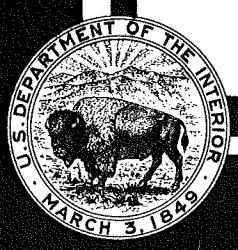
Knott

1966

Water Resources Data for California

Part 2. Water Quality Records



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

United States Department of the Interior
Geological Survey-Water Resources Division

WATER RESOURCES DATA FOR CALIFORNIA

1966

Part 2. Water Quality Records

Prepared in cooperation with

California Department of Water Resources
California Water Quality Control Board
Monterey County Flood Control and Water Conservation District
San Mateo County
Santa Clara County Flood Control and Water Conservation District
Bureau of Reclamation, U.S. Department of the Interior
Corps of Engineers, U.S. Army

Copies of this report may be obtained from
District Chief, Water Resources Division
U.S. Geological Survey
345 Middlefield Road
Menlo Park, California 94025

Streamflow records for most of the water-quality stations in this report are contained in:

Water-Resources Data for California, 1966

Part 1. Surface-Water Records
Volume 1: Colorado River Basin, Southern Great Basin, and Pacific Slope Basins, excluding Central Valley
Volume 2: Northern Great Basin and Central Valley

CONTENTS

[*Symbols after station name designate type of data: c, chemical; t, water temperature; s, sediment*]

ILLUSTRATION

WATER RESOURCES DATA FOR CALIFORNIA, 1966

Part 2. Water Quality Records

INTRODUCTION

Water-resources investigations of the U.S. Geological Survey include the collection of water-quality data on the chemical and physical characteristics of surface- and ground-water supplies of the Nation. These data for the 1966 water year for the quality of surface waters in California are presented in this report. Data for a few water-quality stations in bordering States are also included. The data were collected by the Water Resources Division of the U.S. Geological Survey under the direction of Walter Hofmann and R. Stanley Lord, successive district chiefs, Menlo Park, Calif.

Water-quality information is presented for chemical quality, fluvial sediment, and water temperatures. The chemical quality includes concentrations of individual dissolved constituents and certain properties or characteristics such as hardness, sodium-adsorption ratio, specific conductance, and pH. Fluvial-sediment information is given for suspended-sediment discharges and concentrations and for particle-size distribution of suspended sediment and bed material. Water-temperature data represent once-daily observations except for stations where a continuous temperature recorder furnishes information from which daily minimums and maximums are obtained.

The Geological Survey has published the annual series of water-supply papers, "Quality of Surface Waters of the United States," from 1941 through 1963 which contained the chemical-quality, temperature, and suspended-sediment data of the water. Each volume covered an area whose boundaries coincided with those of certain natural drainage areas. The records for California are contained in Parts 9-11 of the water-supply-paper series. (See table, p. 12.) These publications are available in most public libraries. Beginning with the 1964 water year, water-quality records for surface water, obtained by the Geological

Survey were published in a new series of annual releases on a state boundary basis. This report is primarily for local and immediate use, and its distribution is limited. The records will be published in Geological Survey water-supply papers at 5-year intervals. The first compilation will cover only the 1964 and 1965 water years.

From June through September 1966 samples from many stations were submitted to the California Department of Water Resources laboratories for analysis. These analyses will be published in the 1967 report.

COOPERATION

In California the work was done under cooperative agreements with:

California Department of Water Resources, William E. Warne, director.
California Water Quality Control Board, Paul R. Bonderson, executive officer.
Monterey County Flood Control and Water Conservation District, Loren Bunte, Jr., district engineer.
San Mateo County, D. S. Wilson, county engineer and road commissioner.
Santa Clara County Flood Control and Water Conservation District, Donald K. Currlin, manager-counsel.

Assistance in the form of funds was given by the Bureau of Reclamation, U.S. Department of the Interior, Corps of Engineers, U.S. Army, and the Soil Conservation Service, U.S. Department of Agriculture.

Municipal agencies furnishing assistance were:

Alameda County Water District, M. P. Whitfield, general manager.
Metropolitan Water District of Southern California, Lee Streicher, water-purification engineer.
Kings River Water Association.

DEFINITION OF TERMS AND ABBREVIATIONS

The terms and abbreviations of water-quality and hydrologic data, as used in the text and tabular data of this report, are as follows:

Acre-foot (ac-ft) is a quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or 325,851 gallons. The term is commonly used in measuring volumes of water used or stored.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It equals 86,400 cubic feet, 1.983471 acre-feet, or 646,317 gallons.

Cubic feet per second (cfs) is a unit expressing rates of discharge. One cubic foot per second is equal to the discharge of a stream of rectangular cross section, 1 foot wide and 1 foot deep, flowing water at an average velocity of 1 foot per second.

Discharge, in its simplest concept, means outflow; therefore, the use of this term is not restricted as to course or location. In this report it represents the total fluids measured in the stream.

Daily mean discharge is the mean discharge for 1 day.

Mean daily discharge is the arithmetic mean discharge for the same day during a specific period of years.

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

Instantaneous discharge (at time of sampling). If the discharge at the time of sampling is reported instead of the daily mean, the heading of the discharge column is "Discharge (cfs)."

Drainage area is that area, in a specified location, measured in a horizontal plane, which is enclosed by a drainage divide.

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.

Equivalents per million (epm) is a unit for expressing the concentration of chemical constituents in solution

in terms of the interreacting values of the electrically charged particles, or ions. One equivalent per million of a positively charged ion will react with one equivalent per million of a negatively charged ion. Parts per million is converted to equivalents per million by multiplying by the reciprocal of the combining weight of the ion.

Conversion factors: Parts per million to equivalents per million

Ion	Multiply by
Aluminum (Al^{+3})	0.11119
Barium (Ba^{+2})	.01456
Bicarbonate (HCO_3^{-1})	.01639
Bromide (Br^{-1})	.01251
Calcium (Ca^{+2})	.04990
Carbonate (CO_3^{-2})	.03333
Chloride (Cl^{-1})	.02821
Chromium (Cr^{+6})	.11539
Cobalt (Co^{+2})	.03394
Copper (Cu^{+2})	.03148
Fluoride (F^{-1})	.05264
Hydrogen (H^{+1})	.99209
Hydroxide (OH^{-1})	.05880
Iodide (I^{-1})	.00788
Iron (Fe^{+3})	.05372
Lead (Pb^{+2})	.00965
Lithium (Li^{+1})	.14411
Magnesium (Mg^{+2})	.08226
Manganese (Mn^{+2})	.03640
Nickel (Ni^{+2})	.03406
Nitrate (NO_3^{-1})	.01613
Nitrite (NO_2^{-1})	.02174
Phosphate (PO_4^{-3})	.03159
Potassium (K^{+1})	.02557
Sodium (Na^{+1})	.04350
Strontium (Sr^{+2})	.02283
Sulfate (SO_4^{-2})	.02082
Zinc (Zn^{+2})	.03060

Gage height 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. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is obtained.

Hardness of water is the property of water attributable to the presence of alkaline earths and is expressed as equivalent calcium carbonate ($CaCO_3$). Hardness is a physical-chemical characteristic, not a substance.

Partial-record station is a particular site where limited 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 sieve and sedimentation methods.

Particle-size classification agrees closely with recommendations made by the American Geophysical Union Subcommittee on sediment terminology (Lane and others, 1947, p. 937). The classification is as follows:

Clay: Smaller than 0.004 mm.
Silt: Between 0.004 and 0.062 mm.
Sand: Between 0.062 and 2.0 mm.
Gravel: Between 2.0 and 64.0 mm.

The particle-size distributions given in this report are not necessarily representative of the particle sizes of sediment in transport in the natural stream. Most of the organic matter is removed and the sample is subjected to mechanical and chemical dispersion before analysis of the silt and clay.

Parts per million (ppm) is a unit for expressing the concentration of chemical constituents by weight, usually as grams of constituents per million grams of solution. In the laboratory the results are expressed in weights of solutes in a given volume of water. To express the results in parts per million, the data must be converted. For most waters, this conversion is made by assuming that a liter of water weighs 1 kilogram; thus milligrams per liter is equivalent to parts per

million. Parts per million, for suspended sediment, is computed as 1 million times the ratio of the weight of sediment to the weight of the mixture of water and sediment.

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

Sediment discharge is the rate at which dry weight of sediment passes a section of a stream, or is the quantity of sediment, as measured by dry weight or by volume, that is discharged in a given time.

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

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content in the water. The following general relations are applicable:

Specific conductance x (0.65 ± 0.05) = Parts per million of dissolved solids

$$\frac{\text{Specific conductance}}{100} = \frac{\text{Total equivalents per million}}{2}$$

Sodium-adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reaction with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream

course. The term "streamflow" is more general than "runoff." Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

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.

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 location of the thermograph.

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 parts per million 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 period.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1966, is called the "1966 water year."

STATION NUMBERS

A station number has been assigned as an added means of identification for each stream location where regular measurements of streamflow and determinations of water quality have been made. The numbers have been assigned to conform to the standard downstream order of listing gaging stations. The numbering system consists of 2 digits followed by a hyphen and a 6-digit number. The notation to the left of the hyphen identifies the part or hydrologic region used by the Geological Survey for reporting hydrologic data. The number to the right of the hyphen represents the position of the location in the standard downstream order listing the stations within each of the parts. The assigned numbers are in numerical order but are not consecutive. They are so

selected from the complete 6-digit number scale that intervening numbers will be available for future assignments to new locations. The identification number for each station in this report is printed to the left of the station name and contains only the essential digits. For example, the number is printed as 11-100 for a station whose complete identification number is 11-0100.00.

COLLECTION AND EXAMINATION OF SAMPLES

Water samples for analysis usually are collected at or near points on streams where gaging stations are maintained by the U.S. Geological Survey for measurement of water discharge. Discharge records for streams in California have been released in the report "Water-Resources Data for California, 1966, Part 1. Surface-Water Records."

Most of these records are used in conjunction with the computations of the chemical constituents and sediment loads in this report.

Data on the quality of surface water were collected daily at some sites and less frequently at other sites. The distribution and number of stations in each river or drainage basin are shown on page 9.

Solutes

Data for daily chemical-quality sites include the average chemical characteristics of water for "composite periods" of about a month or less. The methods of collecting and compositing water samples for determining the kinds and concentrations of solutes are described by Rainwater and Thatcher (1960). 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 at several verticals across the channel to determine accurately the solute load. The daily chemical-quality data in this report generally represent equal-volume composites for 2- to

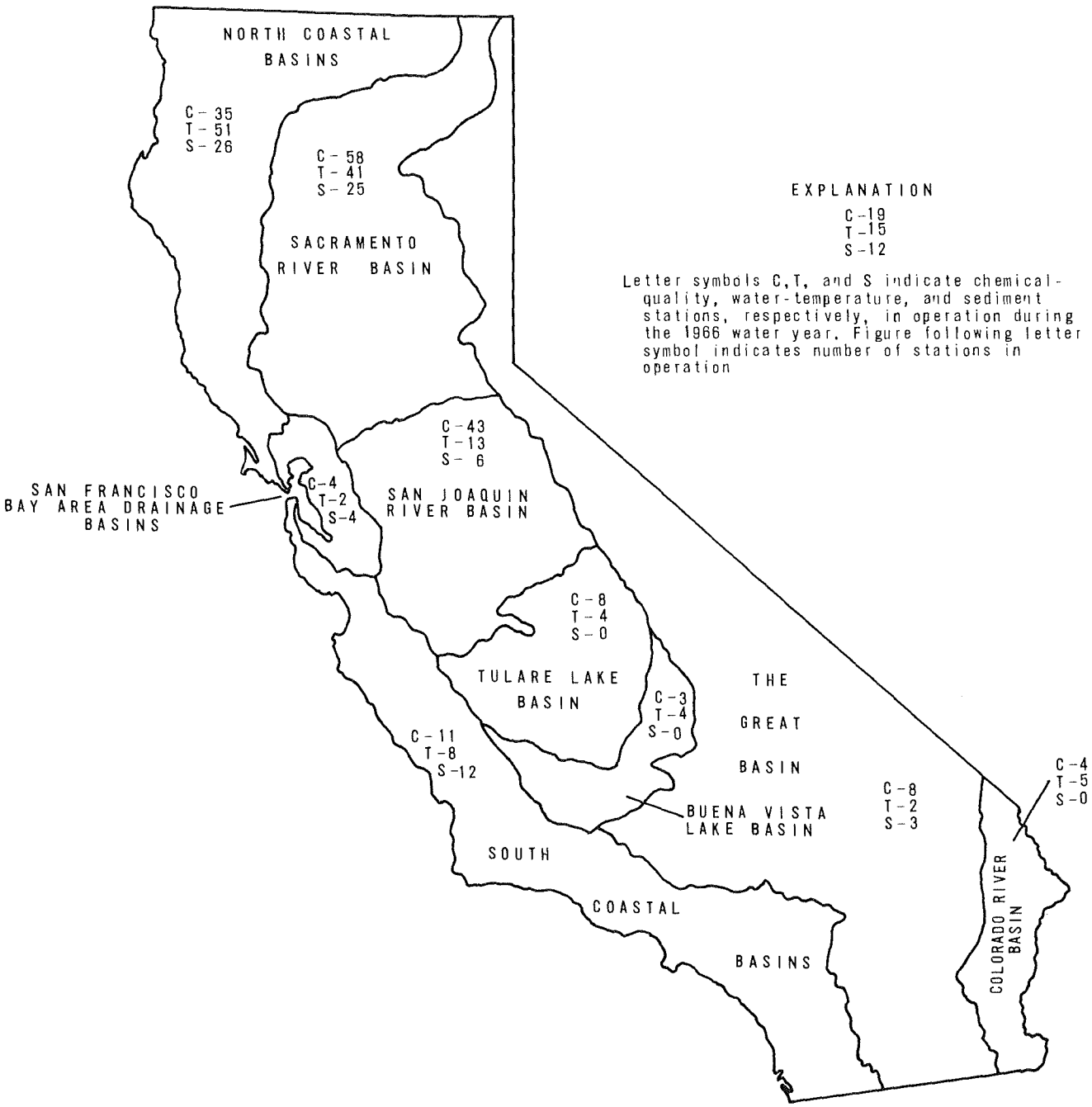


Figure 1.—Map of California showing number and distribution of water-quality stations

10-day periods; the composite periods are selected on the basis of specific conductance of the daily samples and fluctuation of water discharge.

