000	13900	15400	17900	25600	27300	27200	25400	21000
20	26400	23000	20800	15800	14000	15500	18100	25700	27300	27200	25300	20800
21	25800	23000	20600	15600	14000	15600	18300	25800	27300	27200	25200	20700
22	25200	22900	20600	15500	14100	15700	18500	26000	27400	27200	25000	20600
23	24600	22800	20500	15200	14100	15700	18700	26000	27400	27200	24900	20400
24	24100	22800	20400	15000	14100	15800	19000	26100	27400	27200	24800	20200
25	23600	22700	20400	14800	14100	15900	19200	26200	27400	27200	24600	20000
26	24400	22600	20300	14700	14200	16000	19400	26300	27400	27200	24500	19800
27	24500	22600	20200	14400	14200	16000	19600	26400	27400	27200	24400	19600
28	24300	22400	20200	14300	14300	16100	19800	26400	27400	27200	24200	19400
29	24100	22300	20100	14000	14300	16100	20000	26500	27400	27200	24100	19300
30	23800	22300	20000	13800	---	16200	20200	26500	27400	27100	24000	19100
31	23600	---	19800	13600	---	16200	---	26600	---	27100	23800	---
MAX	34300	23400	22200	19700	14300	16200	20200	26600	27400	27400	27000	23600
MIN	23600	22300	19800	13600	13300	14400	16300	20600	26600	27100	23800	19100
†	5412.3	5409.8	5404.8	5390.2	5392.1	5396.8	5405.7	5418.4	5419.9	5419.4	5412.8	5403.4
‡	-11200	-1300	-2500	-6200	+700	+1900	+4000	+6400	+800	-300	-3300	-4700

CAL YR 1975 ‡ +6500
WTR YR 1976 ‡ -15700

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

11441500 SOUTH FORK SILVER CREEK NEAR ICE HOUSE, CA

LOCATION.--Lat 38°49'08", long 120°21'51", in NW¼NW¼ sec.12, T.11 N., R.14 E., El Dorado County, Eldorado National Forest, on right bank 300 ft (91 m) upstream from Peavine Creek, 0.4 mi (0.6 km) downstream from Ice House Dam, and 4.8 mi (7.7 km) northwest of Kyburz.

DRAINAGE AREA.--27.5 mi^2 (71.2 km^2).

PERIOD OF RECORD.--October 1924 to current year.

REVISED RECORDS.--WSP 1395: 1928, 1938. WSP 1635: Drainage area at former site.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,290 ft (1,612 m), from topographic map. Prior to Oct. 1, 1959, at site 0.3 mi (0.5 km) upstream at different datum.

REMARKS.--Records good. Flow regulated by Ice House Reservoir beginning in December 1959 (station 11441100). See schematic diagram of South Fork American River basin.

AVERAGE DISCHARGE (adjusted for change in contents in Ice House Reservoir).--52 years, 74.9 ft^3/s (2.121 m^3/s), 54,270 acre-ft/yr (66.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,940 ft^3/s (112 m^3/s) Dec. 23, 1955, gage height, 6.71 ft (2.045 m) site and datum then in use, from rating curve extended above 540 ft^3/s (15.3 m^3/s) on basis of slope-area measurement at gage height 6.69 ft (2.039 m); no flow Oct. 31 to Nov. 9, 1958. Maximum discharge since construction of Ice House Dam in 1959, 1,800 ft^3/s (51.0 m^3/s) Jan. 22, 1970, gage height, 5.66 ft (1.725 m), from rating curve extended above 620 ft^3/s (17.6 m^3/s) on basis of computation of flow over dam of peak flow; minimum daily, 1.2 ft^3/s (0.03 m^3/s) Mar. 17-19, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 439 ft^3/s (12.4 m^3/s) Oct. 20, gage height, 4.39 ft (1.338 m); minimum daily, 4.2 ft^3/s (0.119 m^3/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	263	145	66	63	130	5.2	5.2	5.1	4.3	4.2	4.9	77
2	306	67	66	105	51	5.0	5.2	5.0	4.3	4.2	43	78
3	313	67	65	130	4.9	4.9	5.2	4.9	4.3	4.2	77	78
4	313	67	64	130	4.9	4.8	5.2	4.8	4.3	4.2	77	78
5	311	67	64	130	4.9	5.0	5.2	4.8	4.3	4.2	77	78
6	309	67	64	130	5.0	5.0	5.2	4.7	4.3	4.2	77	78
7	308	67	64	130	4.8	5.0	5.2	4.7	4.3	4.2	77	78
8	308	67	66	129	5.0	4.8	5.2	4.6	4.3	4.3	77	78
9	304	67	68	129	4.8	4.9	5.2	4.5	4.3	4.7	77	78
10	305	67	68	128	5.0	4.9	5.2	4.4	4.3	4.8	78	78
11	112	67	66	128	5.0	5.0	5.2	4.3	4.3	4.9	78	78
12	9.0	67	63	128	4.8	5.1	5.2	4.2	4.3	4.9	78	78
13	8.8	67	63	127	5.0	5.2	5.2	4.3	4.3	4.9	78	78
14	8.7	67	63	127	4.9	5.2	5.2	4.3	4.3	4.9	79	77
15	8.7	67	63	125	4.9	5.2	5.2	4.3	4.2	4.9	79	77
16	113	67	65	128	4.9	5.2	5.2	4.3	4.2	4.9	78	77
17	329	67	65	128	5.0	5.2	5.1	4.3	4.2	4.9	79	77
18	333	66	65	126	5.0	5.2	5.1	4.3	4.2	4.9	80	77
19	330	66	65	126	5.0	5.2	5.1	4.3	4.2	4.9	80	77
20	392	66	65	128	5.1	5.2	5.1	4.3	4.2	4.9	80	77
21	400	66	65	128	5.2	5.2	5.1	4.3	4.2	4.9	80	78
22	332	66	65	126	5.2	5.2	5.1	4.3	4.2	4.9	80	78
23	317	66	65	126	5.1	5.2	5.1	4.3	4.2	4.9	80	81
24	281	66	65	125	5.1	5.2	5.1	4.3	4.2	4.9	79	83
25	255	66	65	125	5.2	5.2	5.1	4.3	4.2	4.9	79	84
26	147	66	65	125	5.2	5.2	5.1	4.3	4.2	4.9	78	84
27	100	66	65	125	5.2	5.2	5.1	4.3	4.2	4.9	78	85
28	188	66	65	125	5.2	5.2	5.1	4.3	4.2	4.9	78	84
29	193	66	64	127	5.2	5.2	5.1	4.3	4.2	4.9	78	84
30	201	66	64	130	---	5.2	5.1	4.3	4.2	4.9	77	84
31	199	---	63	130	---	5.2	---	4.3	---	4.9	77	---
TOTAL	7297.2	2075	2009	3867	316.5	158.4	154.6	137.7	127.4	146.1	2317.9	2377
MEAN	235	69.2	64.8	125	10.9	5.11	5.15	4.44	4.25	4.71	74.8	79.2
MAX	400	145	68	130	130	5.2	5.2	5.1	4.3	4.9	80	85
MIN	8.7	66	63	63	4.8	4.8	5.1	4.2	4.2	4.2	4.9	77
AC-FT	14470	4120	3980	7670	628	314	307	273	253	290	4600	4710

CAL YR 1975 TOTAL 29462.9 MEAN 80.7 MAX 400 MIN 4.2 AC-FT 58440 Mean ‡ 71.7 AC-FT ‡ 51940
WTR YR 1976 TOTAL 20983.8 MEAN 57.3 MAX 400 MIN 4.2 AC-FT 41620 Mean ‡ 35.7 AC-FT ‡ 25920

‡ Adjusted for change in contents in Ice House Reservoir.

11441900 SILVER CREEK BELOW CAMINO DIVERSION DAM, CA

LOCATION.--Lat 38°49'26", long 120°32'18", on line between secs.4 and 5, T.11 N., R.13 E., El Dorado County, Eldorado National Forest, on right bank 300 ft (91 m) downstream from Round Tent Canyon, 0.4 mi (0.6 km) downstream from diversion dam, and 5 mi (8 km) northeast of Pollock Pines.

DRAINAGE AREA.--171 mi^2 (443 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 2,754.06 ft (839.438 m) above mean sea level (Sacramento Municipal Utility District bench mark).

REMARKS.--Records good. Flow regulated by storage, diversions, and powerplants. Records not adjusted for diversions or changes in storage. See schematic diagram of South Fork American River basin.

AVERAGE DISCHARGE (unadjusted).--16 years, 93.4 ft^3/s (2.645 m^3/s), 67,670 acre-ft/yr (83.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,300 ft^3/s (547 m^3/s) Jan. 31, 1963, gage height, 11.28 ft (3.438 m) in gage well, 11.9 ft (3.63 m) from floodmarks, from rating curve extended above 1,500 ft^3/s (42.5 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 3.9 ft^3/s (0.11 m^3/s) May 11, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30 ft^3/s (0.85 m^3/s) Feb. 29, gage height, 2.70 ft (0.823 m); minimum daily, 3.9 ft^3/s (0.11 m^3/s) May 11.

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	12	10	11	11	19	9.0	7.2	5.7	5.4	5.3	5.3
2	22	12	9.9	11	11	16	9.0	7.0	5.7	5.2	5.4	5.4
3	22	12	9.9	11	11	14	9.3	6.9	5.7	5.2	5.4	5.3
4	22	11	10	11	11	13	9.3	6.8	5.7	5.3	5.5	5.6
5	22	11	10	11	11	13	9.2	6.9	5.9	5.5	5.5	5.6
6	22	11	10	11	11	12	9.1	5.9	5.8	5.3	5.5	5.6
7	22	11	10	11	11	12	9.0	4.2	5.8	5.3	5.3	5.5
8	22	11	10	11	11	12	9.5	4.3	5.8	4.7	5.4	5.5
9	22	11	10	11	11	11	9.3	4.0	5.8	4.4	5.5	5.4
10	23	12	10	11	11	11	9.4	4.0	5.8	5.6	5.4	5.3
11	24	12	10	11	10	11	9.7	3.9	5.9	5.4	5.3	5.9
12	22	11	11	11	11	10	10	3.9	5.8	5.5	5.3	5.4
13	22	11	11	11	11	9.8	11	5.7	5.7	5.4	5.3	5.3
14	22	11	11	11	13	9.7	12	7.4	5.8	5.5	5.7	5.3
15	22	11	11	11	13	9.7	12	4.9	5.7	5.4	6.6	5.5
16	23	11	11	11	13	9.9	12	4.9	5.5	5.4	5.7	5.4
17	23	11	11	11	14	9.8	12	4.6	5.5	5.6	5.5	5.4
18	22	11	11	11	14	11	12	4.7	5.6	5.3	5.5	5.4
19	22	11	11	11	19	11	12	5.4	5.6	5.5	5.5	5.3
20	22	11	10	11	17	10	11	5.7	5.5	5.3	5.5	5.4
21	22	11	11	11	16	10	11	6.2	5.6	5.3	5.6	5.5
22	23	10	11	11	15	10	11	6.1	5.7	5.3	5.5	5.3
23	23	10	11	11	14	10	11	6.1	5.6	5.3	5.4	5.3
24	22	11	11	11	13	10	10	6.0	5.5	5.3	5.4	5.3
25	22	10	11	11	11	10	10	5.9	5.5	5.3	5.3	5.3
26	27	10	11	11	10	10	10	6.2	5.4	5.3	5.5	5.3
27	25	10	11	11	10	9.8	10	5.9	5.4	5.5	5.4	5.4
28	24	10	11	11	10	9.6	9.8	5.6	5.4	5.6	5.5	5.5
29	24	10	11	11	18	9.4	9.6	5.7	5.3	5.5	5.5	5.5
30	25	10	11	11	---	9.1	8.4	5.9	5.4	5.4	5.5	5.5
31	19	---	11	11	---	9.0	---	5.8	---	5.3	5.4	---
TOTAL	701	327	328.8	341	362	341.8	306.6	173.7	169.1	165.3	170.1	162.7
MEAN	22.6	10.9	10.6	11.0	12.5	11.0	10.2	5.60	5.64	5.33	5.49	5.42
MAX	27	12	11	11	19	19	12	7.4	5.9	5.6	6.6	5.9
MIN	19	10	9.9	11	10	9.0	8.4	3.9	5.3	4.4	5.3	5.3
AC-FT	1390	649	652	676	718	678	608	345	335	328	337	323

CAL YR 1975 TOTAL 7697.8 MEAN 21.1 MAX 121 MIN 9.7 AC-FT 15270
WTR YR 1976 TOTAL 3549.1 MEAN 9.70 MAX 27 MIN 3.9 AC-FT 7040

11442500 SOUTH FORK AMERICAN RIVER BELOW SILVER CREEK, NEAR POLLOCK PINES, CA

LOCATION.--Lat 38°47'37", long 120°37'02", in NE¼NE¼ sec.22, T.11 N., R.12 E., El Dorado County, Eldorado National Forest, on right bank 350 ft (107 m) upstream from El Dorado powerhouse, 2.4 mi (3.9 km) downstream from Silver Creek, and 2.8 mi (4.5 km) northwest of Pollock Pines.

DRAINAGE AREA.--449 mi^2 (1,163 km^2).

PERIOD OF RECORD.--August to December 1923 (published as "below Silver Creek"), November 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,862.79 ft (567.778 m) above mean sea level. Aug. 11 to Dec. 16, 1923, nonrecording gage at same site at different datum.

REMARKS.--Records good. Flow regulated by storage, diversions, and powerplants. See schematic diagram of South Fork American River basin.

AVERAGE DISCHARGE (unadjusted).--6 years, 415 ft^3/s (11.75 m^3/s), 300,700 acre-ft/yr (37.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,200 ft^3/s (629 m^3/s) Jan. 21, 1970, gage height, 15.22 ft (4.639 m); minimum daily, 18 ft^3/s (0.51 m^3/s) July 27, 28, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,160 ft^3/s (61.2 m^3/s) Oct. 26, gage height, 8.86 ft (2.701 m); minimum daily, 18 ft^3/s (0.51 m^3/s) July 27, 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	70	89	50	33	32	185	101	458	53	21	22	21
2	68	86	53	90	32	138	72	530	46	21	22	20
3	68	80	65	139	32	122	84	417	37	21	30	20
4	67	69	47	104	38	97	100	479	25	21	22	21
5	67	58	40	86	38	96	93	464	24	20	20	21
6	71	45	39	69	34	84	82	437	23	20	20	21
7	111	40	39	41	71	80	62	345	22	26	20	21
8	123	255	38	43	62	78	109	412	22	22	20	20
9	93	130	37	46	63	81	134	472	22	19	20	20
10	135	93	37	45	61	88	107	577	24	19	19	20
11	407	71	37	62	43	96	112	495	24	20	19	58
12	240	56	49	44	40	89	108	476	24	20	19	61
13	180	59	51	56	74	72	106	478	23	20	19	41
14	160	57	44	42	99	74	113	532	21	20	24	50
15	160	55	63	46	73	80	121	465	20	20	295	49
16	162	141	60	44	60	96	127	369	24	20	202	46
17	161	272	53	41	59	100	98	359	25	20	44	44
18	152	127	45	41	60	146	102	310	23	22	25	43
19	79	63	39	42	59	154	118	259	23	20	28	42
20	51	63	38	36	59	104	188	218	23	20	24	40
21	47	52	42	34	60	93	278	180	23	19	23	39
22	47	38	61	35	60	103	305	166	23	19	22	39
23	77	36	56	57	60	122	333	155	23	19	24	37
24	56	35	50	41	57	118	369	143	22	19	25	36
25	45	34	51	40	52	124	423	136	22	20	23	35
26	738	33	49	33	47	98	322	127	21	19	21	34
27	683	37	46	33	46	78	249	118	21	18	21	34
28	220	51	45	35	72	66	209	116	22	18	21	34
29	135	49	45	34	135	62	224	82	21	19	21	39
30	166	48	52	33	---	61	315	57	21	19	21	39
31	148	---	40	32	---	81	---	59	---	20	21	---
TOTAL	4987	2322	1461	1557	1678	3066	5164	9891	747	621	1157	1045
MEAN	161	77.4	47.1	50.2	57.9	98.9	172	319	24.9	20.0	37.3	34.8
MAX	738	272	65	139	135	185	423	577	53	26	295	61
MIN	45	33	37	32	32	61	62	57	20	18	19	20
AC-FT	9890	4610	2900	3090	3330	6080	10240	19620	1480	1230	2290	2070
‡	17509	28643	51499	32157	22616	14678	9744	13442	22581	49023	49443	29729
‡‡	3288	8950	8940	6880	7387	9000	8873	8561	4910	3388	4497	1195

CAL YR 1975 TOTAL 171490 MEAN 470 MAX 3260 MIN 31 AC-FT 340200
WTR YR 1976 TOTAL 33696 MEAN 92.1 MAX 738 MIN 18 AC-FT 66840

‡ Diversions, in acre-feet, to Camino powerplant, furnished by Sacramento Municipal Utility District.
‡‡ Diversions, in acre-feet, to El Dorado powerplant, furnished by Pacific Gas and Electric Co.

11443500 SOUTH FORK AMERICAN RIVER NEAR CAMINO, CA

LOCATION.--Lat 38°46'23", long 120°42'02", in NE¼SW¼ sec.25, T.11 N., R.11 E., El Dorado County, on right bank 500 ft (152 m) downstream from Slab Creek Dam, 500 ft (152 m) upstream from Iowa Canyon Creek, and 2.8 mi (4.5 km) northwest of Camino.

DRAINAGE AREA.--493 mi^2 (1,277 km^2).

PERIOD OF RECORD.--October 1922 to current year. Monthly discharge only for October 1922, published in WSP 1315-A. Records for the river and the American River flume, published separately October 1922 to September 1956, October 1962 to December 1964 when flume was destroyed. Records of river and flume combined October 1956 to September 1962.

REVISED RECORDS.--WSP 931: 1928, 1938, 1940(M). WSP 1931: Drainage area at former site.

GAGE.--Water-stage recorder. Altitude of gage is 1,620 ft (494 m), from topographic map. See WSP 2131 for history of changes prior to Oct. 12, 1966.

REMARKS.--Records good. Flow regulated by six reservoirs, total usable capacity, 347,000 acre-ft (428 hm^3) and since 1967 diversion from Slab Creek Dam to White Rock powerplant which bypass this station. Echo Lake conduit (station 11434500) imports up to 1,900 acre-ft (2.34 hm^3) each year from Truckee River basin. Variable amounts of El Dorado Canal water, up to 40 ft^3/s (1.13 m^3/s) May to October, and about 7 ft^3/s (0.20 m^3/s) remainder of the year, diverted for irrigation and domestic use between Pollock Pines and Placerville. Water from Jenkinson Lake in North Fork Consumnes River basin diverted to Camino and substituted for flow from El Dorado Canal in some years. Since October 1962 water is imported from the Upper Rubicon River basin by way of Robbs Peak tunnel (station 11429800). See schematic diagram of South Fork American River basin.

AVERAGE DISCHARGE.--37 years (water years 1923-59, prior to extensive regulation and transbasin diversion in South Fork American River basin), 961 ft^3/s (27.22 m^3/s), 695,700 acre-ft/yr (858 hm^3/yr), combined flow of South Fork American River and American River flume; 8 years (water years 1960-67, transition period prior to bypass to White Rock powerplant), 1,062 ft^3/s (30.08 m^3/s), 769,400 acre-ft/yr (949 hm^3/yr); 9 years (water years 1968-76), 147 ft^3/s (4.163 m^3/s) 106,500 acre-ft/yr (131 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,800 ft^3/s (1,410 m^3/s) Dec. 23, 1955, gage height, 32.6 ft (9.94 m) from floodmarks, site and datum then in use, from rating curve extended above 24,000 ft^3/s (680 m^3/s) on basis of computation of maximum flow over dam; minimum daily, 1.3 ft^3/s (0.037 m^3/s) Aug. 24, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 43 ft^3/s (1.22 m^3/s) Aug. 16, gage height, 5.72 ft (1.744 m); minimum daily, 15 ft^3/s (0.42 m^3/s) on several days during February and March.

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	37	17	20	18	21	16	22	24	24	27	25	25
2	37	17	20	19	21	16	26	24	26	27	25	25
3	37	17	20	19	21	15	26	24	24	27	24	25
4	37	18	19	19	21	15	26	23	24	27	24	25
5	37	20	19	19	21	16	26	23	24	27	23	25
6	37	20	19	20	21	16	26	25	24	27	23	25
7	36	20	19	19	19	16	27	26	26	27	21	25
8	36	20	19	20	20	15	27	24	27	21	20	25
9	36	20	19	19	20	15	26	24	27	21	20	23
10	37	20	19	19	20	15	25	24	27	21	22	23
11	37	20	19	19	19	16	25	24	27	21	24	22
12	36	20	19	19	19	16	25	24	27	23	24	21
13	36	20	19	19	19	16	25	25	27	26	24	23
14	36	20	19	19	19	15	25	25	27	26	24	25
15	36	20	20	19	19	16	24	24	27	26	24	25
16	36	20	20	19	19	16	24	24	27	26	25	24
17	36	20	20	19	19	16	24	23	27	25	24	24
18	37	20	20	19	19	16	25	23	27	25	24	24
19	36	20	20	19	19	15	24	23	27	25	23	24
20	36	20	20	19	18	15	24	24	27	24	24	25
21	36	20	19	19	19	16	24	25	27	24	24	26
22	36	20	19	20	18	16	24	25	27	25	24	26
23	36	20	19	21	15	16	24	26	27	24	24	25
24	36	20	19	21	16	16	25	26	27	24	24	24
25	36	20	19	21	16	16	25	26	27	24	24	24
26	37	19	19	21	16	16	24	25	27	25	24	24
27	35	19	19	21	16	16	25	25	27	26	23	24
28	35	19	19	21	16	16	25	25	27	25	23	24
29	36	19	19	21	16	15	25	25	27	26	23	24
30	36	19	19	21	---	16	24	25	27	25	24	24
31	30	---	19	21	---	15	---	24	---	25	25	---
TOTAL	1118	584	598	609	542	486	747	757	793	772	729	728
MEAN	36.1	19.5	19.3	19.6	18.7	15.7	24.9	24.4	26.4	24.9	23.5	24.3
MAX	37	20	20	21	21	16	27	26	27	27	25	26
MIN	30	17	19	18	15	15	22	23	24	21	20	21
AC-FT	2220	1160	1190	1210	1080	964	1480	1500	1570	1530	1450	1440

CAL YR 1975 TOTAL 15380 MEAN 42.1 MAX 692 MIN 17 AC-FT 30510
WTR YR 1976 TOTAL 8463 MEAN 23.1 MAX 37 MIN 15 AC-FT 16790

11444500 SOUTH FORK AMERICAN RIVER NEAR PLACERVILLE, CA

LOCATION.--Lat 38°46'16", long 120°48'55", in NE¼SW¼ sec.25, T.11 N., R.10 E., El Dorado County, on right bank 700 ft (213 m) downstream from Chili Bar Dam, 0.5 mi (0.8 km) upstream from Big Canyon, and 2.5 mi (4.0 km) north of Placerville.

DRAINAGE AREA.--598 mi^2 (1,549 km^2).

PERIOD OF RECORD.--August 1911 to July 1920, July 1964 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 931.05 ft (283.784 m) above mean sea level (levels by Pacific Gas and Electric Co.). Aug. 11, 1911, to July 31, 1920, nonrecording gage 0.6 mi (1.0 km) downstream at different datum.

REMARKS.--Flow regulated by storage, diversions, and powerplants. See schematic diagram of South Fork American 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 (prior to extensive regulation and transbasin diversion).--9 years (water years 1912-20), 1,132 ft^3/s (32.06 m^3/s), 820,100 acre-ft/yr (1.01 km^3/yr); 12 years (water years 1965-76), 1,511 ft^3/s (42.79 m^3/s), 1,095,000 acre-ft/yr (1.35 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,300 ft^3/s (1,340 m^3/s) Dec. 23, 1964, gage height, 17.4 ft (5.30 m) from floodmarks, from rating curve extended above 18,000 ft^3/s (510 m^3/s) on basis of computations of flow over dam of maximum flow; minimum daily, 0.2 ft^3/s (0.006 m^3/s) Nov. 12, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,810 ft^3/s (108 m^3/s) Oct. 27, gage height, 7.04 ft (2.146 m); minimum daily, 108 ft^3/s (3.06 m^3/s) Oct. 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	460	539	917	568	456	635	301	689	308	980	536	569
2	459	587	1290	722	297	976	301	714	302	1130	871	569
3	421	495	1320	864	544	833	301	1000	393	908	1010	472
4	461	632	1250	448	636	758	294	1050	424	393	948	500
5	484	673	1390	693	962	640	289	848	669	362	1010	407
6	490	884	1140	876	421	552	288	813	612	880	1040	219
7	485	1020	618	938	317	514	312	819	296	1130	1060	567
8	460	894	1180	1020	316	559	1020	1070	246	916	592	747
9	521	307	1220	1010	914	304	678	812	497	976	864	530
10	459	763	1210	962	733	438	311	804	648	970	1130	622
11	1150	775	1050	462	687	666	301	946	456	412	1150	556
12	878	1150	1180	699	801	404	296	931	582	926	1050	551
13	196	822	1190	665	602	565	597	1060	519	1040	1050	649
14	110	883	671	857	875	307	309	938	500	1030	819	608
15	110	1130	876	851	313	676	369	983	528	1010	547	694
16	108	620	1010	825	310	498	601	711	865	1160	1210	713
17	125	785	1120	705	1010	455	314	986	593	1020	1150	746
18	496	958	1140	435	1080	510	303	752	469	542	1090	697
19	581	1040	1130	1380	959	995	492	459	459	980	1060	356
20	387	953	1160	902	627	299	611	446	434	1190	956	707
21	507	922	950	567	648	303	505	720	489	1150	1050	696
22	509	879	1350	686	604	524	883	302	501	867	582	659
23	541	524	1490	806	641	346	999	291	497	1040	869	677
24	699	1070	1060	717	836	627	315	284	587	1150	1190	650
25	556	779	632	318	681	541	544	789	572	605	1030	765
26	910	897	1140	615	693	378	1060	497	542	1020	994	397
27	3010	560	1290	676	610	350	986	828	459	1060	1110	578
28	566	757	851	731	633	316	624	308	371	936	957	298
29	602	684	1060	788	578	569	830	678	518	1080	570	583
30	724	549	1160	643	---	590	632	486	442	1120	1150	515
31	496	---	1210	782	---	320	---	730	---	1110	1070	---
TOTAL	17961	23531	34255	23211	18784	16448	15666	22744	14778	29093	29715	17297
MEAN	579	784	1105	749	648	531	522	734	493	938	959	577
MAX	3010	1150	1490	1380	1080	995	1060	1070	865	1190	1210	765
MIN	108	307	618	318	297	299	288	284	246	362	536	219
AC-FT	35630	46670	67940	46040	37260	32620	31070	45110	29310	57710	58940	34310

CAL YR 1975 TOTAL 534769 MEAN 1465 MAX 4020 MIN 108 AC-FT 1061000
WTR YR 1976 TOTAL 263483 MEAN 720 MAX 3010 MIN 108 AC-FT 522600

11445500 SOUTH FORK AMERICAN RIVER NEAR LOTUS, CA

LOCATION.--Lat 38°49'07", long 120°56'45", in NW¼SW¼ sec.11, T.11 N., R.9 E., El Dorado County, on left bank 0.4 mi (0.6 km) downstream from Greenwood Creek, 2.4 mi (3.9 km) northwest of Lotus, and 3.3 mi (5.3 km) northwest of Coloma.

DRAINAGE AREA.--673 mi^2 (1,743 km^2).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 635 ft (194 m), from topographic map.

REMARKS.--Records good. Flow regulated by storage, diversions, and powerplants. See schematic diagram of South Fork American River basin.

AVERAGE DISCHARGE.--11 years (water years 1952-62, prior to extensive regulation and transbasin diversion), 1,109 ft^3/s (31.41 m^3/s), 802,900 acre-ft/yr (990 hm^3/yr); 14 years (water years 1963-76), 1,498 ft^3/s (42.42 m^3/s), 1,085,000 acre-ft/yr (1.34 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,800 ft^3/s (2,030 m^3/s) Dec. 23, 1955, gage height, 21.37 ft (6.514 m); minimum daily, 50 ft^3/s (1.42 m^3/s) Oct. 21, 22, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1862 and prior to beginning of record, 20.4 ft (6.22 m) from floodmarks, Nov. 21, 1950, discharge, 64,500 ft^3/s (1,830 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,690 ft^3/s (104 m^3/s) Oct. 27, gage height, 8.07 ft (2.460 m); minimum daily, 124 ft^3/s (3.51 m^3/s) Oct. 16.

REVISIONS.--Revised daily discharges, in cubic foot per second, for water years 1964, 1966, and 1970 are given below. These figures supersede those published in WSP's 1931 and 2131.

WATER YEAR 1964

DAY	JUL	AUG
1	862	* 780
2	890	* 810
3	906	* 850
4	609	* 840
5	232	* 830
6	631	* 830
7	1080	* 840
8	954	* 820
9	970	* 860
10	970	* 850
11	1010	* 850
12	580	* 850
13	578	813
14	* 850	692
15	* 920	885
16	* 900	883
17	* 890	* 850
18	* 880	954
19	* 880	* 1060
20	* 870	* 1060
21	* 900	* 1070
22	* 920	* 1070
23	* 930	* 1070
24	* 920	* 1080
25	* 900	* 1070
26	* 900	* 1060
27	905	* 1050
28	982	* 1070
29	876	* 1040
30	* 820	* 1010
31	* 800	946
TOTAL	26315	28743
MEAN	849	927
MAX	1080	1080
MIN	232	692
AC-FT	52200	57010

**WTR YR 1964 TOTAL 367277
MEAN 1003 MAX 3220
MIN 126 AC-FT 728500

WATER YEAR 1966

DAY	JUL	AUG	SEP
1	833	* 460	* 800
2	888	* 780	* 740
3	652	*1200	* 640
4	372	1180	510
5	364	976	364
6	694	848	356
7	872	* 250	* 750
8	904	* 450	749
9	880	* 550	756
10	604	* 740	721
11	430	* 800	* 480
12	864	* 780	* 440
13	864	550	538
14	872	* 370	770
15	880	* 600	* 660
16	864	* 780	* 700
17	610	* 820	550
18	598	* 620	* 400
19	812	* 760	372
20	622	* 600	* 430
21	833	455	* 480
22	770	* 370	* 480
23	805	* 350	470
24	604	* 660	* 330
25	* 480	* 800	* 260
26	728	* 750	360
27	749	* 640	* 300
28	856	* 470	206
29	912	* 720	206
30	* 500	* 560	203
31	* 430	* 780	---
TOTAL	22146	20669	15021
MEAN	714	667	501
MAX	912	1200	800
MIN	364	250	203
AC-FT	43930	41000	29790

**WTR YR 1966 TOTAL 356836
MEAN 978 MAX 2300
MIN 74 AC-FT 707800

WATER YEAR 1970

DAY	MAY	JUN
1	1390	*2400
2	1260	2180
3	910	2060
4	*1300	1990
5	*1520	*2270
6	*2220	*2250
7	*2240	1970
8	*2220	*2600
9	*2220	*2400
10	*1000	*2600
11	*1500	2270
12	1920	2350
13	*1500	2260
14	*1380	2250
15	2100	2270
16	2290	2020
17	* 940	1250
18	1400	822
19	*2600	769
20	*2500	565
21	*2800	320
22	*2900	1010
23	2070	1300
24	1050	1900
25	*1500	2350
26	*1950	2140
27	*2100	2020
28	*2400	* 960
29	*3000	*1700
30	*3300	1800
31	1780	---
TOTAL	59180	55046
MEAN	1909	1835
MAX	3300	2600
MIN	910	320
AC-FT	117400	109200

**WTR YR 1970 TOTAL 629534
MEAN 1725 MAX 19500
MIN 108 AC-FT 1249000

* Revised daily figures.
** Revised yearly figures.

11445500 SOUTH FORK AMERICAN RIVER NEAR LOTUS, CA--Continued

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	472	511	834	749	483	682	304	688	303	822	641	601
2	488	575	1160	641	300	992	305	711	283	996	740	562
3	427	500	1310	782	478	1160	305	910	297	1100	1000	481
4	435	582	1240	613	592	965	296	1050	404	900	929	477
5	484	650	1380	621	978	730	286	885	677	346	918	412
6	492	803	1270	918	452	585	288	808	578	782	1000	186
7	501	961	664	879	350	523	292	802	281	912	1040	523
8	490	881	1020	982	323	562	917	939	276	1070	600	622
9	477	477	1230	1020	816	322	744	903	398	902	800	637
10	533	743	1220	1020	776	332	324	790	585	940	1100	569
11	995	779	1150	508	556	744	310	898	449	488	1080	615
12	1100	975	1120	674	891	417	302	922	560	814	1060	407
13	307	981	1220	666	588	561	435	953	510	1000	992	720
14	130	838	852	853	828	319	458	980	470	998	893	666
15	125	1060	757	822	434	664	315	915	500	988	582	657
16	124	774	1020	833	338	413	483	769	800	1010	867	688
17	131	771	1060	709	878	478	463	928	597	1130	1280	672
18	433	921	1140	445	1190	475	302	770	489	615	957	805
19	564	1030	1110	1150	983	932	309	367	420	854	1140	486
20	393	964	1230	1040	880	450	746	474	420	965	979	460
21	493	806	1060	598	692	310	339	699	470	1160	956	728
22	490	979	1060	662	620	416	969	315	480	1010	667	636
23	542	548	1720	784	646	413	914	296	480	775	817	680
24	694	889	1080	715	772	458	394	286	510	1250	952	700
25	568	907	756	329	718	559	521	758	550	702	1130	773
26	761	893	964	594	703	475	938	429	530	813	972	487
27	3020	594	1250	656	631	376	972	801	424	976	942	567
28	761	750	1080	706	635	337	669	309	329	1010	1070	305
29	579	683	939	763	574	406	824	659	449	922	602	585
30	760	575	1080	650	---	520	641	425	401	930	928	510
31	520	---	1220	759	---	539	---	727	---	1200	1100	---
TOTAL	18289	23400	34196	23141	19105	17115	15365	22166	13920	28380	28734	17217
MEAN	590	780	1103	746	659	552	512	715	464	915	927	574
MAX	3020	1060	1720	1150	1190	1160	972	1050	800	1250	1280	805
MIN	124	477	664	329	300	310	286	286	276	346	582	186
AC-FT	36280	46410	67830	45900	37890	33950	30480	43970	27610	56290	56990	34150

CAL YR 1975 TOTAL 557691 MEAN 1528 MAX 7180 MIN 124 AC-FT 1106000
WTR YR 1976 TOTAL 261028 MEAN 713 MAX 3020 MIN 124 AC-FT 517700

11445500 SOUTH FORK AMERICAN RIVER NEAR LOTUS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-68, 1970 to current year.
CHEMICAL ANALYSES: Water years 1958-66.
WATER TEMPERATURES: Water years 1960-68, 1970 to current year.
SEDIMENT RECORDS: Water years 1957-62.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1959 to September 1968, February 1970 to current year.

INSTRUMENTATION.--Temperature recorder December 1959 to September 1968, and since February 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 29.5°C July 20, 1960; minimum (water years 1960-68, 1971-76), 1.0°C on several days in 1960 and 1962.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.5°C Sept. 6, 7; minimum, 3.5°C Jan. 25.