Samples collected at monthly and miscellaneous water-quality stations were analyzed individually.

Temperature

Water temperatures were measured at most of the water-quality stations. For daily stations, the water temperatures were taken at about the same time each day in order that the data would not reflect normal variations in water temperature. Most large streams have a small diurnal variation in water temperature; small, shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. The thermometers used for determining the water temperature were accurate to plus or minus 0.5°F.

At stations where thermographs are located, the records consist of maximum and minimum temperatures for each day and the monthly averages of maximum daily and minimum daily temperatures.

Sediment

At some stations, suspended-sediment samples were collected daily with depth-integrating cable-suspended samplers from a fixed sampling point at one vertical in the cross section. A hand sampler was used at many stations during periods of low flow. Depth-integrated samples were collected periodically at many verticals in the cross section to determine the ratio of the cross-sectional distribution of the concentration of suspended sediment to the daily sampling verticals. During periods of high or rapidly changing flow, samples were taken twice or more often throughout the day at most stations. 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 with depth-integrating cable-suspended or hand samplers 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 the quantities of suspended sediment, records of periodic measurements of the particle-size distribution of the suspended sediment and the bed material are included.

IRRIGATION-NETWORK STATIONS

Irrigation-network stations are water-quality stations at or near certain streamflow-gaging stations west of the main stem of the Mississippi River. The chemical-quality data collected at these stations are used to evaluate the chemical quality of surface waters used for irrigation and the changes resulting from the drainage of irrigated lands.

Irrigation-network stations published in this report are identified under the station name by "Irrigation-network station" set in parentheses.

Over 100 irrigation-network stations were selected in 1952 by the Subcommittee on Hydrology, Interagency Committee on Water Resources (now Committee on Hydrology, Water Resources Council). Approximately 77 of these currently are in operation. Prior to the 1966 water year, chemical-quality data for irrigation were published in the annual water-supply series, "Quality of Surface Waters for Irrigation, Western States." Beginning with the 1966 water year, the irrigation-network data will be published at 5-year intervals in the water-supply series entitled "Quality of Surface Waters of the United States."

WATER-SUPPLY PAPERS

The table below shows the annual series of water-supply papers that give information on quality of surface waters in California. Data for the Colorado River basin are given in part 9 and for Pacific slope basins in California in part 11.

Water-supply-paper numbers and parts, water years 1941-65

Year	Parts 1-14	Year	Parts 9-14	Year	Parts 9-14
1941	942	1950	1189	1959	1645
1942	950	1951	1200	1960	1745
1943	970	1952	1253	1961	1885
1944	1022	1953	1293	1962	1945
1945	1030	1954	1353	1963	1951
1946	1050	1955	1403	1964-65	B1962
1947	1102	1956	1453	1964-65	C1963
1948	A1133	1957	1523		
1949	A1163	1958	1574		

A Parts 7-14.
B In preparation. Contains parts 9-10
C In preparation. Contains part 11.

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American Society for Testing Materials, 1954, Manual on industrial water: Philadelphia, Pa., p. 356.

Benedict, P. C., 1948, Determination of the suspended sediment discharge of streams: Federal Interagency Sedimentation Conf. Proc. (1947), p. 55-67.

Colby, B. R., 1963, Fluvial sediments--a summary of source, transportation, deposition, and measurement of sediment discharge: U.S. Geol. Survey Bull. 1181-A, 47 p.

Colby, B. R., and Hubbell, D. W., 1961, Simplified methods for computing total sediment discharge with the modified Einstein procedure: U.S. Geol. Survey Water-Supply Paper 1593, 17 p.

Hem, J. D., 1959, Study and interpretation of the chemical characteristics of natural water: U.S. Geol. Survey Water-Supply Paper 1473, 269 p.

Lane, E. W. and others, 1947, Report of subcommittee on sediment terminology: Am. Geophys. Union Trans., v. 28, no.6, p. 936-938.

Langbein, W. B., and Iseri, K. T., 1960, General introduction and hydrologic definitions: U.S. Geol. Survey Water-Supply Paper 1541-A, 29 p.

Love, S. K., and Benedict, P. C., 1948, Discharge and sediment loads in the Boise River drainage basin, Idaho, 1939-40: U.S. Geol. Survey Water-Supply Paper 1048, 150 p.

Rainwater, F. H., and Thatcher, L. L., 1960, Methods for collection and analysis of water samples: U.S. Geol. Survey Water-Supply Paper 1454, 301 p.

U.S. Inter-Agency Committee on Water Resources, A study of methods used in measurement and analysis of sediment loads in streams:

Report 11, 1957, The development and calibration of visual accumulation tube: Minneapolis, Minn., St. Anthony Falls Hydraulic Lab., 109 p.

Report 12, 1957, Some fundamentals of particle-size analysis: Washington, U.S. Govt. Printing Office, 55 p.

Report AA, 1959, Federal Inter-agency sedimentation instruments and reports: Minneapolis, Minn., St. Anthony Falls Hydraulic Lab., 41 p.

Report 13, 1961, The single stage sampler for suspended sediment: Washington, U.S. Govt. Printing Office, 105 p.

Report 14, 1963, Determinations of fluvial sediment discharge: Washington, U.S. Govt. Printing Office, 151 p.

COLORADO RIVER MAIN STEM

9-4210. LAKE MEAD AT HOOVER DAM, ARIZ.-NEV.

LOCATION.--Lat 36°00'58", long 114°44'13", midway between intake towers, 225 feet upstream from gaging station on state line between Mohave County, Arizona, and Clark County, Nevada.
DRAINAGE AREA.--167,800 square miles, approximately.
RECORDS AVAILABLE.--Chemical analyses: October 1940 to September 1966.
REMARKS.--Samples are collected by the U.S. Bureau of Reclamation and analyzed by the Metropolitan Water District of Southern California, LaVerne, California.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Depth (feet)	Elevation (feet)	Temperature (°F)	Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Dissolved solids (sum)	Hardness as $CaCO_3$	Non-carbonate hardness as $CaCO_3$	Specific conductance (micromhos at 25°C)	pH
Oct. 4, 1965	Surface	1125	--	8.6	90	34	118	6	122	0	352	114	1.4	785	362	262	1250	7.8
Oct. 4.....	5	1120	--	--	--	--	--	--	121	0	--	114	--	--	--	--	1250	8.1
Oct. 4.....	25	1100	--	--	--	--	--	--	120	0	--	114	--	--	--	--	1240	7.8
Oct. 4.....	75	1050	--	8.6	89	34	118	6	121	0	350	114	1.1	781	360	261	1230	7.8
Oct. 4.....	125	1000	--	8.9	93	31	106	6	160	0	313	98	3.3	739	360	229	1180	7.9
Oct. 4.....	175	950	--	9.1	94	32	110	6	161	0	320	100	3.4	755	364	232	1200	7.7
Oct. 4.....	225	900	--	10	97	32	117	6	156	0	335	110	2.8	788	372	244	1230	7.8
Oct. 4.....	275	850	--	--	--	--	--	--	156	0	--	112	--	--	--	--	1240	8.0
Oct. 4.....	325	800	--	10	99	32	115	6	153	0	333	113	2.2	787	377	252	1250	7.8
Oct. 4.....	375	750	--	--	--	--	--	--	155	0	--	113	--	--	--	--	1250	7.6
Nov. 1.....	Surface	1126	70	8.1	90	34	117	6	139	0	337	112	.9	774	362	248	1250	7.5
Nov. 1.....	5	1121	70	--	--	--	--	--	139	0	--	110	--	--	--	--	1250	7.8
Nov. 1.....	25	1101	70	--	--	--	--	--	139	0	--	112	--	--	--	--	1250	7.7
Nov. 1.....	75	1051	70	7.9	90	34	117	6	139	0	337	112	1.0	774	362	248	1250	7.8
Nov. 1.....	125	1001	61	8.3	91	32	105	6	174	0	303	96	2.6	731	359	216	1180	8.0
Nov. 1.....	175	951	57	8.1	94	32	108	5	176	0	316	97	3.1	751	364	220	1190	7.6
Nov. 1.....	225	901	55	8.8	97	32	117	6	174	0	327	106	3.5	784	372	229	1230	7.7
Nov. 1.....	275	851	54	9.6	98	32	117	6	171	0	332	110	2.4	793	376	236	1250	7.7
Nov. 1.....	325	801	53	--	--	--	--	--	176	0	--	110	--	--	--	--	1250	8.0
Nov. 1.....	375	751	53	--	--	--	--	--	170	0	--	108	--	--	--	--	1250	7.4
Nov. 30.....	Surface	1128	64	8.8	91	34	111	6	140	0	338	106	1.4	766	365	250	1200	7.6
Nov. 30.....	5	1123	64	--	--	--	--	--	--	--	--	106	--	--	364	--	1200	7.8
Nov. 30.....	25	1103	64	--	--	--	--	--	--	--	--	106	--	--	366	--	1200	7.8
Nov. 30.....	75	1053	64	--	--	--	--	--	--	--	--	106	--	--	366	--	1200	7.7
Nov. 30.....	125	1003	64	8.4	91	34	108	6	140	0	334	104	1.6	757	365	250	1200	7.6
Nov. 30.....	175	953	59	8.6	94	32	103	6	168	0	309	94	3.0	733	364	226	1160	7.6
Nov. 30.....	225	903	56	9.1	96	33	106	6	167	0	322	102	3.0	761	375	238	1190	7.8
Nov. 30.....	275	853	54	9.9	98	32	108	6	161	0	325	110	2.2	772	378	246	1220	7.8
Nov. 30.....	325	803	53	--	--	--	--	--	--	--	--	112	--	--	380	--	1240	7.7
Nov. 30.....	375	753	53	--	--	--	--	--	--	--	--	112	--	--	383	--	1240	7.6
Nov. 30.....	408	720	53	--	--	--	--	--	--	--	--	110	--	--	383	--	1240	7.4
Dec. 30.....	Surface	1130	60	9.5	90	34	110	6	145	0	337	102	2.1	763	365	246	1195	7.9
Dec. 30.....	25	1105	59	--	--	--	--	--	143	0	--	102	--	--	364	--	1195	7.8
Dec. 30.....	75	1055	59	--	--	--	--	--	145	0	--	102	--	--	364	--	1200	7.8
Dec. 30.....	125	1005	59	8.5	91	34	110	6	146	0	337	102	2.1	764	367	247	1200	8.0
Dec. 30.....	175	955	59	--	--	--	--	--	149	0	--	100	--	--	366	--	1200	7.9
Dec. 30.....	225	905	56	7.5	96	32	110	6	167	0	322	101	3.1	762	373	236	1210	7.9
Dec. 30.....	275	855	54	8.8	97	34	114	6	162	0	334	109	2.5	786	380	247	1230	8.3
Dec. 30.....	325	805	53	--	--	--	--	--	160	0	--	111	--	--	380	--	1240	7.7
Dec. 30.....	375	755	53	11	98	34	115	6	161	0	336	111	1.4	792	382	250	1250	7.6
Dec. 30.....	409	721	53	--	--	--	--	--	163	0	--	108	--	--	382	--	1240	7.7

9-4210. LAKE MEAD AT HOOVER DAM, ARIZ.-NEV.--Continued

Chemical analyses, in parts per million, water year October 1965 to September 1966--Continued

Date of collection	Depth (feet)	Elevation (feet)	Temperature (°F)	Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Nitrate (NO_3)	Dissolved solids (sum)	Hardness as $CaCO_3$	Non-carbonate hardness as $CaCO_3$	Specific conductance (micromhos at 25°C)	pH
Jan. 31, 1966	5	1127	56	8.6	89	34	120	6	151	0	343	102	1.5	779	360	236	1170	7.9
Jan. 31.....	25	1107	56	--	--	--	--	--	151	0	--	100	--	--	362	--	1170	7.8
Jan. 31.....	75	1057	56	--	--	--	--	--	151	0	--	100	--	--	362	--	1170	8.0
Jan. 31.....	125	1007	55	--	--	--	--	--	151	0	--	100	--	--	361	--	1170	7.8
Jan. 31.....	175	957	55	--	--	--	--	--	153	0	--	100	--	--	362	--	1170	7.8
Jan. 31.....	225	907	55	8.6	91	34	120	6	155	0	347	100	1.5	786	367	240	1190	7.8
Jan. 31.....	275	857	54	9.0	93	34	122	6	162	0	348	104	1.0	799	372	239	1210	7.8
Jan. 31.....	325	807	54	10	95	34	124	6	165	0	353	110	1.4	817	379	244	1225	7.7
Jan. 31.....	375	757	54	--	--	--	--	--	166	0	--	110	--	--	381	--	1240	7.8
Jan. 31.....	411	721	54	11	96	34	127	6	171	0	355	112	1.5	829	382	242	1240	7.5
Feb. 28.....	Surface	1133	56	8.6	92	32	110	6	151	0	327	102	2.1	756	363	239	1170	7.9
Feb. 28.....	25	1108	55	--	--	--	--	--	151	0	--	102	--	--	--	--	1170	7.9
Feb. 28.....	75	1058	55	8.6	92	32	110	6	154	0	326	102	2.1	756	363	237	1170	7.9
Feb. 28.....	125	1008	54	--	--	--	--	--	153	0	--	102	--	--	--	--	1170	7.9
Feb. 28.....	175	958	54	--	--	--	--	--	153	0	--	102	--	--	--	--	1175	8.0
Feb. 28.....	225	908	54	8.4	92	32	110	6	154	0	327	102	2.0	757	363	237	1175	7.8
Feb. 28.....	275	858	54	9.1	93	32	112	6	155	0	328	104	2.1	764	366	239	1180	7.9
Feb. 28.....	325	808	54	10	97	32	117	6	162	0	333	112	2.1	791	376	243	1200	7.7
Feb. 28.....	375	758	54	11	98	32	118	6	168	0	332	113	2.1	796	378	240	1225	7.6
Feb. 28.....	413	720	54	--	--	--	--	--	166	0	--	114	--	--	--	--	1225	7.8
Mar. 31.....	Surface	1132	65	8.8	90	34	108	6	157	0	330	100	2.0	757	365	236	1140	8.0
Mar. 31.....	25	1107	60	--	--	--	108	--	--	--	--	101	--	--	--	--	1140	7.7
Mar. 31.....	75	1057	55	--	--	--	--	--	--	--	--	101	--	--	--	--	1150	7.8
Mar. 31.....	125	1007	54	--	--	--	--	--	--	--	--	101	--	--	--	--	1150	7.9
Mar. 31.....	175	957	53	8.8	92	34	108	6	155	0	330	102	2.0	760	367	240	1160	7.7
Mar. 31.....	225	907	53	9.1	93	34	108	6	157	0	330	104	1.2	764	372	243	1160	7.8
Mar. 31.....	275	857	53	8.6	93	34	110	6	160	0	330	104	2.0	768	372	241	1170	7.9
Mar. 31.....	325	807	53	--	--	--	--	--	--	--	--	106	--	--	--	--	1180	7.8
Mar. 31.....	375	757	53	8.8	96	33	110	6	161	0	329	108	2.0	773	375	243	1180	7.8
Mar. 31.....	412	720	53	--	--	--	--	--	--	--	--	108	--	--	--	--	1190	7.7
Apr. 29.....	Surface	1132	62	8.5	90	33	106	5	153	0	323	96	2.0	740	360	235	1140	8.0
Apr. 29.....	5	1127	62	--	--	--	--	--	--	--	--	96	--	--	--	--	1150	8.0
Apr. 29.....	25	1107	60	--	--	--	--	--	--	--	--	97	--	--	--	--	1150	7.9
Apr. 29.....	75	1057	55	8.0	90	32	107	5	150	0	323	98	2.0	741	358	235	1160	7.9
Apr. 29.....	125	1007	54	--	--	--	--	--	--	--	--	99	--	--	--	--	1170	7.9
Apr. 29.....	175	957	53	8.0	93	33	108	5	151	0	327	103	1.5	754	368	244	1180	7.7
Apr. 29.....	225	907	53	8.2	94	33	109	5	154	0	331	103	2.2	762	370	244	1190	8.2
Apr. 29.....	275	857	53	8.5	94	34	109	5	154	0	331	104	1.9	764	372	246	1190	8.0
Apr. 29.....	325	807	53	--	--	--	--	--	--	--	--	104	--	--	--	--	1200	7.8
Apr. 29.....	375	757	53	--	--	--	--	--	--	--	--	105	--	--	--	--	1200	7.8
Apr. 29.....	413	719	53	--	--	--	--	--	--	--	--	106	--	--	--	--	1200	8.2
May 31.....	Surface	1133	70	7.8	88	31	103	5	144	0	317	93	1.6	718	347	229	1115	8.0
May 31.....	25	1108	69	--	--	--	--	--	144	0	--	95	--	--	--	--	1130	7.8
May 31.....	75	1058	60	8.5	91	31	103	5	153	0	315	93	1.9	725	355	230	1145	7.9
May 31.....	125	1008	56	--	--	--	--	--	153	0	--	94	--	--	--	--	1150	7.6
May 31.....	175	958	54	8.5	91	31	103	5	153	0	314	94	2.4	725	355	230	1150	7.8
May 31.....	225	908	54	8.7	93	32	106	5	153	0	325	97	2.2	745	362	237	1180	7.4
May 31.....	275	858	54	8.7	94	32	107	5	154	0	320	100	2.1	746	366	240	1185	7.6
May 31.....	325	808	53	--	--	--	--	--	157	0	--	100	--	--	--	--	1195	7.5
May 31.....	375	758	53	--	--	--	--	--	155	0	--	102	--	--	--	--	1200	7.5
May 31.....	414	719	53	--	--	--	--	--	157	0	--	104	--	--	--	--	1210	7.5

July 5.....	Surface	1133	77	8.5	83	30	105	5	131	0	312	96	1.0	706	331	224	1100	7.9
July 5.....	5	1128	77	--	--	--	--	--	--	--	--	96	--	--	--	--	1110	8.0
July 5.....	25	1108	76	--	--	--	--	--	--	--	--	96	--	--	--	--	1110	7.6
July 5.....	75	1058	62	10	90	30	102	5	151	0	302	96	2.2	713	348	224	1140	7.5
July 5.....	125	1008	58	--	--	--	--	--	--	--	--	96	--	--	--	--	1140	7.5
July 5.....	175	958	54	--	--	--	--	--	--	--	--	96	--	--	--	--	1150	7.3
July 5.....	225	908	54	10	93	30	103	5	153	0	312	98	1.5	730	358	233	1150	7.6
July 5.....	275	858	54	9.7	93	31	107	5	154	0	315	100	1.7	739	360	234	1175	7.4
July 5.....	325	808	54	--	--	--	--	--	--	--	--	102	--	--	--	--	1200	7.5
July 5.....	375	758	54	11	93	32	112	5	155	0	321	104	2.0	758	364	237	1200	7.7
July 5.....	414	719	54	--	--	--	--	--	--	--	--	104	--	--	--	--	1200	7.6
July 29.....	Surface	1130	80	9.2	82	31	102	5	132	0	316	92	.8	704	332	224	1090	8.0
July 29.....	5	1125	79	--	--	--	--	--	--	--	--	93	--	--	--	--	1110	7.7
July 29.....	25	1105	76	8.7	81	32	102	5	139	0	309	92	1.0	700	332	218	1090	7.6
July 29.....	75	1055	64	9.4	85	32	100	5	154	0	305	91	1.9	706	344	218	1120	7.6
July 29.....	125	1005	58	--	--	--	--	--	--	--	--	91	--	--	--	--	1130	7.9
July 29.....	175	955	56	--	--	--	--	--	--	--	--	91	--	--	--	--	1120	7.7
July 29.....	225	905	54	9.7	90	31	104	5	156	0	311	93	2.1	724	352	224	1140	7.7
July 29.....	275	855	53	9.7	91	32	105	5	157	0	324	96	1.7	743	361	232	1160	7.6
July 29.....	325	805	54	10	94	32	107	5	157	0	322	99	2.5	750	366	237	1180	7.5
July 29.....	375	755	54	--	--	--	--	--	--	--	--	100	--	--	--	--	1180	7.6
July 29.....	411	719	54	--	--	--	--	--	--	--	--	100	--	--	--	--	1190	7.6
Aug. 31.....	Surface	1128	80	9.4	80	31	108	6	128	0	328	90	.6	717	327	222	1100	7.6
Aug. 31.....	5	1123	80	--	--	--	--	--	128	0	--	90	--	--	--	--	1100	7.7
Aug. 31.....	25	1103	80	--	--	--	--	--	128	0	--	91	--	--	--	--	1100	7.7
Aug. 31.....	75	1053	66	9.0	88	29	108	6	154	0	317	88	2.4	724	339	213	1100	8.0
Aug. 31.....	125	1003	60	9.4	89	31	107	6	156	0	316	90	1.9	728	350	222	1140	7.7
Aug. 31.....	175	953	56	9.4	88	30	107	6	157	0	312	88	1.8	721	343	214	1110	7.6
Aug. 31.....	225	903	54	--	--	--	--	--	159	0	--	88	--	--	--	--	1105	8.2
Aug. 31.....	275	853	54	9.4	90	30	103	6	159	0	307	90	2.3	717	346	216	1130	7.8
Aug. 31.....	325	803	54	9.2	92	31	103	6	160	0	313	94	2.1	730	357	226	1160	8.0
Aug. 31.....	375	753	54	--	--	--	--	--	161	0	--	95	--	--	--	--	1175	8.0

9-4215. COLORADO RIVER BELOW HOOVER DAM, ARIZ.-NEV.
(Irrigation network station)

LOCATION.--Lat 36°00'55", long 114°44'16", at Hoover Dam, on state line between Mohave County, Ariz., and Clark County, Nev., just downstream from gaging station.
DRAINAGE AREA.--167,800 square miles, approximately.
RECORDS AVAILABLE.--Chemical analyses: October 1939 to September 1966.
Water temperatures: October 1941 to September 1963.
REMARKS.--Records of specific conductance of individual samples available in district office at Tucson, Ariz.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 5, 15, 25, 1965		8.6		98	31	118	--	168	0	326	106	--	2.4	--	824	1.05		372	234	2.7	1210	7.9
Nov. 5, 15, 24...		8.4		99	31	112	--	168	0	321	104	--	3.0	--	761	1.03		376	238	2.5	1200	7.8
Dec. 6, 15, 23...		8.3		96	32	121	--	174	0	331	104	--	2.6	--	781	--		372	230	2.7	1220	7.7
Jan. 5, 14, 25, 1966		7.9		94	31	115	--	150	0	330	104	--	1.4	--	757	--		364	241	2.6	1190	7.7
Feb. 4, 16, 25...		8.1		94	32	112	--	154	0	326	103	--	1.9	--	753	--		368	242	2.5	1190	7.7
Mar. 4, 15, 25...		8.3		92	32	121	--	154	0	335	106	--	1.1	--	771	--		362	236	3.1	1190	7.8
Apr. 5, 15, 26...		8.5		94	32	120	--	156	0	333	107	--	1.3	--	773	--		366	238	2.7	1190	7.9
May 5, 16, 25....		8.4		93	32	117	--	158	0	326	104	--	1.1	--	760	--		362	232	2.7	1190	7.8
June 6, 15, 24...		8.4		92	31	115	5.1	156	0	322	102	0.3	1.1	0.15	782	--		358	230	2.6	1170	7.7
July 5, 15, 25...		8.4		92	29	117	--	158	0	311	106	--	1.6	--	743	--		350	220	2.7	1150	7.7
Aug. 5, 15, 25...		8.3		91	29	110	--	160	0	304	97	--	1.7	--	720	--		346	215	2.6	1130	7.7
Sept. 6, 15, 26..		8.4		90	29	105	4.7	160	0	296	92	.4	1.8	.18	734	--		342	211	2.5	1110	7.4

9-4280. COLORADO RIVER BELOW PARKER DAM, ARIZ.-CALIF.

LOCATION.--Lat 34°15'30", long 114°09'00", at gaging station 3.9 miles downstream from Parker Dam, 10.4 miles upstream from Headgate Rock Dam, and 11 miles northeast of Parker, Ariz.
DRAINAGE AREA.--178,000 square miles, approximately.
RECORDS AVAILABLE.--Chemical analyses: October 1963 to September 1966.
Water temperatures: February 1954 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 79°F on several days during August.
EXTREMES, 1954-66.--Water temperatures: Maximum, 83°F Aug. 12, 13, 18, 1955; minimum (1954-65), 47°F Jan. 12, 1964.
REMARKS.--Temperature recorder inoperative Jan. 12-28.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 14, 1965....	4920	9.9		99	31	123	5.7	152	0	350	118	--	2.3	--	814	1.11		374	250	2.8	1260	7.7
Nov. 1.....	4510	13		101	31	126	--	154	0	348	116	--	1.2	--	812	1.10		380	254	2.8	1260	7.9
Dec. 1.....	43000	13		78	30	113	--	110	10	297	104	--	.1	--	699	--		316	210	2.8	1110	8.6
Jan. 3, 1966.....	1690	24		66	20	83	--	152	0	194	72	--	1.7	--	536	--		248	124	2.3	859	7.9
Feb. 1.....	4350	13		94	30	120	--	166	0	313	109	--	2.0	--	763	--		356	220	2.8	1200	8.0
Mar. 1.....	9020	15		98	32	123	--	167	0	330	115	--	2.0	--	797	--		376	239	2.8	1250	8.2
Apr. 1.....	13700	8.5		97	33	123	--	164	0	336	112	--	1.6	--	792	--		376	242	2.8	1250	7.9
May 4.....	4700	8.0		97	32	129	--	159	0	346	114	--	2.3	--	806	--		374	244	2.9	1230	7.8
June 1.....	14820	8.1		94	33	116	5.5	157	0	343	110	0.4	.8	0.17	826	--		370	242	2.6	1203	7.3
July 1.....	17540	8.3		95	31	126	--	154	0	338	112	--	1.5	--	788	--		364	238	2.9	1220	7.5
Aug. 1.....	18690	11		92	33	118	--	148	0	329	110	--	1.8	--	768	--		365	244	2.7	1190	8.0
Sept. 1.....	4440	9.0		92	32	117	5.6	147	0	326	107	.4	1.2	.18	787	--		360	240	2.7	1170	7.9