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	15.0	12.0	10.5	9.0	7.5	6.5	5.0	4.5	5.5	4.5	6.5	6.0
2	15.0	12.5	10.5	9.0	7.5	6.5	5.0	4.0	6.0	4.5	5.5	5.0
3	15.0	12.5	10.5	9.0	7.5	6.5	5.0	4.5	6.0	5.0	6.0	5.0
4	15.5	12.5	10.5	9.0	7.5	6.5	5.0	4.5	5.5	4.5	7.0	4.5
5	15.5	12.5	10.0	8.5	8.0	7.5	5.5	5.0	5.0	4.5	7.0	4.5
6	14.5	13.0	10.5	9.0	7.5	7.0	6.0	5.0	5.0	4.0	7.5	5.0
7	14.0	12.0	10.0	9.0	7.5	6.5	5.5	4.5	5.0	4.0	7.5	5.5
8	13.5	11.5	10.5	9.0	7.5	6.5	5.5	4.5	6.0	5.0	8.0	6.0
9	13.5	12.0	9.5	8.5	7.5	6.5	5.5	5.0	6.0	5.0	8.5	6.0
10	13.5	12.0	10.0	8.5	7.5	6.5	5.5	5.0	6.0	4.5	8.5	7.5
11	14.0	12.0	9.0	8.0	7.0	6.5	5.0	5.0	6.0	4.5	8.5	6.5
12	13.0	11.5	9.5	8.0	7.5	7.0	5.0	5.0	6.5	5.0	8.0	5.5
13	13.0	11.0	9.5	8.0	7.5	6.5	5.5	5.0	6.0	4.5	8.5	7.0
14	14.5	12.0	9.0	8.5	6.5	6.0	5.5	4.5	6.0	5.5	9.0	6.5
15	15.0	13.0	9.0	8.5	6.0	5.0	5.0	4.5	6.0	5.0	8.5	7.0
16	15.0	13.0	9.5	8.5	6.5	5.0	5.5	4.5	6.0	6.0	9.0	7.0
17	15.0	13.0	9.0	8.0	6.5	5.5	5.5	5.0	7.0	5.5	10.0	7.0
18	15.5	12.5	8.0	7.0	6.5	5.0	5.5	4.5	7.0	5.5	9.0	7.5
19	13.5	11.5	8.0	6.5	6.0	5.0	5.5	4.5	6.5	5.5	8.5	6.5
20	13.5	11.0	8.5	8.0	6.0	5.5	5.5	4.0	6.5	5.0	9.0	6.0
21	13.5	11.5	8.0	7.0	6.0	5.5	5.0	4.0	6.5	4.5	9.5	8.0
22	13.0	11.5	7.5	7.0	7.0	6.0	5.0	4.0	6.5	5.0	9.5	8.5
23	11.5	10.0	7.5	6.5	6.5	6.0	5.0	4.0	6.0	5.0	10.0	7.0
24	12.0	9.5	8.0	7.0	6.5	5.5	5.5	4.0	7.0	5.0	9.0	8.0
25	11.0	10.0	8.0	7.0	6.5	6.0	4.5	3.5	6.5	5.5	9.5	6.5
26	11.5	11.0	7.5	7.0	6.5	6.0	5.5	4.0	7.5	5.5	8.5	6.5
27	11.0	10.0	7.5	7.5	6.5	6.0	5.0	4.0	7.5	5.5	9.5	7.5
28	11.0	9.5	7.5	6.5	6.5	5.5	5.5	4.0	7.5	6.0	10.0	8.0
29	11.0	9.5	7.0	6.0	6.5	5.5	5.5	4.0	7.0	6.5	10.5	9.0
30	10.5	10.0	7.5	6.5	6.0	5.5	5.5	4.0	---	---	11.0	7.5
31	10.5	9.0	---	---	5.5	4.5	5.5	4.0	---	---	10.0	7.5
MONTH	15.5	9.0	10.5	6.0	8.0	4.5	6.0	3.5	7.5	4.0	11.0	4.5

11445500 SOUTH FORK AMERICAN RIVER NEAR LOTUS, CA--Continued

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	8.0	14.0	10.5	18.0	14.0	17.5	14.5	16.0	13.0	21.0	17.0
2	10.5	9.0	13.5	11.0	19.0	16.0	17.0	13.5	16.5	14.5	20.5	17.0
3	9.5	8.5	13.5	11.0	18.5	16.0	17.0	13.5	14.5	13.5	21.0	17.5
4	9.5	8.5	13.5	10.0	18.0	14.5	17.5	14.0	16.0	13.0	21.0	18.0
5	9.0	8.5	13.5	11.0	17.0	14.0	19.5	16.0	16.0	13.0	20.5	18.0
6	11.0	8.5	14.0	11.5	16.5	14.0	18.5	16.0	16.5	13.5	21.5	18.0
7	11.0	9.5	14.5	11.5	17.5	14.5	17.0	14.5	16.5	13.0	21.5	19.0
8	10.5	8.5	14.5	11.5	17.5	16.0	17.0	13.0	16.5	13.5	21.0	17.5
9	11.0	7.5	15.0	11.5	19.0	15.0	17.0	14.0	17.5	15.0	21.0	17.5
10	8.5	8.0	14.5	12.0	16.0	13.5	17.0	13.5	17.0	14.5	19.0	18.0
11	10.5	8.5	15.0	12.5	17.0	13.0	17.0	13.5	17.0	14.0	18.5	18.0
12	11.0	10.0	15.5	12.0	17.0	14.0	17.5	15.0	17.5	14.0	20.0	17.5
13	12.0	9.5	15.5	12.5	17.0	14.0	16.5	13.5	16.5	14.5	20.5	17.5
14	12.5	8.0	15.5	12.5	18.0	14.0	16.5	13.0	15.0	15.0	19.5	17.5
15	11.5	10.0	16.0	12.0	18.0	14.5	16.5	13.0	16.0	15.0	19.0	17.5
16	11.0	8.0	16.0	12.0	18.0	14.5	16.0	13.5	16.0	14.5	18.5	17.0
17	11.5	7.5	15.5	12.5	18.0	13.5	15.5	13.0	16.0	14.5	20.0	17.5
18	13.5	11.0	15.5	12.0	18.5	14.0	16.5	13.5	16.5	15.0	19.5	17.0
19	13.5	11.0	16.5	12.5	18.0	14.5	16.5	14.5	17.5	15.0	19.0	16.5
20	13.0	9.5	17.0	13.0	19.0	15.5	16.0	13.5	18.5	15.5	19.5	17.5
21	12.5	10.0	16.0	14.0	18.5	15.5	16.0	13.0	18.5	15.5	19.5	16.5
22	12.0	9.0	17.5	13.5	18.5	15.0	16.5	13.0	17.5	16.0	19.0	16.5
23	12.0	9.0	18.0	15.5	18.5	15.0	17.5	14.0	18.5	16.0	19.0	16.0
24	13.5	9.0	18.0	16.0	19.0	15.0	16.5	13.0	19.0	16.0	19.0	16.5
25	12.5	10.5	17.5	15.5	19.5	15.0	16.5	13.0	19.0	16.0	19.0	16.0
26	12.0	10.0	19.0	14.0	18.5	14.5	17.5	15.0	19.0	16.0	19.0	16.0
27	12.0	8.5	17.0	14.5	18.5	15.0	16.5	13.5	19.0	16.0	19.0	17.5
28	13.0	8.5	17.5	14.0	20.5	16.0	14.5	13.5	19.5	16.5	19.0	17.5
29	13.0	9.0	16.5	15.5	20.5	16.5	16.0	13.5	20.0	16.5	18.5	17.5
30	14.0	10.0	18.0	14.5	19.5	15.5	15.0	13.0	20.5	17.5	18.0	17.0
31	---	---	17.5	14.5	---	---	14.0	13.0	20.5	17.0	---	---
MONTH	14.0	7.5	19.0	10.0	20.5	13.0	19.5	13.0	20.5	13.0	21.5	16.0

11446200 FOLSOM LAKE NEAR FOLSOM, CA

LOCATION.--Lat 38°42'29", long 121°09'22", in NW¼NE¼ sec.24, T.10 N., R.7 E., Sacramento County, near center of dam on American River, 0.7 mi (1.1 km) downstream from South Fork American River, and 2.3 mi (3.7 km) northeast of Folsom.

DRAINAGE AREA.--1,861 mi^2 (4,820 km^2).

PERIOD OF RECORD.--February 1955 to current year. Prior to October 1959, published as Folsom Reservoir near Folsom.

REVISED RECORDS.--WSP 1931: Drainage area.

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

REMARKS.--Reservoir is formed by concrete gravity-type dam with rolled-earth-wing dams, auxiliary dams, and dikes, completed May 14, 1956; storage began Feb. 25, 1955. Total capacity, 1,010,300 acre-ft (1.25 km^3) between elevations 205.5 ft (62.64 m) invert of lower tier of river outlets and 466.0 ft (142.04 m) gross pool elevation, all of which is available for release. Spillway design flood pool elevation, 475.4 ft (144.90 m), capacity, 1,120,200 acre-ft (1.38 km^3). Records, including extremes, represent usable contents at 2400 hours. See schematic diagram of South Fork American River basin.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,024,400 acre-ft (1.26 km^3) June 15, 1963, elevation, 467.23 ft (142.412 m); minimum since storage pool first filled, 261,500 acre-ft (322 hm^3) Jan. 7, 1960, elevation, 378.23 ft (115.284 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 770,200 acre-ft (950 hm^3) Oct. 1, elevation, 443.73 ft (135.249 m); minimum, 415,100 acre-ft (512 hm^3) Sept. 13, elevation, 403.08 ft (122.859 m).

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

370	222300	420	548300
380	270700	440	732900
390	327800	460	942600
400	393300	480	1176000

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	770200	699400	626800	570600	539600	586300	633000	636600	630800	581700	517500	447600
2	766900	694500	624600	567400	539200	590900	632500	637600	628100	580300	514200	442600
3	764200	689000	622400	565500	539500	594800	632000	638400	625400	579800	511200	437800
4	761400	683600	620500	563400	540300	598100	631500	640200	622900	578200	508600	432800
5	758400	678400	619000	560200	542000	601000	630800	641500	621300	576500	507000	427600
6	755600	674600	617100	558600	542700	602600	629800	642500	619300	574900	505800	422100
7	752900	671600	614100	556700	543400	604600	629600	642900	617600	573400	504600	416800
8	750400	670100	611100	555100	543700	606600	630800	643800	615500	572900	503100	416800
9	748200	668200	609000	554200	544800	608100	631700	644700	613700	572000	500900	416900
10	746000	668100	606700	552900	546200	609800	631900	645400	612500	571300	500000	416900
11	745400	666200	604100	551900	547000	612200	631800	646200	610300	569900	499600	418000
12	745200	664400	602300	550000	548700	613500	630800	647200	608900	566600	499100	416300
13	742900	663000	600300	547800	550400	615400	630700	648700	607900	563600	498100	415100
14	739800	661000	597600	545700	553000	616800	630800	650600	606100	561200	496200	415500
15	737200	659800	593900	543500	555300	619000	630500	651100	605100	558600	493400	416300
16	734200	659200	591300	541400	556100	620500	630400	651400	604500	556100	490100	417400
17	730200	658700	588900	540100	557800	622100	630200	651100	604000	554100	488800	418500
18	727300	657600	586500	538200	560400	623600	629600	651000	603200	551300	486700	419900
19	724400	656600	585100	537400	562900	625700	629500	649800	601500	548300	485200	419100
20	721700	655400	584300	537000	565500	627100	630300	648800	599700	545600	483400	417900
21	719200	653600	583100	535100	567300	627800	630200	648100	597700	543700	481500	419300
22	716900	652500	581100	533900	569400	628700	631400	646900	595600	541500	479200	420400
23	714200	650300	581500	532600	570900	629900	632400	645400	593700	538900	476300	420700
24	712100	648300	580600	532800	572600	630600	632800	643700	591900	537300	474000	421000
25	709700	646500	579200	533100	574200	632000	633200	642800	590900	534900	471900	420800
26	709600	644100	577500	533800	575800	632900	633900	641200	589900	532100	469400	419700
27	715800	640700	576700	534400	577400	633500	634900	641100	588400	529700	466300	418700
28	713900	637100	576100	535600	579100	634100	635200	640100	586400	527600	463700	417400
29	710200	633500	574400	536900	581800	634300	635800	638700	584700	525100	459100	416600
30	707700	630200	573300	538200	---	634000	636000	635800	582100	522400	454800	416400
31	704200	---	572200	539200	---	633500	---	633800	---	520300	451400	---
MAX	770200	699400	626800	570600	581800	634300	636000	651400	630800	581700	517500	447600
MIN	704200	630200	572200	532600	539200	586300	629500	633800	582100	520300	451400	415100
†	437.07	429.23	422.77	418.93	423.86	429.59	429.86	429.62	423.90	416.67	407.99	403.26
‡	-68800	-74000	-58000	-33000	+42600	+51700	+2500	-2200	-51700	-61800	-68900	-35000
††	2380	960	580	690	1030	2190	3240	5950	6610	6520	4060	3060

CAL YR 1975 ‡ -25600
WTR YR 1976 ‡ -356600

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
†† Evaporation, in acre-feet.

11446500 AMERICAN RIVER AT FAIR OAKS, CA

LOCATION.--Lat 38°38'08", long 121°13'36", in SE¼NE¼ sec.17, T.9 N., R.7 E., Sacramento County, on right bank 2,100 ft (640 m) downstream from Nimbus Dam, 2.4 mi (3.9 km) east of Fair Oaks, 8.1 mi (13.0 km) downstream from South Fork, and at mile 22.2 (35.7 km).

DRAINAGE AREA.--1,888 mi^2 (4,890 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1904 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1181: 1928(M). WSP 1515: 1907(M), 1910, 1931(M), 1943(M). WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 71.53 ft (21.802 m) above mean sea level. See WSP 2131 for history of changes prior to July 15, 1970.

REMARKS.--Records excellent. Flow regulated by Folsom Lake beginning Feb. 25, 1955 (station 11446200). Some minor regulation of high flows by temporary pondage during period of construction January 1953 to February 1955. Diurnal fluctuations from Folsom powerplant re-regulated by Nimbus Reservoir, capacity, 2,800 acre-ft (3.45 hm^3) between normal operating elevations, 118.5 ft (36.12 m) and 125.0 ft (38.10 m) and powerplant. Many diversions above station for irrigation, municipal, and domestic water supply. Diversions of San Juan Suburban Water District, Cordova Water Service, city of Folsom, city of Roseville, and State of California are made at Folsom Dam. Diversion to Folsom South Canal from Nimbus Reservoir started in June 1973. Some inflow from Bear and Yuba River basins.

AVERAGE DISCHARGE (adjusted for change in contents, diversions, and evaporation from Folsom Lake since 1955).--72 years, 3,785 ft^3/s (107.2 m^3/s), 2,742,000 acre-ft/yr (3.38 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 180,000 ft^3/s (5,100 m^3/s) Nov. 21, 1950, gage height, 31.85 ft (9.708 m) site and datum then in use; minimum, 3.6 ft^3/s (0.10 m^3/s) Aug. 16, 1924. Maximum discharge since construction of Folsom Dam in 1953, 115,000 ft^3/s (3,260 m^3/s) Dec. 23-25, 1964, gage height, 21.65 ft (6.599 m); minimum, 86 ft^3/s (2.44 m^3/s) Apr. 7, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,770 ft^3/s (107 m^3/s) Oct. 17, gage height, 7.79 ft (2.374 m); minimum daily, 1,030 ft^3/s (29.2 m^3/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	2990	3550	3040	2450	1520	1570	1300	1230	1580	1230	2040	3070
2	3020	3600	3050	2440	1560	1570	1280	1230	1560	1210	2020	3040
3	3030	3590	3040	2450	1560	1580	1250	1220	1550	1190	2030	2730
4	3040	3560	3090	2450	1550	1580	1250	1230	1550	1200	1980	2750
5	3030	3560	3020	2460	1550	1660	1250	1220	1550	1200	1540	2740
6	3030	3020	3030	2490	1560	1560	1250	1220	1550	1220	1540	2760
7	3040	2970	3030	2500	1550	1560	1250	1220	1240	1300	1530	2560
8	3040	2480	3080	2490	1550	1570	1270	1220	1200	1260	1530	1540
9	3020	2470	3150	2470	1540	1570	1270	1220	1210	1220	1370	1590
10	3030	2450	3070	2480	1550	1610	1280	1220	1200	1180	1210	1540
11	3040	2460	3080	2470	1550	1570	1270	1220	1230	1230	1220	1540
12	3040	2430	3080	2500	1550	1570	1320	1220	1190	1990	1220	1530
13	3050	2470	3090	2480	1560	1560	1260	1230	1210	2020	1290	1540
14	3050	2470	3070	2480	1550	1560	1220	1220	1220	2020	2020	1510
15	3050	2460	3080	2430	1550	1560	1220	1230	1200	2010	2420	1200
16	3300	2470	3090	2430	1550	1560	1210	1220	1200	1990	2390	1210
17	3320	2480	3090	2040	1550	1570	1210	1230	1200	1980	2010	1210
18	3060	2450	3050	2040	1550	1580	1210	1220	1210	2000	2050	1210
19	3080	2450	2450	2050	1550	1580	1210	1220	1200	2010	2040	1220
20	3040	2430	2480	2050	1550	1580	1220	1220	1210	2010	2020	1220
21	3030	2430	2410	2050	1550	1580	1220	1220	1210	1960	2020	1210
22	3050	2450	2410	2060	1550	1590	1220	1220	1210	2020	2030	1210
23	3050	2470	2420	2030	1550	1580	1230	1220	1190	1990	2030	1500
24	3040	2470	2410	1550	1540	1580	1220	1220	1190	2010	2000	1540
25	3040	2470	2390	1530	1550	1580	1220	1220	1200	2020	2000	1530
26	3010	3050	2380	1530	1550	1580	1230	1220	1210	2020	2040	1530
27	2990	3050	2370	1530	1560	1590	1250	1220	1210	2030	2480	1230
28	2990	3080	2360	1530	1560	1570	1210	1230	1240	2030	2550	1200
29	3030	3100	2380	1530	1570	1580	1230	1560	1190	2040	3050	1200
30	3050	3060	2390	1520	---	1620	1230	1860	1210	2040	3060	1030
31	3100	---	2390	1510	---	1620	---	1860	---	2040	3030	---
TOTAL	94680	83450	86470	66020	44980	48990	37260	39510	38320	53670	61760	50890
MEAN	3054	2782	2789	2130	1551	1580	1242	1275	1277	1731	1992	1696
MAX	3320	3600	3150	2500	1570	1660	1320	1860	1580	2040	3060	3070
MIN	2990	2430	2360	1510	1520	1560	1210	1220	1190	1180	1210	1030
AC-FT	187800	165500	171500	131000	89220	97170	73910	78370	76010	106500	122500	100900
MEAN ‡	2074	1626	1917	1688	2383	2558	1452	1489	716	1059	1107	1294
AC-FT ‡	127500	96740	117900	103800	137100	157300	86390	91530	42630	65140	68050	77000
†	6154.2	4281.16	3818.23	5113	4248	6282	6737	9413	11712	13924	10389	8038

CAL YR 1975 TOTAL 1371850 MEAN 3758 MAX 8250 MIN 1750 AC-FT 2721000 MEAN ‡ 3891 AC-FT ‡ 2817000
WTR YR 1976 TOTAL 706000 MEAN 1929 MAX 3600 MIN 1030 AC-FT 1400000 MEAN ‡ 1613 AC-FT ‡ 1171000

‡ Adjusted for change in contents, diversions, and evaporation from Folsom Lake.
† Diversions, in acre-feet, from Folsom-Nimbus Dam complex furnished by Bureau of Reclamation.

11446500 AMERICAN RIVER AT FAIR OAKS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1906-07, 1951-58, 1960 to current year.
CHEMICAL ANALYSES: Water years 1906-07, 1951-62.
WATER TEMPERATURES: Water years 1951-58, 1960 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1951 to September 1958, November 1959 to September 1962.
WATER TEMPERATURES: March 1951 to September 1958, November 1959 to current year.

INSTRUMENTATION.--Temperature recorder March 1951 to September 1958, and since November 1959.

REMARKS.--Water temperatures affected by construction of Folsom Dam beginning in February 1955. Extremes are given for two separate periods -- 1951-55, and 1956 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD (see REMARKS above):
WATER TEMPERATURES (1951-55): Maximum, 27.0°C July 27, Aug. 3, 1954; minimum, 3.5°C Oct. 30, 31, 1954.
(1956 to current year): Maximum (1956-58, 1960-64, 1966-76), 26.0°C Sept. 28, 1961; minimum, 0.0°C on several days in 1957 and 1958.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.0°C Aug. 10-13; minimum, 9.0°C Feb. 17, 18, 22.

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	16.5	16.5	14.5	14.5	11.5	11.5	11.5	11.0	11.0	10.5	10.5	10.0
2	16.5	16.0	14.5	14.5	12.0	11.5	11.0	11.0	11.0	10.5	10.0	10.0
3	16.0	15.5	14.5	14.5	12.0	11.5	11.0	11.0	11.0	10.5	10.0	10.0
4	15.5	15.5	14.5	14.5	12.0	12.0	11.0	11.0	11.0	10.5	10.0	10.0
5	15.5	15.0	14.5	14.5	12.0	12.0	11.0	11.0	11.0	10.5	10.5	9.5
6	15.0	15.0	14.5	14.5	12.0	12.0	11.0	11.0	10.5	10.5	10.5	10.0
7	15.0	15.0	14.5	14.0	12.0	12.0	11.0	10.5	10.5	10.5	10.5	10.0
8	15.0	15.0	14.0	14.0	12.0	12.0	11.0	11.0	10.5	10.5	11.0	10.5
9	15.0	15.0	14.0	14.0	12.0	11.5	11.0	11.0	10.5	10.5	11.0	10.5
10	15.0	14.5	14.0	14.0	12.0	11.5	11.0	11.0	10.5	10.5	11.0	10.5
11	14.5	14.5	14.0	14.0	11.5	11.5	10.5	10.5	10.5	10.5	11.0	10.5
12	15.0	14.5	14.0	13.5	11.5	11.5	10.5	10.5	10.5	10.5	11.0	10.5
13	15.0	15.0	14.0	13.5	11.5	11.5	10.5	10.5	10.5	10.5	10.5	10.5
14	15.0	15.0	13.5	13.5	11.5	11.5	10.5	10.0	10.5	10.5	11.0	10.5
15	15.0	15.0	13.5	13.5	11.5	11.5	10.5	10.5	10.5	10.5	11.0	10.5
16	15.0	15.0	13.5	13.5	11.5	11.5	10.5	10.0	10.5	10.0	11.0	10.5
17	15.0	15.0	13.5	13.0	11.5	11.5	10.5	10.0	10.0	9.0	11.0	11.0
18	15.0	15.0	13.0	13.0	11.5	11.5	10.5	10.5	9.5	9.0	11.0	11.0
19	15.0	15.0	13.0	12.5	11.5	11.5	10.5	10.0	9.5	9.5	11.5	11.0
20	15.0	15.0	13.0	12.5	11.5	11.5	10.0	10.0	9.5	9.5	11.5	11.0
21	15.5	15.0	13.0	12.5	11.5	11.5	10.0	10.0	9.5	9.5	11.5	11.0
22	15.5	15.0	12.5	12.5	11.5	11.5	10.0	10.0	9.5	9.0	11.5	11.0
23	15.5	15.0	12.5	12.5	11.5	11.5	10.0	10.0	9.5	9.5	11.5	11.5
24	15.0	15.0	12.5	12.5	11.5	11.5	10.0	10.0	9.5	9.5	11.5	11.0
25	15.0	15.0	12.5	12.0	11.5	11.5	10.0	10.0	9.5	9.5	11.5	11.0
26	15.0	15.0	12.0	12.0	11.5	11.5	10.0	10.0	10.0	9.5	11.5	11.0
27	15.0	15.0	12.0	12.0	11.5	11.5	10.5	10.5	10.0	9.5	11.5	11.0
28	15.0	15.0	12.0	11.5	11.5	11.5	10.5	10.5	10.0	10.0	11.5	11.5
29	15.0	15.0	12.0	11.5	11.5	11.5	11.0	10.5	10.5	10.0	12.0	11.5
30	14.5	14.5	11.5	11.5	11.5	11.5	11.0	10.5	---	---	---	---
31	14.5	14.5	---	---	11.5	11.5	11.0	10.5	---	---	---	---
MONTH	16.5	14.5	14.5	11.5	12.0	11.5	11.5	10.0	11.0	9.0	12.0	9.5

11446500 AMERICAN RIVER AT FAIR OAKS, CA--Continued

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	---	---	14.5	14.5	17.0	16.5	20.0	19.5	20.5	20.0	20.5	20.5
2	12.0	12.0	15.0	14.5	16.5	16.5	20.0	19.5	20.5	20.0	20.5	20.5
3	12.0	12.0	15.0	15.0	17.0	16.5	20.0	19.5	20.5	20.0	20.5	20.5
4	12.0	12.0	15.0	14.5	17.0	16.5	20.0	19.5	20.5	20.0	20.5	20.0
5	12.0	12.0	15.0	14.5	17.0	16.5	20.0	19.5	20.0	20.0	20.5	20.5
6	12.0	11.5	15.5	15.0	17.0	16.5	20.0	19.5	20.5	20.0	20.5	20.5
7	12.0	11.5	15.5	15.5	17.0	16.5	20.0	19.5	20.5	20.0	20.5	20.5
8	12.0	11.5	15.5	15.0	17.0	17.0	20.0	19.5	20.5	20.0	20.5	20.0
9	12.0	11.5	15.5	15.0	17.0	16.5	20.0	19.5	20.5	20.0	20.5	20.0
10	11.5	11.5	15.5	15.5	17.0	16.5	20.0	19.5	21.0	20.5	20.5	20.5
11	12.0	11.5	16.0	15.5	17.0	17.0	20.0	19.5	21.0	20.5	20.5	20.0
12	12.5	12.0	16.0	16.0	17.5	17.0	20.0	19.5	21.0	20.5	20.0	18.5
13	12.5	12.0	16.0	15.5	17.5	17.0	20.0	19.5	21.0	20.5	18.5	17.5
14	12.5	12.0	16.0	16.0	17.5	17.5	19.5	19.5	20.5	20.5	17.5	16.5
15	12.5	12.5	16.5	16.5	18.0	17.5	19.5	19.5	20.5	20.0	17.0	16.5
16	13.0	12.5	16.5	16.0	18.0	17.5	19.5	19.5	20.0	19.5	16.5	16.0
17	12.5	12.5	16.5	16.0	18.0	18.0	19.5	19.5	19.5	19.5	16.5	16.0
18	12.5	12.0	16.5	16.0	18.0	18.0	19.5	19.5	19.5	19.5	16.5	16.0
19	13.0	12.5	16.5	16.0	18.5	18.0	19.5	19.5	19.5	19.5	16.5	16.0
20	13.0	13.0	16.5	16.0	18.5	18.0	19.5	19.5	19.5	19.5	16.0	15.5
21	13.5	13.0	16.5	16.0	18.5	18.5	20.0	19.5	19.5	19.5	16.0	16.0
22	13.5	13.0	16.5	16.0	18.5	18.5	20.0	19.5	20.0	19.5	16.5	16.0
23	14.0	13.0	16.5	16.0	19.0	18.5	20.0	20.0	20.0	19.5	16.5	16.0
24	14.0	13.5	16.5	16.0	19.0	18.5	20.0	20.0	20.0	19.5	16.5	16.0
25	14.0	13.5	16.5	16.5	19.0	19.0	20.0	20.0	20.0	19.5	16.0	15.5
26	14.5	14.0	17.0	16.5	19.5	19.0	20.0	20.0	20.0	20.0	16.0	15.5
27	14.5	14.0	16.5	16.5	19.5	19.0	20.5	20.0	20.0	20.0	16.5	16.0
28	14.5	14.0	17.0	16.5	19.5	19.0	20.5	20.5	20.0	20.0	16.5	16.0
29	14.5	14.0	17.0	16.5	19.5	19.0	20.5	20.5	20.0	20.0	16.5	16.0
30	14.5	14.0	16.5	16.5	20.0	19.5	20.5	20.5	20.5	20.0	16.5	16.0
31	---	---	17.0	16.5	---	---	20.5	20.5	20.5	20.0	---	---
MONTH	14.5	11.5	17.0	14.5	20.0	16.5	20.5	19.5	21.0	19.5	20.5	15.5

11447360 ARCADE CREEK NEAR DEL PASO HEIGHTS, CA

LOCATION.--Lat 38°38'28", long 121°22'38", in Del Paso Grant, Sacramento County, on right bank 1,200 ft (366 m) upstream from bridge on Interstate Highway 80, and 1.6 mi (2.6 km) east of city limits of Del Paso Heights.

DRAINAGE AREA.--31.5 mi^2 (81.6 km^2).

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

GAGE.--Water-stage recorder and concrete low-water control. Datum of gage is 47.98 ft (14.624 m) above mean sea level (levels by county of Sacramento).

REMARKS.--Records fair. Low summer flow sustained by residential and industrial waste water.

AVERAGE DISCHARGE.--13 years, 17.1 ft^3/s (0.484 m^3/s), 12,390 acre-ft/yr (15.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,170 ft^3/s (61.5 m^3/s) Feb. 27, 1973, gage height, 14.29 ft (4.356 m); maximum gage height, 14.42 ft (4.395 m) Jan. 21, 1967; no flow for several days in 1963-66, 1971-73.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 312 ft^3/s (8.84 m^3/s) Oct. 30, gage height, 8.64 ft (2.633 m), no peak above base of 500 ft^3/s (14.2 m^3/s); minimum daily, 0.48 ft^3/s (0.014 m^3/s) Nov. 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	3.6	1.8	1.6	1.5	2.0	17	2.4	4.5	4.5	5.0	3.9	4.2
2	3.6	1.0	3.0	1.3	1.9	74	2.7	4.6	4.3	5.9	3.9	4.5
3	3.7	.98	2.7	1.2	1.9	40	2.7	4.5	4.1	5.3	3.8	4.4
4	3.6	.96	3.0	1.5	1.1	4.1	2.3	4.5	4.4	5.0	3.7	4.0
5	3.8	.60	19	1.5	23	2.7	2.1	4.2	4.1	5.1	4.0	3.8
6	4.8	.48	9.1	1.9	3.8	1.9	2.0	4.5	3.8	5.2	3.9	3.5
7	4.2	.97	4.1	2.0	1.8	1.7	3.8	4.8	4.2	5.1	3.4	4.0
8	3.1	1.6	3.1	2.7	1.6	1.7	115	4.8	3.8	5.1	3.5	3.7
9	14	.67	3.4	37	1.4	1.7	16	4.5	4.9	5.1	3.7	4.0
10	68	7.2	3.8	12	1.3	1.7	37	4.5	4.2	4.6	4.2	4.4
11	24	2.3	3.7	2.9	1.5	1.4	25	4.3	3.7	4.3	4.0	132
12	4.0	.74	13	1.7	1.6	1.6	8.0	4.6	3.9	4.6	4.0	13
13	1.9	.68	5.8	1.7	21	2.0	4.5	5.7	4.2	4.6	3.9	3.6
14	1.2	.52	3.6	1.6	45	2.5	3.1	6.4	4.1	5.9	5.5	3.1
15	1.1	9.4	2.8	1.6	8.4	2.5	3.1	5.6	5.1	4.9	55	2.7
16	.99	22	3.9	1.2	31	2.2	2.7	5.6	5.0	4.7	10	2.3
17	1.4	3.9	2.9	1.5	12	2.8	2.9	4.9	5.0	4.2	3.9	2.1
18	1.1	1.5	1.4	1.3	3.8	3.5	3.5	5.2	5.3	4.3	3.1	1.9
19	.93	1.3	1.7	1.1	5.1	3.8	3.7	5.3	4.5	4.5	2.9	2.4
20	1.3	.92	1.3	1.3	2.5	1.8	4.9	5.4	4.2	4.3	3.2	2.4
21	1.4	1.3	1.3	1.2	1.6	2.1	5.5	5.6	4.4	4.7	2.9	2.3
22	1.4	1.2	18	1.6	1.5	2.6	4.5	5.1	4.3	4.9	2.8	2.9
23	.99	1.1	4.8	1.3	1.6	2.0	5.3	5.1	4.5	4.7	2.7	2.7
24	.81	1.2	2.3	3.0	1.1	2.2	5.6	5.2	4.7	3.7	3.3	2.6
25	1.6	2.1	1.7	2.0	1.2	1.9	4.3	5.2	5.4	4.0	3.4	2.6
26	85	2.0	1.3	1.7	1.2	1.6	3.7	5.7	5.3	4.3	3.4	2.4
27	14	3.3	1.2	1.6	1.6	2.0	4.0	5.2	5.0	4.6	3.8	2.2
28	3.7	4.1	1.5	1.9	1.6	2.4	5.2	4.7	5.5	4.3	3.7	2.4
29	2.8	2.0	1.4	1.9	43	2.7	5.0	4.6	5.7	3.9	3.7	1.8
30	153	2.2	1.9	1.6	---	2.9	5.2	4.3	5.4	4.2	3.8	1.7
31	8.5	---	1.7	1.5	---	2.7	---	4.1	---	4.1	4.1	---
TOTAL	423.52	80.02	130.0	97.8	226.1	195.7	295.7	153.2	137.5	145.1	171.1	229.6
MEAN	13.7	2.67	4.19	3.15	7.80	6.31	9.86	4.94	4.58	4.68	5.52	7.65
MAX	153	22	19	37	45	74	115	6.4	5.7	5.9	55	132
MIN	.81	.48	1.2	1.1	1.1	1.4	2.0	4.1	3.7	3.7	2.7	1.7
AC-FT	840	159	258	194	448	388	587	304	273	288	339	455

CAL YR 1975 TOTAL 6993.00 MEAN 19.2 MAX 829 MIN .46 AC-FT 13870
WTR YR 1976 TOTAL 2285.34 MEAN 6.24 MAX 153 MIN .48 AC-FT 4530

11447500 SACRAMENTO RIVER AT SACRAMENTO, CA

LOCATION.--Lat 38°35'12", long 121°30'16", Sacramento County, on left bank 1,000 ft (300 m) upstream from I Street Bridge, in city of Sacramento, and 0.5 mi (0.8 km) downstream from American River.

DRAINAGE AREA.--23,502 mi^2 (60,870 km^2), revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1904 to July 1905 (gage heights only), June to November 1921, October 1948 to current year. Gage heights collected in this vicinity November 1879 to May 1888, December 1890 to September 1963 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Oct. 15, 1912, nonrecording gage in vicinity of I Street Bridge. Oct. 15, 1912, to Nov. 16, 1956, water-stage recorder at various sites in vicinity of I Street Bridge. Prior to Nov. 16, 1956, datum of gages at low-water mark of Oct. 23, 1856, 0.12 ft (0.037 m) above mean sea level. Auxiliary water-stage recorder on right bank 10.8 mi (17.4 km) downstream near Freeport.

REMARKS.--Records excellent. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, and return flow from irrigated areas. Flood flows bypass station through Yolo Bypass (stations 11426000, 11453000).

COOPERATION.--Records collected and prepared in cooperation with the California Department of Water Resources.

AVERAGE DISCHARGE.--28 years (water years 1949-76), 24,330 ft^3/s (689 m^3/s), 17,630,000 acre-ft/yr (21.7 km^3/yr).

EXTREMES FOR PERIOD OF RECORD (since 1949).--Maximum discharge, 104,000 ft^3/s (2,950 m^3/s) Nov. 21, 1950, elevation, 30.14 ft (9.187 m) site and datum then in use; minimum daily, 5,590 ft^3/s (158 m^3/s) July 20, 1949.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known prior to Nov. 21, 1950, 103,000 ft^3/s (2,920 m^3/s) Jan. 17, 1909, elevation, 29.6 ft (9.02 m) present datum, from reports of California Department of Water Resources.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 30,600 ft^3/s (867 m^3/s) Dec. 8; minimum daily, 9,840 ft^3/s (279 m^3/s) June 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	18200	20600	28200	18900	11500	19700	11100	10400	11200	10500	13000	13500
2	18300	21400	28000	18800	11700	25200	11100	10700	11200	10400	13300	13700
3	18100	20900	27800	18400	11800	27500	11600	10700	10900	10600	13600	13700
4	18500	20000	27900	17900	12200	24800	12200	10600	10900	10900	13200	13800
5	18300	19100	28000	17300	12500	22200	12900	10300	11100	11100	12800	14100
6	18500	18100	28500	17000	12800	19800	13400	10200	11200	11200	12700	14300
7	18500	17400	29400	16600	12900	17700	13700	10700	11600	11400	12700	14200
8	17700	16800	30600	16300	12900	15800	14700	11100	11800	11500	12700	13500
9	18300	16800	30000	16200	12800	14400	15900	10700	12100	11600	12900	13200
10	19400	17800	28900	16600	12800	13700	18000	10800	12100	11600	12600	13200
11	19900	19400	28100	16500	12200	13200	19200	10600	12100	11800	12400	13800
12	20300	20100	27500	16400	11800	13000	18200	10800	11900	12400	11900	14000
13	21000	20500	27100	16100	11700	13000	16500	11100	11700	12500	11600	13500
14	20600	20600	27200	15800	12000	13200	15100	11100	11600	12400	12100	13400
15	20000	20800	27200	15300	12200	13100	14500	10800	11400	12200	13200	13100
16	19600	21200	26700	15100	12600	12700	13500	11100	10900	12100	13700	12900
17	19500	22200	26300	14700	13200	12400	12500	11200	10500	12000	14200	12500
18	19100	23300	26100	14400	13800	12400	12200	11100	10400	12400	14300	12300
19	19000	23600	25700	14500	14200	12300	12100	11000	10200	12600	14500	11900
20	19000	23300	25200	14600	14300	12100	11700	10900	10600	12500	14700	11400
21	18700	23000	24700	14800	13500	12000	11000	11000	10800	12500	15100	10900
22	18800	23600	24200	14800	12600	11900	10500	11200	10500	12500	15000	10700
23	18700	24900	23000	14500	12000	11700	10000	11400	10100	12400	14500	10700
24	18600	26100	22100	13900	12500	11700	9920	11500	9840	12600	14200	10800
25	18600	26800	21500	13100	12800	11200	10000	11300	10000	12700	13600	10800
26	19000	27400	21200	12500	12700	10900	10300	11300	10100	12900	13100	11500
27	19200	27700	21000	12100	12500	10600	10200	11300	10100	13100	12800	11000
28	19800	27900	20900	11700	13300	10500	9860	11100	10200	13000	13000	10900
29	20200	28000	20400	11500	16600	10900	9850	10600	10500	12900	13500	11200
30	20700	28200	19400	11400	---	10900	10000	10600	10500	13100	13500	10800
31	20300	---	19100	11400	---	11300	---	11000	---	13000	13400	---
TOTAL	594400	667500	791900	469100	370400	451800	381730	338200	328040	374400	413800	375300
MEAN	19170	22250	25550	15130	12770	14570	12720	10910	10930	12080	13350	12510
MAX	21000	28200	30600	18900	16600	27500	19200	11500	12100	13100	15100	14300
MIN	17700	16800	19100	11400	11500	10500	9850	10200	9840	10400	11600	10700
AC-FT	1179000	1324000	1571000	930500	734700	896100	757200	670800	650700	742600	820800	744400

CAL YR 1975	TOTAL	9993200	MEAN	27380	MAX	73800	MIN	15600	AC-FT	19820000
WTR YR 1976	TOTAL	5556570	MEAN	15180	MAX	30600	MIN	9840	AC-FT	11020000

NOTE.--Gage not out of tidal effect the entire year.

11447500 SACRAMENTO RIVER AT SACRAMENTO, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1906-8, 1951 to current year.
CHEMICAL ANALYSES: Water years 1906-8, 1951-60. Published as "above Sacramento" in 1906-8.
WATER TEMPERATURES: Water years 1955 to current year.
SEDIMENT RECORDS: Water years 1957 to current year.
TURBIDITY: Water years 1972 to current year.

PERIOD OF DAILY RECORD.--
CHEMICAL ANALYSES: May 1955 to May 1960.
WATER TEMPERATURES: May 1955 to current year.
SEDIMENT RECORDS: October 1956 to current year.

REMARKS.--Unpublished records of daily specific conductance for period May 1955 to May 1960, and water temperatures for period May 1955 to September 1960 available in files of district office.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum (water years 1956-62, 1964-66, 1968-74), 28.0°C on several days in 1969 and 1970; minimum (water years 1956-74), 3.0°C Dec. 14, 1973.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,960 mg/L Dec. 24, 1964; minimum daily mean, 10 mg/L Jan. 29, 1976.
SEDIMENT DISCHARGE: Maximum daily, 525,000 tons (476,000 tonnes) Dec. 24, 1964; minimum daily, 200 tons (181 tonnes), estimated, Dec. 14, 1959.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 360 mg/L Mar. 3; minimum daily mean, 10 mg/L Jan. 29.
SEDIMENT DISCHARGE: Maximum daily, 26,700 tons (24,200 tonnes) Mar. 3; minimum daily, 310 tons (281 tonnes) Jan. 29.

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	18.5	---	---	---	---	10.0	13.5	---	20.0	22.0	---	25.0
2	18.5	---	11.0	---	11.5	8.0	14.5	---	19.5	---	21.0	---
3	19.0	---	10.0	---	10.0	8.5	---	19.0	19.0	---	---	---
4	---	13.5	10.0	---	---	9.0	---	19.0	19.5	---	22.0	23.0
5	---	13.5	11.0	7.5	8.5	---	12.5	19.0	---	---	21.5	---
6	17.0	13.5	---	8.0	9.5	---	---	---	---	24.0	21.0	---
7	16.5	---	---	8.0	---	---	---	19.5	18.0	24.0	---	24.5
8	13.0	---	10.0	8.0	---	11.0	13.0	---	19.5	24.0	---	---
9	---	---	9.5	---	9.5	12.0	12.5	---	19.0	24.0	---	25.0
10	14.5	11.0	9.0	---	---	13.0	12.0	20.0	---	---	---	---
11	---	12.5	9.0	---	10.0	14.0	---	21.0	19.0	---	---	---
12	---	---	10.0	7.5	11.5	15.0	12.5	21.5	---	---	21.5	---
13	15.0	11.5	---	8.5	---	15.0	14.5	21.5	---	25.0	---	21.0
14	15.0	11.0	---	8.5	---	---	15.0	21.5	21.0	23.5	---	---
15	15.5	---	8.5	10.0	---	---	14.5	---	23.0	23.0	---	20.5
16	16.0	---	9.0	---	10.5	---	14.0	---	23.0	22.5	---	---
17	16.0	10.0	8.5	---	10.5	---	---	20.0	23.0	---	20.5	20.5
18	16.0	9.5	9.0	---	---	14.0	---	19.0	22.0	---	---	---
19	---	---	---	10.0	11.0	13.5	18.0	20.0	---	22.5	---	21.0
20	---	9.0	---	9.5	10.5	---	18.0	---	---	---	---	---
21	17.0	9.0	---	10.0	9.0	---	18.0	---	21.0	24.0	---	20.5
22	15.0	---	9.5	---	---	---	18.0	---	22.0	---	---	---
23	14.0	---	9.5	---	10.0	---	19.0	---	23.0	24.5	24.0	20.0
24	---	9.5	---	---	10.5	---	---	19.5	23.5	---	---	---
25	---	10.5	---	10.0	11.5	---	---	21.0	24.5	---	---	20.0
26	---	10.0	---	9.5	12.0	---	16.0	22.0	---	26.0	---	---
27	13.0	---	---	10.0	---	---	17.0	21.5	---	24.0	23.0	---
28	13.0	10.0	---	10.0	---	---	16.5	20.0	25.0	25.0	---	19.5
29	12.5	---	9.5	10.0	---	15.0	17.0	---	23.0	23.5	---	---
30	13.0	---	---	10.5	---	---	21.0	---	22.0	22.5	24.0	20.0
31	---	---	---	---	---	13.5	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

11447500 SACRAMENTO RIVER AT SACRAMENTO, 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	18200	27	1330	20600	39	2170	28200	52	3960
2	18300	28	1380	21400	39	2250	28000	48	3630
3	18100	27	1320	20900	39	2200	27800	47	3530
4	18500	26	1300	20000	38	2050	27900	48	3620
5	18300	26	1280	19100	32	1650	28000	56	4230
6	18500	27	1350	18100	27	1320	28500	69	5310
7	18500	28	1400	17400	26	1220	29400	85	6750
8	17700	30	1430	16800	30	1360	30600	95	7850
9	18300	31	1530	16800	35	1590	30000	86	6970
10	19400	32	1680	17800	40	1920	28900	68	5310
11	19900	33	1770	19400	40	2100	28100	58	4400
12	20300	38	2080	20100	44	2390	27500	51	3790
13	21000	45	2550	20500	48	2660	27100	48	3510
14	20600	44	2450	20600	46	2560	27200	47	3450
15	20000	42	2270	20800	46	2580	27200	45	3300
16	19600	39	2060	21200	48	2750	26700	39	2810
17	19500	33	1740	22200	55	3300	26300	35	2490
18	19100	37	1910	23300	75	4720	26100	29	2040
19	19000	36	1850	23600	72	4590	25700	26	1800
20	19000	29	1490	23300	60	3770	25200	26	1770
21	18700	26	1310	23000	56	3480	24700	26	1730
22	18800	33	1680	23600	55	3500	24200	29	1890
23	18700	36	1820	24900	64	4300	23000	38	2360
24	18600	37	1860	26100	75	5290	22100	38	2270
25	18600	36	1810	26800	74	5350	21500	35	2030
26	19000	33	1690	27400	65	4810	21200	32	1830
27	19200	31	1610	27700	63	4710	21000	30	1700
28	19800	32	1710	27900	66	4970	20900	29	1640
29	20200	35	1910	28000	63	4760	20400	28	1540
30	20700	38	2120	28200	56	4260	19400	28	1470
31	20300	38	2080	---	---	---	19100	27	1390
TOTAL	594400	---	53770	667500	---	94580	791900	---	100370

	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	18900	26	1330	11500	16	497	19700	140	7450
2	18800	25	1270	11700	21	663	25200	280	19100
3	18400	24	1190	11800	21	669	27500	360	26700
4	17900	23	1110	12200	23	758	24800	230	15400
5	17300	23	1070	12500	26	877	22200	130	7790
6	17000	23	1060	12800	24	829	19800	90	4810
7	16600	30	1340	12900	20	697	17700	75	3580
8	16300	24	1060	12900	18	627	15800	64	2730
9	16200	20	875	12800	16	553	14400	54	2100
10	16600	19	852	12800	15	518	13700	44	1630
11	16500	18	802	12200	14	461	13200	48	1710
12	16400	18	797	11800	13	414	13000	43	1510
13	16100	18	782	11700	13	411	13000	39	1370
14	15800	16	683	12000	16	518	13200	37	1320
15	15300	16	661	12200	20	659	13100	37	1310
16	15100	16	652	12600	23	782	12700	41	1410
17	14700	19	754	13200	26	927	12400	39	1310
18	14400	15	583	13800	30	1120	12400	36	1210
19	14500	30	1170	14200	36	1380	12300	38	1260
20	14600	29	1140	14300	30	1160	12100	38	1240
21	14800	26	1040	13500	37	1350	12000	38	1230
22	14800	24	959	12600	34	1160	11900	37	1190
23	14500	22	861	12000	28	907	11700	36	1140
24	13900	20	751	12500	21	709	11700	36	1140
25	13100	20	707	12800	18	622	11200	35	1060
26	12500	22	742	12700	16	549	10900	35	1030
27	12100	16	523	12500	14	472	10600	35	1000
28	11700	12	379	13300	16	575	10500	35	992
29	11500	10	310	16600	45	2020	10900	35	1030
30	11400	11	339	---	---	---	10900	34	1000
31	11400	13	400	---	---	---	11300	33	1010
TOTAL	469100	---	26192	370400	---	22884	451800	---	116762

11447500 SACRAMENTO RIVER AT SACRAMENTO, CA--Continued

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	11100	36	1080	10400	42	1180	11200	50	1510
2	11100	38	1140	10700	45	1300	11200	49	1480
3	11600	41	1280	10700	42	1210	10900	43	1270
4	12200	44	1450	10600	37	1060	10900	39	1150
5	12900	47	1640	10300	36	1000	11100	37	1110
6	13400	51	1850	10200	38	1050	11200	37	1120
7	13700	54	2000	10700	40	1160	11600	37	1160
8	14700	59	2340	11100	37	1110	11800	38	1210
9	15900	69	2960	10700	31	896	12100	33	1080
10	18000	83	4030	10800	27	787	12100	34	1110
11	19200	85	4410	10600	27	773	12100	42	1370
12	18200	74	3640	10800	34	991	11900	49	1570
13	16500	58	2580	11100	40	1200	11700	55	1740
14	15100	52	2120	11100	47	1410	11600	61	1910
15	14500	55	2150	10800	50	1460	11400	54	1660
16	13500	60	2190	11100	49	1470	10900	49	1440
17	12500	63	2130	11200	46	1390	10500	43	1220
18	12200	59	1940	11100	44	1320	10400	40	1120
19	12100	50	1630	11000	45	1340	10200	39	1070
20	11700	42	1330	10900	45	1320	10600	38	1090
21	11000	35	1040	11000	42	1250	10800	37	1080
22	10500	31	879	11200	38	1150	10500	34	964
23	10000	27	729	11400	34	1050	10100	37	1010
24	9920	25	670	11500	33	1020	9840	38	1010
25	10000	28	756	11300	35	1070	10000	38	1030
26	10300	40	1110	11300	35	1070	10100	39	1060
27	10200	33	909	11300	33	1010	10100	41	1120
28	9860	25	666	11100	38	1140	10200	44	1210
29	9850	30	798	10600	43	1230	10500	44	1250
30	10000	36	972	10600	46	1320	10500	47	1330
31	---	---	---	11000	48	1430	---	---	---
TOTAL	381730	---	52419	338200	---	36167	328040	---	37454

	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	10500	48	1360	13000	43	1510	13500	36	1310
2	10400	47	1320	13300	49	1760	13700	36	1330
3	10600	44	1260	13600	48	1760	13700	35	1290
4	10900	41	1210	13200	41	1460	13800	34	1270
5	11100	38	1140	12800	33	1140	14100	37	1410
6	11200	35	1060	12700	32	1100	14300	46	1780
7	11400	32	985	12700	32	1100	14200	56	2150
8	11500	30	931	12700	31	1060	13500	58	2110
9	11600	34	1060	12900	30	1040	13200	56	2000
10	11600	40	1250	12600	29	987	13200	56	2000
11	11800	42	1340	12400	29	971	13800	56	2090
12	12400	43	1440	11900	29	932	14000	56	2120
13	12500	43	1450	11600	30	940	13500	56	2040
14	12400	38	1270	12100	32	1050	13400	58	2100
15	12200	36	1190	13200	39	1390	13100	60	2120
16	12100	32	1050	13700	48	1780	12900	54	1880
17	12000	32	1040	14200	53	2030	12500	42	1420
18	12400	35	1170	14300	55	2120	12300	46	1530
19	12600	37	1260	14500	58	2270	11900	66	2120
20	12500	33	1110	14700	59	2340	11400	62	1910
21	12500	28	945	15100	60	2450	10900	46	1350
22	12500	26	877	15000	60	2430	10700	37	1070
23	12400	26	870	14500	60	2350	10700	34	982
24	12600	27	919	14200	59	2260	10800	29	846
25	12700	29	994	13600	57	2090	10800	25	729
26	12900	34	1180	13100	54	1910	11500	24	745
27	13100	32	1130	12800	50	1730	11000	28	832
28	13000	34	1190	13000	46	1610	10900	33	971
29	12900	34	1180	13500	41	1490	11200	32	968
30	13100	34	1200	13500	35	1280	10800	29	846
31	13000	36	1260	13400	34	1230	---	---	---
TOTAL	374400	---	35641	413800	---	49570	375300	---	45319
YEAR	5556570		671128						

11447500 SACRAMENTO RIVER AT SACRAMENTO, CA--Continued

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

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (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
DEC									
12...	1220	10.0	27500	51	3790	79	91	98	100
FEB									
20...	1240	10.5	14300	25	965	85	99	100	--
MAR									
01...	1730	10.0	19700	171	9100	91	99	100	--
02...	1730	8.0	25200	318	21600	81	97	100	--
MAY									
19...	1520	20.0	11000	46	1370	98	99	99	100
AUG									
17...	1230	20.5	14200	44	1690	92	98	99	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPERATURE (DEG C)	NUMBER OF SAMPLING POINTS	DISCHARGE (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
FEB											
20...	1305	10.5	5	14300	0	1	16	87	97	100	--
20...	1310	--	--	--	0	1	25	96	99	100	--
20...	1312	--	--	--	0	2	17	90	97	99	100
20...	1315	--	--	--	1	2	6	67	95	99	100
20...	1320	--	--	--	17	44	63	91	96	98	100

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	TURBIDITY (JTU)
OCT				
01...	1745	18200	27	7
02...	1745	18300	28	6
03...	1745	18100	26	7
06...	1745	18500	27	7
07...	1745	18500	29	7
09...	1745	18300	31	6
10...	1745	19400	32	7
13...	1745	21000	46	10
14...	1745	20600	42	10
15...	1730	20000	42	10
16...	1745	19600	38	9
17...	1745	19500	32	8
18...	1345	19100	38	9
21...	1745	18700	26	7
22...	1745	18800	34	7
23...	1745	18700	37	7
27...	1745	19200	30	7
28...	1745	19800	32	7
29...	1745	20200	36	7
30...	1745	20700	38	9
NOV				
04...	1745	20000	38	15
05...	1745	19100	30	10
06...	1745	18100	26	7
10...	1745	17800	41	9
11...	1745	19400	40	8
13...	1745	20500	48	9
14...	1745	20600	45	9
17...	1745	22200	58	8
18...	1745	23300	80	15
20...	1745	23300	59	15
21...	1745	23000	55	10
24...	1720	26100	76	10
25...	1730	26800	73	10
26...	1730	27400	62	10
28...	1230	27900	67	10
DEC				
02...	1715	28000	48	7
03...	1730	27800	47	8
04...	1730	27900	48	8
05...	1730	28000	57	8
08...	1730	30600	96	10
09...	1715	30000	83	15
10...	1720	28900	65	10
11...	1730	28100	56	10
12...	1220	27500	51	10
15...	1745	27200	44	7
16...	1715	26700	37	7
17...	1735	26300	34	7
18...	1730	26100	28	7
22...	1745	24200	31	5
23...	1745	23000	40	7
29...	2110	20400	28	6
JAN				
05...	1730	17300	23	6
06...	1745	17000	24	6
07...	1730	16600	32	7
08...	1745	16300	22	6
12...	1730	16400	18	6
13...	1730	16100	18	6
14...	1720	15800	16	6
15...	1720	15300	16	5
19...	1730	14500	31	7
20...	1720	14600	28	6
21...	1730	14800	26	7
25...	1230	13100	20	7
26...	1720	12500	23	7
27...	1730	12100	15	7
28...	1720	11700	11	6
29...	1730	11500	10	6
30...	1730	11400	11	6
FEB				
02...	1745	11700	22	6
03...	1730	11800	20	6
05...	1720	12500	26	6
06...	1730	12800	24	6
09...	1745	12800	16	5
11...	1720	12200	14	4
12...	1720	11800	12	5
16...	1915	12600	24	8

11447500 SACRAMENTO RIVER AT SACRAMENTO, CA--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	TUR-BID-ITY (JTU)
FEB				
17...	1730	13200	26	8
19...	1730	14200	37	8
20...	1240	14300	25	8
21...	0730	13500	37	10
23...	1730	12000	26	9
24...	1730	12500	20	7
25...	1730	12800	18	6
26...	1730	12700	15	5
MAR				
01...	1730	19700	171	60
02...	1730	25200	318	80
04...	1730	24800	199	70
05...	1745	22200	114	35
08...	1730	15800	63	20
10...	1745	13700	43	15
11...	1745	13200	50	15
12...	1730	13000	42	15
15...	1730	13100	36	10
16...	1730	12700	42	10
18...	1730	12400	36	10
19...	1730	12300	38	10
29...	1730	10900	35	10
31...	1730	11300	32	10
APR				
01...	1715	11100	36	10
02...	1715	11100	38	10
05...	1730	12900	48	10
08...	1730	14700	60	15
09...	1715	15900	46	10
10...	1840	18000	86	15
12...	1730	18200	71	20
13...	1745	16500	55	15
14...	1730	15100	52	15
15...	1730	14500	56	15
16...	1730	13500	62	15
19...	1730	12100	48	10
20...	1730	11700	40	10
21...	1730	11000	34	7
22...	1730	10500	30	7
23...	1745	10000	26	7
26...	1720	10300	43	10
27...	1720	10200	30	8
28...	1730	9860	24	7
29...	1730	9850	32	6
30...	1730	10000	38	7
MAY				
03...	1730	10700	41	9
04...	1730	10600	36	8
05...	1730	10300	36	8
07...	1830	10700	40	9
10...	1730	10800	26	9
11...	1730	10600	28	8
12...	1730	10800	35	10
13...	1830	11100	41	10
14...	1800	11100	48	15
17...	1730	11200	45	10
18...	1730	11100	44	10
19...	1520	11000	46	10
24...	1730	11500	33	8
25...	1730	11300	36	9
26...	1730	11300	35	9
27...	1730	11300	33	10
28...	1730	11100	40	10

DATE	TIME	DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	TUR-BID-ITY (JTU)
JUN				
01...	1730	11200	50	10
02...	1730	11200	48	10
03...	1730	10900	42	10
04...	1730	10900	38	10
07...	1730	11600	37	10
08...	1730	11800	38	10
09...	1730	12100	33	8
11...	1730	12100	44	10
14...	1730	11600	62	15
15...	1730	11400	52	10
16...	1730	10900	48	10
17...	1730	10500	42	10
18...	1730	10400	40	10
21...	1730	10800	36	10
22...	1730	10500	34	8
23...	1730	10100	38	10
24...	1730	9840	38	10
25...	1730	10000	38	10
28...	1730	10200	45	10
29...	1730	10500	44	10
30...	1730	10500	48	15
JUL				
01...	1730	10500	48	10
06...	1730	11200	34	9
07...	1730	11400	31	9
08...	1730	11500	30	10
09...	1730	11600	37	9
13...	1730	12500	43	10
14...	1730	12400	36	8
15...	1730	12200	36	7
16...	1730	12100	31	9
19...	1730	12600	37	9
21...	1730	12500	27	8
23...	1730	12400	26	9
26...	1730	12900	35	10
27...	1730	13100	32	9
28...	1730	13000	35	9
29...	1730	12900	34	9
30...	1730	13100	34	10
AUG				
02...	2045	13300	50	10
04...	1730	13200	39	10
05...	1730	12800	31	10
06...	1730	12700	33	10
12...	0830	11900	29	10
17...	1230	14200	44	10
23...	1730	14500	60	15
27...	1400	12800	50	15
30...	2030	13500	34	10
SEP				
01...	2000	13500	36	10
04...	2000	13800	34	10
07...	1830	14200	58	20
09...	1815	13200	56	15
13...	1945	13500	56	20
15...	2010	13100	70	35
17...	1930	12500	39	15
19...	1830	11900	82	25
21...	2130	10900	41	15
23...	1815	10700	33	10
25...	2130	10800	24	10
28...	1930	10900	34	10
30...	1720	10800	28	10

11447650 SACRAMENTO RIVER AT FREEPORT, CA
(National stream-quality accounting network and radiochemical station)

LOCATION.--Lat 38°27'20", long 121°30'07", in SE¼SE¼ sec.14, T.7 N., R.4 E., Sacramento County, at drawbridge at Freeport, 8.4 mi (13.5 km) south of State Capitol Building in Sacramento.

PERIOD OF RECORD.--Water years 1959 to current year.
CHEMICAL ANALYSES: Water years 1959 to current year.
WATER TEMPERATURES: Water years 1960 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1974 to July 1975.
WATER TEMPERATURES: June 1960 to current year.

INSTRUMENTATION.--Temperature recorder since June 1960.

REMARKS.--Records of discharge given for Sacramento River at Sacramento (station 11447500). Temperature recorder located on right bank 1.9 mi (3.1 km) northwest of Freeport, and 7.4 mi (11.9 km) southwest of State Capitol Building in Sacramento.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 24.0°C June 16, 17, 1961, July 14-16, 1972, and on several days in 1976; minimum, 4.5°C Dec. 12-15, 1972.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 24.0°C on several days during July to September; minimum, 7.0°C Jan. 3-6.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	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 15...	1000	20000	115	6.5	14.5	--	B64	95	--	--	--
NOV 17...	1100	22200	102	7.1	11.0	12	B36	80	46	0	10
DEC 15...	1100	27200	107	7.3	9.5	--	B12	B8	--	--	--
JAN 14...	1100	15800	124	7.2	8.0	--	B6	B4	--	--	--
FEB 17...	1030	13200	141	8.0	10.0	6	36	38	53	0	11
MAR 16...	1030	12700	142	7.7	14.0	--	B32	B7	--	--	--
APR 12...	1200	18200	148	8.0	12.5	--	B104	57	--	--	--
MAY 11...	1000	10600	154	7.4	18.5	--	31	B17	--	--	--
20...	1100	10900	168	7.7	19.5	10	--	--	67	1	14
JUN 15...	1030	11400	172	7.4	20.0	--	41	B14	--	--	--
JUL 14...	1000	12400	124	7.6	23.0	--	39	44	--	--	--
AUG 11...	1030	12400	194	7.5	22.5	10	90	320	68	0	14
SEP 15...	1000	13100	227	7.2	21.0	--	130	130	--	--	--

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 CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
OCT 15...	--	--	--	--	--	--	--	--	--	--
NOV 17...	5.2	6.7	23	.4	1.1	63	0	52	7.0	4.5
DEC 15...	--	--	--	--	--	--	--	--	--	--
JAN 14...	--	--	--	--	--	--	--	--	--	--
FEB 17...	6.3	10	28	.6	1.5	74	0	61	7.2	7.8
MAR 16...	--	--	--	--	--	--	--	--	--	--
APR 12...	--	--	--	--	--	--	--	--	--	--
MAY 11...	--	--	--	--	--	--	--	--	--	--
20...	7.8	13	29	.7	1.6	80	0	66	12	8.3
JUN 15...	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	1.2	--	--	--	--	--
AUG 11...	7.9	14	31	.7	1.5	89	0	73	11	8.3
SEP 15...	--	--	--	--	--	--	--	--	--	--

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

11447650 SACRAMENTO RIVER AT FREEPORT, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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 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)
OCT										
15...	--	--	--	--	--	--	.10	.40	.50	.20
NOV										
17...	.1	16	72	82	.10	4320	.08	.25	.33	.10
DEC										
15...	--	--	--	--	--	--	.11	.31	.42	.08
JAN										
14...	--	--	--	--	--	--	.13	.40	.53	.09
FEB										
17...	.1	18	96	98	.13	3420	.14	.52	.66	.10
MAR										
16...	--	--	--	--	--	--	.15	.29	.44	.13
APR										
12...	--	--	--	--	--	--	.20	.11	.31	.23
MAY										
11...	--	--	--	--	--	--	--	--	--	--
20...	.2	20	122	116	.17	3590	.07	.38	.45	.10
JUN										
15...	--	--	--	--	--	--	.09	.34	.43	.10
JUL										
14...	--	--	--	--	--	--	.05	.29	.34	.08
AUG										
11...	.1	21	115	122	.16	3850	.14	.04	.18	.11
SEP										
15...	--	--	--	--	--	--	.15	38	38	.12

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												
17...	1100	3	0	3	<10	<9	1	<10	0	10	<50	<50
FEB												
17...	1030	2	1	1	<10	<8	2	0	0	0	<50	<47
MAY												
11...	1000	3	0	3	<10	<9	1	0	0	0	<50	<50
20...	1100	--	--	2	2	1	1	10	10	0	0	0
AUG												
11...	1030	3	1	2	<10	<10	0	10	10	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											
17...	0	10	0	10	1500	40	<100	<94	6	40	30
FEB											
17...	3	20	16	4	600	20	<100	<94	6	40	40
MAY											
11...	0	10	5	5	1100	30	<100	<95	5	50	50
20...	0	10	6	4	60	60	22	18	4	20	10
AUG											
11...	2	20	17	3	970	20	<100	<100	0	40	40

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											
17...	10	.0	.0	.0	0	0	0	10	6	4	2.3
FEB											
17...	0	.0	.0	.3	0	0	0	20	20	0	1.6
MAY											
11...	0	.4	.0	.6	0	--	0	0	0	10	3.2
20...	10	--	--	.5	--	--	0	10	0	10	7.1
AUG											
11...	0	.1	.1	.0	0	0	0	10	10	0	--

11447650 SACRAMENTO RIVER AT FREEPORT, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	DIS-SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS-PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L)	SUS-PENDED GROSS BETA AS CS-137 (PC/L)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS-PENDED GROSS BETA AS SR90 /Y90 (PC/L)	DIS-SOLVED RA-226 (RADON METHOD) (PC/L)	DIS-SOLVED URANIUM (U) (UG/L)
FEB									
17...	1030	<1.0	.4	2.7	<.4	2.2	<.4	.02	.20
JUL									
14...	1000	<1.1	<.4	2.8	<.4	2.2	<.4	.05	.10

DATE	TIME	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDT (UG/L)
NOV										
17...	1100	ND	--	ND	--	ND	--	ND	--	ND
FEB										
17...	1030	ND	--	ND	--	ND	--	ND	--	ND
JUN										
15...	1030	ND	ND	ND	0	ND	ND	ND	.1	ND
AUG										
11...	1030	ND	--	ND	--	ND	--	ND	--	ND

DATE	DDT IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DI-AZINON (UG/L)	DI-AZINON IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL ETHION (UG/L)	ETHION IN BOTTOM MA-TERIAL (UG/KG)	TOTAL HEPTA-CHLOR (UG/L)
NOV										
17...	--	ND	--	ND	--	ND	--	ND	--	ND
FEB										
17...	--	ND	--	ND	--	ND	--	ND	--	ND
JUN										
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG										
11...	--	ND	--	ND	--	ND	--	ND	--	ND

DATE	HEPTA-CHLOR IN BOTTOM MA-TERIAL (UG/KG)	TOTAL HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL MALA-THION (UG/L)	MALA-THION IN BOTTOM MA-TERIAL (UG/KG)	TOTAL METHYL PARA-THION (UG/L)	METHYL PARA-THION IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL METHYL TRI-THION (UG/L)
NOV										
17...	--	ND	--	ND	--	ND	--	ND	--	ND
FEB										
17...	--	ND	--	ND	--	ND	--	ND	--	ND
JUN										
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG										
11...	--	ND	--	ND	--	ND	--	ND	--	ND

DATE	METHYL TRI-THION IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL PARA-THION (UG/L)	PARA-THION IN BOTTOM MA-TERIAL (UG/KG)	TOTAL TOX-APHENE (UG/L)	TOX-APHENE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	TRI-THION IN BOTTOM MA-TERIAL (UG/KG)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
NOV										
17...	--	ND	--	ND	--	ND	--	ND	ND	ND
FEB										
17...	--	ND	--	ND	--	ND	--	ND	ND	ND
JUN										
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG										
11...	--	ND	--	ND	--	ND	--	ND	ND	ND

ND Material specifically analyzed for but not detected.

11447650 SACRAMENTO RIVER AT FREEPORT, 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
OCT 15	1000	CHLOROPHYTA	GREEN ALGAE		
		.CHLOROPHYCEAE			
		..CHLOROCOCCALES			
		...SCENEDESMACEAE			
		* ....SCENEDESMUS			0
		CHRYSOPHYTA			
		.BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
		# ....CYCLOTELLA		160	18
		* ....MELOSIRA			0
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		....ACHNANTHES		41	5
		* ....COCCONEIS			0
		....RHOICOSPHENIA		82	9
		...CYMBELLACEAE			
		* ....CYMBELLA			0
		* ....EPITHEMIA			0
		...DIATOMACEAE			
		* ....DIATOMA			0
		...FRAGILARIACEAE			
		* ....FRAGILARIA			0
		...GOMPHONEMATACEAE			
		* ....GOMPHONEMA			0
		...NAVICULACEAE	NAVICULOID		
		# ....NAVICULA		160	18
		* ....TROPIDONEIS			0
		...NITZSCHIACEAE			
		# ....NITZSCHIA		450	50
		...SURIRELLACEAE			
		* ....SURIRELLA			0
		CYANOPHYTA	BLUE-GREEN ALGAE		
		.MYXOPHYCEAE			
		..OSCILLATORIALES	FILAMENTOUS		
		...OSCILLATORIACEAE			
		* ....OSCILLATORIA			0
		EUGLENOPHYTA	EUGLENOIDS		
		.EUGLENOPHYCEAE			
		..EUGLENALES			
		...EUGLENACEAE			
		* ....TRACHELOMONAS			0
		TOTAL PHYTOPLANKTON		900	
NOV 17	1100	CHLOROPHYTA	GREEN ALGAE		
		.CHLOROPHYCEAE			
		..CHLOROCOCCALES			
		...SCENEDESMACEAE			
		* ....SCENEDESMUS			0
		CHRYSOPHYTA			
		.BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
		* ....CYCLOTELLA			0
		....MELOSIRA		110	6
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		# ....ACHNANTHES		430	24
		....RHOICOSPHENIA		53	3
		...CYMBELLACEAE			
		....CYMBELLA		53	3
		...FRAGILARIACEAE			
		....ASTERIONELLA		210	12
		....FRAGILARIA		110	6
		....SYNEDRA		53	3
		...GOMPHONEMATACEAE			
		* ....GOMPHONEMA			0
		...NAVICULACEAE	NAVICULOID		
		* ....DIPLONEIS			0
		....NAVICULA		210	12
		...NITZSCHIACEAE			
		# ....NITZSCHIA		430	24
		...TABELLARIACEAE			
		....TABELLARIA		53	3

See footnotes at end of table.

11447650 SACRAMENTO RIVER AT FREEPORT, 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 17 (continued)		.CHRYSOPHYCEAE	YELLOW-BROWN ALGAE		
		..CHRYSOMONADALES			
		...OCHROMONADACEAE			
		....DINOBRYON		53	3
		TOTAL PHYTOPLANKTON		1800	
DEC 15	1100	CHLOROPHYTA	GREEN ALGAE		
		.CHLOROPHYCEAE			
		..CHLOROCOCCALES			
		...MICRACTINIACEAE			
		....MICRACTINIUM		44	5
		...OOCYSTACEAE			
		....ANKISTRODESMUS		11	1
		...SCENEDESMACEAE			
	*	....SCENEDESMUS			0
		CHRYSOPHYTA			
		.BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
		....CYCLOTELLA		11	1
	#	....MELOSIRA		380	48
	*	....STEPHANODISCUS			0
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		....ACHNANTHES		54	7
		....COCCONEIS		11	1
		....RHOICOSPHENIA		22	3
		...CYMBELLACEAE			
		....CYMBELLA		33	4
		....EPITHEMIA		22	3
	*	....RHOPALODIA			0
		...DIATOMACEAE			
		....DIATOMA		11	1
		...FRAGILARIACEAE			
	*	....ASTERIONELLA			0
	*	....FRAGILARIA			0
	*	....HANNAEA			0
		....SYNEDRA		76	10
		...GOMPHONEMATACEAE			
		....GOMPHONEMA		11	1
		...NAVICULACEAE	NAVICULOID		
		....DIPLONEIS		11	1
		....NAVICULA		33	4
		....NEIDIUM		22	3
		....STAURONEIS		11	1
		...NITZSCHIACEAE			
		....NITZSCHIA		33	4
		...SURIRELLACEAE			
	*	....SURIRELLA			0
		...TABELLARIACEAE			
	*	....TABELLARIA			0
		.CHRYSOPHYCEAE	YELLOW-BROWN ALGAE		
		..CHRYSOMONADALES			
		...MALLOMONADACEAE			
	*	....MALLOMONAS			0
		TOTAL PHYTOPLANKTON		800	

See footnotes at end of table.