9-4280. COLORADO RIVER BELOW PARKER DAM, ARIZ.-CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	73	73	73	72	72	72	73	72	73	72	72	73	72	72	71	70	71	71	70	71	71	71	71	71	71	71	71	71	71	71	71	72
Minimum	72	72	72	71	71	71	71	71	71	71	71	72	71	71	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	71
November																																
Maximum	70	70	70	70	69	69	69	68	68	68	68	67	67	66	66	65	65	65	65	65	65	65	64	64	64	64	63	62	61	60	--	66
Minimum	69	69	69	69	68	68	68	68	67	67	67	67	66	66	65	65	65	65	65	64	64	64	64	64	64	62	61	61	60	60	--	65
December																																
Maximum	60	60	60	59	59	59	59	59	59	59	59	57	56	56	56	56	56	56	55	55	54	54	54	51	51	51	51	51	52	53	53	56
Minimum	60	59	59	59	59	59	59	59	59	59	57	55	56	56	56	56	56	55	54	54	54	54	51	50	51	51	51	51	51	52	52	55
January																																
Maximum	53	52	53	52	52	52	52	52	52	52	52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	52	52	52	--
Minimum	52	51	53	51	51	51	51	51	51	51	51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	51	51	51	--
February																																
Maximum	52	52	52	52	52	52	52	52	52	52	52	52	52	51	51	51	51	52	52	52	52	52	52	52	53	53	53	54	--	--	--	52
Minimum	52	51	52	52	52	52	52	52	52	52	51	51	51	51	51	51	51	51	52	52	52	52	52	52	52	52	53	53	--	--	--	52
March																																
Maximum	54	53	52	53	53	53	54	54	54	54	55	56	56	57	57	56	57	59	59	58	58	58	58	58	58	59	60	60	60	61	61	57
Minimum	53	52	52	52	52	52	53	53	54	54	54	55	56	56	56	56	56	57	58	58	58	58	58	58	58	58	59	59	59	60	61	56
April																																
Maximum	63	63	63	65	65	65	65	65	65	65	66	67	67	68	68	68	68	67	67	68	68	68	68	69	69	69	68	69	69	69	--	67
Minimum	61	62	62	63	64	64	64	64	64	64	64	66	66	67	68	68	67	66	66	67	67	67	68	68	68	68	68	68	68	68	--	66
May																																
Maximum	69	70	70	70	69	69	70	70	69	69	70	71	72	72	71	72	72	72	74	73	73	73	73	73	74	74	74	74	74	74	74	72
Minimum	68	69	69	67	68	68	69	69	68	68	69	69	71	71	71	71	71	71	72	72	72	72	72	73	73	74	73	74	72	73	74	71
June																																
Maximum	74	73	73	73	73	73	73	72	72	73	73	73	73	74	74	75	73	74	74	74	74	74	74	74	74	75	75	75	75	75	--	74
Minimum	74	72	72	72	73	73	72	72	72	72	72	72	72	74	74	74	73	73	73	73	74	73	73	74	74	74	74	75	74	74	--	73
July																																
Maximum	75	75	75	76	77	76	76	76	76	76	77	77	77	76	--	--	--	--	--	--	--	--	--	--	--	--	77	77	77	77	78	--
Minimum	75	75	75	75	75	76	76	75	76	75	76	76	76	76	--	--	--	--	--	--	--	--	--	--	--	76	76	77	76	76	76	--
August																																
Maximum	78	78	79	78	78	77	77	77	77	77	77	78	78	78	78	78	78	78	78	79	79	78	79	79	79	79	78	78	78	77	77	78
Minimum	78	78	78	78	77	75	76	77	77	77	77	77	77	78	78	78	77	78	78	78	78	78	78	79	78	78	78	78	77	77	76	77
September																																
Maximum	77	77	76	77	76	76	76	77	76	76	75	74	74	73	74	76	75	75	74	75	76	77	77	76	75	75	74	74	74	74	--	75
Minimum	76	75	75	76	76	76	75	75	75	75	74	73	72	72	73	74	74	74	73	73	74	75	75	74	74	73	73	73	73	73	--	74

9-4291. COLORADO RIVER BELOW PALO VERDE DAM, ARIZ.-CALIF.

LOCATION.--Lat 33°43'10", long 114°29'50", temperature recorder at gaging station 1.2 miles downstream from Palo Verde Canal intake structure, 9.5 miles northeast of Blythe, Calif., and 11.0 miles upstream from Ehrenberg, Yuma County, Ariz.
DRAINAGE AREA.--182,200 square miles, approximately.
RECORDS AVAILABLE.--Water temperatures: April 1956 to August 1966 (discontinued).
EXTREMES, 1965-66.--Water temperatures: Maximum, 82°F Aug. 4-6.
EXTREMES, 1956-66.--Water temperatures: Maximum, 88°F Aug. 7, 11, 1958; minimum (1956-62, 1963-65), 47°F Jan. 31, Feb. 1, 4, 1960, Jan. 11-14, 17, 1964.
REMARKS.--Temperature recorder inoperative Jan. 1-31, Apr. 27 to May 6. Recorder removed Aug. 11.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	69	69	70	70	71	71	70	71	73	74	73	73	73	73	73	72	71	69	70	70	70	69	69	69	69	69	68	68	68	68	68	70
Minimum	69	69	69	70	70	70	70	71	71	73	73	73	73	72	72	71	69	69	69	70	70	70	69	69	69	69	68	68	68	68	68	70
November																																
Maximum	68	68	68	68	68	68	68	68	68	67	67	66	66	66	66	65	65	66	66	64	63	63	65	65	65	63	60	59	59	58	--	65
Minimum	68	68	68	68	68	68	68	68	67	67	66	66	66	66	65	65	65	65	65	63	61	63	63	65	64	63	60	59	59	58	--	65
December																																
Maximum	58	58	58	58	58	58	59	59	59	59	59	59	59	58	58	57	58	58	57	57	57	57	57	56	56	56	56	56	58	59	59	58
Minimum	58	58	58	58	58	58	58	59	59	59	58	58	58	58	57	57	57	57	57	57	57	56	56	55	55	55	55	55	56	58	57	57
January																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
February																																
Maximum	51	51	51	51	51	51	51	51	50	50	49	49	49	49	51	51	51	53	53	53	54	55	55	55	55	55	55	55	--	--	--	52
Minimum	50	50	50	50	51	51	51	50	49	49	47	47	47	47	50	50	50	52	53	53	53	54	54	54	54	54	54	54	--	--	--	51
March																																
Maximum	55	55	54	55	55	56	56	56	57	57	57	57	57	58	58	58	58	58	58	58	59	59	58	59	59	60	61	62	63	63	64	58
Minimum	55	54	52	54	55	55	56	56	56	56	57	57	57	57	58	58	57	57	58	58	58	58	57	58	58	59	60	61	62	62	63	57
April																																
Maximum	64	65	65	66	66	66	65	65	65	66	66	66	66	67	67	67	67	68	66	65	66	68	69	69	69	69	--	--	--	--	--	66
Minimum	64	64	64	65	64	65	65	65	65	65	65	65	66	66	67	67	67	66	65	65	65	66	68	69	69	69	--	--	--	--	--	66
May																																
Maximum	--	--	--	--	--	--	72	72	72	71	69	70	71	71	71	71	71	73	73	74	74	75	75	75	75	75	75	75	75	75	75	73
Minimum	--	--	--	--	--	--	72	71	71	69	69	69	70	71	71	71	71	72	72	73	73	74	74	74	74	74	73	74	73	72	72	72
June																																
Maximum	74	75	75	75	75	75	75	75	75	75	75	75	77	78	78	78	78	78	78	77	78	78	78	78	78	78	79	79	79	79	--	77
Minimum	72	72	73	73	74	74	73	72	72	74	74	74	75	76	77	77	76	75	75	74	76	75	75	75	76	77	77	78	77	77	--	75
July																																
Maximum	79	78	78	78	78	79	79	79	79	79	79	79	79	79	79	80	80	80	80	80	80	80	80	81	81	81	81	81	81	79	81	80
Minimum	77	76	75	76	76	76	78	76	78	78	78	78	77	77	77	78	79	79	78	78	79	79	79	80	80	80	80	80	79	78	78	78
August																																
Maximum	81	81	81	82	82	82	81	81	81	81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	80	80	80	81	81	81	80	80	81	80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
September																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

9-4293. COLORADO RIVER BELOW CIBOLA VALLEY, ARIZ.

LOCATION.--Lat 33°13'15", long 114°40'20", temperature recorder at gaging station, 6.7 miles south of Cibola, Yuma County, Ariz., 38 miles upstream from Imperial Dam, 39.7 miles downstream from Ehrenberg, Ariz., 52.1 miles downstream from Palo Verde diversion dam near Blythe, Calif, and at mile 620 on Colorado River Profile Survey map.
DRAINAGE AREA.--183,000 square miles, approximately.
RECORDS AVAILABLE.--Water temperatures: March 1956 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 85°F Aug. 2-5.
EXTREMES, 1956-66.--Water temperatures: Maximum, 88°F Aug. 1, 10, 11, 1959; minimum (1956-63), 41°F Jan. 14, 1963.
REMARKS.--Temperature recorder inoperative Oct. 15 to Feb. 24, Mar. 12-22.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	71	72	74	74	74	73	74	75	75	76	76	76	75	74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	68	69	71	72	72	71	72	72	73	73	73	73	74	73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
December																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
January																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
February																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	55	55	56	56	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	54	54	54	54	--	--	--	--
March																																
Maximum	57	56	54	53	53	55	57	58	59	60	60	--	--	--	--	--	--	--	--	--	--	--	62	60	62	62	65	66	69	70	71	--
Minimum	55	53	52	50	49	52	55	57	58	58	59	--	--	--	--	--	--	--	--	--	--	--	59	58	60	60	62	64	66	68	69	--
April																																
Maximum	70	69	69	69	67	67	68	68	68	68	68	68	68	70	70	71	71	70	66	65	66	68	70	70	72	72	72	70	72	73	--	69
Minimum	69	68	68	67	65	66	67	66	67	66	66	66	66	67	69	70	70	66	64	64	64	65	68	68	70	71	70	68	68	69	--	67
May																																
Maximum	73	74	75	75	75	76	76	76	74	72	70	72	75	75	75	75	76	77	78	78	78	78	77	78	79	79	78	78	77	77	76	76
Minimum	72	72	73	73	74	75	75	74	72	70	69	69	72	74	73	73	74	75	75	76	75	76	75	76	77	77	77	76	76	75	75	74
June																																
Maximum	76	76	77	78	78	78	77	75	76	78	79	79	80	81	81	81	80	81	81	78	79	79	80	80	80	81	82	83	82	82	--	79
Minimum	74	74	75	75	76	76	75	74	75	75	77	77	77	79	80	80	79	78	77	76	77	78	78	77	78	79	79	81	80	80	--	77
July																																
Maximum	82	81	80	80	81	81	81	81	81	82	83	83	81	81	82	82	83	84	84	82	83	84	84	84	84	84	84	83	82	81	81	82
Minimum	80	79	78	78	78	79	79	78	80	80	81	81	80	79	79	80	81	82	81	80	81	81	82	82	82	82	82	81	81	80	79	80
August																																
Maximum	83	85	85	85	85	84	84	84	84	84	84	84	84	84	84	84	84	83	84	84	83	82	82	84	84	84	84	83	82	81	80	84
Minimum	81	82	83	83	83	83	82	82	82	82	82	82	82	82	83	83	82	82	82	82	81	81	80	81	82	82	82	81	81	80	76	82
September																																
Maximum	78	79	80	81	81	81	82	82	82	82	81	80	78	78	80	81	83	83	80	79	81	82	83	83	81	79	77	75	74	76	--	80
Minimum	76	76	78	79	79	80	80	80	81	81	80	77	77	77	77	79	80	80	78	77	78	79	80	80	79	77	74	74	74	74	--	78

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

9-5225. GILA GRAVITY MAIN CANAL AT IMPERIAL DAM, ARIZ.-CALIF.

LOCATION.--Lat 32°52'35", long 114°27'15", temperature recorder at gaging station 3,200 feet downstream from intake at east end of Imperial Dam, Yuma County, Ariz.
RECORDS AVAILABLE.--Water temperatures: January 1956 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 89°F on several days during August; minimum, 46°F Dec. 25-27.
EXTREMES, 1956-66.--Water temperatures: Maximum, 89°F on several days during July and August of most years; minimum, 45°F Jan. 13-17, 1964.
REMARKS.--Temperature recorder inoperative on many days during period October to January.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	74	74	76	76	76	76	76	76	77	78	78	—	77	77	77	74	71	70	68	68	68	—	70	70	—	—	71	70	—	—	—	—
Minimum	73	73	73	75	75	75	75	75	76	77	77	—	77	77	74	71	70	68	67	67	67	—	69	69	—	—	70	70	—	—	—	—
November																																
Maximum	—	—	69	69	68	68	68	68	67	67	66	64	64	63	62	62	63	64	64	64	64	—	—	—	—	—	—	—	56	56	—	—
Minimum	—	—	69	68	68	68	68	67	67	66	64	64	63	62	62	62	62	63	64	64	64	—	—	—	—	—	—	—	56	54	—	—
December																																
Maximum	55	55	55	56	56	56	57	57	58	58	—	—	—	58	57	57	—	—	—	51	51	52	48	47	48	49	52	52	54	55	55	54
Minimum	54	55	55	55	56	56	56	57	58	58	—	—	—	57	57	56	—	—	—	51	51	48	47	47	46	46	46	52	52	54	55	53
January																																
Maximum	—	—	50	49	49	49	49	51	52	52	52	52	52	52	52	52	51	51	51	51	51	--	—	48	49	49	49	50	51	51	51	51
Minimum	—	—	49	49	49	49	49	49	51	52	52	52	51	51	52	51	51	51	51	51	50	—	—	49	49	48	48	49	50	50	50	50
February																																
Maximum	54	55	56	56	56	56	56	55	54	53	52	50	50	50	50	50	51	52	54	54	54	55	54	55	55	55	55	56	—	—	—	54
Minimum	50	53	54	55	55	56	56	54	53	52	50	50	50	50	50	50	50	51	52	53	54	54	54	55	55	55	55	55	—	—	—	53
March																																
Maximum	56	55	53	52	52	52	53	56	57	58	60	61	61	62	62	62	62	62	62	62	63	62	62	59	59	60	60	63	65	67	69	60
Minimum	56	53	52	52	51	51	52	53	56	57	58	59	60	60	60	61	61	60	61	60	61	61	59	58	58	59	59	60	63	65	66	58
April																																
Maximum	69	73	73	72	71	70	70	71	71	71	71	71	71	71	73	75	74	74	71	68	68	69	70	72	74	74	74	74	74	75	—	72
Minimum	67	71	71	71	69	69	69	70	70	70	70	70	70	70	71	73	73	72	68	66	66	67	68	70	71	73	73	72	72	73	—	70
May																																
Maximum	77	77	77	78	80	79	80	79	77	75	74	75	76	78	78	78	78	80	81	81	82	82	82	82	82	82	82	81	80	80	80	79
Minimum	74	76	76	77	78	78	78	77	75	74	73	73	74	75	77	76	77	78	79	79	79	79	79	80	80	80	80	79	78	78	79	77
June																																
Maximum	78	78	78	79	80	80	78	77	76	79	80	81	82	83	84	84	83	83	82	80	81	81	81	82	83	83	83	84	84	84	—	81
Minimum	77	77	77	77	77	78	77	76	76	76	77	79	80	81	82	82	81	81	79	78	79	79	79	80	80	81	82	83	83	83	—	79
July																																
Maximum	84	84	84	83	83	83	83	83	84	85	85	85	85	84	84	84	85	86	86	86	86	86	87	88	88	87	88	87	85	84	84	85
Minimum	83	82	82	81	81	82	82	81	82	83	83	83	83	83	83	84	84	84	84	84	84	84	85	86	85	86	86	85	84	83	83	83
August																																
Maximum	86	88	88	89	88	89	89	89	89	89	88	88	88	89	89	89	88	88	88	87	87	85	85	86	86	86	87	86	86	85	84	87
Minimum	85	85	87	87	87	87	87	87	88	87	87	87	86	87	88	88	87	86	86	85	85	83	83	84	85	85	85	85	84	83	81	86
September																																
Maximum	81	80	82	83	83	83	84	84	85	85	84	83	81	80	82	83	85	85	84	82	82	85	84	84	84	84	81	78	76	76	—	82
Minimum	79	79	79	81	82	82	83	83	83	83	83	82	80	79	79	81	83	84	83	80	80	83	83	83	83	81	78	76	76	75	—	81