11447650 SACRAMENTO RIVER AT FREEPORT, 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 14	1100	CHLOROPHYTA	GREEN ALGAE		
		.CHLOROPHYCEAE			
		..CHLOROCOCCALES			
		...SCENEDESMACEAE			
		....SCENEDESMUS		93	5
		CHRYSOPHYTA			
		.BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
		....CYCLOTELLA		190	10
#		....MELOSIRA		650	33
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		....ACHNANTHES		69	4
*		....RHOICOSPHENIA			0
		...CYMBELLACEAE			
		....CYMBELLA		120	6
		...DIATOMACEAE			
		....DIATOMA		23	1
		...GOMPHONEMATACEAE			
		....GOMPHONEMA		46	2
		...NAVICULACEAE	NAVICULOID		
		....NAVICULA		250	13
		....NEIDIUM		23	1
		....STAURONEIS		23	1
		...NITZSCHIACEAE			
#		....NITZSCHIA		370	19
		CYANOPHYTA	BLUE-GREEN ALGAE		
		.MYXOPHYCEAE			
		..CHROOCOCCALES	COCCOID		
		...CHROOCOCCACEAE			
		....ANACYSTIS		93	5
		EUGLENOPHYTA	EUGLENOIDS		
		.EUGLENOPHYCEAE			
		..EUGLENALES			
		...EUGLENACEAE			
*		....TRACHELOMONAS			0
		TOTAL PHYTOPLANKTON		1,900	
FEB 17	1030	CHLOROPHYTA	GREEN ALGAE		
		.CHLOROPHYCEAE			
		..CHLOROCOCCALES			
		...OOCYSTACEAE			
		....DICTYOSPHAERIUM		450	10
		...SCENEDESMACEAE			
		....SCENEDESMUS		450	10
		CHRYSOPHYTA			
		.BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
#		....MELOSIRA		1,200	26
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		....ACHNANTHES		340	7
*		....COCCONEIS			0
*		....RHOICOSPHENIA			0
		...CYMBELLACEAE			
#		....CYMBELLA		900	19
		...GOMPHONEMATACEAE			
		....GOMPHONEMA		110	2
		...NAVICULACEAE	NAVICULOID		
		....NAVICULA		340	7
		...NITZSCHIACEAE			
#		....NITZSCHIA		900	19
		TOTAL PHYTOPLANKTON		4,700	

See footnotes at end of table.

11447650 SACRAMENTO RIVER AT FREEPORT, 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 16	1030	CHRYSOPHYTA			
		.BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
	#	....CYCLOTELLA		750	24
		....MELOSIRA		300	10
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		....ACHNANTHES		380	12
		....COCCONEIS		75	2
		....RHOICOSPHENIA		230	7
		...CYMBELLACEAE			
		....CYMBELLA		75	2
		...FRAGILARIACEAE			
		....FRAGILARIA		300	10
		...NAVICULACEAE	NAVICULOID		
		....NAVICULA		300	10
		...NITZSCHIACEAE			
	#	....NITZSCHIA		750	24
		...TABELLARIACEAE			
	*	....TABELLARIA			0
		TOTAL PHYTOPLANKTON		3,200	
APR 12	1200	CHLOROPHYTA	GREEN ALGAE		
		.CHLOROPHYCEAE			
		..CHLOROCOCCALES			
		...MICRACTINIACEAE			
		....MICRACTINIUM		570	12
		...OOCYSTACEAE			
		....ANKISTRODESMUS		71	2
		...SCENEDESMACEAE			
		....SCENEDESMUS		140	3
		..VOLVOCALES			
		...CHLAMYDOMONADACEAE			
		....CHLAMYDOMONAS		71	2
		CHRYSOPHYTA			
		.BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
		....CYCLOTELLA		640	14
		....MELOSIRA		570	12
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		....ACHNANTHES		640	14
	*	....COCCONEIS			0
		....RHOICOSPHENIA		210	5
		...CYMBELLACEAE			
		....CYMBELLA		140	3
		...FRAGILARIACEAE			
	*	....FRAGILARIA			0
		...NAVICULACEAE	NAVICULOID		
		....CALONEIS		71	2
	#	....NAVICULA		780	17
		...NITZSCHIACEAE			
	#	....NITZSCHIA		780	17
		TOTAL PHYTOPLANKTON		4,700	

See footnotes at end of table.

11447650 SACRAMENTO RIVER AT FREEPORT, 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
MAY					
11	1000	CHLOROPHYTA	GREEN ALGAE		
		.CHLOROPHYCEAE			
		..CHLOROCOCCALES			
		...HYDRODICTYACEAE			
		....PEDIASTRUM		580	7
		...MICRACTINIACEAE			
		....GOLENKINIA		220	3
		...OOCYSTACEAE			
		....ANKISTRODESMUS		220	3
		...SCENEDESMACEAE			
		....SCENEDESMUS		860	10
		CHRYSOPHYTA			
		.BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
	#	....CYCLOTELLA		3,200	38
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		....ACHNANTHES		430	5
		....RHOICOSPHENIA		72	1
		...FRAGILARIACEAE			
		....SYNEDRA		72	1
		...NITZSCHIACEAE			
	#	....NITZSCHIA		1,700	19
		CYANOPHYTA	BLUE-GREEN ALGAE		
		.MYXOPHYCEAE			
		..CHROOCOCCALES	COCCOID		
		...CHROOCOCCACEAE			
		....ANACYSTIS		580	7
		..OSCILLATORIALES	FILAMENTOUS		
		...OSCILLATORIACEAE			
		....OSCILLATORIA		580	7
		TOTAL PHYTOPLANKTON		8,500	
JUNE					
13	1030	CHLOROPHYTA	GREEN ALGAE		
		.CHLOROPHYCEAE			
		..CHLOROCOCCALES			
		...OOCYSTACEAE			
		....ANKISTRODESMUS		120	2
		CHRYSOPHYTA			
		.BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
		....CYCLOTELLA		740	14
	#	....MELOSIRA		2,500	45
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		....ACHNANTHES		490	9
		....COCCONEIS		120	2
		...CYMBELLACEAE			
		....CYMBELLA		120	2
		...GOMPHONEMATACEAE			
		....GOMPHONEMA		120	2
		...NAVICULACEAE	NAVICULOID		
		....NAVICULA		250	5
		...NITZSCHIACEAE			
	#	....NITZSCHIA		980	18
		TOTAL PHYTOPLANKTON		5,400	

See footnotes at end of table.

11447650 SACRAMENTO RIVER AT FREEPORT, 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 14	1000	CHLOROPHYTA	GREEN ALGAE		
		.CHLOROPHYCEAE			
		..CHLOROCOCCALES			
		...OOCYSTACEAE			
		....ANKISTRODESMUS		37	1
		....KIRCHNERIELLA		37	1
		....TETRAEDRON		37	1
		...SCENEDESMACEAE			
		....SCENEDESMUS		410	8
		..VOLVOCALES			
		...CHLAMYDOMONADACEAE			
		....CHLAMYDOMONAS		74	1
		...VOLVOCACEAE			
		....PANDORINA		590	11
		CHRYSOPHYTA			
		.BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
	#	....CYCLOTELLA		1,000	19
		....MELOSIRA		700	13
		...RHIZOSOLENIACEAE			
		....RHIZOSOLENIA		37	1
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		....ACHNANTHES		150	3
		....RHOICOSPHENIA		150	3
		...DIATOMACEAE			
		....DIATOMA		37	1
		...FRAGILARIACEAE			
		....FRAGILARIA		660	12
		...GOMPHONEMATACEAE			
		....GOMPHONEMA		74	1
		...NAVICULACEAE	NAVICULOID		
		....NAVICULA		150	3
		....PINNULARIA		74	1
		...NITZSCHIACEAE			
		....NITZSCHIA		660	12
		CYANOPHYTA	BLUE-GREEN ALGAE		
		.MYXOPHYCEAE			
		..OSCILLATORIALES	FILAMENTOUS		
		...OSCILLATORIACEAE			
		....LYNGBYA		440	8
		TOTAL PHYTOPLANKTON		1,200	
AUG 11	1030	CHLOROPHYTA	GREEN ALGAE		
		.CHLOROPHYCEAE			
		..CHLOROCOCCALES			
		...SCENEDESMACEAE			
		....SCENEDESMUS		190	11
		CHRYSOPHYTA			
		.BACILLARIOPHYCEAE	DIATOMS		
		..CENTRALES	CENTRIC		
		...COSCINODISCACEAE			
	#	....CYCLOTELLA		810	47
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		....COCCONEIS		48	3
		...CYMBELLACEAE			
		....CYMBELLA		48	3
		...DIATOMACEAE			
		....DIATOMA		48	3
		...FRAGILARIACEAE			
	*	....FRAGILARIA			0
		...NAVICULACEAE	NAVICULOID		
	#	....NAVICULA		290	17
		...NITZSCHIACEAE			
		....NITZSCHIA		240	14
		...SURIRELLACEAE			
		....SURIRELLA		48	3
		TOTAL PHYTOPLANKTON		1,700	

See footnotes at end of table.

11447650 SACRAMENTO RIVER AT FREEPORT, 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 15	1000	CHRYSOPHYTA			
		.BACILLARIOPHYCEAE	DIATOMS		
		..PENNALES	PENNATE		
		...ACHNANTHACEAE			
		....COCCONEIS		12	7
		...CYMBELLACEAE			
		....AMPHORA		12	7
		...DIATOMACEAE			
		....DIATOMA		24	14
		...NAVICULACEAE	NAVICULOID		
		....NAVICULA		12	7
		.CHRYSOPHYCEAE	YELLOW-BROWN ALGAE		
		..CHRYSOMONADALES			
		...MALLOMONADACEAE			
	#	....MALLOMONAS		49	29
		EUGLENOPHYTA	EUGLENOIDS		
		.EUGLENOPHYCEAE			
		..EUGLENALES			
		...EUGLENACEAE			
	#	....TRACHELOMONAS		49	29
		PYRRHOPHYTA	FIRE ALGAE		
		.DINOPHYCEAE	DINOFLAGELLATES		
		..PERIDINIALES			
		...CERATIACEAE			
		....CERATIUM		12	7
		TOTAL PHYTOPLANKTON		170	

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) Dry weight	Biomass (g/m^2) Ash weight	Chlorophyll a (mg/m^2)	Chlorophyll b (mg/m^2)	Biomass pigment ratio	Sampling method
Dec 15	28	17	15	12	0.0	170	Polyethylene strip
Mar 16	27	83	76	63	.0	120	Polyethylene strip
Jun 15	25	2.38	1.62	77.8	11.9	9.9	Polyethylene strip
Sep 15	29	184	166	54.0	4.17	330	Polyethylene strip

11447650 SACRAMENTO RIVER AT FREEPORT, CA--Continued

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	18.5	18.0	---	---	9.5	9.5	9.0	8.0	10.0	9.5	11.5	11.0
2	18.5	18.0	---	---	9.5	9.5	8.0	7.5	10.0	9.5	11.0	10.0
3	18.0	17.5	---	---	10.0	9.5	7.5	7.0	10.5	10.0	10.0	9.5
4	18.0	17.5	13.5	13.0	10.0	9.5	7.0	7.0	10.0	10.0	9.5	9.0
5	18.0	17.5	14.0	13.0	10.5	10.0	7.0	7.0	10.0	9.5	9.0	8.5
6	17.5	17.0	13.5	13.5	10.5	10.5	7.5	7.0	9.5	8.5	8.5	8.5
7	17.5	16.5	14.0	13.5	10.5	10.5	7.5	7.5	8.5	8.0	9.0	8.5
8	16.5	16.0	13.5	13.0	10.5	10.5	8.0	7.5	8.0	8.0	10.0	9.0
9	16.5	15.5	13.0	13.0	10.5	10.5	8.0	7.5	8.0	8.0	10.5	10.0
10	15.5	15.0	13.0	12.0	10.5	10.0	8.0	8.0	8.5	8.0	11.5	10.5
11	15.0	14.5	12.5	12.0	10.0	10.0	8.0	8.0	9.0	8.5	12.0	11.5
12	15.0	14.5	12.0	11.5	10.0	9.5	8.0	8.0	9.5	8.5	12.5	12.0
13	15.0	14.5	11.5	11.0	9.5	9.5	8.5	8.0	10.0	9.5	12.5	12.0
14	15.0	14.5	11.5	11.0	9.5	9.0	9.0	8.5	10.5	10.0	12.5	12.5
15	15.0	14.5	11.5	11.0	9.0	8.5	9.0	8.5	10.0	10.0	13.0	12.5
16	15.5	14.5	11.5	11.5	8.5	8.5	9.0	8.5	10.0	9.5	13.5	13.0
17	15.5	15.0	11.5	11.0	8.5	8.5	9.0	8.5	10.5	10.0	14.0	13.5
18	15.5	15.0	11.0	10.0	9.0	8.5	9.0	9.0	10.5	10.0	14.5	14.0
19	15.5	15.0	10.0	9.5	9.0	8.5	9.0	9.0	10.5	10.0	14.0	13.5
20	15.5	15.5	9.5	9.5	9.0	8.5	9.0	9.0	10.5	10.0	13.5	13.5
21	16.0	15.5	9.5	9.5	9.0	8.5	9.5	9.0	10.5	10.0	13.5	13.5
22	15.5	15.5	10.0	9.5	9.0	8.5	9.5	9.0	10.5	10.0	14.0	13.5
23	15.5	14.5	10.0	9.5	9.0	9.0	9.0	9.0	10.5	10.0	14.0	13.5
24	14.5	14.0	10.0	9.5	9.0	9.0	9.0	9.0	10.5	10.0	14.0	13.5
25	14.0	13.5	10.5	10.0	9.0	9.0	9.0	9.0	10.5	10.0	13.5	13.0
26	---	---	10.5	10.5	9.0	9.0	9.0	9.0	10.5	10.0	13.0	12.5
27	---	---	10.5	10.5	9.0	9.0	9.0	9.0	11.0	10.5	13.0	12.0
28	---	---	10.5	10.0	9.0	9.0	9.0	9.0	11.5	11.0	13.0	12.5
29	---	---	10.0	10.0	9.5	9.0	9.0	9.0	11.5	11.5	13.0	12.5
30	---	---	10.0	9.5	9.5	9.0	9.5	9.0	---	---	13.5	13.0
31	---	---	---	---	9.5	9.0	9.5	9.0	---	---	14.0	13.5
MONTH	18.5	13.5	14.0	9.5	10.5	8.5	9.5	7.0	11.5	8.0	14.5	8.5

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

11447650 SACRAMENTO RIVER AT FREEPORT, CA--Continued

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

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT						
15...	1000	14.5	20000	42	2270	81
NOV						
17...	1100	11.0	22200	56	3360	76
DEC						
15...	1100	9.5	27200	45	3310	71
JAN						
14...	1100	8.0	15800	13	555	87
FEB						
17...	1030	10.0	13200	14	499	88
MAR						
16...	1030	14.0	12700	26	892	93
APR						
12...	1200	12.5	18200	48	2360	96
MAY						
11...	1000	18.5	10600	30	859	90
JUN						
15...	1030	20.0	11400	17	523	92
JUL						
14...	1000	23.0	12400	17	569	89
AUG						
11...	1030	22.5	12400	20	670	94
SEP						
15...	1000	21.0	13100	48	1700	89

11447810 SACRAMENTO RIVER AT GREEN'S LANDING, NEAR COURTLAND, CA

LOCATION.--Lat 38°20'45", long 121°32'42", in SW¼NE¼ sec.28, T.6 N., R.4 E., Sacramento County, on left bank 2.2 mi (3.5 km) upstream from Sutter Slough, and 1.6 mi (2.6 km) northeast of Courtland.

PERIOD OF RECORD.--Water years 1953-58, 1971 to current year.
CHEMICAL ANALYSES: Water years 1953-58, 1971 to current year. Published as "at Snodgrass Slough, near Courtland" in 1953-58.
SPECIFIC CONDUCTANCE: Water years 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1973 to current year.

COOPERATION.--Chemical-quality records furnished by California Department of Water Resources. Specific conductance data furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 250 micromhos May 28, 1976; minimum daily, 71 micromhos Apr. 2, 3, 1974.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 250 micromhos May 28; minimum daily, 114 micromhos Oct. 30.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO
OCT												
15...	1310	117	7.3	15.0	8	9.2	44	0	9.7	4.9	7.9	.5
NOV												
19...	1420	105	7.4	10.0	8	10.6	44	0	8.6	5.5	6.6	.4
DEC												
17...	0915	111	7.3	8.5	3	11.3	44	0	10	4.6	8.4	.6
JAN												
21...	1245	165	7.4	9.5	0	11.1	57	0	12	6.6	14	.8
FEB												
18...	1300	141	7.4	10.0	4	11.0	53	0	9.7	7.0	9.2	.5
MAR												
17...	0730	157	7.2	14.0	6	9.9	57	0	9.3	8.3	10	.6
APR												
21...	0845	144	7.4	16.5	5	9.8	56	0	12	6.3	9.0	.5
MAY												
19...	1215	198	7.4	19.5	15	8.9	65	0	14	7.3	16	.9
JUN												
16...	1030	175	7.6	21.0	6	9.5	59	0	12	7.0	16	.9
JUL												
21...	1230	158	7.5	22.0	5	9.0	57	0	11	7.2	12	.7
AUG												
18...	1130	189	7.3	20.0	8	8.1	66	0	12	8.8	15	.8
SEP												
15...	1230	218	7.4	22.0	9	7.7	77	0	14	10	18	.9

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 FLUORIDE (F) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	TOTAL NITRATE (N) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)
OCT												
15...	57	0	47	10	5.8	.1	107	.15	.14	--	.11	.20
NOV												
19...	58	0	48	6.7	3.1	.0	80	.11	.31	--	.09	.10
DEC												
17...	59	0	48	5.9	4.6	.1	65	.09	.10	--	.09	.10
JAN												
21...	76	0	62	11	7.9	.1	104	.14	.13	--	.11	.20
FEB												
18...	67	0	55	8.1	4.9	.1	89	.12	.14	--	.19	.20
MAR												
17...	73	0	60	9.4	5.8	.0	105	.14	.15	--	.15	.20
APR												
21...	72	0	59	10	4.4	.0	98	.13	--	.13	.13	.20
MAY												
19...	86	0	71	16	9.6	.2	137	.19	--	.09	.12	.30
JUN												
16...	80	0	66	16	9.3	.1	116	.16	--	.14	.08	.30
JUL												
21...	76	0	62	11	7.0	.1	107	.15	--	.06	.14	.20
AUG												
18...	94	0	77	11	8.4	.1	120	.16	--	.17	.08	.20
SEP												
15...	107	0	88	13	10	.2	146	.20	--	.18	.06	.20

11447810 SACRAMENTO RIVER AT GREEN'S LANDING, NEAR COURTLAND, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	HEXA-VALENT CHRO-MIUM (CR6) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	PHENOLS (UG/L)
OCT												
15...	.10	.06	0	100	--	0	100	0	20	0	0	--
NOV												
19...	.10	.06	10	0	--	60	20	0	0	0	0	--
DEC												
17...	.10	.05	0	0	--	0	90	0	10	0	0	--
JAN												
21...	.10	.06	10	0	--	0	30	0	10	0	0	--
FEB												
18...	.12	.09	0	0	--	20	10	0	10	10	0	--
MAR												
17...	.12	.10	0	0	0	0	10	0	0	0	0	2
APR												
21...	.13	.08	0	0	--	10	30	0	10	0	0	--
MAY												
19...	.18	.10	0	100	--	10	70	0	20	0	0	--
JUN												
16...	.19	.14	0	0	--	0	20	0	10	0	0	--
JUL												
21...	.17	.10	0	100	--	0	80	0	30	0	0	--
AUG												
18...	.19	.08	0	0	--	10	20	0	0	0	0	--
SEP												
15...	.16	.08	0	0	0	0	50	0	0	0	0	0

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	134	123	117	138	158	166	171	---	205	170	160	195
2	132	118	119	135	153	157	166	---	210	170	165	190
3	129	118	116	135	152	121	163	---	210	160	165	195
4	132	124	115	138	152	116	159	160	215	155	165	200
5	138	124	118	138	142	132	155	158	220	155	165	200
6	126	121	120	143	136	141	156	160	210	155	165	200
7	135	119	118	141	141	138	155	165	200	160	170	205
8	124	121	114	136	135	135	154	170	200	160	170	200
9	127	118	118	143	136	145	153	200	195	165	180	200
10	129	120	120	140	137	148	159	205	190	165	185	210
11	126	125	130	143	137	156	157	185	195	170	210	215
12	120	141	130	142	144	162	152	185	190	155	220	210
13	135	123	126	149	138	168	154	195	200	150	225	215
14	141	118	125	143	137	163	154	215	210	165	225	220
15	132	120	124	138	139	167	158	220	200	160	215	220
16	128	120	124	143	147	164	163	210	200	160	210	215
17	125	123	123	146	156	164	158	215	190	160	205	220
18	125	130	125	143	151	163	157	230	180	---	210	225
19	122	123	125	158	153	161	152	230	180	---	190	225
20	120	122	127	161	149	164	152	220	180	---	180	225
21	133	132	131	172	154	164	153	200	165	---	180	220
22	123	127	129	183	150	161	156	225	155	180	180	210
23	123	120	136	188	149	163	156	230	155	---	180	220
24	121	---	130	175	150	164	158	235	155	---	180	215
25	119	121	130	172	149	165	155	230	155	---	215	195
26	118	119	131	171	149	163	141	235	150	---	210	190
27	---	118	134	168	152	169	146	245	145	---	215	175
28	119	115	135	169	166	165	152	250	140	---	210	190
29	118	116	133	168	171	164	150	235	160	175	220	170
30	114	115	139	165	---	164	149	230	160	165	205	165
31	130	---	137	163	---	171	---	215	---	165	195	---
MONTH	127	122	126	153	148	156	155	209	184	---	193	205

11448500 ADOBE CREEK NEAR KELSEYVILLE, CA

LOCATION.--Lat 38°55'37", long 122°52'47", in SE¼SE¼ sec.32, T.13 N., R.9 W., Lake County, on left bank 2.3 mi (3.7 km) upstream from Highland Creek, and 4.2 mi (6.8 km) southwest of Kelseyville.

DRAINAGE AREA.--6.36 mi^2 (16.47 km^2).

PERIOD OF RECORD.--October 1954 to current year.

REVISED RECORDS.--WSP 2131: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,476.06 ft (449.903 m) above mean sea level.

REMARKS.--Records good. Some regulation and diversions above station for irrigation of about 200 acres (809,000 m^2).

AVERAGE DISCHARGE.--22 years, 12.2 ft^3/s (0.346 m^3/s), 8,840 acre-ft/yr (10.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,570 ft^3/s (44.5 m^3/s) Jan. 16, 1974, gage height, 8.92 ft (2.719 m); maximum gage height, 9.22 ft (2.810 m) Jan. 31, 1963; no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 103 ft^3/s (2.92 m^3/s) Apr. 7, gage height, 5.04 ft (1.536 m), no peak above base of 400 ft^3/s (11 m^3/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	.30	.33	.33	.15	10	.42	.20				
2	0	.21	.25	.25	.15	7.9	.42	.17				
3	0	.17	.25	.25	.15	7.9	.42	.14				
4	0	.16	.33	.33	.20	6.4	.42	.12				
5	0	.15	3.0	.33	.15	4.5	.42	.10				
6	0	.15	1.6	.27	.15	3.4	1.2	.09				
7	0	.15	.80	.25	.15	3.0	32	.08				
8	0	.15	.59	.32	.15	2.7	44	.07				
9	.16	.15	.46	.67	.15	2.4	13	.07				
10	1.7	.17	.42	.43	.15	1.9	23	.06				
11	.42	.20	.36	.34	.11	1.5	19	.06				
12	.20	.20	.50	.33	.11	1.2	19	.06				
13	.15	.20	.37	.25	.15	1.2	10	.05				
14	.15	.20	.32	.25	.33	.85	6.9	.05				
15	.15	2.9	.29	.20	.55	.85	4.9	.04				
16	.15	2.4	.33	.20	.30	.69	3.7	.03				
17	.15	1.0	.28	.20	.24	.69	2.7	.03				
18	.11	.55	.25	.20	.23	1.2	2.2	.02				
19	.11	.42	.25	.20	.87	.85	1.9	.02				
20	.11	.55	.25	.20	.66	.69	1.5	.02				
21	.11	.42	.55	.20	.36	.69	1.5	.02				
22	.11	.33	2.6	.20	.29	.45	1.0	.01				
23	.11	.33	1.2	.20	.25	.42	1.0	0				
24	.12	.33	.85	.20	.21	.42	.85	0				
25	.22	.33	.69	.20	2.2	.48	.85	0				
26	.48	.33	.55	.20	13	.42	.85	0				
27	.30	.33	.55	.20	10	.42	.68	0				
28	.21	.25	.55	.15	5.4	.42	.55	0				
29	.29	.25	.33	.15	28	.42	.29	0				
30	.56	.25	.33	.15	---	.42	.25	0				
31	.40	---	.33	.15	---	.55	---	0	---			---
TOTAL	6.47	13.53	19.76	7.80	64.81	64.93	194.92	1.51	0	0	0	0
MEAN	.21	.45	.64	.25	2.23	2.09	6.50	.049	0	0	0	0
MAX	1.7	2.9	3.0	.67	28	10	44	.20	0	0	0	0
MIN	0	.15	.25	.15	.11	.42	.25	0	0	0	0	0
AC-FT	13	27	39	15	129	129	387	3.0	0	0	0	0

CAL YR 1975 TOTAL 4456.61 MEAN 12.2 MAX 310 MIN 0 AC-FT 8840
WTR YR 1976 TOTAL 373.73 MEAN 1.02 MAX 44 MIN 0 AC-FT 741

11448900 HIGHLAND CREEK ABOVE HIGHLAND CREEK DAM, CA

LOCATION.--Lat 38°55'48", long 122°55'11", in NW¼SE¼ sec.36, T.13 N., R.10 W., Lake County, on left bank 100 ft (30 m) downstream from Pipeline Creek, 1.7 mi (2.7 km) upstream from Highland Creek Dam, and 5.7 mi (9.2 km) southwest of Kelseyville.

DRAINAGE AREA.--11.9 mi^2 (30.8 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 1,490.07 ft (454.173 m) above mean sea level.

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

AVERAGE DISCHARGE.--14 years, 21.4 ft^3/s (0.606 m^3/s), 15,500 acre-ft/yr (19.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,140 ft^3/s (88.9 m^3/s) Jan. 16, 1974, gage height, 10.91 ft (3.325 m); maximum gage height, 12.15 ft (3.703 m) Dec. 22, 1964; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 229 ft^3/s (6.49 m^3/s) Apr. 7, gage height, 5.44 ft (1.658 m), no peak above base of 1,200 ft^3/s (34 m^3/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	.09	.68	.87	.94	.74	15	.87	1.2	.32			
2	.08	.57	.87	.88	.74	13	.81	1.1	.29			
3	.09	.52	.87	.91	.74	16	.81	1.1	.27			
4	.09	.52	.95	.95	.77	13	.81	1.1	.23			
5	.10	.48	3.5	1.1	.79	8.8	.81	1.0	.21			
6	.12	.48	2.5	.97	.74	6.6	2.5	1.0	.21			
7	.15	.57	1.8	.95	.74	6.0	67	.95	.21			
8	.15	.57	1.3	.98	.74	5.2	99	.89	.23			
9	2.2	.57	1.3	1.6	.74	4.1	25	.87	.19			
10	3.4	1.1	1.1	1.4	.71	3.5	43	.82	.23			
11	.87	.80	1.1	1.2	.68	2.7	44	.82	.17			
12	.48	.70	1.5	1.1	.72	2.2	47	.76	.16			
13	.37	.65	1.3	1.1	.84	1.8	20	.69	.12			
14	.34	.62	.95	1.1	1.4	1.5	11	.69	.10			
15	.32	3.2	.95	1.0	1.7	1.3	7.7	.67	.09			
16	.32	3.9	.95	1.0	1.3	1.3	5.7	.63	.08			
17	.32	2.2	.95	1.0	1.2	1.1	4.6	.64	.07			
18	.32	1.5	.95	1.0	1.1	2.2	3.9	.64	.06			
19	.32	1.1	.95	.95	5.2	1.9	3.2	.63	.04			
20	.29	1.1	.95	.92	2.9	1.3	2.9	.59	.03			
21	.29	1.1	2.5	.87	1.3	1.1	2.4	.53	.05			
22	.29	.95	6.0	.90	1.1	1.0	2.2	.48	.06			
23	.34	.95	3.5	.95	.95	1.0	1.9	.47	.05			
24	.37	.87	2.2	.90	.87	1.1	1.8	.48	.01			
25	.52	.87	1.8	.87	1.5	1.1	1.5	.48	0			
26	3.4	.87	1.5	.87	12	1.0	1.5	.37	0			
27	1.1	.95	1.3	.87	10	.87	1.4	.32	0			
28	.81	.87	1.1	.81	6.0	.85	1.3	.37	0			
29	.95	.87	1.1	.81	32	.81	1.3	.37	0			
30	4.0	.81	1.1	.80	---	.81	1.2	.37	0			
31	1.1	---	.95	.74	---	.87	---	.34	---			---
TOTAL	23.59	30.94	48.66	30.44	90.21	119.01	407.11	21.37	3.48	0	0	0
MEAN	.76	1.03	1.57	.98	3.11	3.84	13.6	.69	.12	0	0	0
MAX	4.0	3.9	6.0	1.6	32	16	99	1.2	.32	0	0	0
MIN	.08	.48	.87	.74	.68	.81	.81	.32	0	0	0	0
AC-FT	47	61	97	60	179	236	808	42	6.9	0	0	0

CAL YR 1975 TOTAL 8123.70 MEAN 22.3 MAX 612 MIN .01 AC-FT 16110
WTR YR 1976 TOTAL 774.81 MEAN 2.12 MAX 99 MIN 0 AC-FT 1540

11449010 HIGHLAND CREEK BELOW HIGHLAND CREEK DAM, NEAR KELSEYVILLE, CA

LOCATION.--Lat 38°56'54", long 122°54'03", in NE¼ sec.30, T.13 N., R.9 W., Lake County, on left bank 500 ft (152 m) downstream from Highland Creek Dam, and 4.0 mi (6.4 km) southwest of Kelseyville.

DRAINAGE AREA.--14.2 mi^2 (36.8 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,416.52 ft (431.755 m) above mean sea level.

REMARKS.--Records good except those below 1.0 ft^3/s (0.028 m^3/s), which are poor. Flow completely regulated by Highland Creek Dam 500 ft (152 m) upstream, capacity, 3,500 acre-ft (4.32 hm^3). No diversion above station.

AVERAGE DISCHARGE (unadjusted).--10 years (water years 1967-76), 24.6 ft^3/s (0.697 m^3/s), 17,820 acre-ft/yr (22.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 765 ft^3/s (21.7 m^3/s) Dec. 3, 1970, gage height, 4.78 ft (1.457 m); maximum gage height, 5.09 ft (1.551 m) Jan. 16, 1974; no flow many days in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 115 ft^3/s (3.26 m^3/s) Apr. 8, gage height, 3.59 ft (1.094 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	0	.37	.37	.51	.51	19	.51	.26	.14			0
2	0	.26	.44	.51	.51	13	.44	.21	0			0
3	0	.19	.51	.51	.59	13	.37	.19	0			0
4	0	.19	.51	.51	.51	13	.31	.16	0			0
5	0	.16	.96	.59	.51	8.4	.26	.09	0			0
6	0	.14	1.1	.51	.44	6.1	3.0	.05	0			0
7	0	.21	.86	.55	.37	5.1	25	.05	0			0
8	0	.26	.76	.59	.37	4.6	92	.05	0			0
9	0	.21	.67	.86	.51	4.2	39	.03	0			0
10	0	.51	.59	.96	.51	3.4	34	0	0			0
11	0	.44	.51	.86	.51	3.0	36	0	0			0
12	0	.37	.59	.76	.51	2.5	48	0	0			0
13	0	.37	.51	.67	.59	2.5	26	0	0			0
14	0	.31	.44	.67	.96	2.0	18	0	0			0
15	0	.76	.44	.67	1.4	1.8	10	0	0			0
16	0	1.1	.44	.59	1.4	1.8	7.2	0	0			0
17	0	.86	.44	.59	1.2	1.6	5.1	0	0			0
18	0	.59	.37	.59	1.1	1.8	4.2	0	0			0
19	0	.44	.37	.59	1.8	1.8	3.0	0	0			0
20	0	.44	.37	.51	2.2	1.4	2.5	0	0			0
21	0	.44	.58	.51	1.6	1.1	2.0	0	0			0
22	0	.37	3.5	.51	1.2	.76	1.8	0	0			0
23	0	.37	3.4	.51	1.1	.67	1.4	0	0			0
24	0	.31	2.5	.51	.96	.67	1.1	0	0			0
25	0	.26	2.0	.51	1.4	.67	.86	0	0			0
26	.02	.26	1.2	.51	6.1	.67	.76	0	0			0
27	.19	.31	1.2	.51	9.6	.51	.59	.03	0			0
28	.16	.31	.96	.51	7.7	.51	.44	.18	0			.01
29	.16	.31	.86	.51	17	.51	.37	.23	0			0
30	.59	.31	.86	.51	---	.51	.37	.26	0			0
31	.59	---	.67	.51	---	.51	---	.27	---			---
TOTAL	1.71	11.43	28.98	18.21	63.16	117.09	364.58	2.06	.14	0	0	.01
MEAN	.055	.38	.93	.59	2.18	3.78	12.2	.067	.005	0	0	.0003
MAX	.59	1.1	3.5	.96	17	19	92	.27	.14	0	0	.01
MIN	0	.14	.37	.51	.37	.51	.26	0	0	0	0	0
AC-FT	3.4	23	57	36	125	232	723	4.1	.3	0	0	.02

CAL YR 1975 TOTAL 8622.20 MEAN 23.6 MAX 523 MIN 0 AC-FT 17100
WTR YR 1976 TOTAL 607.37 MEAN 1.66 MAX 92 MIN 0 AC-FT 1200

11449010 HIGHLAND CREEK BELOW HIGHLAND CREEK DAM, NEAR KELSEYVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.
CHEMICAL ANALYSES: Water years 1968 to current year. Published as station 11448900 "above Highland Creek Dam" in 1968.
WATER TEMPERATURES: Water years 1967 to current year.
SEDIMENT RECORDS: Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1966 to current year.
SEDIMENT RECORDS: December 1965 to current year.