9-5255. YUMA MAIN CANAL BELOW COLORADO RIVER SIPHON, AT YUMA, ARIZ.
(Irrigation network station)

LOCATION.--Lat 32°43'50", long 114°37'10", at gaging station on Yuma Main Canal below Colorado River siphon on Arizona side of river, 3.5 miles downstream from siphon-drop powerplant, and 0.2 mile downstream from upper highway bridge over Colorado River at Yuma, Yuma County.
RECORDS AVAILABLE.--Chemical analyses: September 1926 to September 1928, October 1942 to September 1966.
Water temperatures: May 1961 to September 1966.
EXTREMES, 1965-66.--Dissolved solids: Maximum, 982 ppm Nov. 1-30; minimum, 676 ppm Sept. 14.
Hardness: Maximum, 414 ppm Nov. 1-30; minimum, 295 ppm Sept. 14.
Specific conductance: Maximum daily, 1,670 micromhos Nov. 26, 27, Dec. 1; minimum daily, 1,150 micromhos Jan. 6.
EXTREMES, 1943-66.--Dissolved solids: Maximum, 1,000 ppm Jan. 1-31, 1957; minimum, 532 ppm Jan. 1-10, 1953.
Hardness: Maximum, 520 ppm July 7, 1962; minimum, 260 ppm Jan. 1-10, 1953.
Specific conductance: Maximum daily, 1,670 micromhos Nov. 26, 27, Dec. 1, 1965; minimum daily, 795 micromhos Jan. 5, 1953.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 1-31, 1965..	427	16	--	102	35	168	--	168	0	381	164	--	0.9	--	950	1.29	1100	400	262	3.7	1490	8.1
Nov. 1-30.....	221	14	--	107	36	176	--	186	0	385	172	--	1.3	--	982	1.34	586	414	261	3.8	1550	8.1
Dec. 1-31.....	61.0	14	--	98	32	164	--	184	0	343	158	--	1.5	--	900	1.22	148	376	225	3.7	1430	8.2
Jan. 1-21, 1966..	147	17	--	92	27	153	--	186	0	301	147	--	1.6	--	830	1.13	329	342	189	3.6	1310	8.2
Feb. 1-28.....	380	14	--	104	30	155	--	180	0	358	141	--	1.7	--	893	1.21	916	384	236	3.4	1380	8.2
Mar. 1-31.....	470	14	--	104	33	150	--	178	0	360	140	--	1.9	--	891	1.21	1150	394	248	3.3	1380	8.2
Apr. 1-30.....	539	14	--	104	32	152	--	174	0	366	140	--	1.9	--	896	1.22	1300	392	249	3.3	1390	8.2
May 1-30.....	575	12	--	106	32	158	--	173	0	378	144	--	1.5	--	916	1.25	1420	396	254	3.5	1420	8.1
June 1-30.....	549	14	0.03	102	32	152	5.6	170	0	366	140	0.5	1.0	0.39	964	1.31	1430	388	249	3.4	1390	8.2
July 1-31.....	622	14	--	100	32	151	--	166	0	365	137	--	1.4	--	882	1.20	1480	382	246	3.4	1370	8.0
Aug. 1-31.....	540	15	--	97	33	149	--	162	0	358	137	--	1.2	--	870	1.18	1270	376	243	3.3	1350	8.0
Sept. 1-13.....	580	21	--	96	34	152	--	166	0	363	138	--	1.3	--	887	1.21	1390	380	244	3.4	1360	8.0
Sept. 14.....	517	13	--	77	25	115	--	144	0	269	104	--	1.9	--	676	.51	525	295	177	2.9	1070	7.8
Sept. 15-30.....	524	14	.00	96	34	150	6.4	168	0	357	138	.5	1.0	.23	911	1.24	1290	380	242	3.4	1360	8.0
Weighted average.....	--	14	--	101	33	155	--	172	--	364	143	--	1.4	--	905	1.23	1030	387	246	3.4	1390	8.1
Time-weighted average.....	423	15	--	101	32	156	--	174	--	360	146	--	1.4	--	905	--	--	385	242	3.5	1400	8.1
Tons per day...	--	17	--	116	37	177	--	196	--	416	164	--	1.6	--	--	--	--	--	--	--	--	--

DIVERIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM--Continued

9-5255. YUMA MAIN CANAL BELOW COLORADO RIVER SIPHON, AT YUMA, ARIZ.--Continued

Specific conductance (micromhos at 25°C), water year October 1965 to September 1966

Day	October	November	December	January	February	March	April	May	June	July	August	September
1.....	1440	1520	1670	--	1450	1360	1400	1450	1390	1370	1310	1370
2.....	--	1520	1610	--	1480	1370	1410	1400	1400	1370	1310	1370
3.....	--	1500	1590	1250	1440	1400	1400	1410	1400	1380	1350	1380
4.....	1480	--	1460	1320	1390	1390	1380	1420	1410	1370	1350	1390
5.....	1450	1510	1400	1220	1430	1390	1370	1430	1410	1360	1360	1390
6.....	1450	1520	1390	1150	1380	1410	1360	1430	1440	1360	1380	1350
7.....	1450	1530	1450	1230	1380	1410	1380	1420	1420	1360	1380	1340
8.....	1420	1560	1430	1330	1330	1360	1370	1410	1400	1380	1370	1340
9.....	--	1530	1410	--	1310	1350	1370	1430	1390	1380	1330	1370
10.....	--	1520	1400	1400	1350	1360	1390	1390	1380	1410	1280	1340
11.....	1500	1520	--	1380	1380	1370	1390	--	1390	1390	1340	1340
12.....	1400	--	--	1300	1350	1370	1390	1410	1380	1350	1340	1340
13.....	1460	1500	--	1200	1400	1400	1400	1400	1360	1370	1340	1340
14.....	1440	1500	1390	1210	1400	1380	1410	1400	1370	1360	1360	1070
15.....	1460	1510	1450	1260	1410	1350	1400	--	1370	1360	--	1280
16.....	1510	--	1470	1270	1420	1370	1430	--	1370	1370	1340	1310
17.....	1460	1490	1520	1250	1390	1360	1340	--	1370	1370	1330	1310
18.....	1550	1460	1510	1310	1390	1370	--	--	1380	1320	1340	1340
19.....	1570	1460	--	1330	1380	1370	--	--	1380	1370	1340	1360
20.....	1510	--	--	1350	1360	1370	1400	--	1360	1360	1350	1390
21.....	1490	--	--	1280	1370	1390	1400	--	1300	1320	1380	1380
22.....	1510	--	--	1290	1360	1370	1420	--	1360	1360	--	1360
23.....	1450	--	1420	1240	1350	1370	1420	1440	1370	1370	--	1380
24.....	1530	--	1320	1310	1350	1380	1420	1410	1380	1390	--	1340
25.....	1560	--	--	1390	1350	1380	1400	1420	1380	1370	1380	1380
26.....	1590	1670	--	1430	1360	1370	1420	1400	1390	1370	1320	1390
27.....	1520	1670	1270	1420	1360	1390	1400	--	1390	1370	1360	1390
28.....	1490	1640	1350	1380	1370	1350	1410	--	1390	1360	1380	1370
29.....	--	1640	1430	1380	--	1400	1420	--	1400	1360	1360	1360
30.....	1490	1660	1280	1420	--	1390	1410	--	1400	1360	1340	1360
31.....	1510	--	1290	1440	--	1390	--	--	--	1360	1320	--
Average	1490	--	--	1310	1380	1380	1400	--	1380	1370	1350	1350

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October.....	70	--	--	72	76	73	75	73	--	--	75	75	77	77	75	70	68	69	67	70	67	68	67	68	68	68	69	71	--	69	69	71
November.....	67	67	68	--	67	66	65	68	68	65	67	--	65	62	62	--	64	64	64	--	--	--	--	--	--	63	61	60	57	55	--	--
December.....	55	55	55	55	56	56	56	58	59	57	--	--	--	56	56	57	55	54	--	--	--	--	50	49	--	--	49	49	52	53	52	--
January.....	--	--	49	50	48	49	50	51	--	50	52	53	52	51	51	53	52	51	50	51	49	48	48	48	48	48	48	48	48	49	50	50
February.....	50	52	52	52	52	51	55	51	49	51	49	47	49	47	47	48	48	49	51	51	54	55	55	55	55	55	54	54	--	--	--	51
March.....	56	55	53	52	53	53	54	56	56	57	59	59	61	60	60	62	62	62	62	63	61	61	61	63	60	60	62	61	64	66	67	59
April.....	68	69	70	69	67	66	66	67	67	68	67	68	68	69	69	70	70	--	--	67	63	64	65	68	69	67	71	70	70	70	--	68
May.....	71	73	74	75	76	76	77	76	74	71	--	71	72	72	--	--	--	--	--	--	--	--	81	79	80	79	--	--	--	--	--	--
June.....	70	75	75	75	77	78	76	75	75	76	76	78	78	80	81	81	81	80	81	78	78	78	79	79	80	79	83	82	83	82	--	78
July.....	83	82	81	80	81	82	83	83	82	83	83	83	82	82	83	83	84	84	85	85	85	85	85	86	86	86	86	86	84	83	83	84
August.....	84	85	85	87	86	86	86	86	86	87	86	86	85	88	--	86	85	85	86	85	85	--	--	--	85	85	85	85	84	83	80	85
September.....	79	78	78	79	81	81	82	82	82	83	83	82	81	79	80	81	81	83	82	81	80	81	83	82	82	81	79	77	77	76	--	81

PART 10. THE GREAT BASIN

MOJAVE RIVER BASIN

10-2635. BIG ROCK CREEK NEAR VALYERMO, CALIF.

LOCATION.--Lat 34°25'15", long 117°50'19", temperature recorder at gaging station 0.1 mile upstream from Punchbowl Canyon, and 1.9 miles southeast of Valyermo, Los Angeles County.
DRAINAGE AREA.--23.0 square miles.
RECORDS AVAILABLE.--Water temperatures: January 1962 to September 1966.
EXTREMES,1962-65.--Water temperatures: Maximum, 65°F June 20, 21, 1962, Aug. 14-17, 1963, Aug. 10, 1965; minimum, 43°F Feb. 16, Dec. 18, 1964.
REMARKS.--No record Nov. 22 to Dec. 22; temperature probe buried in silt. Clock stopped May 18-25, temperature range, 52°F to 63°F. Probe exposed to air July 13 to Sept. 30.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	59	60	60	60	60	60	60	60	60	60	60	60	60	59	57	56	57	58	58	59	58	58	58	58	58	58	58	58	58	58	58	59
Minimum	54	55	56	56	56	56	56	56	56	56	56	56	56	54	54	54	53	54	54	54	55	54	54	55	54	54	55	55	55	55	55	55
November																																
Maximum	58	58	58	58	57	57	56	57	56	56	56	56	55	55	56	56	53	54	53	52	53	—	—	—	—	—	—	—	—	—	—	—
Minimum	55	55	54	54	54	54	53	54	53	53	52	53	54	54	54	55	52	53	52	51	52	—	—	—	—	—	—	—	—	—	—	—
December																																
Maximum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49	50	50	50	51	51	50	49	49	—
Minimum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	48	48	49	49	50	50	48	47	48	—
January																																
Maximum	49	49	50	51	51	52	52	53	52	52	51	50	50	50	51	49	49	50	50	50	49	51	50	50	50	51	51	52	51	50	52	51
Minimum	47	47	48	48	48	49	49	49	48	49	50	49	48	49	49	48	48	48	48	48	47	47	47	47	47	47	47	47	47	43	47	48
February																																
Maximum	52	52	52	53	53	51	48	51	51	48	51	52	51	51	50	50	49	50	50	50	50	50	50	51	50	50	51	52	—	—	—	51
Minimum	48	47	48	48	49	48	44	46	46	47	46	46	45	46	46	46	47	48	46	47	48	48	48	49	48	48	48	48	—	—	—	47
March																																
Maximum	51	49	50	50	50	51	53	53	53	53	54	54	54	54	55	54	53	54	54	54	54	54	51	50	52	54	54	56	56	56	56	53
Minimum	48	47	46	46	47	48	49	49	48	48	49	50	50	48	49	50	48	49	50	50	48	49	48	49	50	50	50	50	50	50	50	49
April																																
Maximum	56	56	56	55	56	57	57	57	57	56	57	56	57	57	58	58	57	54	55	55	58	58	58	58	58	58	58	59	59	60	—	57
Minimum	50	50	51	50	50	50	50	50	50	51	51	50	50	50	50	50	52	50	50	50	50	50	50	50	51	52	51	50	50	51	—	50
May																																
Maximum	60	60	62	61	61	62	59	58	59	59	60	60	62	61	61	61	62	—	—	—	—	—	—	—	—	64	64	63	63	62	62	—
Minimum	52	52	53	53	53	53	53	52	52	51	52	52	52	52	52	52	52	—	—	—	—	—	—	—	—	54	54	52	53	51	51	—
June																																
Maximum	62	62	62	63	62	62	63	60	62	65	65	65	66	66	66	67	65	65	62	66	65	65	65	65	65	67	67	66	66	66	—	64
Minimum	52	51	52	52	53	54	53	53	54	54	54	54	55	55	55	56	54	54	55	55	55	55	53	54	55	55	55	55	55	55	—	54
July																																
Maximum	66	66	66	65	66	67	66	67	67	66	66	65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Minimum	55	53	55	55	55	55	56	57	57	56	55	55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
August																																
Maximum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Minimum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
September																																
Maximum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Minimum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

MISCELLANEOUS ANALYSES OF STREAMS IN MOJAVE RIVER BASIN

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
10-2605.5. WEST FORK MOJAVE RIVER ABOVE CEDAR SPRINGS, CALIF. (345520 1174510)																		
Nov. 22, 1965.....	1930	--		500	42300	59200	7	9	11	19	27	37	58	78	97	100		SPWC
Dec. 3.....	1045	48		28	11	.8												
Mar. 14, 1966.....	1245	57		3.5	3	T												
10-2607. EAST FORK OF WEST FORK MOJAVE RIVER ABOVE CEDAR SPRINGS, CALIF. (341618 1171730)																		
Nov. 22, 1965.....	1700			1330	15100	54100												
Dec. 3.....	0955	--		39	278	29												
Mar. 14, 1966.....	1130	51		7.7	7	.2												
10-2608. WEST FORK OF MOJAVE RIVER BELOW CEDAR SPRINGS, CALIF. (341825 1171840)																		
Dec. 3, 1965.....	1235	53		4	64	0.7						--	--	--	--			
Dec. 30.....	1500	43		425	1680	1930						28	45	72	88	99	100	V
Mar. 14, 1966.....	1345	63		44	74	8.8						25	38	87	100			V

T Less than 0.05 ton.