REMARKS.--Bed at sampling point is concrete outlet from dam with no material over concrete.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 300 mg/L Jan. 18, 1973; minimum daily mean, no flow for many days in 1966-75.
SEDIMENT DISCHARGE: Maximum daily, 390 tons (354 tonnes) Jan. 18, 1973; minimum daily, 0 tons (0 tonnes) on many days in 1966-76.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 35 mg/L Dec. 23; minimum daily mean, no flow for many days.
SEDIMENT DISCHARGE: Maximum daily, 7.9 tons (7.2 tonnes) Apr. 8; minimum daily, 0 tons (0 tonnes) on many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
NOV								
11...	1130	.46	12.0	210	0	40	27	12
DEC								
08...	1640	.79	11.5	210	0	39	27	13
JAN								
07...	1225	.53	7.5	220	2	42	28	13
FEB								
16...	1530	1.3	7.0	240	0	46	31	15

DATE	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)
NOV								
11...	11	.4	.9	278	--	228	6.5	5.0
DEC								
08...	12	.4	1.1	289	--	237	4.4	5.7
JAN								
07...	11	.4	1.4	250	8	218	8.7	5.6
FEB								
16...	12	.4	1.4	322	--	264	12	6.9

11449010 HIGHLAND CREEK BELOW HIGHLAND CREEK DAM, NEAR KELSEYVILLE, 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		---	---	---	---	10.0	---					
2		---	---	---	---	---	---					
3		---	---	---	---	9.0	---					
4		---	---	---	---	10.0	---					
5		---	---	---	---	9.0	---					
6		---	---	---	---	---	---					
7		---	---	7.5	---	---	---					
8		---	11.5	---	---	---	---					
9		---	---	---	---	---	---					
10		---	---	---	---	---	---					
11		12.0	---	---	---	---	---					
12		---	---	---	---	---	---					
13		---	---	---	---	---	---					
14		---	---	---	---	---	---					
15		---	---	---	---	---	---					
16		---	---	---	7.0	---	---					
17		---	---	---	---	---	---					
18		---	---	---	---	---	---					
19		---	---	---	---	---	---					
20		---	---	---	---	---	---					
21		---	---	---	---	---	---					
22		---	---	---	---	---	---					
23		---	---	---	---	---	---					
24		---	---	---	---	12.5	---					
25		---	---	---	---	---	---					
26		---	---	---	---	---	---					
27		---	---	---	---	---	18.0					
28		---	---	---	---	---	---					
29		---	---	---	---	---	---					
30		---	---	---	---	---	---					
31		---	---	---	---	---	---					
MONTH		---	---	---	---	---	---					
YEAR	MAX	18.0	MIN	7.0	MEAN	10.5						

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	0	0	0	.37	12	.01	.37	2	0
2	0	0	0	.26	10	.01	.44	2	0
3	0	0	0	.19	8	0	.51	2	0
4	0	0	0	.19	7	0	.51	2	0
5	0	0	0	.16	6	0	.96	2	.01
6	0	0	0	.14	5	0	1.1	2	.01
7	0	0	0	.21	4	0	.86	2	0
8	0	0	0	.26	3	0	.76	2	0
9	0	0	0	.21	3	0	.67	2	0
10	0	0	0	.51	6	.01	.59	1	0
11	0	0	0	.44	4	0	.51	1	0
12	0	0	0	.37	4	0	.59	1	0
13	0	0	0	.37	3	0	.51	1	0
14	0	0	0	.31	3	0	.44	1	0
15	0	0	0	.76	5	.01	.44	1	0
16	0	0	0	1.1	10	.03	.44	1	0
17	0	0	0	.86	7	.02	.44	1	0
18	0	0	0	.59	5	.01	.37	1	0
19	0	0	0	.44	4	0	.37	1	0
20	0	0	0	.44	4	0	.37	1	0
21	0	0	0	.44	3	0	.58	3	0
22	0	0	0	.37	3	0	3.5	15	.14
23	0	0	0	.37	2	0	3.4	35	.32
24	0	0	0	.31	2	0	2.5	30	.20
25	0	0	0	.26	2	0	2.0	25	.14
26	.02	0	0	.26	2	0	1.2	22	.07
27	.19	10	.01	.31	2	0	1.2	20	.06
28	.16	7	0	.31	2	0	.96	18	.05
29	.16	7	0	.31	2	0	.86	17	.04
30	.59	10	.02	.31	2	0	.86	16	.04
31	.59	15	.02	---	---	---	.67	15	.03
MONTH	1.71	---	.05	11.43	---	.10	28.98	---	1.11

11449010 HIGHLAND CREEK BELOW HIGHLAND CREEK DAM, NEAR KELSEYVILLE, CA--Continued

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

	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	.51	14	.02	.51	1	0	19	13	.67
2	.51	13	.02	.51	1	0	13	4	.14
3	.51	13	.02	.59	1	0	13	11	.39
4	.51	12	.02	.51	1	0	13	9	.32
5	.59	12	.02	.51	1	0	8.4	9	.20
6	.51	12	.02	.44	1	0	6.1	8	.13
7	.55	12	.02	.37	1	0	5.1	7	.10
8	.59	12	.02	.37	1	0	4.6	6	.07
9	.86	11	.03	.51	1	0	4.2	5	.06
10	.96	14	.04	.51	1	0	3.4	4	.04
11	.86	13	.03	.51	1	0	3.0	3	.02
12	.76	12	.02	.51	1	0	2.5	2	.01
13	.67	11	.02	.59	1	0	2.5	2	.01
14	.67	10	.02	.96	5	.01	2.0	2	.01
15	.67	10	.02	1.4	8	.03	1.8	2	.01
16	.59	9	.01	1.4	6	.02	1.8	1	0
17	.59	9	.01	1.2	4	.01	1.6	1	0
18	.59	8	.01	1.1	3	.01	1.8	2	.01
19	.59	7	.01	1.8	2	.01	1.8	2	.01
20	.51	6	.01	2.2	2	.01	1.4	1	0
21	.51	5	.01	1.6	2	.01	1.1	1	0
22	.51	4	.01	1.2	2	.01	.76	1	0
23	.51	3	0	1.1	2	.01	.67	1	0
24	.51	3	0	.96	2	.01	.67	1	0
25	.51	3	0	1.4	2	.01	.67	1	0
26	.51	2	0	6.1	3	.05	.67	1	0
27	.51	2	0	9.6	5	.13	.51	1	0
28	.51	2	0	7.7	4	.08	.51	1	0
29	.51	2	0	17	4	.18	.51	1	0
30	.51	1	0	---	---	---	.51	1	0
31	.51	1	0	---	---	---	.51	1	0
MONTH	18.21	---	.41	63.16	---	.59	117.09	---	2.20

	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	.51	1	0	.26	1	0	.14	1	0
2	.44	1	0	.21	1	0	0	0	0
3	.37	1	0	.19	1	0	0	0	0
4	.31	1	0	.16	1	0	0	0	0
5	.26	1	0	.09	1	0	0	0	0
6	3.0	1	.01	.05	1	0	0	0	0
7	25	2	.14	.05	1	0	0	0	0
8	92	32	7.9	.05	1	0	0	0	0
9	39	27	3.1	.03	1	0	0	0	0
10	34	8	.75	0	0	0	0	0	0
11	36	13	1.2	0	0	0	0	0	0
12	48	11	1.5	0	0	0	0	0	0
13	26	5	.35	0	0	0	0	0	0
14	18	5	.24	0	0	0	0	0	0
15	10	4	.11	0	0	0	0	0	0
16	7.2	4	.08	0	0	0	0	0	0
17	5.1	3	.04	0	0	0	0	0	0
18	4.2	3	.03	0	0	0	0	0	0
19	3.0	3	.02	0	0	0	0	0	0
20	2.5	2	.01	0	0	0	0	0	0
21	2.0	2	.01	0	0	0	0	0	0
22	1.8	2	.01	0	0	0	0	0	0
23	1.4	2	.01	0	0	0	0	0	0
24	1.1	2	.01	0	0	0	0	0	0
25	.86	2	0	0	0	0	0	0	0
26	.76	2	0	0	0	0	0	0	0
27	.59	1	0	.03	1	0	0	0	0
28	.44	1	0	.18	1	0	0	0	0
29	.37	1	0	.23	1	0	0	0	0
30	.37	1	0	.26	1	0	0	0	0
31	---	---	---	.27	1	0	---	---	---
MONTH	364.58	---	15.52	2.06	---	0	.14	---	0

11449010 HIGHLAND CREEK BELOW HIGHLAND CREEK DAM, NEAR KELSEYVILLE, CA--Continued

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

	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	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	.01	1	0
29	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	---	---	---
MONTH	0	---	0	0	---	0	.01	---	0
YEAR	607.37		19.98						

11449100 SCOTTS CREEK NEAR LAKEPORT, CA

LOCATION.--Lat 39°05'44", long 122°57'38", in NE¼NW¼ sec.3, T.14 N., R.10 W., Lake County, on left bank at upstream side of Eickhoff Road bridge, 0.9 mi (1.4 km) downstream from small right-bank tributary, and 4.2 mi (6.8 km) northwest of Lakeport.

DRAINAGE AREA.--55.2 mi^2 (143.0 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 1,400 ft (427 m), from topographic map. Prior to Oct. 1, 1968, at site 3.0 mi (4.8 km) upstream at different datum.

REMARKS.--Small diversions above station for irrigation.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--16 years, 80.4 ft^3/s (2.277 m^3/s), 58,250 acre-ft/yr (71.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,100 ft^3/s (314 m^3/s) Jan. 16, 1974, gage height, 13.38 ft (4.078 m); maximum gage height, 17.88 ft (5.450 m) Dec. 22, 1964, site and datum then in use; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 357 ft^3/s (10.1 m^3/s) Feb. 29, gage height, 2.71 ft (0.826 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	101	5.3	3.2				
2					0	69	5.3	3.1				
3					0	73	4.5	2.9				
4					0	79	4.1	2.3				
5					0	54	4.1	2.0				
6					0	40	4.1	1.7				
7					0	32	47	1.5				
8					0	26	179	1.5				
9					0	21	81	1.5				
10					0	17	119	1.5				
11					0	15	105	1.5				
12					0	12	135	1.4				
13					0	11	74	1.4				
14					0	9.7	51	1.4				
15					0	8.9	38	1.3				
16					0	8.0	25	1.1				
17					0	6.9	20	.90				
18					0	6.1	17	.80				
19					3.1	7.2	14	.60				
20					9.8	5.8	12	.50				
21					3.8	4.3	10	.50				
22					1.6	3.4	9.2	.40				
23					1.4	4.8	8.0	.40				
24					1.4	5.6	7.3	.30				
25					1.4	5.9	6.0	.30				
26					64	6.4	5.6	.20				
27					99	5.8	4.1	.20				
28					53	5.7	3.2	.10				
29					139	5.3	3.3	.10				
30					---	5.1	3.4	0				
31		---			---	4.8	---	0	---			---
TOTAL	0	0	0	0	377.5	659.7	1004.5	34.60	0	0	0	0
MEAN	0	0	0	0	13.0	21.3	33.5	1.12	0	0	0	0
MAX	0	0	0	0	139	101	179	3.2	0	0	0	0
MIN	0	0	0	0	0	3.4	3.2	0	0	0	0	0
AC-FT	0	0	0	0	749	1310	1990	69	0	0	0	0

CAL YR 1975	TOTAL	33262.30	MEAN 91.1	MAX 1600	MIN 0	AC-FT	65980
WTR YR 1976	TOTAL	2076.30	MEAN 5.67	MAX 179	MIN 0	AC-FT	4120

11449500 KELSEY CREEK NEAR KELSEYVILLE, CA

LOCATION.--Lat 38°55'39", long 122°50'33", in SE¼SE¼ sec.34, T.13 N., R.9 W., Lake County, on left bank 1.6 mi (2.6 km) downstream from Widow Creek, and 3.5 mi (5.6 km) south of Kelseyville.

DRAINAGE AREA.--36.6 mi^2 (94.8 km^2).

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 1285: 1947-48(M), 1950-52(P). WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,475.44 ft (449.714 m) above mean sea level. Prior to July 16, 1955, at site 600 ft (183 m) upstream at different datum.

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

AVERAGE DISCHARGE.--30 years, 73.8 ft^3/s (2.090 m^3/s), 53,470 acre-ft/yr (65.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,800 ft^3/s (249 m^3/s) Dec. 21, 1955, gage height, 12.80 ft (3.901 m); maximum gage height, 13.48 ft (4.109 m) Jan. 5, 1965; minimum discharge, 0.5 ft^3/s (0.014 m^3/s) Sept. 1, 1950, but may have been less during August 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 543 ft^3/s (15.4 m^3/s) Apr. 8, gage height, 6.35 ft (1.935 m), estimated, no peak above base of 2,400 ft^3/s (68 m^3/s); minimum daily, 0.65 ft^3/s (0.018 m^3/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	4.5	10	10	9.4	8.0	41	8.9	10	5.0	1.3	.99	2.2
2	4.4	9.4	11	8.6	7.9	37	8.6	9.5	4.7	1.3	.99	1.9
3	4.4	8.9	11	8.5	7.8	32	8.5	9.1	4.5	1.4	.98	1.6
4	4.4	8.7	11	8.7	7.7	33	8.4	8.8	4.7	1.3	.98	1.4
5	4.5	8.5	20	9.2	7.8	26	8.5	8.6	4.3	1.3	.90	1.4
6	4.8	8.5	17	9.3	7.7	23	9.8	8.4	3.9	1.3	1.3	1.1
7	5.6	8.8	14	9.1	7.6	21	101	8.0	4.5	1.3	2.0	.87
8	5.7	9.1	12	9.2	7.9	20	266	8.0	4.6	1.3	2.4	.65
9	8.8	8.8	11	11	8.1	18	96	8.0	4.7	1.2	2.1	.72
10	38	11	10	11	7.8	17	109	7.5	4.9	1.2	1.8	1.0
11	16	11	10	10	7.6	15	76	7.0	5.1	1.2	1.6	1.4
12	11	9.6	11	9.7	7.7	14	79	6.6	4.6	1.2	1.6	1.9
13	9.1	9.3	11	9.5	8.0	13	49	6.2	4.2	1.2	1.8	2.2
14	8.4	9.1	10	9.4	9.5	12	36	5.9	4.0	1.2	2.4	3.0
15	7.8	12	9.9	9.3	13	12	29	5.8	3.6	1.2	4.0	3.2
16	7.5	22	9.8	9.1	11	11	25	5.9	2.8	1.2	6.2	3.3
17	7.3	16	9.8	9.0	11	11	23	6.0	2.6	1.2	5.8	3.5
18	7.3	14	9.6	9.0	10	12	21	6.1	2.6	1.2	6.2	3.7
19	7.0	12	9.5	8.7	13	12	19	6.2	2.5	1.2	7.1	3.2
20	6.7	11	9.4	8.5	14	11	17	5.9	2.3	1.1	6.3	3.4
21	6.8	11	10	8.6	12	10	15	5.4	2.2	1.1	5.2	3.4
22	6.8	10	17	8.7	11	9.9	14	5.4	2.0	1.1	5.1	3.0
23	7.0	10	14	8.7	9.9	9.6	14	5.2	1.8	1.1	5.2	2.8
24	7.2	10	12	8.6	9.4	9.6	13	5.3	1.6	1.1	5.2	2.6
25	7.7	10	11	8.4	10	10	11	5.4	1.5	1.0	4.8	2.5
26	16	10	11	8.1	15	9.4	11	5.1	1.4	1.0	4.5	2.3
27	12	11	10	8.0	17	9.1	11	4.8	1.3	1.0	4.2	2.4
28	9.7	11	10	8.2	17	8.9	10	4.7	1.3	1.0	3.7	4.2
29	9.2	10	10	8.2	17	8.9	10	4.8	1.3	1.0	3.3	6.5
30	17	10	9.8	8.2	---	8.6	9.9	5.0	1.3	1.0	2.7	11
31	13	---	9.6	8.1	---	8.8	---	4.9	---	.99	2.5	---
TOTAL	285.6	320.7	351.4	278.0	301.4	493.8	1117.6	203.5	95.8	36.19	103.84	82.34
MEAN	9.21	10.7	11.3	8.97	10.4	15.9	37.3	6.56	3.19	1.17	3.35	2.74
MAX	38	22	20	11	17	41	266	10	5.1	1.4	7.1	11
MIN	4.4	8.5	9.4	8.0	7.6	8.6	8.4	4.7	1.3	.99	.90	.65
AC-FT	566	636	697	551	598	979	2220	404	190	72	206	163

CAL YR 1975 TOTAL 24539.60 MEAN 67.2 MAX 1310 MIN 4.0 AC-FT 48670
WTR YR 1976 TOTAL 3670.17 MEAN 10.0 MAX 266 MIN .65 AC-FT 7280

NOTE.--No gage-height record Apr. 7, 8.

11450000 CLEAR LAKE AT LAKEPORT, CA

LOCATION.--Lat 39°02'21", long 122°54'44", in NE¼NE¼ sec.25, T.14 N., R.10 W., Lake County, on private pier at 410 Esplanada Street in Lakeport.

DRAINAGE AREA.--528 mi^2 (1,368 km^2).

PERIOD OF RECORD.--1874-1900 (incomplete), January 1913 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,318.65 ft (401.925 m) above mean sea level. Prior to July 8, 1947, nonrecording gage and July 8, 1947, to Mar. 17, 1949, at municipal wharf at foot of Third Street in Lakeport at datum 0.06 ft (0.018 m) lower. Mar. 18, 1949, to Sept. 30, 1967, at private pier at foot of Fourth Street at datum 0.06 ft (0.018 m) lower.

REMARKS.--This natural lake is regulated by gates on a dam at outlet, completed in 1915. Capacity between gage heights 0.00 and 7.56 ft (2.304 m), limits stipulated by court decree of 1920, about 319,000 acre-ft (393 hm^3). Water is released down natural channel of Cache Creek from which it is diverted for irrigation (station 11451000).

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 11.12 ft (3.389 m) Jan. 28, 1914; minimum observed, -3.50 ft (-1.067 m) Sept. 24-27, 1920.

EXTREMES FOR CURRENT YEAR.--Maximum daily mean gage height, 2.31 ft (0.704 m) Apr. 14; minimum, -0.28 ft (-0.085 m) Sept. 29, 30.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.97	1.78	1.68	1.75	1.77	1.92	2.03	2.24	1.72	1.19	.57	.06
2	1.96	1.77	1.69	1.74	1.77	2.01	2.02	2.25	1.72	1.17	.54	.05
3	1.93	1.78	1.69	1.74	1.75	2.03	2.02	2.25	1.69	1.14	.51	.03
4	1.92	1.77	1.69	1.74	1.77	2.05	2.01	2.23	1.69	1.13	.48	.02
5	1.90	1.75	1.73	1.73	1.79	2.06	2.01	2.22	1.66	1.12	.45	.01
6	1.85	1.75	1.73	1.73	1.76	2.06	2.02	2.24	1.65	1.09	.43	-.01
7	1.85	1.75	1.73	1.73	1.74	2.07	2.08	2.21	1.62	1.07	.41	-.02
8	1.85	1.74	1.74	1.75	1.73	2.09	2.15	2.20	1.62	1.05	.41	-.04
9	1.86	1.75	1.74	1.75	1.72	2.09	2.18	2.19	1.61	1.03	.39	-.05
10	1.86	1.72	1.74	1.76	1.73	2.09	2.22	2.17	1.57	1.01	.37	-.06
11	1.87	1.73	1.74	1.76	1.73	2.10	2.25	2.17	1.56	.97	.36	-.08
12	1.87	1.74	1.73	1.75	1.73	2.10	2.28	2.17	1.55	.98	.33	-.10
13	1.87	1.73	1.71	1.76	1.73	2.10	2.30	2.15	1.54	.96	.27	-.12
14	1.86	1.73	1.73	1.76	1.74	2.09	2.31	2.14	1.54	.95	.22	-.16
15	1.85	1.76	1.73	1.77	1.75	2.10	2.21	2.13	1.51	.93	.21	-.16
16	1.85	1.73	1.73	1.77	1.77	2.11	2.27	2.10	1.50	.91	.20	-.17
17	1.84	1.74	1.73	1.77	1.77	2.10	2.29	2.08	1.49	.90	.21	-.19
18	1.83	1.75	1.73	1.77	1.77	2.07	2.30	2.06	1.48	.88	.21	-.20
19	1.83	1.75	1.73	1.77	1.77	2.08	2.30	2.03	1.46	.84	.21	-.22
20	1.82	1.74	1.73	1.76	1.80	2.10	2.30	2.03	1.43	.80	.19	-.23
21	1.78	1.73	1.75	1.76	1.82	2.10	2.30	2.00	1.40	.80	.17	-.24
22	1.75	1.73	1.76	1.77	1.81	2.08	2.29	1.97	1.39	.79	.18	-.26
23	1.76	1.73	1.76	1.77	1.79	2.07	2.30	1.94	1.39	.76	.18	-.27
24	1.75	1.72	1.76	1.77	1.78	2.04	2.27	1.92	1.37	.74	.16	-.27
25	1.75	1.72	1.76	1.76	1.80	2.07	2.28	1.92	1.35	.73	.13	-.27
26	1.76	1.70	1.76	1.76	1.81	2.04	2.29	1.91	1.34	.71	.13	-.27
27	1.77	1.67	1.76	1.76	1.83	2.02	2.26	1.84	1.33	.69	.12	-.27
28	1.78	1.65	1.77	1.76	1.86	2.01	2.26	1.84	1.31	.68	.11	-.27
29	1.78	1.67	1.76	1.76	1.87	2.05	2.27	1.79	1.25	.65	.10	-.28
30	1.76	1.68	1.72	1.76	---	2.04	2.27	1.78	1.20	.62	.09	-.28
31	1.78	---	1.75	1.76	---	1.98	---	1.76	---	.60	.07	---
MEAN	1.83	1.73	1.73	1.76	1.77	2.06	2.21	2.06	1.50	.90	.27	-.14
MAX	1.97	1.78	1.77	1.77	1.87	2.11	2.31	2.25	1.72	1.19	.57	.06
MIN	1.75	1.65	1.68	1.73	1.72	1.92	2.01	1.76	1.20	.60	.07	-.28

WTR YR 1976 MEAN 1.47 MAX 2.31 MIN -.28

11451000 CACHE CREEK NEAR LOWER LAKE, CA

LOCATION.--Lat 38°55'27", long 122°33'53", in sec.6, T.12 N., R.6 W., Lake County, on left bank 500 ft (152 m) downstream from Clear Lake Dam, 1.9 mi (3.1 km) downstream from Copsey Creek, and 2.5 mi (4.0 km) northeast of Lower Lake.

DRAINAGE AREA.--528 mi^2 (1,368 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1944 to current year.

GAGE.--Water-stage recorder and rain gage. Datum of gage is 1,280.34 ft (390.248 m) above mean sea level.

REMARKS.--Records poor. Flow completely regulated by Clear Lake (station 11450000) 500 ft (152 m) upstream.

AVERAGE DISCHARGE (unadjusted).--32 years, 355 ft^3/s (10.05 m^3/s), 257,200 acre-ft/yr (317 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft^3/s (227 m^3/s) Feb. 24, 1958, gage height, 9.40 ft (2.865 m); minimum recorded, 0.2 ft^3/s (0.006 m^3/s) Mar. 15-23, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 84 ft^3/s (2.38 m^3/s) Oct. 1, gage height, 1.90 ft (0.579 m); minimum daily, 0.66 ft^3/s (0.019 m^3/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	84	4.1	2.3	2.0	2.2	2.7	3.6	3.8	2.4	2.1	2.1	1.2
2	78	4.0	2.2	2.0	2.2	2.7	3.7	3.7	2.4	2.1	2.1	1.2
3	72	3.9	2.2	2.0	2.2	2.8	3.8	3.7	2.4	2.2	2.1	1.1
4	65	3.9	2.2	2.0	2.2	2.9	3.9	3.6	2.5	2.3	2.0	1.1
5	53	3.8	2.2	2.0	2.2	2.9	4.0	3.6	2.5	2.3	2.0	1.1
6	49	3.8	2.2	2.0	2.2	2.9	4.1	3.5	2.4	2.4	1.9	1.0
7	45	3.8	2.2	2.0	2.2	2.9	4.3	3.5	2.4	2.3	1.9	.90
8	46	3.8	2.2	2.0	2.2	3.0	4.5	3.4	2.4	2.3	1.9	.92
9	48	3.8	2.1	2.1	2.2	3.0	4.5	3.4	2.3	2.4	1.9	.87
10	43	3.7	2.1	2.1	2.2	3.1	4.6	3.3	2.4	2.4	1.9	.81
11	19	3.6	2.1	2.1	2.3	3.1	4.7	3.3	2.4	2.4	1.9	.79
12	12	3.5	2.1	2.1	2.3	3.2	4.8	3.2	2.3	2.4	1.9	.77
13	8.2	3.4	2.1	2.1	2.3	3.2	4.9	3.1	2.3	2.5	1.9	.78
14	6.5	3.3	2.1	2.1	2.3	3.3	5.0	3.1	2.2	2.4	1.8	.76
15	6.4	3.2	2.1	2.1	2.3	3.3	4.8	3.0	2.1	2.4	1.8	.80
16	6.2	3.1	2.1	2.1	2.3	3.4	4.6	3.0	2.0	2.4	1.7	.77
17	5.7	3.0	2.1	2.1	2.3	3.5	4.5	2.9	2.1	2.4	1.6	.80
18	5.6	2.9	2.1	2.1	2.3	3.5	4.4	2.8	2.1	2.4	1.6	.78
19	5.4	2.8	2.1	2.1	2.3	3.5	4.3	2.8	2.1	2.4	1.5	.73
20	5.1	2.7	2.1	2.1	2.3	3.5	4.2	2.7	2.1	2.4	1.5	.74
21	5.0	2.7	2.1	2.1	2.3	3.5	4.1	2.7	2.1	2.4	1.5	.72
22	4.9	2.5	2.1	2.1	2.3	3.5	4.1	2.6	2.1	2.4	1.5	.70
23	4.8	2.5	2.0	2.1	2.3	3.6	4.1	2.5	2.2	2.4	1.4	.66
24	4.7	2.5	2.0	2.1	2.3	3.6	4.0	2.5	2.1	2.6	1.4	.70
25	4.6	2.5	2.0	2.1	2.3	3.6	4.0	2.4	2.1	2.6	1.4	.70
26	4.5	2.4	2.0	2.1	2.3	3.7	4.0	2.3	2.1	2.6	1.3	.67
27	4.4	2.3	2.0	2.1	2.4	3.6	4.0	2.2	2.0	2.7	1.3	.72
28	4.4	2.3	2.0	2.1	2.5	3.6	4.0	2.4	2.0	2.6	1.3	.75
29	4.3	2.3	2.0	2.2	2.6	3.6	3.9	2.3	2.0	2.5	1.3	.76
30	4.2	2.3	2.0	2.2	---	3.6	3.9	2.2	2.0	2.3	1.2	.76
31	4.2	---	2.0	2.2	---	3.6	---	2.4	---	2.1	1.2	---
TOTAL	713.1	94.4	65.1	64.6	66.3	101.9	127.3	91.9	66.5	74.1	51.8	25.06
MEAN	23.0	3.15	2.10	2.08	2.29	3.29	4.24	2.96	2.22	2.39	1.67	.84
MAX	84	4.1	2.3	2.2	2.6	3.7	5.0	3.8	2.5	2.7	2.1	1.2
MIN	4.2	2.3	2.0	2.0	2.2	2.7	3.6	2.2	2.0	2.1	1.2	.66
AC-FT	1410	187	129	128	132	202	252	182	132	147	103	50
(†)	3.29	.33	.28	.16	.65	.85	1.85	0	0	0	.33	.09

CAL YR 1975 TOTAL 156093.90 MEAN 428 MAX 3680 MIN 1.9 AC-FT 309600
WTR YR 1976 TOTAL 1542.06 MEAN 4.21 MAX 84 MIN .66 AC-FT 3060

† Precipitation, in inches.

11451000 CACHE CREEK NEAR LOWER LAKE, CA--Continued

WATER-QUALTY RECORDS

PERIOD OF RECORD.--
CHEMICAL ANALYSES: Water years 1951-67, 1974 to current year.

COOPERATION.--Records were furnished by California Department of Water Resources.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	DIS-CHARGE (CFS)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC 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)
OCT										
09...	1010	48	--	273	8.3	16.0	8	8.5	--	--
NOV										
06...	1140	3.8	--	276	7.8	12.5	5	9.3	120	0
DEC										
10...	1210	2.1	--	292	7.7	9.0	4	10.8	--	--
JAN										
08...	1215	2.0	--	300	7.7	5.0	2	11.3	--	--
FEB										
05...	0900	2.2	--	314	8.1	6.5	3	10.8	150	0
MAR										
04...	1200	2.9	--	377	8.0	9.0	3	10.5	160	4
MAY										
06...	0945	3.5	--	451	8.0	16.5	5	8.4	180	0
JUN										
10...	0930	--	2.5	445	7.8	20.0	5	7.3	--	--
JUL										
15...	0945	--	2.5	408	7.7	25.0	0	6.3	180	0
AUG										
06...	1100	--	1.9	388	8.0	23.0	1	8.8	160	0
SEP										
15...	1230	--	.83	359	8.1	20.0	2	7.9	160	0

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	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 CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT										
09...	--	--	--	--	--	--	--	--	--	--
NOV										
06...	--	--	12	--	.5	--	150	0	123	--
DEC										
10...	--	--	--	--	--	--	--	--	--	--
JAN										
08...	--	--	--	--	--	--	--	--	--	--
FEB										
05...	--	--	15	--	.5	--	190	0	156	--
MAR										
04...	28	20	18	20	.6	2.1	190	0	156	17
MAY										
06...	--	--	23	--	.7	--	230	0	189	--
JUN										
10...	--	--	--	--	--	--	--	--	--	--
JUL										
15...	--	--	21	--	.7	--	220	0	180	--
AUG										
06...	--	--	18	--	.6	--	210	0	172	--
SEP										
15...	--	--	19	--	.7	--	210	0	172	--

11451000 CACHE CREEK NEAR LOWER LAKE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (P04) (MG/L)	DIS-SOLVED BORON (B) (UG/L)
OCT 09...	--	--	--	--	.04	.60	.05	.01	.03	--
NOV 06...	6.1	--	--	--	.01	.60	.08	.01	.03	900
DEC 10...	--	--	--	--	.08	.60	.04	.01	.03	--
JAN 08...	--	--	--	--	.05	.70	.05	.01	.03	--
FEB 05...	14	--	--	--	.04	.50	.03	.00	.00	1000
MAR 04...	19	206	.28	1.61	.05	.50	.06	.01	.03	1300
MAY 06...	26	--	--	--	.01	.70	.07	.02	.06	1800
JUN 10...	--	--	--	--	.24	.90	.11	.02	.06	--
JUL 15...	18	--	--	--	.17	1.7	.12	.02	.06	1600
AUG 06...	16	--	--	--	.08	1.0	.11	.04	.12	1500
SEP 15...	13	--	--	--	.13	.90	.12	.04	.12	1600

DATE	TIME	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)
MAY 06...	0945	0	10	320	0	50	10

11451100 NORTH FORK CACHE CREEK AT HOUGH SPRINGS, NEAR CLEARLAKE OAKS, CA

LOCATION.--Lat 39°09'56", long 122°37'08", in SE¼NW¼ sec.10, T.15 N., R.7 W., Lake County, on right bank 0.5 mi (0.8 km) upstream from Spanish Creek, 0.9 mi (1.4 km) upstream from Hough Springs, and 10 mi (16 km) northeast of Clearlake Oaks.

DRAINAGE AREA.--60.2 mi^2 (155.9 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 1,840 ft (561 m), from topographic map. Recording rain gage 9 mi (14 km) southwest of gage. Altitude of gage is 3,450 ft (1,052 m), from topographic map.

REMARKS.--Records fair except those for period of indefinite stage-discharge relation, which are poor. No regulation or diversion above station.

AVERAGE DISCHARGE.--5 years, 93.0 ft^3/s (2.634 m^3/s), 67,380 acre-ft/yr (83.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,980 ft^3/s (226 m^3/s) Jan. 16, 1974, gage height, 9.23 ft (2.813 m) from floodmarks, from rating curve extended above 2,400 ft^3/s (68.0 m^3/s) on basis of slope-area measurement of maximum flow; no flow for many days in 1972 and 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 706 ft^3/s (20.0 m^3/s) Feb. 29, gage height, 3.27 ft (0.997 m) from floodmarks, no peak above base of 1,500 ft^3/s (42 m^3/s); no flow on 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	.73	6.2	6.6	9.3	8.3	237	17	17	4.7	.71	.05	0
2	.73	5.9	7.5	9.3	8.0	170	16	16	4.6	.76	.07	0
3	.73	5.9	7.5	9.3	8.3	185	15	16	4.4	.75	.07	0
4	.74	5.5	7.8	9.8	8.7	155	15	15	4.2	.68	.12	0
5	.73	5.2	34	9.8	8.5	121	15	15	4.2	.62	.14	0
6	.73	5.2	34	9.1	8.5	86	15	14	3.9	.61	.10	0
7	.81	5.4	18	9.1	8.9	70	26	13	3.7	.53	.07	0
8	.90	5.4	14	9.1	8.9	51	140	13	3.7	.52	.05	0
9	3.8	5.4	12	11	8.9	44	93	12	3.6	.50	.02	0
10	13	8.2	11	11	8.6	38	118	12	4.0	.47	0	0
11	5.5	10	10	10	8.9	32	123	11	4.2	.42	0	0
12	4.0	9.3	12	9.8	9.1	27	103	10	3.9	.42	0	0
13	2.9	8.5	11	9.8	9.4	25	90	9.9	3.3	.42	0	0
14	2.5	8.5	9.8	10	10	22	76	9.4	2.8	.41	0	0
15	2.3	27	9.3	9.8	12	21	57	8.9	2.4	.36	0	0
16	2.1	44	8.9	8.7	15	20	46	8.4	2.1	.32	0	0
17	2.1	18	8.4	8.4	17	19	39	7.8	1.8	.30	0	0
18	2.0	12	8.4	8.6	13	21	35	7.7	1.6	.28	0	0
19	1.8	12	8.3	9.5	34	22	32	7.5	1.4	.26	0	0
20	1.8	11	8.5	9.3	32	20	29	7.2	1.4	.30	0	0
21	1.7	11	8.8	8.9	20	19	27	7.0	1.4	.29	0	0
22	1.8	10	17	8.9	16	18	25	6.5	1.3	.27	0	0
23	1.9	10	14	9.3	15	19	24	6.0	1.1	.22	0	0
24	2.2	9.3	11	9.3	14	19	23	6.0	.98	.15	0	0
25	2.9	8.5	10	8.9	25	19	22	5.7	.89	.13	0	0
26	6.6	8.0	9.8	8.7	236	18	21	5.2	.84	.08	0	0
27	6.1	8.0	9.3	8.4	267	17	21	4.8	.81	.05	0	0
28	5.0	8.0	10	8.5	152	16	20	4.7	.73	0	0	0
29	5.0	7.0	9.8	8.5	338	17	19	4.9	.64	.01	0	.10
30	12	6.8	9.8	8.2	---	16	18	5.0	.61	0	0	.50
31	8.2	---	9.8	8.0	---	16	---	4.9	---	0	0	---
TOTAL	103.30	305.2	366.3	286.3	1329.0	1580	1320	291.5	75.20	10.84	.69	.60
MEAN	3.33	10.2	11.8	9.24	45.8	51.0	44.0	9.40	2.51	.35	.022	.020
MAX	13	44	34	11	338	237	140	17	4.7	.76	.14	.50
MIN	.73	5.2	6.6	8.0	8.0	16	15	4.7	.61	0	0	0
AC-FT	205	605	727	568	2640	3130	2620	578	149	22	1.4	1.2
(†)	4.15	2.33	1.93	.57	4.48	1.08	2.78	0	0	0	2.04	.31

CAL YR 1975 TOTAL 37352.12 MEAN 102 MAX 1520 MIN .59 AC-FT 74090
WTR YR 1976 TOTAL 5668.93 MEAN 15.5 MAX 338 MIN 0 AC-FT 11240

† Precipitation, in inches.
NOTE.--Stage-discharge relation indefinite Aug. 6 to Sept. 30.

11451500 NORTH FORK CACHE CREEK NEAR LOWER LAKE, CA

LOCATION.--Lat 39°01'09", long 122°34'04", in NE¼ sec.31, T.14 N., R.6 W. (unsurveyed), Lake County, on right bank 500 ft (152 m) upstream from Sweet Hollow Creek, 5 mi (8 km) upstream from mouth, and 7 mi (11 km) northeast of Lower Lake.

DRAINAGE AREA.--197 mi^2 (510 km^2).

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

REVISED RECORDS.--WSP 831: 1932(M). WSP 1315-A: 1935(M), 1937-38(M).

GAGE.--Water-stage recorder. Datum of gage is 1,034.60 ft (315.346 m) above mean sea level. Prior to June 15, 1939, at datum 2.00 ft (0.610 m) higher. June 15, 1939, to Mar. 17, 1976, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those below 10 ft^3/s (0.28 m^3/s), which are fair. Flow regulated by Indian Valley Reservoir 8 mi (13 km) upstream beginning in June 1974, capacity, 296,000 acre-ft (365 hm^3). Several small diversions for irrigation of about 150 acres (607,000 m^2) above station.

AVERAGE DISCHARGE (unadjusted).--44 years (1931-74), 199 ft^3/s (5.636 m^3/s), 144,200 acre-ft/yr (178 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,300 ft^3/s (575 m^3/s) Dec. 11, 1937, gage height, 14.98 ft (4.566 m) present datum, from floodmarks, from rating curve extended above 7,600 ft^3/s (215 m^3/s) on basis of slope-area measurement at gage height 14.9 ft (4.54 m), present datum for peak of Feb. 28, 1940; no flow at times in 1930-36, 1949-50, 1956-57. Maximum discharge since construction of Indian Valley Dam in 1964, 2,490 ft^3/s (70.5 m^3/s) Feb. 12, 1975, gage height, 5.67 ft (1.728 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 482 ft^3/s (13.7 m^3/s) June 29, gage height, 4.18 ft (1.274 m); minimum daily, 0.82 ft^3/s (0.023 m^3/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	8.6	13	13	12	11	30	377	334	316	475	376	2.6
2	8.6	11	13	13	11	30	388	355	296	469	351	1.4
3	8.5	11	13	13	11	30	400	368	292	466	323	1.1
4	8.3	11	13	13	12	30	403	382	292	453	285	.99
5	8.3	11	20	13	12	33	416	400	292	437	240	.87
6	8.3	11	23	13	11	27	416	403	298	409	184	.87
7	8.3	11	15	13	11	25	391	403	309	400	154	.82
8	8.3	13	12	13	11	25	327	406	332	416	106	.82
9	8.1	14	11	12	11	26	255	394	346	440	30	.85
10	7.9	19	11	12	11	53	249	382	334	434	13	.93
11	7.9	13	11	12	11	104	230	391	316	422	7.3	1.1
12	8.0	12	12	12	10	117	209	397	311	409	6.6	1.1
13	8.3	12	12	12	10	138	209	413	305	419	13	1.1
14	8.3	14	12	12	10	140	225	428	294	431	42	.99
15	8.3	15	12	12	10	161	259	428	309	416	22	1.1
16	8.3	29	12	11	10	255	281	428	332	406	12	1.3
17	8.3	17	12	11	10	314	253	425	355	397	8.8	1.3
18	8.3	15	12	11	10	332	243	419	385	403	13	1.2
19	8.3	14	12	11	10	336	279	403	394	391	11	4.6
20	8.3	13	12	11	10	334	307	388	397	379	5.3	3.4
21	8.3	13	12	11	10	346	300	377	422	374	4.9	3.1
22	8.3	12	15	11	10	343	281	365	431	391	5.7	2.9
23	8.3	12	15	11	10	336	288	358	406	406	5.3	3.1
24	8.3	12	13	11	10	358	323	360	388	409	4.6	3.1
25	8.3	12	14	11	10	371	358	353	397	413	2.3	2.2
26	27	12	13	11	10	371	358	343	431	422	8.0	1.3
27	18	12	13	10	10	371	353	358	447	360	11	1.3
28	13	13	13	10	12	371	371	374	456	397	6.1	1.5
29	12	13	13	10	25	365	371	374	469	419	3.1	1.5
30	14	13	13	10	---	363	346	371	475	406	2.8	1.3
31	22	---	12	11	---	368	---	351	---	391	2.8	---
TOTAL	313.0	403	409	359	320	6503	9466	11931	10827	12860	2259.6	49.74
MEAN	10.1	13.4	13.2	11.6	11.0	210	316	385	361	415	72.9	1.66
MAX	27	29	23	13	25	371	416	428	475	475	376	4.6
MIN	7.9	11	11	10	10	25	209	334	292	360	2.3	.82
AC-FT	621	799	811	712	635	12900	18780	23670	21480	25510	4480	99

CAL YR 1975 TOTAL 28563.10 MEAN 78.3 MAX 1190 MIN 4.5 AC-FT 56650
WTR YR 1976 TOTAL 55700.34 MEAN 152 MAX 475 MIN .82 AC-FT 110500

11451720 BEAR CREEK NEAR RUMSEY, CA

LOCATION.--Lat 38°56'47", long 122°20'48", in NE¼SW¼ sec.30, T.13 N., R.4 W., Colusa County, on left bank 0.3 mi (0.5 km) downstream from Brophy Canyon, 1.4 mi (2.3 km) upstream from mouth, and 7.3 mi (11.7 km) northwest of Rumsey.

DRAINAGE AREA.--100 mi^2 (259 km^2).

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

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 750 ft (229 m), from topographic map.

REMARKS.--No regulation or diversion above station.

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--18 years, 46.5 ft^3/s (1.371 m^3/s), 33,690 acre-ft/yr (41.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,720 ft^3/s (275 m^3/s) Jan. 5, 1965, gage height, 11.93 ft (3.636 m); no flow at times in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1955, 12.33 ft (3.758 m) Feb. 24, 1958, discharge, 9,350 ft^3/s (265 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8.5 ft^3/s (0.241 m^3/s) Apr. 8, gage height, 1.38 ft (0.421 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	1.2	2.6	2.5	2.9	2.8	4.1	2.1	1.4	.70	0	0	.30
2	1.1	2.4	2.5	2.8	2.8	4.1	2.0	1.3	.70	0	0	.20
3	1.1	2.4	2.8	2.8	2.8	4.3	2.1	1.2	.60	0	0	.20
4	1.1	2.3	2.9	2.9	2.7	3.5	2.2	1.2	.60	0	0	.20
5	1.1	2.3	3.0	3.0	2.7	3.1	2.2	1.1	.70	.10	0	.20
6	1.3	2.3	3.2	3.0	2.6	2.8	2.2	1.0	.70	.10	0	.20
7	1.3	2.3	2.9	3.0	2.6	2.6	2.7	.90	.60	0	0	.20
8	1.3	2.3	2.8	3.0	2.7	2.6	6.0	.90	.60	0	.10	.20
9	2.1	2.3	2.8	3.7	2.8	2.7	6.5	.90	.80	0	.10	.20
10	5.6	2.4	2.9	4.0	2.8	2.6	4.1	1.0	1.4	0	.10	.20
11	5.0	2.6	3.0	3.4	2.6	2.5	3.8	.90	1.4	0	.10	.20
12	4.5	2.3	3.0	3.2	2.5	2.3	3.7	.80	1.2	0	.10	.30
13	2.8	2.3	3.0	3.2	2.7	2.2	3.4	.70	1.0	0	.10	.60
14	2.2	2.3	2.8	3.1	2.9	2.2	3.2	.70	.60	0	.10	.60
15	2.0	2.9	2.6	3.1	3.0	2.3	2.7	.70	.50	0	.10	.50
16	1.9	4.0	2.7	3.0	3.1	2.3	2.4	.70	.30	0	.50	.50
17	1.8	3.3	2.8	3.0	3.1	2.3	2.2	.70	.20	0	.60	.60
18	1.9	2.7	2.8	3.1	2.9	2.3	2.2	.70	.20	0	.70	.70
19	1.9	2.5	2.8	3.0	2.7	2.8	2.2	.90	.20	0	1.0	.70
20	1.8	2.6	2.8	2.9	2.8	2.6	2.0	1.0	.20	0	1.0	.50
21	1.7	2.7	2.9	2.9	2.6	2.4	2.0	1.0	.20	0	.90	.50
22	1.7	2.6	3.6	2.9	2.5	2.4	2.0	.80	.20	0	.70	.50
23	1.7	2.6	3.8	3.0	2.6	2.4	2.0	.70	.10	0	.70	.50
24	1.7	2.5	3.2	3.1	2.5	2.3	1.8	.80	.10	0	.70	.40
25	1.8	2.5	3.1	3.0	2.5	2.3	1.6	.80	.10	0	.60	.40
26	2.7	2.4	3.1	3.0	2.6	2.3	1.4	.80	.10	0	.50	.40
27	3.1	2.6	3.1	2.9	2.6	2.3	1.3	.70	0	0	.40	.40
28	2.3	2.8	3.0	2.9	2.7	2.3	1.5	.60	0	0	.30	.80
29	2.2	2.7	3.0	3.0	3.0	2.3	1.6	.50	0	0	.40	1.0
30	2.9	2.5	3.0	3.0	---	2.2	1.6	.70	0	0	.30	1.0
31	3.4	---	3.0	2.8	---	2.1	---	.80	---	0	.30	---
TOTAL	68.2	77.0	91.4	94.6	79.2	81.5	76.7	26.90	14.00	.20	10.40	13.20
MEAN	2.20	2.57	2.95	3.05	2.73	2.63	2.56	.87	.47	.007	.34	.44
MAX	5.6	4.0	3.8	4.0	3.1	4.3	6.5	1.4	1.4	.10	1.0	1.0
MIN	1.1	2.3	2.5	2.8	2.5	2.1	1.3	.50	0	0	0	.20
AC-FT	135	153	181	188	157	162	152	53	28	.4	21	26

CAL YR 1975 TOTAL 17702.60 MEAN 48.5 MAX 1460 MIN 1.1 AC-FT 35110
WTR YR 1976 TOTAL 633.30 MEAN 1.73 MAX 6.5 MIN 0 AC-FT 1260

11451760 CACHE CREEK AT RUMSEY, CA

LOCATION.--Lat 38°53'25", long 122°14'13", T.12 N., R.3 W., Yolo County, in Canada De Capay Grant, on downstream side of bridge on Arbuckle Road, 800 ft (244 m) north of Rumsey.

DRAINAGE AREA.--964 mi^2 (2,497 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1960 to September 1962, June 1965 to September 1973, December 1975 to September 1976. Prior to September 1973, published as "above Rumsey".

GAGE.--Water-stage recorder. Altitude of gage is 420 ft (128 m), from topographic map. Prior to September 1973, at site 3.0 mi (4.8 km) upstream at different datum.

REMARKS.--Flow partly regulated by Clear Lake (station 11450000) beginning in 1915. Flow also regulated by Indian Valley Reservoir beginning in June 1974, capacity, 296,000 acre-ft (365 hm^3).

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--10 years (water years 1961-62, 1966-73), 746 ft^3/s (21.13 m^3/s), 540,500 acre-ft/yr (666 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,400 ft^3/s (1,230 m^3/s), Jan. 24, 1970, gage height, 19.59 ft (5.971 m), from rating curve extended above 14,000 ft^3/s (396 m^3/s) on basis of slope-area measurement at gage height 21.42 ft (6.529 m); minimum daily, 0.10 ft^3/s (0.003 m^3/s) Aug. 14-18, 1972.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 5, 1965, reached a stage of 21.42 ft (6.529 m) from floodmarks, discharge, 59,000 ft^3/s (1,670 m^3/s) by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period December to September, 469 ft^3/s (13.3 m^3/s) July 1, gage height, 10.99 ft (3.350 m); minimum daily, 1.2 ft^3/s (0.034 m^3/s) Sept. 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			---	15	6.9	22	393	332	331	462	423	2.9
2			---	14	7.2	38	411	348	302	457	410	2.9
3			---	14	7.4	35	425	366	289	452	395	2.9
4			---	15	8.0	33	430	373	288	435	377	2.5
5			---	15	8.6	31	433	408	288	420	354	2.7
6			---	15	8.3	31	453	414	289	400	237	2.6
7			---	15	6.2	31	442	415	301	384	189	2.0
8			---	15	6.6	27	417	416	314	385	165	1.6
9			---	17	3.3	26	300	411	345	401	99	1.6
10			---	12	3.4	26	276	385	343	423	51	1.8
11			---	7.7	2.9	64	270	388	320	420	28	2.0
12			---	6.5	2.7	113	229	400	305	414	14	2.1
13			---	5.5	2.9	143	225	412	309	410	11	1.7
14			---	5.0	3.0	153	220	429	288	405	7.8	1.7
15			---	4.5	3.3	155	247	431	292	426	46	1.6
16			---	4.8	3.9	200	295	431	315	417	25	1.5
17			16	4.6	4.0	332	283	430	338	412	19	1.3
18			15	4.6	4.8	341	242	429	364	395	17	1.2
19			15	4.6	7.0	361	269	416	397	408	17	1.2
20			15	5.1	6.3	358	307	399	399	398	17	1.5
21			16	4.0	6.0	360	318	387	410	393	15	1.7
22			17	4.3	5.1	381	291	375	423	382	14	1.5
23			19	4.5	4.7	359	286	366	413	386	13	1.6
24			19	5.1	4.8	378	306	363	395	414	12	1.8
25			17	5.0	4.1	400	347	361	397	416	11	1.8
26			16	5.0	3.9	402	363	352	411	424	8.7	1.7
27			16	5.1	3.8	402	349	352	430	429	4.0	1.8
28			16	4.7	4.4	400	360	376	437	441	3.3	2.0
29			16	5.0	11	397	374	382	453	401	4.4	1.8
30			15	6.2	---	389	358	377	460	419	4.2	1.8
31			15	6.6	---	396	---	371	---	434	3.4	---
TOTAL			---	255.4	154.5	6784	9915	12095	10646	12863	2994.8	56.8
MEAN			---	8.24	5.33	219	331	390	355	415	96.6	1.89
MAX			---	17	11	402	453	431	460	462	423	2.9
MIN			---	4.0	2.7	22	220	332	288	382	3.3	1.2
AC-FT			---	507	306	13460	19670	23990	21120	25510	5940	113

11451760 CACHE CREEK AT RUMSEY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: January 1960 to September 1970, December 1975 to September 1976 (discontinued).
SEDIMENT RECORDS: January 1960 to September 1963, June 1965 to September 1970, December 1975 to September 1976 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES (water years 1965-66): Minimum, 1.0°C Dec. 17, 1965.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 9,160 mg/L Jan. 29, 1967; minimum daily mean, 1 mg/L on several days in 1960-62, 1965, and 1969.
SEDIMENT DISCHARGE: Maximum daily, 363,000 tons (329,000 tonnes) Jan. 31, 1963; minimum daily, 0.01 ton (0.01 tonne) on many days in 1960, 1961, and 1976.

EXTREMES FOR CURRENT YEAR (December 1975 to September 1976).--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 200 mg/L Apr. 9; minimum daily mean, 2 mg/L on several days during August and September.
SEDIMENT LOADS: Maximum daily, 162 tons (147 tonnes) Apr. 9; minimum daily, 0.01 ton (0.01 tonne) on several days during September.

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			---	---	---	---	---	---	19.0	21.0	---	25.5
2			---	---	---	6.0	14.0	---	---	---	---	---
3			---	---	10.0	---	---	---	20.0	---	23.0	22.0
4			---	---	---	---	---	18.0	17.5	---	---	---
5			---	---	---	11.5	---	---	---	---	23.0	---
6			---	6.0	7.0	---	12.0	---	---	25.0	---	---
7			---	---	---	---	---	18.0	18.0	---	---	24.0
8			---	---	---	---	---	---	---	---	---	---
9			---	6.0	11.0	13.0	13.0	---	---	23.0	23.6	---
10			---	---	---	---	---	---	---	---	---	---
11			---	---	8.0	---	---	20.0	21.0	---	---	---
12			---	---	11.0	13.0	13.0	---	---	---	24.0	---
13			---	8.0	---	---	---	---	---	27.0	---	---
14			---	---	---	---	---	20.0	20.0	---	---	21.0
15			---	---	---	---	---	---	---	---	---	---
16			---	9.0	---	16.0	13.0	---	---	24.0	19.0	---
17			---	---	12.0	---	---	20.0	---	---	---	---
18			7.5	---	---	---	---	---	22.0	---	---	---
19			---	9.0	13.0	11.0	---	---	---	25.0	20.0	---
20			---	---	---	---	16.0	16.5	---	---	---	---
21			---	---	---	---	---	21.0	---	---	---	---
22			---	---	---	---	---	---	22.0	23.0	---	---
23			---	9.0	---	13.0	---	---	---	---	24.0	21.0
24			---	---	14.0	---	19.0	22.0	23.0	---	---	---
25			---	---	---	---	---	---	---	---	---	---
26			---	---	---	12.0	---	---	---	26.0	---	---
27			---	8.0	15.0	---	14.0	21.0	---	---	25.0	---
28			---	---	---	---	---	---	---	26.0	---	---
29			---	---	---	15.0	---	---	23.0	---	---	---
30			---	10.0	---	---	17.0	---	---	---	25.0	20.0
31			---	---	---	---	---	---	---	---	---	---
MONTH			---	---	---	---	---	---	---	---	---	---

11451760 CACHE CREEK AT RUMSEY, 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							---	---	---
2							---	---	---
3							---	---	---
4							---	---	---
5							---	---	---
6							---	---	---
7							---	---	---
8							---	---	---
9							---	---	---
10							---	---	---
11							---	---	---
12							---	---	---
13							---	---	---
14							---	---	---
15							---	---	---
16							---	---	---
17							16	3	.13
18							15	3	.12
19							15	3	.12
20							15	3	.12
21							16	3	.13
22							17	3	.14
23							19	3	.15
24							19	3	.15
25							17	3	.14
26							16	3	.13
27							16	3	.13
28							16	3	.13
29							16	3	.13
30							15	3	.12
31							15	3	.12
TOTAL							---	---	---

	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	15	3	.12	6.9	10	.19	22	8	.48
2	14	3	.11	7.2	10	.19	38	12	1.2
3	14	3	.11	7.4	10	.20	35	10	.94
4	15	3	.12	8.0	10	.22	33	5	.45
5	15	3	.12	8.6	10	.23	31	4	.33
6	15	3	.12	8.3	5	.11	31	4	.33
7	15	3	.12	6.2	5	.08	31	4	.33
8	15	3	.12	6.6	5	.09	27	4	.29
9	17	5	.23	3.3	6	.05	26	6	.42
10	12	5	.16	3.4	6	.06	26	8	.56
11	7.7	5	.10	2.9	7	.05	64	8	1.4
12	6.5	5	.09	2.7	7	.05	113	10	3.1
13	5.5	5	.07	2.9	7	.05	143	10	3.9
14	5.0	5	.07	3.0	7	.06	153	11	4.5
15	4.5	5	.06	3.3	7	.06	155	11	4.6
16	4.8	5	.06	3.9	7	.07	200	16	8.6
17	4.6	5	.06	4.0	5	.05	332	21	19
18	4.6	5	.06	4.8	6	.08	341	24	22
19	4.6	4	.05	7.0	6	.11	361	25	24
20	5.1	4	.06	6.3	6	.10	358	25	24
21	4.0	4	.04	6.0	6	.10	360	21	20
22	4.3	4	.05	5.1	6	.08	381	20	21
23	4.5	4	.05	4.7	6	.08	359	19	18
24	5.1	4	.06	4.8	11	.14	378	18	18
25	5.0	3	.04	4.1	6	.07	400	17	18
26	5.0	3	.04	3.9	3	.03	402	17	18
27	5.1	3	.04	3.8	3	.03	402	16	17
28	4.7	3	.04	4.4	3	.04	400	16	17
29	5.0	3	.04	11	5	.15	397	15	16
30	6.2	3	.05	---	---	---	389	14	15
31	6.6	10	.18	---	---	---	396	13	14
TOTAL	255.4	---	2.64	154.5	---	2.82	6784	---	312.43

11451760 CACHE CREEK AT RUMSEY, CA--Continued

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	393	12	13	332	16	14	331	13	12
2	411	10	11	348	17	16	302	13	11
3	425	10	11	366	18	18	289	13	10
4	430	9	10	373	18	18	288	12	9.3
5	433	9	11	408	16	18	288	11	8.6
6	453	58	71	414	16	18	289	8	6.2
7	442	76	91	415	16	18	301	8	6.5
8	417	110	124	416	16	18	314	12	10
9	300	200	162	411	16	18	345	17	16
10	276	120	89	385	17	18	343	17	16
11	270	60	44	388	17	18	320	17	15
12	229	30	19	400	17	18	305	17	14
13	225	10	6.1	412	17	19	309	17	14
14	220	10	5.9	429	18	21	288	17	13
15	247	11	7.3	431	18	21	292	17	13
16	295	11	8.8	431	18	21	315	17	14
17	283	11	8.4	430	18	21	338	17	16
18	242	12	7.8	429	19	22	364	18	18
19	269	15	11	416	19	21	397	19	20
20	307	19	16	399	20	22	399	23	25
21	318	14	12	387	21	22	410	24	27
22	291	14	11	375	21	21	423	24	27
23	286	14	11	366	19	19	413	21	23
24	306	14	12	363	17	17	395	21	22
25	347	14	13	361	15	15	397	21	23
26	363	12	12	352	12	11	411	21	23
27	349	12	11	352	11	10	430	20	23
28	360	18	17	376	13	13	437	20	24
29	374	18	18	382	13	13	453	20	24
30	358	16	15	377	13	13	460	20	25
31	---	---	---	371	13	13	---	---	---
TOTAL	9919	---	859.3	12095	---	545	10646	---	508.6

	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	462	21	26	423	30	34	2.9	3	.02
2	457	20	25	410	30	33	2.9	3	.02
3	452	18	22	395	31	33	2.9	3	.02
4	435	16	19	377	29	30	2.5	2	.01
5	420	14	16	354	26	25	2.7	2	.01
6	400	13	14	237	19	12	2.6	2	.01
7	384	13	13	189	13	6.6	2.0	2	.01
8	385	15	16	165	10	4.5	1.6	2	.01
9	401	19	21	99	8	2.1	1.6	3	.01
10	423	18	21	51	7	.96	1.8	3	.01
11	420	17	19	28	7	.53	2.0	3	.02
12	414	15	17	14	6	.23	2.1	3	.02
13	410	15	17	11	5	.15	1.7	4	.02
14	405	14	15	7.8	5	.11	1.7	4	.02
15	426	13	15	46	12	1.5	1.6	4	.02
16	417	13	15	25	4	.27	1.5	4	.02
17	412	13	14	19	3	.15	1.3	4	.01
18	395	13	14	17	3	.14	1.2	5	.02
19	408	14	15	17	9	.41	1.2	5	.02
20	398	15	16	17	8	.37	1.5	5	.02
21	393	18	19	15	7	.28	1.7	5	.02
22	382	18	19	14	6	.23	1.5	5	.02
23	386	18	19	13	5	.18	1.6	5	.02
24	414	18	20	12	4	.13	1.8	5	.02
25	416	19	21	11	4	.12	1.8	5	.02
26	424	18	21	8.7	3	.07	1.7	4	.02
27	429	22	25	4.0	9	.10	1.8	4	.02
28	441	24	29	3.3	3	.03	2.0	4	.02
29	401	26	28	4.4	2	.02	1.8	4	.02
30	419	28	32	4.2	2	.02	1.8	4	.02
31	434	29	34	3.4	2	.02	---	---	---
TOTAL	12863	---	617	2994.8	---	186.22	56.8	---	
PERIOD	56011.5		3036.49						

11451760 CACHE CREEK AT RUMSEY, CA--Continued

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

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (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
APR								
09...	1030	13.0	299	200	161	97	98	100
MAY								
14...	1300	20.0	431	E18	21	79	91	100
JUL								
28...	1245	26.0	447	18	22	94	98	100

E Estimated.

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
DEC							
22...	1300	1	1	3	5	7	14
22...	1305	1	2	8	13	18	42
22...	1310	1	3	9	19	22	26
22...	1315	2	4	8	15	20	26
JUN							
04...	1100	--	0	2	5	11	19
04...	1105	0	2	3	5	9	18
04...	1110	0	2	3	6	8	18
04...	1115	--	0	1	2	2	4
04...	1120	0	1	1	1	1	3
JUL							
28...	1330	--	0	1	2	2	4
28...	1335	--	0	1	1	2	2
28...	1340	0	2	4	7	14	30
28...	1345	0	1	3	10	17	28
28...	1350	0	2	6	20	30	46
SEP							
01...	1130	0	2	4	4	5	6
01...	1135	0	1	2	3	6	15
01...	1140	0	1	2	12	21	30
01...	1145	0	4	4	10	19	46
01...	1150	4	18	26	43	50	75

DATE	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 128 MM	BED MAT. SIEVE DIAM. % FINER THAN 256 MM
DEC							
22...	30	54	84	100	--	--	--
22...	68	86	95	98	100	--	--
22...	34	43	58	69	85	92	100
22...	32	42	58	71	84	100	--
JUN							
04...	31	48	81	100	--	--	--
04...	31	46	68	100	--	--	--
04...	34	58	83	86	100	--	--
04...	12	24	32	32	32	100	--
04...	19	60	100	--	--	--	--
JUL							
28...	11	21	32	55	100	--	--
28...	4	17	46	64	100	--	--
28...	48	72	90	100	--	--	--
28...	45	70	96	100	--	--	--
28...	66	91	100	--	--	--	--
SEP							
01...	15	38	74	84	100	--	--
01...	27	44	83	100	--	--	--
01...	42	58	88	100	--	--	--
01...	73	94	100	--	--	--	--
01...	94	100	--	--	--	--	--

11452000 CACHE CREEK NEAR CAPAY, CA

LOCATION.--Lat 38°43'44", long 122°06'15", in Canada de Capay Grant, Yolo County, on right bank 1.8 mi (2.9 km) upstream from diversion dam, 3.2 mi (5.1 km) northwest of Capay, and 5.4 mi (8.7 km) northwest of Esparto.

DRAINAGE AREA.--1,044 mi^2 (2,704 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1942 to September 1975, December 1975 to September 1976 (discontinued).

REVISED RECORDS.--WSP 1395: 1943. WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 225 ft (68.6 m), from river-profile map.

REMARKS.--Records good. Flow partially regulated by Clear Lake (station 11450000) beginning in 1915. About 3,700 acre-ft (4.56 hm^3) diverted annually between stations at Rumsey and near Capay for irrigation of approximately 900 acres (3.64 km^2), from data furnished by U.S. Soil Conservation Service.

AVERAGE DISCHARGE.--33 years (water years 1943-75), 686 ft^3/s (19.43 m^3/s), 497,000 acre-ft/yr (613 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,600 ft^3/s (1,460 m^3/s) Feb. 24, 1958, gage height, 20.90 ft (6.370 m), from rating curve extended above 30,000 ft^3/s (850 m^3/s); no flow Aug. 23 to Sept. 27, 1972, Sept. 4-30, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period December to September, 480 ft^3/s (13.6 m^3/s) Apr. 8, gage height, 3.70 ft (1.128 m); no flow Sept. 4-30.

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			21	19	3.3	4.6	381	357	347	475	406	1.7
2			21	19	.72	13	394	352	314	475	391	.90
3			21	18	2.2	28	413	373	297	475	374	.01
4			21	18	.27	27	425	380	293	463	355	0
5			21	19	3.4	26	430	407	291	446	331	0
6			21	18	8.0	25	452	419	287	426	254	0
7			22	18	10	23	455	425	289	402	170	0
8			27	18	10	22	456	425	299	398	133	0
9			24	19	8.4	20	346	421	329	396	110	0
10			22	20	7.7	20	285	399	342	437	56	0
11			20	19	6.5	19	274	390	331	446	35	0
12			20	17	5.8	51	249	393	310	441	19	0
13			20	17	6.2	79	229	404	304	435	12	0
14			21	16	5.7	97	224	424	297	425	9.5	0
15			21	15	5.1	118	232	429	288	441	9.5	0
16			21	14	5.3	156	265	431	298	447	24	0
17			21	13	8.0	260	278	429	315	442	18	0
18			21	13	6.8	328	254	431	339	423	15	0
19			21	12	6.2	345	250	424	383	426	12	0
20			21	12	6.8	349	277	407	394	422	10	0
21			21	13	6.5	350	302	391	402	404	8.3	0
22			21	12	7.9	367	293	378	422	385	7.2	0
23			10	12	6.9	358	280	366	430	369	6.7	0
24			19	11	5.1	364	292	363	410	399	6.7	0
25			22	8.8	4.6	384	329	361	398	402	4.8	0
26			22	9.1	4.4	394	367	353	406	407	4.1	0
27			21	10	3.9	389	370	344	426	410	3.4	0
28			21	8.6	2.5	384	374	361	442	419	3.1	0
29			20	7.8	3.8	385	392	379	454	371	2.8	0
30			19	7.4	---	377	385	378	471	394	2.6	0
31			19	6.8	---	381	---	376	---	412	2.3	---
TOTAL			643	440.5	161.99	6143.6	9953	12170	10608	13113	2796.0	2.61
MEAN			20.7	14.2	5.59	198	332	393	354	423	90.2	.087
MAX			27	20	10	394	456	431	471	475	406	1.7
MIN			10	6.8	.27	4.6	224	344	287	369	2.3	0
AC-FT			1280	874	321	12190	19740	24140	21040	26010	5550	5.2

11452000 CACHE CREEK NEAR CAPAY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952 to current year.
CHEMICAL ANALYSES: Water years 1952 to current year.
SEDIMENT RECORDS: Water years 1959-62, October 1975 to September 1976 (discontinued).

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

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)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT									
14...	1200	--	538	8.1	19.0	--	10.2	--	--
NOV									
17...	1515	--	943	8.1	11.0	0	11.5	277	33
DEC									
19...	1315	21	837	8.1	10.5	0	12.7	274	40
JAN									
08...	1500	18	910	8.3	10.0	--	13.6	--	--
FEB									
10...	1000	8.4	966	8.0	8.0	--	11.9	--	--
MAR									
04...	0830	29	1084	8.0	8.0	8	11.2	340	82
APR									
02...	1410	398	361	8.0	14.0	--	11.0	--	--
MAY									
05...	1410	419	333	8.1	20.0	--	9.5	--	--
JUN									
03...	1405	296	390	8.2	22.0	6	10.4	139	0
JUL									
08...	0830	398	336	7.9	23.0	--	9.4	--	--
AUG									
04...	1030	360	393	8.2	21.5	6	8.8	170	0
SEP									
03...	0830	.10	696	7.7	24.5	0	6.3	248	17

DATE	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 CHLORIDE (CL) (MG/L)
OCT								
14...	--	--	--	--	--	--	--	--
NOV								
17...	48	--	86	--	298	0	244	129
DEC								
19...	43	--	82	--	285	0	234	121
JAN								
08...	--	--	--	--	--	--	--	--
FEB								
10...	--	--	--	--	--	--	--	--
MAR								
04...	50	--	104	--	315	0	258	168
APR								
02...	--	--	--	--	--	--	--	--
MAY								
05...	--	--	--	--	--	--	--	--
JUN								
03...	23	20	19	.7	170	0	139	24
JUL								
08...	--	--	--	--	--	--	--	--
AUG								
04...	28	--	19	--	212	0	174	19
SEP								
03...	38	--	60	--	274	4	231	85

11452000 CACHE CREEK NEAR CAPAY, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
APR				
13...	1130	228	22	14
MAY				
20...	1330	406	40	44
JUN				
04...	1330	293	24	19
JUL				
09...	1245	405	29	32
28...	1004	422	27	31
SEP				
01...	1420	2.1	3	.02

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

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (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
JUL								
28...	1004	25.0	422	27	31	81	96	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
JUN												
04...	1400	0	2	5	15	24	32	42	53	80	100	--
04...	1405	0	1	2	4	7	11	16	27	60	72	100
04...	1410	--	0	1	4	9	14	18	25	45	61	100
04...	1415	0	1	2	3	8	16	20	22	36	65	100
04...	1420	--	0	1	3	6	12	21	39	83	100	--
JUL												
28...	1030	0	1	1	3	7	12	16	22	49	100	--
28...	1035	0	1	1	2	4	8	14	21	60	82	100
28...	1040	0	3	3	5	11	16	22	31	50	76	100
28...	1045	0	3	4	12	21	27	35	50	73	86	100
28...	1050	0	2	2	4	8	14	23	36	58	87	100
SEP												
01...	1430	0	6	6	12	16	31	55	80	95	100	--
01...	1435	0	1	2	8	20	33	47	63	78	88	100
01...	1440	0	1	2	4	9	18	27	44	80	92	100
01...	1445	0	3	4	9	20	32	43	55	76	100	--
01...	1450	1	4	7	9	10	12	20	38	65	100	--

11452500 CACHE CREEK AT YOLO, CA

LOCATION.--Lat 38°43'38", long 121°48'22", in Rio Jesus Maria Grant, Yolo County, on left bank 35 ft (11 m) upstream from highway bridge, 0.5 mi (0.8 km) south of Yolo, and 7.3 mi (11.7 km) downstream from Moore Dam. Prior to July 1976, at site 765 ft (233 m) upstream.

DRAINAGE AREA.--1,139 mi^2 (2,950 km^2).

PERIOD OF RECORD.--January 1903 to current year. Records for water year 1903 incomplete, yearly estimate published in WSP 1315-A.

REVISED RECORDS.--WSP 1315-A: 1914(M). WSP 1345: 1906. WSP 1445: 1955. WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to summer of 1930, nonrecording gage at 58.24 ft (17.752 m) higher. Summer of 1930 to June 11, 1954, water-stage recorder at datum 56.27 ft (17.151 m) higher. June 11, 1954, to July 16, 1965, at datum 52.27 ft (15.932 m) higher. July 17, 1965, to Apr. 24, 1969, at datum 50.27 ft (15.322 m) higher. Apr. 25, 1969, to July 1976, at mean sea level datum. All were at site 765 ft (233 m) upstream.

REMARKS.--Records poor. Flow regulated by Clear Lake beginning in 1915 (station 11450000). Diversions for irrigation of about 30,000 acres (121 hm^3) between stations near Capay and at Yolo, from data furnished by Clear Lake Water Co.

AVERAGE DISCHARGE.--74 years, 525 ft^3/s (14.87 m^3/s), 380,400 acre-ft/yr (469 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,400 ft^3/s (1,170 m^3/s) Feb. 25, 1958, gage height, 85.35 ft (26.015 m) present datum; maximum stage observed, 88.44 ft (26.957 m) present datum, Mar. 10, 1904; no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2.0 ft^3/s (0.057 m^3/s) Apr. 9; 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	.20						0					
2	1.0						0					
3	.90						0					
4	.80						0					
5	.70						0					
6	.60						0					
7	.45						.50					
8	.30						1.0					
9	.15						2.0					
10	.05						1.5					
11	0						1.0					
12	0						.50					
13	0						0					
14	0						0					
15	0						0					
16	0						0					
17	0						0					
18	0						.90					
19	0						1.5					
20	0						1.0					
21	0						.50					
22	0						0					
23	0						0					
24	0						0					
25	0						0					
26	0						0					
27	0						0					
28	0						0					
29	0						0					
30	0				---		0					
31	0	---			---		---		---			---
TOTAL	5.15	0	0	0	0	0	10.40	0	0	0	0	0
MEAN	.17	0	0	0	0	0	.35	0	0	0	0	0
MAX	1.0	0	0	0	0	0	2.0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	10	0	0	0	0	0	21	0	0	0	0	0

CAL YR 1975	TOTAL	163678.83	MEAN 448	MAX 10800	MIN 0	AC-FT	324700	
WTR YR 1976	TOTAL	15.55	MEAN .043	MAX 2.0	MIN 0	AC-FT	31	

11453000 YOLO BYPASS NEAR WOODLAND, CA

LOCATION.--Lat 38°40'40", long 121°38'35", unsurveyed, Yolo County, on left bank 300 ft (91 m) upstream from Sacramento and Woodland railroad bridge, 6 mi (10 km) upstream from Sacramento Bypass, 6 mi (10 km) downstream from Fremont weir, and 7 mi (11 km) east of Woodland.