MISCELLANEOUS ANALYSES OF STREAMS IN WALKER LAKE BASIN

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
10-2930. EAST WALKER RIVER NEAR BRIDGEPORT, CALIF. (381940 1191250)																						
Nov. 16, 1965.....	14					10		105	0		0.7			0.0				75	0	0.5	193	8.2
Jan. 11, 1966.....	165					14		122	0		2.0			.1				82	0	.7	229	8.2
Mar. 22.....	74					17		110	0		2.7			.1				70	0	.9	216	8.2
May 10.....	258	14		24	3.6	14	2.8	115	0	11	1.9		0 5	.1	132	0.18		75	0	.7	210	7.7
10-2960. WEST WALKER RIVER BELOW LITTLE WALKER RIVER, NEAR COLEVILLE, CALIF. (382245 1192700)																						
Nov. 16, 1965.....	46					7.0		60	0		0.7			0.0				40	0	0.5	111	8.1
Jan. 11, 1966.....	72					6.0		60	0		.8			.0				40	0	.4	110	8.0
Mar. 22.....	112					5.9		57	0		.8			.0				40	0	.4	105	8.1
May 10.....	704	6.5		5.6	0.7	1.9	0.5	23	0	1.0	.2		0.2	.0	33	0.04		17	0	.2	42	7.5

MISCELLANEOUS ANALYSES OF STREAMS IN CARSON RIVER BASIN

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
10-3082. EAST FORK CARSON RIVER NEAR MARKLEEVILLE, CALIF. (384250 1194550) (Formerly published as station number, 10-3065.)																						
Nov. 16, 1965.....	151					8.1		61	0		2.2			0.0				45	0	0.5	126	8.1
Jan. 11, 1966.....	125					8.8		72	0		2.0			.2				58	0	.5	159	8.0
Mar. 22.....	242					9.0		67	0		2.3			.2				50	0	.6	140	8.2
May 10.....	1070	14		6.6	1.5	3.8	0.9	32	0	3.0	.5		0.2	.0	52	0.07		22	0	.4	61	7.2
10-3100. WEST FORK CARSON RIVER AT WOODFORDS, CALIF. (384610 1194955)																						
Nov. 16, 1965.....	26					3.4		40	0		0.4			0.0				28	0	0.3	74	7.9
Jan. 11, 1966.....	35					3.5		39	0		.2			.0				27	0	.3	73	7.7
Mar. 22.....	65					3.6		39	0		.3			.0				31	0	.3	70	7.9
May 10.....	290	12		6.0	1.0	1.9	0.5	25	0	1.0	.2		0.3	.0	41	0.06		19	0	.2	46	7.4

10-3459. TRUCKEE RIVER AT FLORISTON, CALIF.
(Formerly published as station number 10-3460)

LOCATION.--Lat 39°23'40", long 120°01'25", at bridge at Floriston, Nevada County, 0.2 mile above flume diversion, 2.5 miles upstream from gage, and 1.8 miles upstream from Farad.
DRAINAGE AREA.--932 square miles, upstream from gaging station.
RECORDS AVAILABLE (revised).--Chemical analyses: October 1958 to September 1961, January 1964 to September 1966.
Water temperatures: January 1964 to September 1966.
EXTREMES, 1965-66.--Dissolved solids: Maximum, 77 ppm Mar. 1-28; minimum, 53 ppm May 1-31.
Hardness: Maximum, 40 ppm Feb. 1 to Mar. 28; minimum, 26 ppm May 1-31.
Specific conductance: Maximum daily, 124 micromhos Feb. 19; minimum daily, 60 micromhos May 22.
Water temperatures: Maximum, 66°F July 23-25; minimum, freezing point on several days during January.
EXTREMES, 1964-66.--Dissolved solids: Maximum, 85 ppm Dec. 1-21, 1964; minimum, 45 ppm Dec. 22-31, 1964.
Hardness: Maximum, 43 ppm Mar. 1-31, 1964; minimum, 18 ppm Dec. 22-31, 1964.
Specific conductance: Maximum daily, 141 micromhos Feb. 3, 1964; minimum daily, 39 micromhos Dec. 23, 1964.
Water temperatures: Maximum, 68°F July 24, 1964; minimum, freezing point on several days during winter months.
REMARKS.--Maximum Boron (B) for water year, 0.1 ppm May 1-31. Records of daily discharge data given for Truckee River at Farad. Reported as a monthly station, 10-3460. Truckee River at Farad, Calif., for period October 1958 to September 1961.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Phosphate (PO_4)	Dissolved solids			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 1-31, 1965..	559	19	--	8.8	2.1	4.1	1.2	44	0	3.0	1.2	0.0	0.4	0.00	65	0.09	98.1	30	0	0.3	83	7.7
Nov. 1-22.....	447	25	--	9.2	3.0	4.8	1.3	47	0	5.0	1.5	.0	.3	.00	73	.10	88.1	36	0	.4	94	7.1
Dec. 1-15.....	1560	16	0.00	9.2	2.7	5.9	1.8	51	0	3.0	1.3	.1	.3	--	69	.09	291	34	0	.4	91	7.1
Jan. 1-31, 1966..	901	17	.00	9.8	2.7	5.9	1.8	52	0	3.0	1.6	.0	.2	--	72	.10	175	36	0	.4	97	7.4
Feb. 1-28.....	382	18	.01	11	3.0	6.6	1.3	58	0	3.0	2.3	.1	.4	.00	75	.10	77.4	40	0	.5	112	7.4
Mar. 1-28.....	574	19	.07	11	3.0	5.3	1.6	53	0	4.0	2.4	.2	.8	.01	77	.10	119	40	0	.4	104	7.5
Mar. 29-31.....	906	19	.07	9.4	2.3	4.2	1.1	42	0	4.0	1.5	.1	1.1	.02	64	.09	157	33	0	.3	87	7.1
Apr. 1-31.....	691	18	.02	8.0	2.6	4.1	1.1	40	0	3.0	1.2	.1	1.8	--	62	.08	116	30	0	.3	82	7.3
May 1-31.....	939	17	.04	6.0	2.6	3.3	1.1	34	0	3.0	.8	.1	1.5	.03	53	.07	134	26	0	.3	66	7.7
June 1-30.....	525	20	.00	8.0	2.5	3.8	1.2	40	0	3.0	1.0	.1	1.1	.03	62	.08	87.9	30	0	.3	79	7.0
July 1-31.....	568	19	.00	9.5	2.8	5.6	1.6	48	0	3.0	1.4	.1	1.3	.03	68	.09	104	36	0	.4	94	7.7
Aug. 1-31.....	574	15	.01	9.5	2.7	5.7	1.7	50	0	2.0	1.3	.1	.8	.01	64	.09	99.2	34	0	.4	97	8.0
Sept. 1-6.....	515	14	.00	9.3	2.7	5.5	1.6	57	0	1.0	1.1	.0	.0	.03	63	.09	87.6	34	0	.4	96	7.4
Sept. 7-12.....	471	15	.00	7.9	2.3	3.3	1.1	42	0	2.0	.8	.0	.0	.02	56	.08	71.2	29	0	.3	74	7.5
Sept. 13-30.....	500	14	.00	9.4	2.8	5.2	1.5	54	0	1.0	1.1	.0	.0	.02	63	.09	85.1	35	0	.4	95	7.6
Weighted average	--	18	0.02	8.9	2.5	4.9	1.4	47	--	3.0	1.4	0.1	0.8	--	65	0.09	116	33	0	0.3	87	7.3
Time-weighted average.....	657	18	0.02	9.1	2.4	4.9	1.4	47	--	3.0	1.4	0.1	0.8	--	66	--	--	33	0	0.3	88	7.3
Tons per day...	--	31	0.03	16	4.4	8.7	2.6	82	--	5.3	2.4	0.1	1.5	--	--	--	--	--	--	--	--	--

10-3459. TRUCKEE RIVER AT FLORISTON, CALIF.--Continued

Specific conductance (micromhos at 25°C), water year October 1965 to September 1966

Day	October	November	December	January	February	March	April	May	June	July	August	September
1	80	86	102	102	112	116	82	68	77	85	102	97
2	78	85	98	100	114	108	82	67	76	83	94	95
3	80	86	95	100	109	107	82	68	77	87	88	95
4	80	87	95	101	110	109	83	64	77	85	87	97
5	80	88	95	97	114	109	84	63	76	85	88	97
6	80	87	99	97	105	111	81	65	--	89	89	95
7	80	89	100	99	107	110	80	67	77	91	88	73
8	81	89	99	97	106	113	80	65	78	93	92	75
9	79	88	100	102	104	111	80	64	76	93	92	74
10	81	96	100	98	107	114	83	65	77	94	93	75
11	80	96	99	97	108	107	82	66	77	95	95	75
12	83	--	101	98	108	110	85	66	83	95	94	76
13	83	--	100	97	108	102	88	67	87	96	94	93
14	84	--	101	101	109	108	87	--	--	--	94	93
15	78	--	101	99	111	100	85	65	76	98	95	92
16	79	98	--	99	121	97	76	64	78	96	95	90
17	80	96	--	100	121	99	83	66	77	97	95	89
18	81	94	--	98	121	99	75	65	77	98	94	89
19	80	93	--	101	124	97	83	63	77	96	95	89
20	82	94	--	99	113	97	86	65	80	96	95	89
21	81	93	--	101	111	97	85	61	76	97	94	89
22	84	94	--	99	110	102	81	60	75	96	94	90
23	82	--	--	99	110	99	79	65	73	108	95	90
24	81	--	--	99	112	--	83	66	74	97	95	90
25	87	--	--	101	--	99	79	--	75	98	95	96
26	82	--	--	101	110	96	71	64	74	97	95	96
27	83	--	--	110	113	96	72	63	78	97	94	108
28	86	--	--	110	--	--	75	66	78	96	95	108
29	84	--	--	109	--	89	72	66	76	98	95	108
30	86	--	--	111	--	84	70	67	81	97	95	107
31	85	--	--	120	--	85	--	73	--	96	95	--
Average	81	--	--	101	111	102	80	65	77	94	93	91

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	53	52	52	52	52	52	51	51	51	51	50	50	52	52	51	51	50	49	50	49	49	49	49	53	52	49	50	49	49	48	48	51
November	47	48	46	46	47	48	47	46	48	42	48	--	--	--	--	42	42	41	41	40	40	39	--	--	--	--	--	--	--	--	--	--
December	43	44	45	45	45	43	44	41	42	42	43	43	42	38	34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
January	35	34	40	40	34	38	37	40	39	38	37	38	39	39	39	39	38	32	32	32	32	32	32	37	35	34	36	37	35	33	35	36
February	35	33	35	40	40	38	34	35	33	35	34	35	32	32	36	35	36	36	40	35	38	38	40	40	--	36	34	--	--	--	--	36
March	46	37	35	33	34	43	43	43	40	41	38	40	43	40	40	39	35	36	40	40	40	40	39	--	41	41	42	--	45	43	43	40
April	43	37	40	39	40	42	44	43	42	46	45	42	45	46	45	46	45	42	40	43	44	45	52	50	50	45	48	45	46	46	--	44
May	47	47	49	45	45	48	49	49	49	50	51	51	55	--	48	47	48	--	50	54	54	54	52	52	--	51	53	52	54	51	52	50
June	53	50	51	54	52	--	49	57	57	56	61	56	57	--	57	59	59	60	60	60	57	58	57	57	64	60	60	60	61	65	--	57
July	59	58	58	--	60	60	60	60	60	60	59	59	58	--	62	60	59	60	60	60	61	65	66	66	66	65	60	64	62	65	63	61
August	65	65	65	65	65	65	64	64	64	65	63	64	64	65	64	64	64	64	64	63	63	63	60	64	64	62	62	60	60	56	57	63
September	58	56	56	56	56	55	55	57	54	56	55	56	57	57	57	58	55	56	57	57	57	58	56	56	56	56	55	55	56	57	--	56

MISCELLANEOUS ANALYSES OF STREAMS IN PYRAMID AND WINNEMUCCA LAKES BASIN

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
10-3370. LAKE TAHOE AT TAHOE, CALIF. (391004 1200823)																						
Nov. 15, 1965....						5.9		48	0		1.0			0.0				32	0	0.5	91	8.0
Jan. 10, 1966....						5.7		50	0		1.1			.0				32	0	.4	92	8.0
Mar. 21.....						6.4		50	0		1.6			.0				32	0	.5	95	8.0
May 9.....		11		9.2	2.2	6.1	1.5	50	0	1.0	1.5		0.1	.0	58	0.08		32	0	.5	90	7.8
10-3380. TRUCKEE RIVER NEAR TRUCKEE, CALIF. (391730 1201230)																						
Nov. 15, 1965....						5.9		50	0		1.3			0.0				38	0	0.4	105	8.0
Jan. 10, 1966....						6.1		50	0		1.2			.0				34	0	.5	94	8.1
Mar. 21.....						6.1		48	0		4.4			.0				40	1	.4	113	8.0
May 9.....		13		7.0	1.6	3.2	0.8	31	0	4.0	.7		0.4	.0	48	0.07		24	0	.3	63	7.5

10-3565. SUSAN RIVER AT SUSANVILLE, CALIF.