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

GAGE.--Water-stage recorder. Datum of gage is 3.41 ft (1.039 m) below mean sea level. Prior to Dec. 17, 1941, nonrecording gage, and Dec. 18-31, 1941, water-stage recorder, at datum 0.73 ft (0.222 m) higher. A supplementary water-stage recorder 6 mi (10 km) downstream at different datum is used for records of low flow.

REMARKS.--Records fair. Flow is from Cache Creek and Knights Landing Ridge Cut plus floodwater passing over Fremont weir; during the summer months, the flow consists largely of return water from irrigation. There is some diversion for irrigation between the main and supplementary gage which affects the low-flow record.

AVERAGE DISCHARGE.--37 years, 3,866 ft^3/s (109.5 m^3/s), 2,801,000 acre-ft/yr (3.45 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 272,000 ft^3/s (7,700 m^3/s) Feb. 8, 1942, gage height, 32.00 ft (9.754 m); no flow at times in recent years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 302 ft^3/s (8.55 m^3/s) Mar. 4, gage height, 12.16 ft (3.706 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	56	3.0	18	39	48	98	2.5	0	13		0	0
2	56	2.5	18	30	53	86	0	0	4.0		0	0
3	42	2.1	18	27	53	109	0	0	0		0	.22
4	34	2.0	17	25	58	255	0	0	0		0	.19
5	22	2.0	23	26	48	149	0	0	0		0	0
6	17	2.1	34	29	53	100	0	1.2	0		0	0
7	16	2.0	36	60	74	83	0	30	0		0	0
8	15	2.1	37	72	56	78	0	47	0		0	0
9	16	1.9	53	60	41	67	0	60	0		0	0
10	16	1.8	76	47	25	62	0	62	0		0	0
11	21	1.9	69	34	15	63	0	71	0		0	0
12	26	1.8	63	27	11	58	0	54	0		0	0
13	21	1.8	56	22	8.8	50	0	18	0		0	0
14	16	1.8	41	19	7.6	40	0	20	0		0	.12
15	17	1.8	27	16	6.8	35	0	24	0		0	2.2
16	6.6	1.9	22	14	7.0	18	0	27	0		.57	4.4
17	3.8	3.4	21	12	8.8	2.0	0	36	0		38	23
18	2.8	14	20	11	10	1.1	0	45	0		38	37
19	2.2	8.3	22	8.6	10	1.1	0	44	0		21	37
20	2.1	17	23	8.8	5.8	.38	0	46	0		10	26
21	3.2	12	23	9.0	3.6	.31	0	46	0		.65	4.2
22	5.0	7.6	20	5.6	4.4	4.9	0	46	0		.37	.20
23	3.8	5.6	18	4.1	2.6	9.0	0	56	0		.18	0
24	3.6	6.0	15	3.6	3.0	3.7	0	60	0		.05	0
25	3.5	11	13	3.5	5.4	0	0	60	0		.02	0
26	3.6	6.0	15	4.2	6.6	.20	0	60	0		0	0
27	4.1	7.2	23	14	17	16	0	66	0		0	0
28	3.6	9.3	29	37	69	8.5	0	76	0		0	0
29	3.2	11	48	40	88	9.7	0	82	0		0	0
30	4.1	14	54	41	---	1.8	0	53	0		0	0
31	4.0	---	52	46	---	.38	---	36	---		0	---
TOTAL	450.2	164.9	1004	795.4	799.4	1410.07	2.5	1226.2	17.0	0	108.84	134.53
MEAN	14.5	5.50	32.4	25.7	27.6	45.5	.083	39.6	.57	0	3.51	4.48
MAX	56	17	76	72	88	255	2.5	82	13	0	38	37
MIN	2.1	1.8	13	3.5	2.6	0	0	0	0	0	0	0
AC-FT	893	327	1990	1580	1580	2800	5.0	2430	34	0	216	267

CAL YR 1975 TOTAL 412406.74 MEAN 1130 MAX 32000 MIN .08 AC-FT 818000
WTR YR 1976 TOTAL 6113.04 MEAN 16.7 MAX 255 MIN 0 AC-FT 12130

11453500 PUTAH CREEK NEAR GUENOC, CA

LOCATION.--Lat 38°46'44", long 122°30'59", in Guenoc Grant, Lake County, on right bank just upstream from Coyote Valley damsite, 2.8 mi (4.5 km) upstream from Soda Creek, 3.2 mi (5.1 km) downstream from highway bridge at Guenoc.

DRAINAGE AREA.--113 mi^2 (293 km^2).

PERIOD OF RECORD.--February 1904 to September 1906, July 1930 to September 1976 (discontinued). Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1285: 1937(M), 1938, 1940, 1943(M), 1951(M).

GAGE.--Water-stage recorder. Datum of gage is 914.18 ft (278.642 m) above mean sea level. February 1904 to September 1906, nonrecording gage 0.2 mi (0.3 km) upstream at different datum.

REMARKS.--Some regulation by Hartmann Dam on Coyote Creek since 1969, capacity, 3,000 acre-ft (3.70 hm^3); diversions and ground-water withdrawals for irrigation of about 1,600 acres (6.48 km^2) above station.

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by Geological Survey.

AVERAGE DISCHARGE.--48 years, 208 ft^3/s (5.891 m^3/s), 150,700 acre-ft/yr (186 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,000 ft^3/s (906 m^3/s) Dec. 11, 1937, gage height, 22.7 ft (6.92 m), from rating curve extended above 13,000 ft^3/s (368 m^3/s); no flow many days in 1964, 1970, 1974-76.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,500 ft^3/s (42.5 m^3/s) Feb. 29, gage height, 6.25 ft (1.905 m), no peak above base of 5,000 ft^3/s (142 m^3/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	0	30	18	22	9.9	302	15	20	4.0	.30		
2	0	22	56	21	9.9	163	13	19	3.6	2.3		
3	1.1	18	142	21	9.4	128	11	20	2.6	2.5		
4	1.6	16	131	21	9.4	122	11	20	2.2	2.5		
5	1.3	13	109	20	8.9	99	12	18	2.1	1.8		
6	0	13	102	20	8.9	86	12	16	2.0	0		
7	.60	13	64	19	8.9	77	24	12	2.3	0		
8	.20	13	48	19	8.9	70	301	11	2.1	0		
9	1.0	13	38	22	8.7	65	179	11	2.3	0		
10	23	16	33	21	8.1	57	137	10	2.3	0		
11	21	17	31	20	7.3	50	138	8.9	2.1	.80		
12	4.4	17	32	19	7.4	45	214	8.0	1.9	1.0		
13	3.1	16	30	16	8.0	41	140	6.4	1.7	0		
14	2.8	15	28	15	8.2	37	108	5.8	1.8	0		
15	2.8	17	26	14	9.6	35	88	5.0	1.8	0		
16	2.8	130	25	14	9.9	32	75	5.2	1.6	.50		
17	1.9	70	24	13	15	30	67	7.0	1.3	.70		
18	3.4	46	23	13	14	28	59	9.0	1.2	1.1		
19	3.2	36	22	12	20	29	52	7.6	.90	0		
20	2.7	33	21	12	37	26	41	8.2	1.3	.10		
21	2.7	31	22	12	24	24	37	8.0	2.7	0		
22	2.3	28	32	12	21	23	34	7.8	.10	0		
23	2.8	26	34	11	19	21	31	6.5	0	0		
24	3.1	23	29	10	17	20	30	6.6	0	0		
25	3.5	21	27	9.9	17	21	27	7.1	0	1.1		
26	35	20	25	10	52	19	24	6.9	0	0		
27	38	21	24	11	146	18	23	5.7	1.8	0		
28	16	21	24	11	128	18	23	4.5	1.4	0		
29	12	20	23	9.9	413	17	22	4.3	0	0		
30	54	19	23	9.9	---	16	21	4.2	0	0		
31	58	---	23	9.9	---	15	---	4.1	---	0		---
TOTAL	304.30	794	1289	470.6	1064.4	1734	1969	293.8	47.10	14.70	0	0
MEAN	9.82	26.5	41.6	15.2	36.7	55.9	65.6	9.48	1.57	.47	0	0
MAX	58	130	142	22	413	302	301	20	4.0	2.5	0	0
MIN	0	13	18	9.9	7.3	15	11	4.1	0	0	0	0
AC-FT	604	1570	2560	933	2110	3440	3910	583	93	29	0	0

CAL YR 1975 TOTAL 73248.20 MEAN 201 MAX 4390 MIN 0 AC-FT 145300
WTR YR 1976 TOTAL 7980.90 MEAN 21.8 MAX 413 MIN 0 AC-FT 15830

11453550 HUNTING CREEK NEAR KNOXVILLE, CA

LOCATION.--Lat 38°46'18", long 122°24'26", in NE¼SE¼ sec.28, T.11 N., R.5 W., Lake County, on right bank 2,400 ft (732 m) upstream from mouth, 5.3 mi (8.5 km) southwest of Knoxville, and 11.2 mi (18.0 km) east of Middletown.

DRAINAGE AREA.--37.8 mi^2 (97.9 km^2).

PERIOD OF RECORD.--July 1969 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 725 ft (221 m), from topographic map.

REMARKS.--No regulation or diversion above station.

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by Geological Survey.

AVERAGE DISCHARGE.--7 years, 28.4 ft^3/s (0.804 m^3/s), 20,580 acre-ft/yr (25.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft^3/s (127 m^3/s) Jan. 23, 1970, gage height, 8.30 ft (2.530 m), from rating curve extended above 1,200 ft^3/s (34.0 m^3/s) on basis of slope-area measurement of maximum flow; no flow on many days in 1972 and 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9.1 ft^3/s (0.26 m^3/s) Oct. 10, gage height, 2.02 ft (0.616 m), no peak above base of 1,000 ft^3/s (28 m^3/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	.70	2.0	1.5	1.3	1.3	3.0	.60	.60	.10			
2	.70	1.9	1.5	1.3	1.3	3.6	.60	.60	.10			
3	.70	1.8	1.5	1.3	1.3	3.9	.60	.50	.10			
4	.70	1.8	1.5	1.3	1.3	2.9	.60	.50	.10			
5	.70	1.6	1.5	1.3	1.3	2.5	.60	.50	.10			
6	.70	1.6	1.4	1.3	1.3	2.0	.60	.40	.10			
7	.80	1.6	1.4	1.2	1.3	1.8	.90	.40	.10			
8	.80	1.6	1.4	1.2	1.3	1.8	4.7	.40	.10			
9	1.7	1.6	1.4	2.1	1.3	1.7	4.0	.40	.10			
10	6.9	1.8	1.4	2.1	1.3	1.6	2.4	.30	.10			
11	5.3	1.9	1.4	1.7	1.3	1.5	2.2	.20	.20			
12	3.6	1.8	1.5	1.5	1.3	1.2	2.1	.10	.30			
13	2.8	1.7	1.5	1.0	1.3	1.2	1.9	.10	.30			
14	2.4	1.6	1.5	1.3	1.3	1.2	1.5	.10	.20			
15	1.9	1.8	1.5	1.3	1.5	1.2	1.1	.10	.10			
16	1.8	2.5	1.4	1.2	1.6	1.2	1.0	.10	.10			
17	1.8	2.2	1.5	1.2	1.6	1.0	1.0	.10	0			
18	1.7	1.9	1.5	1.3	1.6	1.0	1.0	.10	0			
19	1.6	1.8	1.5	1.1	1.7	1.0	1.0	.10	0			
20	1.8	1.6	1.4	1.0	1.8	1.0	.90	.10	0			
21	1.4	1.6	1.4	1.0	1.7	1.0	.80	.20	0			
22	1.3	1.6	2.8	1.0	1.6	.90	.70	.20	0			
23	1.3	1.6	2.4	1.0	1.5	.90	.70	.20	0			
24	1.3	1.6	2.1	1.0	1.5	.80	.70	.20	0			
25	1.3	1.5	1.9	1.0	1.3	.80	.60	.20	0			
26	1.8	1.4	1.8	1.2	1.3	.80	.60	.20	0			
27	2.1	1.3	1.8	1.2	1.3	.80	.60	.10	0			
28	1.9	1.3	1.6	1.2	1.3	.80	.60	.10	0			
29	1.8	1.4	1.6	1.2	2.2	.70	.60	.10	0			
30	2.7	1.4	1.5	1.2	---	.70	.60	.10	0			
31	2.6	---	1.5	1.2	---	.60	---	.10	---			---
TOTAL	58.60	50.8	49.6	39.2	41.7	45.10	35.80	7.40	2.20	0	0	0
MEAN	1.89	1.69	1.60	1.26	1.44	1.45	1.19	.24	.073	0	0	0
MAX	6.9	2.5	2.8	2.1	2.2	3.9	4.7	.60	.30	0	0	0
MIN	.70	1.3	1.4	1.0	1.3	.60	.60	.10	0	0	0	0
AC-FT	116	101	98	78	83	89	71	15	4.4	0	0	0

CAL YR 1975 TOTAL 9300.30 MEAN 25.5 MAX 816 MIN .70 AC-FT 18450
WTR YR 1976 TOTAL 330.40 MEAN .90 MAX 6.9 MIN 0 AC-FT 655

11453570 ADAMS CREEK NEAR KNOXVILLE, CA

LOCATION.--Lat 38°42'17", long 122°17'44", in NE¼NE¼ sec.21, T.10 N., R.4 W., Napa County, on left bank 20 ft (6 m) downstream from road ford, 0.2 mi (0.3 km) upstream from mouth, 8.8 mi (14.2 km) southeast of Knoxville, and 18 mi (29 km) southeast of Middletown.

DRAINAGE AREA.--7.42 mi^2 (19.22 km^2).

PERIOD OF RECORD.--October 1969 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 480 ft (146 m), from topographic map.

REMARKS.--No storage or diversion above station.

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 745 ft^3/s (21.1 m^3/s) Jan. 23, 1970, gage height, 4.85 ft (1.478 m), from rating curve extended above 53 ft^3/s (1.50 m^3/s) on basis of slope-area measurement of maximum flow; no flow many days in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1.7 ft^3/s (0.048 m^3/s) Feb. 29, gage height, 1.50 ft (0.457 m), no peak above base of 100 ft^3/s (2.8 m^3/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	.10	.10	.20	.10	1.0	.10	.10				
2	0	.10	.10	.20	.10	1.4	.10	.10				
3	0	.10	.20	.20	.10	1.0	.10	.10				
4	0	.10	.20	.20	.10	.70	.10	.10				
5	0	.10	.20	.20	.10	.50	.10	.10				
6	0	.10	.20	.20	.10	.40	.10	.10				
7	0	.20	.20	.20	.10	.40	.20	.10				
8	0	.20	.20	.20	.20	.30	.90	.10				
9	0	.20	.20	.50	.20	.30	.40	.10				
10	0	.30	.20	.40	.20	.30	.30	.10				
11	0	.30	.20	.30	.20	.30	.30	.10				
12	0	.30	.20	.30	.10	.20	.30	.10				
13	0	.30	.20	.30	.10	.20	.20	.10				
14	0	.30	.20	.20	.20	.20	.10	0				
15	0	.40	.20	.20	.20	.20	.10	0				
16	0	.60	.20	.10	.20	.20	.10	0				
17	0	.50	.20	.10	.20	.20	.10	0				
18	0	.30	.20	.10	.10	.20	.10	0				
19	0	.30	.20	.10	.20	.30	.10	0				
20	0	.30	.20	.10	.20	.30	.10	0				
21	.10	.40	.20	.10	.20	.20	.10	0				
22	.10	.40	.40	.10	.10	.20	.10	0				
23	.10	.40	.30	.10	.10	.20	.10	0				
24	.10	.40	.30	.10	.10	.20	.10	0				
25	.10	.40	.30	.10	.10	.20	.10	0				
26	.10	.40	.30	.10	.10	.20	.10	0				
27	.10	.50	.20	.10	.10	.20	.10	0				
28	.10	.40	.20	.10	.10	.10	.10	0				
29	.10	.40	.20	.10	1.1	.10	.10	0				
30	.60	.40	.20	.10	---	.10	.10	0				
31	.30	---	.20	.10	---	.10	---	0	---			---
TOTAL	1.80	9.20	6.60	5.40	5.00	10.40	4.90	1.30	0	0	0	0
MEAN	.058	.31	.21	.17	.17	.34	.16	.042	0	0	0	0
MAX	.60	.60	.40	.50	1.1	1.4	.90	.10	0	0	0	0
MIN	0	.10	.10	.10	.10	.10	.10	0	0	0	0	0
AC-FT	3.6	18	13	11	9.9	21	9.7	2.6	0	0	0	0

CAL YR 1975	TOTAL	1144.90	MEAN 3.14	MAX	75	MIN 0	AC-FT	2270
WTR YR 1976	TOTAL	44.60	MEAN .12	MAX	1.4	MIN 0	AC-FT	88

11453580 NEVADA CREEK NEAR KNOXVILLE, CA

LOCATION.--Lat 38°42'42", long 122°17'31", in NW¼SW¼ sec.15, T.10 N., R.4 W., Napa County, on right bank 150 ft (46 m) downstream from road ford, 0.6 mi (1.0 km) upstream from Adams Creek, 8.4 mi (13.5 km) southeast of Knoxville, and 18 mi (29 km) southeast of Middletown.

DRAINAGE AREA.--7.06 mi^2 (18.29 km^2).

PERIOD OF RECORD.--September 1969 to September 1976 (discontinued).

REVISED RECORDS.--WDR CA-75-4: 1973.

GAGE.--Water-stage recorder. Altitude of gage is 500 ft (152 m), from topographic map.

REMARKS.--No flow since July 23, 1975. No regulation or diversion above station. Figures of discharge for calendar year 1975 are as follows: Total, 653.10 ft^3/s (18.5 m^3/s); mean, 1.79 ft^3/s (0.051 m^3/s); maximum, 75 ft^3/s (2.12 m^3/s); minimum, zero ft^3/s (zero m^3/s); total, 1,300 acre-ft (1.60 hm^3).

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by Geological Survey.

AVERAGE DISCHARGE.--7 years, 2.93 ft^3/s (0.083 m^3/s), 2,120 acre-ft/yr (2.61 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 841 ft^3/s (23.8 m^3/s) Jan. 23, 1970, gage height, 7.75 ft (2.362 m), from rating curve extended above 110 ft^3/s (3.12 m^3/s) on basis of slope-area measurement of maximum flow; no flow many days in each year.

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

11453600 POPE CREEK NEAR POPE VALLEY, CA

LOCATION.--Lat 38°37'48", long 122°19'52", in SW¼ sec.17, T.9 N., R.4 W., Napa County, on left bank 0.2 mi (0.3 km) upstream from Lake Berryessa, 0.7 mi (1.1 km) downstream from Maxwell Creek, and 5.2 mi (8.4 km) east of Pope Valley.

DRAINAGE AREA.--78.3 mi^2 (202.8 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 450 ft (137 m), from topographic map.

REMARKS.--Flow regulated by Dick Weeks Reservoir, increased to 2,000 acre-ft (2.47 hm^3) of usable storage in December 1973, and several smaller reservoirs with additional storage of about 600 acre-ft (740,000 m^3).

COOPERATION.--Records furnished by California Department of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--15 years (water years 1961-76), 88.9 ft^3/s (2.518 m^3/s), 64,410 acre-ft/yr (79.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft^3/s (510 m^3/s) Jan. 31, 1963, gage height, 19.79 ft (6.032 m), from rating curve extended above 7,700 ft^3/s (218 m^3/s); no flow many days in 1960-68, 1971-73, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 452 ft^3/s (12.8 m^3/s) Feb. 29, gage height, 5.11 ft (1.588 m); 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	2.6	7.3	2.2	3.1	2.2	55	2.4	1.4	.20			
2	2.3	4.8	2.2	2.9	2.2	23	2.3	1.3	.20			
3	1.9	3.5	2.3	2.8	2.2	17	2.0	1.5	.10			
4	1.7	2.9	2.3	2.8	2.2	18	2.2	1.4	.20			
5	1.6	2.6	2.4	2.8	1.9	12	2.1	1.0	.20			
6	1.5	2.3	12	2.7	1.9	7.3	2.2	1.0	.20			
7	1.6	2.0	7.3	2.6	2.0	4.9	3.6	.80	.10			
8	1.7	2.0	5.8	2.4	2.1	4.1	44	.80	.20			
9	3.0	2.0	5.0	3.3	2.2	7.9	28	.60	.20			
10	6.3	2.2	4.1	3.3	2.1	7.8	9.3	.80	.30			
11	3.8	2.2	3.7	3.7	2.0	6.8	13	.70	.30			
12	2.3	2.9	3.8	3.6	2.0	6.4	37	.50	.30			
13	1.9	2.1	3.6	3.3	2.0	5.6	15	.40	.30			
14	1.8	2.5	3.7	3.3	2.2	5.2	7.0	.30	.20			
15	1.8	2.7	3.3	3.0	2.6	4.5	3.3	.20	.20			
16	1.6	39	3.3	3.0	3.1	4.3	6.4	.20	.10			
17	1.6	14	3.3	2.8	5.1	4.0	6.3	.20	.10			
18	1.6	7.6	3.1	2.8	6.3	4.1	5.6	.30	.10			
19	1.5	5.8	3.1	2.6	6.4	4.2	5.1	.60	0			
20	1.4	4.9	2.9	2.6	13	4.0	4.6	.40	0			
21	1.3	4.0	3.1	2.6	7.7	3.8	3.6	.20	0			
22	1.3	3.7	4.2	2.6	6.3	3.4	3.1	.20	0			
23	1.2	3.4	5.5	2.4	5.1	3.0	2.9	.20	0			
24	.90	3.2	5.0	2.4	4.6	3.1	2.4	.20	0			
25	.70	2.8	4.4	2.4	4.1	3.2	2.0	.10	0			
26	25	2.4	4.0	2.3	4.0	3.1	1.8	.10	0			
27	13	2.4	4.0	2.2	5.1	2.8	1.7	.20	0			
28	5.8	2.4	4.7	2.2	17	2.7	1.7	.20	0			
29	3.9	2.4	4.5	2.2	109	2.6	1.7	.10	0			
30	33	2.2	4.1	2.2	---	2.4	1.5	.10	0			
31	16	---	3.4	2.2	---	2.4	---	.20	---			---
TOTAL	145.60	144.2	126.3	85.1	228.6	238.6	223.8	16.20	3.50	0	0	0
MEAN	4.70	4.81	4.07	2.75	7.88	7.70	7.46	.52	.12	0	0	0
MAX	33	39	12	3.7	109	55	44	1.5	.30	0	0	0
MIN	.70	2.0	2.2	2.2	1.9	2.4	1.5	.10	0	0	0	0
AC-FT	289	286	251	169	453	473	444	32	6.9	0	0	0

CAL YR 1975 TOTAL 28185.30 MEAN 77.2 MAX 2400 MIN .60 AC-FT 55910
WTR YR 1976 TOTAL 1211.90 MEAN 3.31 MAX 109 MIN 0 AC-FT 2400

11453900 LAKE BERRYESSA NEAR WINTERS, CA

LOCATION.--Lat 38°30'48", long 122°06'13", in SE¼NW¼ sec.29, T.8 N., R.2 W., Napa County, near center of Monticello Dam on Putah Creek, 7.4 mi (11.9 km) west of Winters.

DRAINAGE AREA.--566 mi² (1,466 km²).

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

REVISED RECORDS.--WSP 1735: 1958-60. WSP 1931: Drainage area.

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

REMARKS.--Reservoir is formed by concrete arch-gravity dam completed November 1956. Usable capacity, 1,592,000 acre-ft (1.96 km³) between elevations 253.25 ft (77.101 m) invert of outlet valves, and 440 ft (134.1 m) crest of glory-hole spillway, above mean sea level. Dead storage, 10,340 acre-ft (12.7 hm³). Water is released down Putah Creek and is diverted into Putah South diversion canal for irrigation of about 46,000 acres (186 km²) in the lower Sacramento Valley. Total diverted during current year was 263,500 acre-ft (325 hm³). Releases for irrigation began in May 1959. Records, including extremes, show total contents at 2400 hours.

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,733,000 acre-ft (2.14 km³) Jan. 24, 1970, elevation, 446.67 ft (136.415 m); minimum since irrigation pool first filled, 1,037,800 acre-ft (1.28 km³) Sept. 30, 1976, elevation, 408.12 ft (124.395 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,380,400 acre-ft (1.70 km³) Oct. 1, elevation, 428.15 ft (130.500 m); minimum, 1,037,800 acre-ft (1.28 km³) Sept. 30, elevation, 408.12 ft (124.395 m).

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

400	911200
410	1068000
420	1236000
430	1414000
450	1800000

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	1380400	1368100	1360700	1356900	1347200	1332000	1309800	1276400	1222700	1169100	1109600	1069100
2	1379500	1368100	1360500	1356800	1346200	1333400	1308300	1274700	1220800	1166900	1107900	1067600
3	1378600	1368000	1360500	1356600	1345400	1333400	1306900	1273100	1219000	1164900	1106100	1066500
4	1377700	1368000	1360400	1356400	1344200	1333400	1305700	1271500	1217700	1163000	1104500	1065000
5	1376600	1367600	1360500	1356400	1342700	1333400	1304400	1269200	1216000	1161200	1102800	1063400
6	1375900	1367200	1360500	1356200	1341300	1333100	1303200	1267500	1214200	1159300	1100800	1062300
7	1375400	1367100	1360400	1356000	1341000	1332900	1302500	1265700	1212700	1157600	1099400	1060800
8	1374100	1366700	1360200	1356000	1340200	1332700	1302500	1264200	1211200	1155800	1097700	1059700
9	1373600	1366700	1360200	1356400	1339500	1332600	1303000	1262600	1209600	1153700	1096400	1058400
10	1374100	1366300	1360200	1356200	1339000	1332000	1302700	1260800	1208200	1151600	1095100	1057100
11	1374300	1366000	1360000	1356000	1338300	1331500	1302000	1259300	1206700	1149400	1093600	1056000
12	1374100	1365600	1360000	1356000	1337700	1330800	1301600	1257300	1205000	1147700	1092000	1055000
13	1373700	1365200	1359600	1356000	1337200	1330100	1301400	1255600	1203300	1145900	1090300	1054000
14	1373400	1365200	1358900	1356000	1336700	1329500	1300700	1254000	1201400	1144000	1088900	1053100
15	1372800	1365200	1358700	1355700	1336100	1328800	1300200	1251600	1199700	1142000	1087700	1051900
16	1372500	1365200	1358700	1355300	1335600	1327900	1298800	1250000	1198100	1140000	1086400	1050800
17	1372500	1364700	1358700	1355200	1335400	1327000	1297700	1248300	1196300	1138200	1085100	1049800
18	1372300	1363800	1358700	1354800	1335100	1325900	1297000	1246200	1194600	1136500	1084100	1048900
19	1371900	1363300	1358600	1354600	1334500	1325000	1296000	1244600	1192700	1134800	1083100	1047600
20	1371600	1363300	1358400	1354400	1334200	1324000	1294500	1242700	1191000	1132800	1082000	1046600
21	1371200	1363100	1358400	1354100	1333600	1323100	1293500	1241000	1189100	1130800	1081200	1045500
22	1370500	1362900	1358600	1353900	1333100	1321800	1291900	1239300	1187200	1129000	1080000	1044700
23	1369600	1362700	1358600	1353700	1332600	1320600	1290300	1237500	1185300	1127000	1079400	1043400
24	1369200	1362700	1358400	1353500	1331800	1319400	1288700	1236000	1183100	1124800	1078200	1042300
25	1368900	1362400	1358200	1353200	1331100	1318300	1287000	1234200	1181400	1123200	1077100	1041300
26	1368900	1362000	1358200	1352300	1330600	1317000	1284800	1232700	1179200	1121000	1076000	1040500
27	1368500	1361800	1358000	1351700	1330600	1315800	1282900	1231000	1177200	1119400	1074600	1039500
28	1368300	1361400	1357800	1350700	1330600	1314700	1281200	1229200	1175300	1117400	1073500	1039400
29	1368300	1361100	1357800	1349800	1332400	1313700	1279600	1227500	1173300	1114900	1072500	1038700
30	1368500	1360900	1357700	1348900	---	1312400	1277800	1225800	1171100	1113100	1071500	1037800
31	1368300	---	1357100	1348000	---	1311000	---	1224200	---	1111200	1070200	---
MAX	1380400	1368100	1360700	1356900	1347200	1333400	1309800	1276400	1222700	1169100	1109600	1069100
MIN	1368300	1360900	1357100	1348000	1330600	1311000	1277800	1224200	1171100	1111200	1070200	1037800
†	427.48	427.07	426.86	426.35	425.48	424.28	422.40	419.32	416.21	412.63	410.13	408.12
‡	-13100	-7400	-3800	-9100	-15600	-21400	-33200	-53600	-53100	-59900	-41000	-32400
††	4791	2471	1379	2035	2456	5034	6437	13180	14351	13777	8351	7002

CAL YR 1975 ‡ -23900
WTR YR 1976 ‡ -343200

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
†† Evaporation, in acre-feet.

11454000 PUTAH CREEK NEAR WINTERS, CA

LOCATION.--Lat 38°30'55", long 122°04'51", in NE¼NE¼ sec.28, T.8 N., R.2 W., Yolo County, on left bank 1 mi (2 km) downstream from Cold Canyon, 1.3 mi (2.1 km) downstream from Monticello Dam, and 6 mi (10 km) west of Winters.

DRAINAGE AREA.--574 mi^2 (1,487 km^2).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 901: 1937-38(M). WSP 1285: 1932(M), 1935-36(M), 1940(M), 1942-43(M), 1951, 1952(M). WSP 1565: 1957. WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 160.75 ft (48.997 m) above mean sea level (river-profile survey). June 28, 1930, to Feb. 29, 1940, at datum about 1 ft (0.3 m) higher.

REMARKS.--Records good. Flow regulated by Lake Berryessa (station 11453900) beginning January 1957.

AVERAGE DISCHARGE (adjusted for change in contents and evaporation from Lake Berryessa).--46 years, 518 ft^3/s (14.67 m^3/s), 375,300 acre-ft/yr (463 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,000 ft^3/s (2,290 m^3/s) Feb. 27, 1940, gage height, 30.5 ft (9.30 m) present datum, from rating curve extended above 30,000 ft^3/s (850 m^3/s); no flow Sept. 6-15, 1950, July 26 to Sept. 1, Sept. 6-9, 1955. Maximum discharge since construction of Monticello Dam in 1957, 16,300 ft^3/s (462 m^3/s) Jan. 24, 1970, gage height, 18.85 ft (5.745 m); minimum daily, 6.1 ft^3/s (0.17 m^3/s) Dec. 19, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1905, that of Feb. 27, 1940, on basis of records for station at Winters.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 952 ft^3/s (27.0 m^3/s) May 13, gage height, 8.66 ft (2.640 m); minimum daily, 20 ft^3/s (0.57 m^3/s) Dec. 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	397	59	74	75	472	115	568	777	675	814	673	534
2	350	52	74	70	505	121	569	766	657	836	634	556
3	336	61	75	67	519	74	551	753	638	821	623	522
4	351	64	75	67	524	93	519	805	646	730	681	505
5	341	64	68	67	457	126	548	792	691	740	689	505
6	327	74	63	74	395	153	589	729	652	738	655	476
7	309	79	63	83	386	169	578	742	626	770	609	482
8	294	79	64	83	368	183	474	722	624	788	561	515
9	286	72	64	84	330	222	380	715	653	797	545	511
10	178	68	64	83	306	267	379	705	658	793	559	493
11	91	68	65	84	312	327	350	714	683	757	567	456
12	91	69	72	84	343	374	336	733	698	746	594	420
13	90	76	85	84	360	386	337	798	659	741	580	413
14	103	82	92	84	330	388	356	883	659	749	541	413
15	106	82	52	98	308	388	384	864	725	780	487	413
16	88	82	20	103	266	414	432	851	748	783	470	408
17	79	82	65	94	232	475	482	814	737	743	487	404
18	79	75	95	82	209	495	527	795	706	705	498	416
19	84	70	84	74	212	481	567	825	675	716	461	435
20	83	70	75	102	216	492	600	821	685	739	418	426
21	80	70	76	124	249	525	653	799	685	780	374	404
22	84	67	73	100	275	568	686	763	680	793	345	397
23	87	64	71	110	292	576	698	711	716	752	335	397
24	88	64	71	152	326	590	729	693	777	737	349	392
25	90	65	73	196	371	581	746	750	823	722	389	363
26	91	64	81	262	329	554	790	743	859	731	437	327
27	89	67	86	331	102	521	792	732	834	740	465	333
28	84	69	87	381	113	449	824	727	808	726	448	327
29	83	67	81	425	300	515	817	695	852	750	408	318
30	83	72	75	432	---	546	787	650	840	749	468	311
31	84	---	75	434	---	567	---	642	---	729	492	---
TOTAL	5006	2097	2238	4589	9407	11735	17048	23509	21369	23495	15842	12872
MEAN	161	69.9	72.2	148	324	379	568	758	712	758	511	429
MAX	397	82	95	434	524	590	824	883	859	836	689	556
MIN	79	52	20	67	102	74	336	642	624	705	335	311
AC-FT	9930	4160	4440	9100	18660	23280	33810	46630	42390	46600	31420	25530

CAL YR 1975 TOTAL 167208 MEAN 458 MAX 3780 MIN 12 AC-FT 331700 MEAN ‡ 535 AC-FT ‡ 387400
WTR YR 1976 TOTAL 149207 MEAN 408 MAX 883 MIN 20 AC-FT 296000 MEAN ‡46.9 AC-FT ‡ 34060

‡ Adjusted for change in contents and evaporation from Lake Berryessa.

11454000 PUTAH CREEK NEAR WINTERS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952 to current year.
CHEMICAL ANALYSES: Water years 1952-66, 1973 to current year.
WATER TEMPERATURES: Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1965 to current year.

INSTRUMENTATION.--Temperature recorder since Nov. 19, 1965.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 22.0°C May 21, 1967; minimum (water years 1967-68, 1970-76), 6.5°C on several days in 1967, 1968, and 1973.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 14.5°C Aug. 23, 24; minimum, 8.5°C Mar. 4.