LOCATION.--Lat 40°25'05", long 120°40'15", at gaging station 0.5 mile west of Susanville, Lassen County, and 1.1 miles upstream from Piute Creek.
DRAINAGE AREA.--184 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965....	8.8	--		--	--	6.2	--	104	2	--	0.5		--	0.2	--	--		78	0	0.3	173	8.5
Nov. 3.....	9 8	--		--	--	5.8	--	97	6	--	.5		--	.0	--	--		78	0	.3	170	8.4
Dec. 14.....	12	--		--	--	5.8	--	98	0	--	.9		--	.0	--	--		71	0	.3	158	8.1
Jan. 19, 1966....	24	--		--	--	5.3	--	92	0	--	.8		--	.0	--	--		68	0	.3	138	8.0
Feb. 9.....	22	--		--	--	5.9	--	94	0	--	1.2		--	.0	--	--		67	0	.3	155	8.2
Mar. 24.....	67	--		--	--	4.9	--	69	0	--	1.0		--	.0	--	--		53	0	.3	122	8.2
Apr. 19.....	120	--		--	--	3.9	--	54	0	--	.2		--	.0	--	--		40	0	.3	93	8.1
May 5.....	90	22		11	3.3	3.8	0.9	54	0	2.0	.4		0.7	.0	74	0.10		41	0	.3	94	7.6
June 9.....	144	--		--	--	2.1	--	34	0	--	.2		--	.0	--	--		26	0	.2	58	7.9
July 5.....	7 3	--		--	--	5.0	--	89	0	--	.2		--	.0	--	--		63	0	.3	141	7.9
Aug. 15.....	1 1	--		--	--	7.2	--	131	2	--	.6		.6	.0	--	--		95	0	.3	206	8.4
Sept. 7.....	2 2	34		19	10	7.1	2.5	124	2	1.0	.6		.3	.0	142	.19		88	0	.3	197	8.3

SANTA CLARA RIVER BASIN

11-1115. SESPE CREEK NEAR WHEELER SPRINGS, CALIF.

LOCATION.--Lat 34°34'40", long 119°15'25", temperature recorder at gaging station at Sespe Gorge, 1.6 miles upstream from Tule Creek, 5 miles upstream from Cold Springs damsite, and 5 miles northeast of Wheeler Springs, Ventura County.
DRAINAGE AREA.--49.5 square miles.
RECORDS AVAILABLE.--Water temperatures: February 1962 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 76°F Aug. 17, 18; minimum, 37°F Jan. 29, 30.
EXTREMES, 1962-66.--Water temperatures: Maximum, 84°F Aug. 11, 1964; minimum (1962-64, 1965-66), 35°F Mar. 16, 1963.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	61	60	61	60	61	62	63	63	61	61	62	62	60	56	58	54	53	55	58	57	59	59	58	56	56	56	56	56	55	54	54	58
Minimum	51	51	51	50	53	53	54	55	53	53	54	54	54	54	53	47	48	50	52	51	54	52	51	50	50	50	50	51	50	50	50	52
November																																
Maximum	53	51	51	51	51	50	49	51	51	50	50	48	50	50	51	51	50	50	51	52	54	55	54	52	52	50	50	49	48	48	--	51
Minimum	49	47	46	47	48	46	46	48	48	48	47	46	48	50	49	50	50	50	50	51	52	54	52	52	50	49	48	48	47	48	--	49
December																																
Maximum	48	48	48	48	48	48	48	48	49	49	49	48	48	47	46	44	44	42	42	43	46	44	40	42	42	43	44	44	45	46	45	46
Minimum	48	48	48	47	47	47	47	47	48	49	48	48	47	42	42	42	41	39	39	40	42	40	39	40	40	41	42	41	44	40	44	44
January																																
Maximum	45	44	44	44	45	46	46	47	47	46	47	47	45	47	48	47	46	48	49	50	49	49	48	49	46	47	48	42	42	41	43	46
Minimum	44	42	42	43	44	45	43	45	43	43	46	44	42	45	44	43	43	46	45	47	45	44	46	45	41	43	45	38	37	37	39	43
February																																
Maximum	44	43	46	47	47	47	44	42	44	44	44	45	46	46	46	46	46	47	47	49	48	52	50	50	50	50	50	50	--	--	--	47
Minimum	42	39	40	42	42	44	42	39	41	43	42	44	44	44	44	43	43	44	43	45	44	47	46	48	46	46	47	43	--	--	--	43
March																																
Maximum	49	46	45	45	48	49	49	49	49	52	52	52	52	52	53	53	50	51	52	54	53	54	49	50	50	--	--	--	--	--	--	50
Minimum	44	42	40	40	43	44	44	44	43	46	47	47	47	47	47	46	43	43	45	45	44	44	43	44	44	--	--	--	--	--	--	44
April																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
May																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
June																																
Maximum	--	--	--	--	--	--	--	--	64	66	67	67	67	68	69	67	66	66	66	69	67	66	66	66	67	68	69	68	69	68	--	--
Minimum	--	--	--	--	--	--	--	--	56	57	58	58	57	59	61	58	56	56	58	59	58	57	57	57	57	59	59	58	59	58	--	--
July																																
Maximum	67	67	67	66	67	67	68	66	67	66	65	65	67	68	67	67	68	70	67	70	70	70	71	73	73	73	74	74	72	70	74	69
Minimum	57	58	57	56	57	58	58	48	58	56	56	54	57	57	57	56	57	59	61	61	59	59	61	63	63	63	63	64	63	66	63	59
August																																
Maximum	73	71	72	74	74	73	73	73	72	71	71	73	73	73	74	75	76	76	75	74	72	72	72	72	73	73	72	72	71	67	66	73
Minimum	63	67	66	66	66	64	64	63	62	62	62	62	63	63	64	64	66	66	65	62	61	59	59	59	59	60	59	58	60	57	56	62
September																																
Maximum	67	68	69	70	71	68	67	66	67	67	66	64	63	63	64	66	69	64	60	62	66	67	69	69	65	66	67	68	64	64	--	66
Minimum	56	57	59	60	60	58	56	53	56	55	56	54	53	52	53	53	57	61	56	54	56	56	59	58	57	56	57	58	61	61	--	57

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water;
P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
11-1080.7. ELIZABETH LAKE CANYON CREEK NEAR CASTAIC, CALIF. (343340 1183410)																	
Nov. 20, 1965.....	--	56		15	8670	351	--	--	--	--	--	--	--	--	--	--	--	
Nov. 22.....	1700	--		300	69000	58000	4	7	9	12	14	18	26	52	88	99	100	SPWC
Nov. 24.....	0500	--		700	6310	11900	14	16	27	37	49	61	84	94	99	100	--	VPWC
Nov. 24.....	0600	--		950	8740	22400	--	--	--	--	--	--	--	--	--	--	--	
Nov. 24.....	0700	--		1700	7250	33300	12	16	26	35	47	57	72	87	95	100	--	VPWC
Nov. 27.....	1300	54		23	546	34	--	--	--	--	--	--	--	--	--	--	--	
Dec. 2.....	1215	55		17	542	25	--	--	--	--	--	23	33	58	95	100	--	V
Dec. 3.....	1125	54		11	230	6.8	--	--	--	--	--	--	--	--	--	--	--	
Feb. 6, 1966.....	1740	51		52	2830	397	--	--	--	--	--	43	53	68	86	97	100	V
Mar. 10.....	1310	63		10	955	26	--	--	--	--	--	22	30	52	88	100	--	V
11-1080.8. FISH CANYON CREEK ABOVE CASTAIC CREEK, NEAR CASTAIC, CALIF. (343609 1183946)																	
Nov. 20, 1965.....	1400	56		0.3	37	T	--	--	--	--	--	--	--	--	--	--		
Nov. 20.....	1630	--		.3	6	T	--	--	--	--	--	--	--	--	--	--		
Nov. 22.....	1230	57		2.5	116	.8	--	--	--	--	--	76	89	96	100	--		V
Nov. 27.....	1245	55		1.8	265	1.3	--	--	--	--	--	--	--	--	--	--		
Nov. 27.....	1320	54		1.5	150	.6	--	--	--	--	--	--	--	--	--	--		
A.....	--	--		200	4450	2400	--	--	--	--	--	--	--	--	--	--		
A.....	--	--		500	6230	8410	14	16	24	32	50	53	69	84	94	100		VPWC
A.....	--	--		800	4870	10500	--	--	--	--	--	--	--	--	--	--		
A.....	--	--		1200	5660	18300	10	12	16	24	33	43	67	85	94	100		VPWC
A.....	--	--		1700	4810	22100	--	--	--	--	--	--	--	--	--	--		
A.....	--	--		2200	9400	55800	10	12	17	24	33	46	70	90	99	100		VPWC
A.....	--	--		4100	66300	761000	5	6	7	13	22	32	56	78	96	100		SPWC
Dec. 2.....	1440	58		.3	1230	.9	--	--	--	--	--	--	--	--	--	--		
Dec. 3.....	1330	56		.3	27	T	--	--	--	--	--	--	--	--	--	--		
Dec. 7.....	1050	52		.2	278	.1	--	--	--	--	--	--	--	--	--	--		
Dec. 14.....	1020	49		6.0	4	.1	--	--	--	--	--	--	--	--	--	--		
Dec. 30.....	1130	48		11	1560	48	--	--	--	--	--	--	--	--	--	--		
Dec. 30.....	1255	48		11	2390	71	--	--	--	--	--	40	49	61	76	97		V
Jan. 3, 1966.....	1320	48		1.4	436	1.6	--	--	--	--	--	--	--	--	--	--		
Jan. 3.....	1425	43		1.4	143	.5	--	--	--	--	--	--	--	--	--	--		
A.....	--	--		4100	9520	105000	--	--	--	--	--	--	--	--	--	--		

T Less than 0.05 ton.
A Stage recorder inoperative. Discharge for samples determined by known height of single-stage sampler intake. Date and time of sample unknown.

11-1080.85. CASTAIC CREEK ABOVE CORDOVA RANCH, NEAR CASTAIC, CALIF. (343551 1183946)																		
Oct. 16, 1965.....	2100	--		120	13900	4500	--	--	--	--	--	75	88	99	100	--	--	S
Oct. 16.....	2300	--		220	6710	3990	35	44	64	80	94	98	99	100	--	--	--	VPWC
Oct. 16.....	2330	--		360	9140	8880	--	--	--	--	--	--	--	--	--	--	--	
Oct. 16.....	2345	--		500	10300	13900	--	--	--	--	--	--	--	--	--	--	--	
Oct. 16.....	2400	--		700	9610	18200	20	24	35	46	59	70	79	87	100	--	--	VPWC
Nov. 27.....	1230	54		35	225	21	--	--	--	--	--	43	47	51	71	100	--	V
Dec. 7.....	1050	52		2	278	1.5	--	--	--	--	--	21	31	54	99	100	--	V
Dec. 14.....	0950	47		1	29	.1	--	--	--	--	--	37	38	56	85	100	--	S
Dec. 29.....	0445	--		120	8740	2830	22	32	43	57	72	85	92	96	99	100	--	VPWC
Dec. 29.....	0500	--		220	10700	6360	--	--	--	--	--	--	--	--	--	--	--	
Dec. 29.....	0600	--		360	27100	26300	--	--	--	--	--	--	--	--	--	--	--	
Dec. 29.....	0615	--		500	47200	66100	14	15	22	32	45	59	82	97	100	--	--	SPWC
Dec. 29.....	0700	--		700	30000	56700	--	--	--	--	--	--	--	--	--	--	--	
Dec. 29.....	1200	--		900	40100	101000	--	--	--	--	--	--	--	--	--	--	--	
Dec. 29.....	1215	--		1400	21100	79800	16	20	24	35	47	59	87	97	100	--	--	VPWC
Dec. 29.....	1300	--		2100	94600	576000	9	10	12	18	29	40	62	92	100	--	--	SPWC
Dec. 30.....	1130	48		185	1560	779	--	--	--	--	--	49	64	82	98	100	--	V
Jan. 1, 1966.....	1320	48		55	436	64	--	--	--	--	--	47	51	65	89	100	--	V
Feb. 6.....	1900	49		70	4400	832	--	--	--	--	--	6	7	22	51	71	100	V
Mar. 10.....	1620	62		3.9	385	4.1	--	--	--	--	--	8	8	14	68	96	100	V
11-1093. PIRU CREEK BELOW BUCK CREEK, CALIF. (343957 1184922)																		
Oct. 3, 1965.....	0950	52		1	7	T	--	--	--	--	--	--	--	--	--	--	--	
Oct. 28.....	1530	68		.5	4	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 16.....	A --	--		70	14700	2780	--	--	--	--	--	--	--	--	--	--	--	
Nov. 16.....	A --	--		310	11000	9210	14	15	18	30	48	73	94	98	99	100		VPWC
Nov. 16.....	A --	--		1280	13600	47000	25	31	35	53	71	87	99	100	--	--		VPWC
Nov. 19.....	1045	--		120	110	36	--	--	--	--	--	--	--	--	--	--		
Nov. 21.....	1430	55		36	630	61	--	--	--	--	--	--	--	--	--	--		
Nov. 22.....	A --	--		3000	24700	200000	15	18	25	34	46	58	81	96	100	--		VPWC
Nov. 24.....	A --	--		5600	19500	295000	13	15	19	25	35	47	72	89	99	100		VPWC
Nov. 24.....	A --	--		8040	31100	675000	10	12	15	22	29	38	58	83	99	100		VPWC
Mar. 9, 1966.....	1200	56		820	63	139	--	--	--	--	--	--	--	--	--	--		
11-1094. CANADA DE LOS ALAMOS BELOW APPLE CANYON, CALIF. (344044 1184701)																		
Oct. 2, 1965.....	1415	62		0.7	8	T						--	--					
Oct. 28.....	1430	58		.6	29	0.1						--	--					
Nov. 24.....	1315	55		15	21000	850	61	75	86	91	99	99	100					VPWC
Nov. 26.....	1200	52		1.5	731	3.0						95	100					V
Dec. 4.....	1045	45		1.0	129	.4						--	--					
Mar. 9, 1966.....	1520	56		.5	31	T						--	--					

T Less than 0.05 ton.
A Single-stage samples. No recorded gage height. Date determined from Piru Creek above Frenchman's Flat.