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)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
DEC										
19...	1500	76	288	8.0	11.5	0	11.5	155	7	16
MAR										
04...	0945	93	313	8.1	9.5	1	11.5	159	7	15
JUN										
03...	1300	638	318	8.2	13.5	0	13.5	155	5	16
SEP										
03...	0930	505	325	8.0	13.5	1	11.5	165	10	32

DATE	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 CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)
DEC										
19...	--	9.0	--	180	0	148	4.0	196	.27	40.2
MAR										
04...	--	8.8	--	185	0	152	5.9	187	.25	47.0
JUN										
03...	28	9.0	.3	183	0	150	6.0	190	.26	327
SEP										
03...	--	9.0	--	189	0	155	5.8	187	.25	255

11454000 PUTAH CREEK NEAR WINTERS, CA--Continued

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	12.5	11.5	13.0	11.5	12.0	11.0	11.0	10.0	11.0	10.0	10.5	9.0
2	12.5	11.5	---	---	12.0	10.5	10.5	10.0	11.0	10.0	9.5	9.0
3	12.5	11.5	13.0	11.5	12.0	11.0	11.0	10.0	11.0	10.0	10.0	9.0
4	12.5	11.5	13.0	12.0	12.0	11.5	11.0	10.0	11.0	10.5	10.0	8.5
5	12.0	11.0	12.5	12.0	12.0	12.0	11.0	11.0	10.5	10.0	10.5	9.0
6	12.0	11.5	13.0	12.0	12.5	12.0	11.5	10.5	11.0	10.0	11.0	9.0
7	13.0	11.5	13.0	12.0	12.5	11.5	11.0	10.5	11.0	10.0	11.5	9.5
8	13.0	11.5	13.0	12.0	12.0	11.5	11.0	10.5	11.0	10.5	11.0	9.5
9	12.0	11.5	12.0	12.0	12.5	11.5	11.5	11.0	11.5	10.5	11.5	9.5
10	13.0	11.5	12.5	12.0	12.0	11.5	11.5	10.5	11.5	10.5	11.5	9.5
11	13.0	12.0	13.0	11.5	11.5	11.5	11.0	10.5	11.0	10.0	11.0	9.5
12	13.0	12.0	12.5	11.5	12.0	11.5	11.0	10.5	11.0	10.0	11.0	9.5
13	13.0	12.0	12.5	11.5	11.5	11.0	11.0	10.0	10.5	10.0	10.5	9.5
14	13.0	12.0	12.5	12.0	11.5	11.0	11.0	10.0	10.5	10.0	11.0	9.5
15	13.0	12.0	12.5	12.0	11.5	10.5	11.0	10.0	11.0	10.0	11.0	9.5
16	13.0	12.0	12.5	12.0	11.0	10.0	11.0	10.0	10.5	10.0	10.5	9.5
17	13.0	12.0	12.5	11.5	11.0	10.0	11.0	10.0	11.5	10.0	10.5	9.5
18	14.0	12.5	12.5	11.5	11.5	11.0	11.0	10.0	11.0	9.5	10.5	9.5
19	---	---	12.0	11.5	11.5	11.0	11.0	10.0	11.0	9.5	11.0	9.5
20	---	---	12.5	12.0	11.5	11.0	10.5	10.0	11.0	9.5	11.0	9.5
21	13.5	12.5	12.5	11.5	12.0	11.0	11.0	10.0	11.0	9.5	11.0	9.5
22	13.0	12.5	11.5	11.0	12.0	11.5	11.0	10.0	10.5	9.5	10.5	9.5
23	13.0	11.5	12.0	11.0	12.0	11.5	11.0	10.0	10.5	9.5	10.5	9.5
24	13.0	11.5	12.0	11.0	12.0	11.5	11.0	10.0	11.0	9.5	10.5	9.5
25	12.0	11.5	12.0	11.0	12.0	11.5	11.0	10.0	10.5	10.0	---	---
26	13.5	12.0	11.5	11.0	12.0	11.5	11.0	10.0	11.0	10.0	---	---
27	13.0	11.5	11.5	11.0	12.0	11.5	11.0	9.5	11.5	10.0	---	---
28	12.5	11.5	11.5	10.5	11.5	11.0	11.0	10.0	12.5	10.0	---	---
29	12.5	11.5	11.0	10.0	11.5	11.0	10.5	10.0	10.5	9.5	---	---
30	---	---	11.5	10.5	11.5	11.0	11.0	10.0	---	---	---	---
31	13.0	11.5	---	---	11.0	10.5	11.0	10.0	---	---	---	---
MONTH	14.0	11.0	13.0	10.0	12.5	10.0	11.5	9.5	12.5	9.5	---	---

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

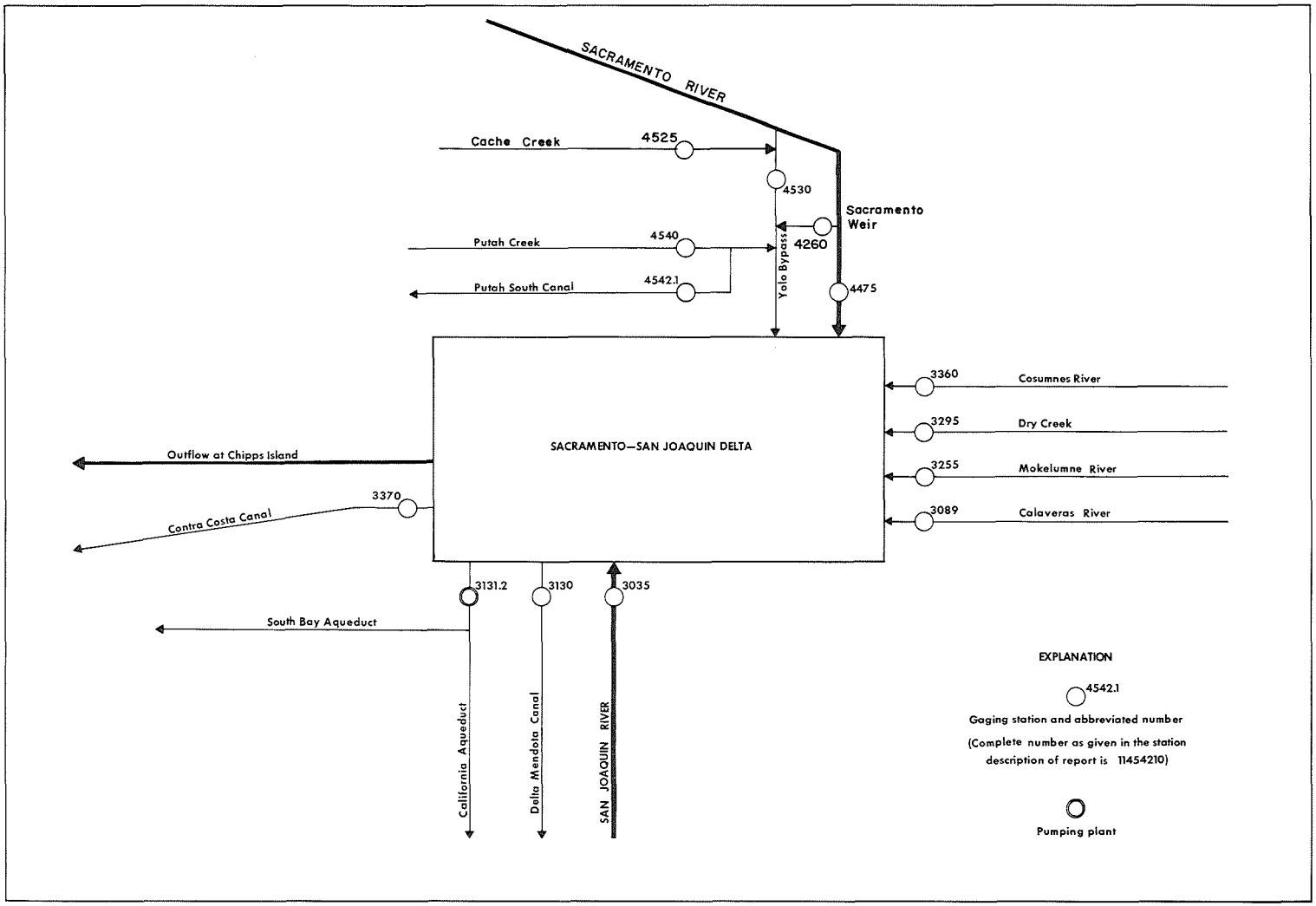

FIGURE 12.--Schematic diagram showing principal inflows and diversions, Sacramento-San Joaquin Delta.

SACRAMENTO-SAN JOAQUIN DELTA, INFLOWS AND DIVERSIONS

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 mi^2 (102,820 km^2).

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	822.2	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	514.2	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

Station No.	Station name		Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Eagle Lake basin				
*10359250	Pine Creek near Westwood, CA	NE¼SW¼ sec.5, T.31 N., R.8 E., Lassen County, 1.3 mi (2.1 km) southwest of Bogard Guard Station and 19 mi (31 km) north of Westwood.	24.8	1950-61‡, 1964, 1967-76	8-3-76	a 0.20
		Sacramento River basin				
11341900	Dog Creek at Delta, CA	SE¼NE¼ sec.34, T.36 N., R.5 W., Shasta County, 0.1 mi (0.2 km) upstream from mouth, 0.5 mi (0.8 km) southwest of Delta, and 25 mi (40 km) north of Redding.	17.3	1975-76	1-30-76 3-4-76 4-9-76	6.4 47.4 161
*11352000	Pit River near Bieber, CA	NE¼SW¼ sec.27, T.37 N., R.7 E., Modoc County, 2.2 mi (3.5 km) upstream from Spring Gulch and 7.4 mi (11.9 km) south of Bieber.	2475	1904-8‡, 1913-14‡, 1912-26‡, 1928-31‡, 1951-75‡, 1976	8-4-76	a 2.13
11352500	Horse Creek at Little Valley, near Pittville, CA	NE¼ sec.15, T.35 N., R.7 E., Lassen County, 100 ft (30 m) downstream from railroad bridge, 0.5 mi (0.8 km) northeast of Little Valley, and 13 mi (21 km) southeast of Pittville.	b 237	1929-31‡, 1960-67‡, 1968-76	8-3-76	a 6.20
11353700	Fall River near Dana, CA	NE¼ sec.30, T.38 N., R.4 E., Shasta County, 0.7 mi (1.1 km) southeast of Dana and 1 mi (2 km) downstream from large springs downstream from Bear Creek.	b123	1959-67‡, 1968-76	8-4-76	a 440
*11365500	Squaw Creek above Shasta Lake, CA	SE¼ sec.29, T.35 N., R.2 W., Shasta County, 1.3 mi (2.1 km) upstream from Salt Creek, 2 mi (3 km) upstream from Shasta Lake, and 10 mi (16 km) west of town of Montgomery Creek.	64.0	1945-67‡, 1968-76	8-4-76	a 11.2
11367100	McCloud River above Lower Falls, near McCloud, CA	SW¼NE¼ sec.12, T.39 N., R.2 W., Siskiyou County, 500 ft (152 m) upstream from Lower Falls and 6 mi (10 km) southeast of McCloud.	285	1964, 1968, 1970, 1972-76	8-2-76 9-13-76	a 36.7 a 34.1
*11373200	Oak Run Creek near Oak Run, CA	SE¼NW¼ sec.25, T.33 N., R.2 W., Shasta County, 800 ft (244 m) downstream from road bridge, 1.1 mi (1.8 km) northwest of town of Oak Run, 3.2 mi (5.1 km) upstream from Tracy Creek, and 12.2 mi (19.6 km) northeast of Millville.	11.0	1957-66‡, 1967-76	8-3-76	a 2.04
*11377500	Paynes Creek near Red Bluff, CA	SE¼ sec.22, T.28 N., R.3 W., Tehama County, 0.4 mi (0.6 km) upstream from mouth and 6.5 mi (10.5 km) northeast of Red Bluff.	92.8	1950-66‡, 1968-70, 1976	8-2-76	a 1.10

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	Measurements Discharge (ft^3/s)
		Sacramento River basin--Continued				
*11417100	Poorman Creek near Washington, CA	SW¼ sec.1, T.17 N., R.10 E., Nevada County, Tahoe National Forest, just downstream from U.S. Forest Service bridge, 0.4 mi (0.6 km) west of Washington, and 1.4 mi (2.3 km) downstream from Deadman Creek.	23.1	1961-71‡, 1975-76	9-27-76	a 6.88
11433430	Buckeye Canyon Creek tributary near Greenwood, CA	SE¼NW¼ sec.3, T.12 N., R.9 E., El Dorado County, 3.3 mi (5.3 km) northwest of Greenwood, and 3.5 mi (5.6 km) northeast of Cool.	.08	1972-76	10-17-75 1-15-76 2-17-76 4-7-76 9-21-76	0 0 .01 0 0
11433440	Wildcat Canyon Creek near Cool, CA	NE¼SE¼ sec.4, T.12 N., R.9 E., El Dorado County, 3.3 mi (5.3 km) northeast of Cool and 3.5 mi (5.6 km) northwest of Greenwood.	.30	1972-76	10-17-75 1-15-76 4-7-76 9-21-76	0 .01 .002 0
*11433450	Browns Bar Canyon Creek near Cool, CA	SE¼SW¼ sec.4, T.12 N., R.9 E., El Dorado County, 2.7 mi (4.3 km) northeast of Cool and 3.8 mi (6.1 km) northwest of Greenwood.	.75	1972-76	10-17-75 1-15-76 4-7-76 9-21-76	0 .33 .018 0
*11433900	Paymaster Creek near Cool, CA	SE¼NW¼ sec.17, T.12 N., R.9 E., El Dorado County, 400 ft (122 m) upstream from culvert on Paymaster Trail, 0.9 mi (1.4 km) northeast of Cool.	--	1972-76	10-17-75 1-15-76 2-17-76 4-7-76 9-21-76	0 a .05 a .05 a .05 a .05
11440700	Tells Creek near Kyburz, CA	SE¼NE¼ sec.11, T.12 N., R.14 E., El Dorado County, at Loon Lake road crossing, 10 mi (16 km) northeast of Riverton.	8.66	1964-68, 1969-71, 1974-76	9-2-76	a .54

* Also a crest-stage partial-record station.
‡ Operated as a continuous-record gaging station.
a Base flow.
b Hydrologic drainage boundary uncertain due to ground-water exchange.

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

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft^3/s)
		Eagle Lake basin					
*10359250	Pine Creek near Westwood, CA	NE¼SE¼ sec.5, T.31 N., R.8 E., Lassen County, 1.3 mi (2.1 km) southwest of Bogard Guard Station and 19 mi (31 km) north of Westwood.	24.8	1950-61‡, 1966-76	2-29-76	3.68	105
10359270	Aspen Creek near Westwood, CA	NE¼NE¼ sec.21, T.33 N., R.8 E., Lassen County, in Lassen National Forest, at culvert on Forest Service Road 34N28, 3.7 mi (6.0 km) northwest of Harvey Valley Ranger Station, and 27.5 mi (44.2 km) north of Westwood.	4.70	1970-73a, 1974-76	--	--	0

See footnotes at end of table.

Annual maximum discharge at crest-stage partial-record stations during water year 1976--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Eagle Lake basin--Continued					
10359290	Pine Creek tributary near Susanville, CA	NW¼NW¼ sec.17, T.33 N., R.10 E., Lassen County, in Lassen National Forest, at culvert on Forest Service Road 35N5, 28 mi (45 km) north of Susanville.	4.70 (low flow) 16.8 (extreme flood flow)	1971-73a, 1974-76	--	--	0
		Sacramento River basin					
*11352000	Pit River near Bieber, CA	NE¼SW¼ sec.27, T.37 N., R.7 E., Modoc County, 2.2 mi (3.5 km) upstream from Spring Gulch and 7.4 mi (11.9 km) south of Bieber.	2,475	1904-8‡, 1913-14‡, 1921-26‡, 1928-31‡, 1951-75‡, 1976	3-1-76	5.23	1160
11352900	Beaver Creek near Hat Creek, CA	NE¼NE¼ sec.12, T.34 N., R.6 E., Lassen County, in Lassen National Forest, at culvert on Forest Service Road 35N10, 13.6 mi (21.9 km) east of Hat Creek, and 15 mi (24 km) south of Pittville.	23.2	1970-73‡, 1974-76	--	<1.49	<26
11355400	Bunchgrass Creek near Manzanita Lake, CA	NE¼SW¼ sec.3, T.32 N., R.3 E., Shasta County, in Lassen National Forest, at culvert on Forest Service Road 32N46, 8.7 mi (14.0 km) northwest of town of Manzanita Lake.	.62	1970-73a, 1974-76	2-29-76	4.05	38
*11365500	Squaw Creek above Shasta Lake, CA	SE¼ sec.29, T.35 N., R.2 W., Shasta County, 1.3 mi (2.1 km) upstream from Salt Creek, 2 mi (3 km) upstream from Shasta Lake, and 10 mi (16 km) west of town of Montgomery Creek.	64.0	1944-66‡, 1969-76	2-29-76	11.10	1740
*11373200	Oak Run Creek near Oak Run, CA	SE¼NW¼ sec.25, T.33 N., R.2 W., Shasta County, 800 ft (244 m) downstream from road bridge and 1.1 mi (1.8 km) northwest of town of Oak Run.	11.0	1957-66‡, 1969-76	2-29-76	4.82	346
11376100	South Fork Bailey Creek near Manzanita Lake, CA	Lat 40°28'45", long 121°35'46", unsurveyed, Shasta County, in Lassen National Forest, at culvert on Forest Service Road 31N12F, 4.4 mi (7.1 km) southwest of town of Manzanita Lake, and 5.2 mi (8.4 km) southeast of Viola.	3.67	1970-73a, 1974-76	5-14-76	6.90	40
*11377500	Paynes Creek near Red Bluff, CA	SE¼ sec.22, T.28 N., R.3 W., Tehama County, 0.4 mi (0.6 km) upstream from mouth and 6.5 mi (10.5 km) northeast of Red Bluff.	92.8	1950-66‡, 1967-70, 1972-76	2-29-76	7.10	2620
11380500	Elder Creek at Gerber, CA	Lat 40°03'05", long 122°09'53", in Saucos Grant, Tehama County, 1.0 mi (1.6 km) west of Gerber and 3.5 mi (5.6 km) upstream from mouth.	136	1949-69‡, 1970, 1972-76	4-8-76	6.39	279
11381810	Snake Creek near Paskenta, CA	SE¼NW¼ sec.29, T.25 N., R.8 W., Tehama County, in Mendocino National Forest, at culvert on Forest Service Road 23N01, 14.5 mi (23.3 km) northwest of Paskenta.	2.45	1972-73a, 1974-76	2-26-76	76.66	62
11382950	North Fork Calf Creek near Butte Meadows, CA	SW¼SW¼ sec.28, T.27 N., R.4 E., Tehama County, in Lassen National Forest, at culvert on Forest Service Road 27N12, 1.8 mi (2.9 km) upstream from Deer Creek, 5.6 mi (9.0 km) north of Butte Meadows, and 11.2 mi (18.0 km) south of town of Mill Creek.	1.26	1970-73a, 1974-76	2-29-76	12.65	b 5.7

See footnotes at end of table.

Annual maximum discharge at crest-stage partial-record stations during water year 1976--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft^3/s)
		Sacramento River basin--Continued					
11384400	South Fork Stony Creek near Stonyford, CA	NW¼SW¼ sec.27, T.17 N., R.8 W., Colusa County, in Mendocino National Forest, at culvert on Forest Service Road 18N1, 12.5 mi (20.1 km) southwest of Stonyford.	2.52	1970-73a, 1974-76	--	<22.96	<88
11386200	South Fork Elk Creek near Elk Creek, CA	NW¼SE¼ sec.13, T.20 N., R.7 W., Glenn County, at culvert on Forest Service Road 20N1, 1.0 mi (1.6 km) upstream from confluence with North Fork Elk Creek, and 3.2 mi (5.1 km) southwest of Elk Creek.	10.6	1970-73a, 1974-76	--	<19.70	<42
11386250	Grindstone Creek tributary at Government Flat, near Covelo, CA	SW¼NE¼ sec.14, T.23 N., R.10 W., Tehama County, Mendocino National Forest, on left bank at culvert on Forest Service Road 23N23, 0.5 mi (0.8 km) upstream from Grindstone Creek, 0.8 mi (1.3 km) southeast of Government Flat, and 17.2 mi (27.7 km) east of Covelo.	.74	1974-76	--	<12.33	<12
11387800	North Fork Stony Creek near Newville, CA	SW¼ sec.6, T.22 N., R.5 W., Glenn County, on right bank 150 ft (46 m) downstream from Bedford Creek and 2.7 mi (4.3 km) east of Newville.	63.4	1963-73‡, 1974-76	2-29-76	2.56	192
11389650	Scotts John Creek near Stirling City, CA	SE¼NE¼ sec.17, T.26 N., R.5 E., Butte County, in Lassen National Forest, at culvert on Forest Service Road 26N27, 15 mi (24 km) northeast of Stirling City.	3.76	1970-73a, 1974-76	5-11-76	2.84	3.5
11397900	Benner Creek near Chester, CA	SE¼SE¼ sec.11, T.29 N., R.6 E.. Plumas County, in Lassen National Forest, at culvert on Forest Service Road 29N12, 5.6 mi (9.0 km) northwest of Chester.	7.67	1970-73a, 1974-76	5-12-76	3.18	26
*11417100	Poorman Creek near Washington, CA	SW¼ sec.1, T.17 N., R.10 E., Nevada County, Tahoe National Forest, just downstream from U.S. Forest Service bridge, 0.4 mi (0.6 km) west of Washington, and 1.4 mi (2.3 km) downstream from Deadman Creek.	23.1	1961-71‡, 1972, 1974-76	1-26-76	4.15	184
11433430	Buckeye Canyon Creek tributary near Greenwood, CA	SE¼NW¼ sec.3, T.12 N., R.9 E., El Dorado County, 3.3 mi (5.3 km) northwest of Greenwood and 3.5 mi (5.6 km) northeast of Cool.	.08	1972-73c, 1974-76	--	<.51	<.80
*11433440	Wildcat Canyon Creek near Cool, CA	NE¼SE¼ sec.4, T.12 N., R.9 E., El Dorado County, 3.3 mi (5.3 km) northeast of Cool and 3.5 mi (5.6 km) northeast of Greenwood.	.30	1972-73c, 1974-76	--	<.83	<5.4
*11433450	Browns Bar Canyon Creek near Cool, CA	SE¼SW¼ sec.4, T.12 N., R.9 E., El Dorado County, 2.7 mi (4.3 km) northeast of Cool and 3.8 mi (6.1 km) northwest of Greenwood.	.75	1972-73c, 1974-76	11-16-75	.89	3.8
*11433900	Paymaster Creek near Cool, CA	SE¼NW¼ sec.17, T.12 N., R.9 E., El Dorado County, 0.9 mi (1.4 km) northeast of Cool.	--	1972-73c, 1974-76	11-16-75	.55	3.4
11449350	Burns Valley Creek near Clearlake Highlands, CA	SE¼ sec.15, T.13 N., R.7 W., Lake County, on right bank 500 ft (152 m) downstream from small right-bank tributary and 2.7 mi (4.3 km) northeast of Clearlake Highlands.	4.37	1963-69‡, 1970-76	2-29-76	2.30	41

* Also a low-flow partial-record station.
‡ Operated as a continuous-record gaging station.
a Data for water years prior to 1973 published in Floods from Small Drainage Areas, Compilation, October 1958 to September 1973.
b The discharge for May 15, 1975, has been revised to 5.3 ft^3/s superseding figure published in WDR C[illegible] 4.
c Published as miscellaneous measurement.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

GOOSE LAKE BASIN
11337705 GOOSE LAKE AT WILLOW RANCH, CA

LOCATION.--Lat 41°54'14", long 120°21'55", in NW¼NW¼ sec.21, T.47 N., R.20 E., Modoc County.
PERIOD OF RECORD.--
CHEMICAL ANALYSES: Water years 1969 to current year.

DATE	TIME	RESERVOIR STORAGE (AC-FT)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
NOV												
11...	1105	849400	2.0	56	0	14	5.1	430	90	25	39	916
MAY												
11...	1010	891700	--	51	0	12	5.2	360	89	22	32	628

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	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 NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)
NOV												
11...	--	751	76	140	.6	55	1160	1220	1.58	.14	.03	3.2
MAY												
11...	70	632	75	130	.5	51	1060	1050	1.44	.01	--	--

DATE	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
NOV											
11...	3.2	1.9	1.6	10	3700	40	4	15	2	33	20
MAY											
11...	--	--	--	--	4200	0	--	--	--	--	--

11337715 GOOSE LAKE AT EVERLY RANCH, NEAR WILLOW RANCH, CA

LOCATION.--Lat 41°52'17", long 120°29'49", in NW¼SE¼ sec.32, T.47 N., R.19 E., Modoc County.
PERIOD OF RECORD.--
CHEMICAL ANALYSES: Water years 1969 to current year.

DATE	TIME	RESERVOIR STORAGE (AC-FT)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
NOV												
11...	0845	849400	2.5	56	0	14	5.1	430	90	25	36	919
MAY												
11...	0815	891700	--	58	0	14	5.5	440	90	25	36	629

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	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 NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)
NOV												
11...	--	754	83	140	.6	55	1250	1220	1.70	.11	.01	3.3
MAY												
11...	132	736	85	150	.6	55	1240	1230	1.69	.01	--	--

DATE	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
NOV											
11...	3.3	1.9	1.6	10	3700	20	3	13	2	31	20
MAY											
11...	--	--	--	--	3800	0	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

GOOSE LAKE BASIN
11337720 GOOSE LAKE AT WEST SHORE LOG LANDING, NEAR WILLOW RANCH, CA

LOCATION.--Lat 41°57'51", long 120°29'37", in NE¼NE¼ sec.32, T.48 N., R.13 E., Modoc County.
PERIOD OF RECORD.--
CHEMICAL ANALYSES: Water years 1969 to current year.

DATE	TIME	RESERVOIR STORAGE (AC-FT)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
NOV												
11...	0930	849400	2.5	56	0	14	5.2	420	90	24	36	924
MAY												
11...	0900	891700	--	55	0	13	5.5	450	91	26	34	717

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	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 NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)
NOV												
11...	--	758	81	150	.6	56	1240	1220	1.69	.16	.02	2.9
MAY												
11...	87	733	84	150	.6	54	1230	1240	1.67	.02	--	--

DATE	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
NOV											
11...	2.9	1.8	1.6	40	3700	40	2	14	4	30	20
MAY											
11...	--	--	--	--	4500	20	--	--	--	--	--

SACRAMENTO RIVER BASIN
11377200 SACRAMENTO RIVER AT BEND BRIDGE, NEAR RED BLUFF, CA

LOCATION.--Lat 40°15'51", long 122°13'19", in NW¼SE¼ sec.20, T.28 N., R.3 W., Tehama County.
DRAINAGE AREA.--8,900 mi^2 (23,050 km^2), at gaging station.
PERIOD OF RECORD.--Water years 1955 to current year.
CHEMICAL ANALYSES: Water years 1955 to current year. Reported as "Sacramento River at Bend" during period May 1955 to September 1973.
WATER TEMPERATURES: Water years 1955-70.
SEDIMENT RECORDS: Water years 1958-70.
PERIOD OF DAILY RECORD:
WATER TEMPERATURES: May 1955 to September 1970.
SEDIMENT RECORDS: October 1957 to September 1970.
REMARKS.--Discharge given for Sacramento River above Bend Bridge, near Red Bluff (station 11377100).
COOPERATION.--Chemical-quality records furnished by California Department of Water Resources.

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV									
17...	0950	13100	116	8.2	9.5	4	10.5	--	--
JAN									
14...	0850	7420	135	8.0	8.0	1	11.5	52	0
MAR									
09...	1430	7560	116	7.6	12.0	3	10.8	--	--
MAY									
10...	1415	12900	130	8.3	13.5	2	11.2	48	0
JUL									
27...	1430	13800	121	7.4	18.0	3	10.5	--	--
AUG									
24...	1215	10900	135	7.2	18.0	7	10.0	--	--
SEP									
22...	1425	5160	122	7.6	21.0	3	10.1	--	--

SACRAMENTO RIVER BASIN

11377200 SACRAMENTO RIVER AT BEND BRIDGE, NEAR RED BLUFF, CA--Continued

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 CHLO-RIDE (CL) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)
NOV 17...	--	--	--	--	--	--	--	--	--
JAN 14...	8.2	.5	75	0	62	5.0	--	.18	--
MAR 09...	--	--	--	--	--	--	--	--	--
MAY 10...	8.4	.5	68	0	56	4.0	--	.07	.10
JUL 27...	--	--	--	--	--	--	36	--	--
AUG 24...	--	--	--	--	--	--	9	--	--
SEP 22...	--	--	--	--	--	--	8	--	--

DATE	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV 17...	--	--	--	--	--	--	--	--	--
JAN 14...	--	.02	0	--	--	--	--	--	--
MAR 09...	--	--	--	--	--	--	--	--	--
MAY 10...	.03	.03	0	0	10	260	0	10	20
JUL 27...	--	--	--	--	--	--	--	--	--
AUG 24...	--	--	--	--	--	--	--	--	--
SEP 22...	--	--	--	--	--	--	--	--	--

11381620 MILL CREEK AT MOUTH, NEAR LOS MOLINOS, CA

LOCATION.--Lat 40°02'34", long 122°05'57", T.25 N., R.2 W., in Rio de Los Molinos Grant, Tehama County.
DRAINAGE AREA.--131 mi² (339 km²), at gaging station.
PERIOD OF RECORD.--
CHEMICAL ANALYSES: Water years 1953 to current year.
REMARKS.--Discharge given for Mill Creek near Los Molinos (station 11381500), 5.5 mi (8.8 km) upstream from mouth.
COOPERATION.--Chemical-quality records furnished by California Department of Water Resources.

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC 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)
NOV 17...	0920	236	152	7.5	7.0	5	12.7	--	--
JAN 16...	1045	135	200	7.8	7.0	0	12.0	56	5
MAR 10...	0945	213	166	7.8	10.0	2	11.0	--	--
MAY 25...	1200	206	146	8.0	21.0	2	9.6	42	8
JUL 21...	1400	99	250	7.2	28.0	0	13.3	79	7
SEP 17...	1430	98	--	7.8	23.0	--	9.1	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SACRAMENTO RIVER BASIN
11381620 MILL CREEK AT MOUTH, NEAR LOS MOLINOS, CA--Continued

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 CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
NOV 17...	--	--	--	--	--	--	--	--	--
JAN 16...	16	.9	62	0	51	20	--	--	--
MAR 10...	--	--	--	--	--	--	--	--	--
MAY 25...	12	.8	41	0	34	11	.01	.20	.04
JUL 21...	18	.9	88	0	72	19	--	--	--
SEP 17...	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV 17...	--	--	--	--	--	--	--	--
JAN 16...	--	600	--	--	--	--	--	--
MAR 10...	--	--	--	--	--	--	--	--
MAY 25...	.02	300	0	0	160	0	10	0
JUL 21...	--	600	--	--	--	--	--	--
SEP 17...	--	--	--	--	--	--	--	--

11383800 SACRAMENTO RIVER NEAR HAMILTON CITY, CA--Continued

LOCATION.--Lat 39°45'06", long 121°59'40", in NE¼NE¼ sec.20, R.1 W., T.22 N., Butte County.
PERIOD OF RECORD.--Chemical analyses: Water years 1951 to current year.
COOPERATION.--Records furnished by California Department of Water Resources.

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC 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)
OCT 22...	0645	9410	120	8.1	13.5	4	9.7	--
JAN 21...	0800	7500	150	7.3	8.5	3	10.6	--
APR 27...	0800	9440	136	7.5	11.5	3	10.4	--
JUL 28...	0645	10800	130	7.3	18.0	1	10.0	49
AUG 25...	0630	8210	137	7.4	19.0	7	10.0	--
SEP 23...	0640	4260	123	7.6	18.0	3	9.1	--

DATE	NON-CAR-BONATE HARD-NESS (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 CHLO-RIDE (CL) (MG/L)	DIS-SOLVED BORON (B) (UG/L)
OCT 22...	--	--	--	--	--	--	--	--
JAN 21...	--	--	--	--	--	--	--	--
APR 27...	--	--	--	--	--	--	--	--
JUL 28...	0	6.5	.4	68	0	56	3.1	100
AUG 25...	--	--	--	--	--	--	--	--
SEP 23...	--	--	--	--	--	--	--	--

SACRAMENTO RIVER BASIN

11421500 YUBA RIVER AT MARYSVILLE, CA

LOCATION.--Lat 39°08'40", long 121°34'35", in New Helvetia Grant, Yuba County.
DRAINAGE AREA.--1,339 mi^2 (3,468 km^2), at gaging station.
PERIOD OF RECORD.--
CHEMICAL ANALYSES; Water years 1951-52, 1954-66, 1973 to current year. Published as Yuba River near Marysville (station 11421000) in 1951-65.
WATER TEMPERATURES: October 1963 to September 1970.
REMARKS.--Discharge given for Yuba River near Marysville (station 11421000).
COOPERATION.--Chemical-quality records furnished by California Department of Water Resources.

DATE	TIME	DIS-CHARGE (CFS)	SPE-CIFIC 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)	DIS-SOLVED CAL-CIUM (CA) (MG/L)
DEC										
18...	1015	1900	64	7.2	7.0	0	12.2	29	0	7.4
MAR										
12...	1115	529	102	7.2	9.5	2	11.6	48	3	12
JUN										
10...	1210	212	106	7.4	19.5	1	10.2	48	4	12
SEP										
20...	1045	616	112	7.4	16.0	1	9.6	46	1	12

DATE	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 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										
18...	--	2.6	--	37	0	30	1.5	42	.06	215
MAR										
12...	4.4	3.2	.2	55	0	45	1.0	73	.10	104
JUN										
10...	4.4	3.4	.2	54	0	44	1.5	82	.11	46.9
SEP										
20...	--	2.7	--	55	0	45	2.2	63	.09	105

Lake County

Lower Lake-Middletown Area

384739122335201. Local number 11N/6W-19G1 M.
LOCATION.--Lat 38°47'39", long 122°33'52", about 4 mi (6 km) northeast of Middletown in Coyote Valley.
Owner: Zolezzi Arabian Horse Ranch.
AQUIFER.--Alluvium of Quaternary age.
WELL CHARACTERSITICS.--Drilled domestic water-table well, diameter 8 in (0.20 m), depth 50 ft (15.2 m), casing information not available.
DATUM.--Altitude of land-surface datum is 960 ft (292.6 m).
COOPERATION.--Measurements were furnished by California Department of Water Resources.
PERIOD OF RECORD.--Water years 1950-54, 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.54 ft (0.469 m) below land-surface datum, Mar. 6, 1963; lowest measured, 18.43 ft (5.617 m) below land-surface datum, Oct. 4, 1961.

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	15.7	MAR. 8, 1976	14.4				

Solano County

Putah and Suisun-Fairfield Area

341453122071001. Local number 5N/2W-30J1 M.
LOCATION.--Lat 38°14'53", long 122°07'10", about 3 mi (5 km) west of Fairfield.
Owner: R. P. Robbins.
AQUIFER.--Allivium.
WELL CHARACTERISTICS.--Drilled irrigation, artesian or water-table unknown, diameter 12 in (30.48 cm), depth 220 ft (67.1 m), casing information not available.
DATUM.--Altitude of land-surface datum is 65 ft (19.8 m) above mean sea level. Measuring point: 0.4 ft (0.12 m) above land-surface datum.
REMARKS.--Measurements after Apr. 21, 1966, by California Department of Water Resources.
PERIOD OF RECORD.--1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.1 ft (3.69 m) below land-surface datum, May 26, June 28, 1976; lowest, 41.8 ft (12.74 m) below land-surface datum, Feb. 8, 1960.

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. 28, 1975	21.4	JAN. 27, 1976	23. 4	APR. 28, 1976	19.0	JULY 28, 1976	17.6
NOV. 25	22.3	FEB. 26	23.2	MAY 26	12.1	AUG. 30	20.2
DEC. 29	23.0	MAR. 30	22.4	JUNE 28	12.1	SEP. 27	20.2

Yolo County

Putah and Suisun-Fairfield Area

383248121505501. Local number 8N/1E-15B1 M.
LOCATION.--Lat 38°32'48", long 121°50'55", about 6 mi (10 km) west of Davis.
Owner: Frank E. Russell.
AQUIFER.--Alluvium of Holocene age.
WELL CHARACTERISTICS.--Drilled stock water-table well, about 6 mi (10 km) west of Davis, diameter 10 in (25.4 cm), depth 116 ft (35.4 m), casing information not available.
DATUM.--Altitude of land-surface datum is 85.0 ft (25.9 m), previously reported 83.48 ft (25.44 m). Measuring point: 0.3 ft (0.09 m) above land-surface datum.
REMARKS.--Measurments after Apr. 21, 1966, by California Department of Water Resources.
PERIOD OF RECORD.--1931-42, 1948-51, 1958-68, 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.8 ft (4.21 m) below land-surface datum, May 16, 1941; lowest, 34.74 ft (10.59 m) below land-surface datum, Jan. 11, 1962.

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. 29, 1975	24.5	JAN. 29, 1976	26.6	APR. 29, 1976	25.5	JULY 30, 1976	27.4
NOV. 3	24.8	FEB. 26	27.2	MAY 28	25.0	AUG. 30	28.4
NOV. 26	25.3	MAR. 30	27.1	JULY 6	26.6	SEP. 28	29.7
DEC. 30	26.1						

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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
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	*hectares (ha)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	**liters (l)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons (10^6 gal)	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days [$(ft^3/s) \cdot d$]	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (l/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (l/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day (mgal/d)	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
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.

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