MISCELLANEOUS ANALYSES OF STREAMS IN SANTA CLARA RIVER BASIN--Continued

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966--Continued
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
11-1095.5. PIRU CREEK ABOVE FRENCHMAN'S FLAT, CALIF. (343810 1184525)																		
Oct. 2, 1965.....	1315	70		0.4	2	T	--	--	--	--	--	--	--	--	--	--		
Nov. 16.....	1330	--		567	31900	48800	25	30	46	63	82	92	100	--	--	--		VPWC
Nov. 16.....	2300	--		3150	36100	318000	19	23	36	51	70	86	98	100	--	--		VPWC
Nov. 20.....	2115	53		68	192	35	--	--	--	--	--	--	--	--	--	--		
Nov. 24.....	0730	--		9420	25400	646000	20	24	29	42	58	75	97	100	--	--		VPWC
Nov. 26.....	1030	46		115	907	282	--	--	--	--	--	--	--	--	--	--		
Dec. 4.....	1020	49		30	90	7.3	--	--	--	--	--	53	61	90	100	--		V
Dec. 15.....	1240	46		17	320	15	--	--	--	--	--	91	93	97	100	--		V
Dec. 29.....	1300	--		3620	21900	214000	21	26	35	44	55	65	85	94	98	99	100	VPWC
Dec. 29.....	1900	--		9480	20500	525000	16	23	33	42	56	68	88	96	99	100		VPWC
Feb. 6, 1966.....	1705	49		77	1030	214	--	--	--	--	--	78	94	100	--	--		V
Mar. 9.....	0840	43		27	104	7.6	--	--	--	--	--	86	94	98	100	--		S
11-1096. PIRU CREEK ABOVE LAKE PIRU, CALIF. (343140 1184521)																		
Nov. 15, 1965.....	1000			72	676	131	--	--	--	--	--	99	100	--	--			S
Nov. 16.....	0930			165	12800	7810	49	56	71	90	98	100	--	--	--			PWC
Nov. 17.....	1135			1700	11900	54600	28	34	46	60	75	86	96	99	100			VPWC
Nov. 25.....	0925			1150	2270	7050	--	--	--	--	--	71	84	95	100			V
Nov. 29.....	0810			220	414	246	--	--	--	--	--	--	--	--	--			

T Less than 0.05 ton.

MISCELLANEOUS ANALYSES OF STREAMS IN SANTA YNEZ RIVER BASIN

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
11-1305. SANTA YNEZ RIVER NEAR BUELLTON, CALIF. (343650 1201430)																		
Dec. 1, 1965	1240	56		38	46	4.7												
Dec. 17	1040	47		21	179	10												
Dec. 31	1400	52		278	184	138						100						S
Jan. 6, 1966	0910	52		80	158	34												
Jan. 19	1110	51		38	115	12												
Mar. 3	1430	60		30	5	.4												
Mar. 17	1355	67		21	20	1.1												
Mar. 31	1345	70		12	46	1.5												
Apr. 29	0825	58		5.3	22	.3												
11-1325. SALSIPUEDES CREEK NEAR LOMPOC, CALIF. (343520 1202427)																		
Dec. 1, 1965	1325	50		11	47	1.4												
Dec. 31	1115	49		124	1350	452	52	63	68	84	91	95	98	100				VPWC
Jan. 5, 1966	1015	45		27	198	14												
Jan. 17	1030	42		11	191	5.7												
Feb. 4	0945	42		28	104	7.9												
Mar. 3	0950	45		11	125	3.7												
Mar. 31	1010	58		6.0	30	.5												
Apr. 27	0915	58		3.6	38	.4												

BIG SUR RIVER BASIN

11-1430. BIG SUR RIVER NEAR BIG SUR, CALIF.

LOCATION.--Lat 36°14'45", long 121°46'20", temperature recorder at gaging station on right bank at downstream side of bridge, 0.4 mile upstream from Post Creek, and 2.6 miles southeast of Big Sur, Monterey County.
DRAINAGE AREA.--46.5 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 68°F Aug. 1, 5, 17; minimum, 43°F Dec. 17-19, 23.
REMARKS.--Clock stopped Oct. 20 to Nov. 24.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	58	58	58	58	59	60	61	60	59	59	58	58	58	58	57	56	56	54	57	57	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	57	57	57	57	56	59	60	59	59	58	57	57	57	57	55	54	53	53	55	56	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	55	53	53	52	51	51	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	53	51	51	51	50	50	--	--
December																																
Maximum	51	51	51	50	50	50	50	51	52	52	50	51	50	48	47	46	45	44	44	45	45	46	45	45	47	47	45	49	50	50	50	48
Minimum	50	50	50	49	49	49	49	49	51	50	50	50	48	46	45	44	43	43	43	44	44	45	43	44	46	45	45	45	49	49	50	47
January																																
Maximum	50	48	48	50	52	52	52	52	52	50	50	48	48	48	49	49	47	47	48	48	47	46	47	47	46	48	49	49	49	49	49	49
Minimum	48	47	47	48	50	51	51	51	51	49	48	46	47	47	48	47	45	45	47	46	45	45	46	45	45	46	48	47	47	48	48	47
February																																
Maximum	49	49	50	52	53	53	51	50	50	50	50	49	49	48	49	49	49	49	52	52	52	52	53	52	51	50	49	50	--	--	--	50
Minimum	49	47	49	50	52	51	50	49	49	50	47	48	46	45	46	46	46	48	50	49	50	50	51	51	49	48	47	48	--	--	--	49
March																																
Maximum	50	49	47	47	50	51	52	52	51	53	53	53	53	53	52	53	52	52	53	52	53	53	53	54	54	53	53	54	55	56	57	52
Minimum	49	47	45	45	47	49	50	51	49	51	51	52	51	51	50	49	49	50	51	50	51	51	51	52	52	51	52	52	53	54	54	50
April																																
Maximum	57	57	58	57	57	57	57	57	57	57	57	57	57	57	59	59	59	53	53	53	54	55	56	58	57	57	57	55	55	56	--	56
Minimum	55	55	56	56	55	55	54	55	55	56	55	56	55	55	55	57	55	51	51	51	51	52	53	54	55	55	54	53	52	52	--	54
May																																
Maximum	57	59	48	48	47	48	50	48	46	48	48	49	49	48	48	49	50	59	60	59	59	59	59	59	59	59	58	56	55	54	56	53
Minimum	52	54	46	45	44	44	46	46	46	46	46	46	46	45	45	45	46	58	56	57	57	57	56	56	57	57	56	55	54	53	53	51
June																																
Maximum	58	58	59	60	60	59	59	61	62	64	63	64	65	67	66	65	64	65	66	66	64	64	64	65	65	65	66	67	66	65	--	63
Minimum	54	53	54	55	57	58	58	58	58	59	58	59	61	64	64	63	61	60	62	63	61	60	61	61	61	62	62	63	63	62	--	60
July																																
Maximum	64	65	65	64	64	64	64	63	63	64	63	63	64	64	65	65	66	67	66	65	64	65	66	67	67	66	65	65	64	64	67	65
Minimum	60	61	61	61	61	61	61	61	60	60	60	60	61	61	61	62	62	64	64	63	62	61	62	63	64	64	63	62	62	62	64	62
August																																
Maximum	68	67	67	66	68	67	67	66	66	65	65	64	65	65	66	67	68	67	67	65	64	63	64	65	65	65	65	65	64	62	63	66
Minimum	65	65	64	64	64	65	65	64	63	63	63	63	63	63	63	64	65	65	65	64	62	62	62	62	63	63	63	63	62	61	62	63
September																																
Maximum	63	63	61	62	62	60	61	61	61	61	61	60	58	57	58	59	60	61	60	58	58	58	59	59	59	59	59	59	60	61	--	60
Minimum	61	61	60	60	60	60	60	59	59	60	60	58	56	56	57	57	58	60	58	57	58	57	58	58	58	58	58	58	59	60	--	59

11-1432.5. CARMEL RIVER NEAR CARMEL, CALIF.

LOCATION.--Lat 36°32'20", long 121°52'25", approximately 30 feet downstream from Rancho San Carlos bridge, 2 miles east of Carmel, Monterey County, and 4.5 miles from mouth.
DRAINAGE AREA.--246 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to May 1966 (discontinued).

Chemical analyses, in parts per million, October 1965 to May 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Nov. 18, 1965....	0					16		140	0		10			0.0				120	5	0.6	330	8.2
Jan. 13, 1966....	96					11		95	0		9.0			.0				87	9	.5	230	8.1
Mar. 15.....	46					14		106	0		12			.0				98	11	.6	265	8.2
May 11.....	.6	19		41	16	28	2.4	155	0	64	28		0.1	.1	278	0.38		169	42	.9	457	8.0

SALINAS RIVER BASIN

11-1475. SALINAS RIVER AT PASO ROBLES, CALIF.

LOCATION.--Lat 35°37'40", long 120°41'05", at gaging station in Paso de Robles Grant, at bridge on State Highway 41 at Paso Robles, San Luis County, and 3.5 miles upstream from Huerhuero Creek.
DRAINAGE AREA.--389 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1962 to May 1966 (discontinued).
REMARKS.--Stream dry most of year.

Chemical analyses, in parts per million, October 1965 to May 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Dec. 7, 1965....						40		213	11		28			0.1				249	56	1.1	602	8.6
Jan. 5, 1966.....						23		220	0		20			.0				245	65	.6	557	8.2
Feb. 10.....						25		222	2		22			.0				249	64	.7	570	8.3
Mar. 1.....						40		262	10		36			.1				322	91	1.0	744	8.4
Apr. 12.....						78		284	12		65			.1				338	85	1.8	934	8.6
May 10.....		25		87	33	97	4.3	346	8	178	78		1.3	.3	687	0.93		354	57	2.2	1070	8.3

11-1488. NACIMIENTO RIVER NEAR BRYSON, CALIF.

LOCATION.--Lat 35°48'06", long 121°06'50", at gaging station 0.6 mile upstream from Turtle Creek, 1.6 miles west of Bryson, Monterey County, and 10 miles southwest of Lockwood.
DRAINAGE AREA.--140 square miles.
RECORDS AVAILABLE.--Water temperatures: March 1958 to September 1959, October 1960 to September 1964, March 1965 to September 1966.
Sediment records: March 1958 to September 1959, October 1960 to September 1964, March 1965 to September 1966.
EXTREMES, 1965-66.--Sediment concentrations: Maximum daily, 3,540 ppm Jan. 30; minimum daily, no flow on many days.
Sediment loads: Maximum daily, 16,800 tons Jan. 30; minimum daily, 0 ton on many days.
EXTREMES, 1958-59, 1960-64, March 1965 to September 1966.--Sediment concentrations: Maximum daily, 6,860 ppm Nov. 13, 1960; minimum daily, no flow on many days.
Sediment loads: Maximum daily, 50,700 tons Feb. 9, 1962; minimum daily, 0 ton on many days.
REMARKS.--No flow Oct. 1 to Nov. 13, July 1 to Sept. 30.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																														Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	59	--	--	54	--	54	55	54	54	49	--	50	--	--	--	--
December	--	53	--	48	--	--	--	45	--	47	--	49	--	--	--	--	--	42	--	--	--	--	--	--	--	--	--	--	48	--	41	--
January	--	43	--	--	--	51	--	--	49	--	--	--	--	46	--	--	--	--	--	45	--	--	--	--	--	--	--	--	--	47	--	--
February	--	--	43	--	--	49	--	--	--	--	--	--	--	45	--	--	--	--	--	--	48	--	--	--	--	--	--	--	--	--	--	--
March	49	--	--	--	--	--	52	--	--	--	56	--	--	--	55	--	--	--	--	--	--	56	--	--	--	--	--	--	--	60	--	--
April	--	--	--	--	--	--	--	--	--	--	62	--	65	--	66	--	--	62	--	63	--	63	--	--	65	--	65	--	65	--	--	--
May	--	65	--	--	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
June	--	--	73	--	--	--	--	--	--	--	--	--	--	--	74	--	71	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
July	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
August	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
September	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

11-1488. NACIMIENTO RIVER NEAR BRYSON, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1				0	--	0	138	--	1.9
2				0	--	0	117	3	.9
3				0	--	0	110	--	1.5
4				0	--	0	100	8	2.2
5				0	--	0	92	--	1.7
6				0	--	0	85	--	1.4
7				0	--	0	79	--	1.1
8				0	--	0	77	4	.8
9				0	--	0	74	--	.8
10				0	--	0	72	4	.8
11				0	--	0	70	--	.6
12				0	--	0	130	8	K 3.3
13				0	--	0	112	--	2.1
14				60	--	32	94	--	1.8
15				35	--	9.4	83	--	1.3
16				1100	--	530	77	--	1.2
17				1660	772	S 5030	72	--	1.2
18				2200	1210	K 12000	68	6	1.1
19				460	37	K 51	64	--	1.0
20				245	18	12	62	--	.8
21				169	11	5.0	62	--	.8
22				1230	1260	S 16400	61	--	.7
23				2120	526	K 4100	57	--	.6
24				1350	118	K 430	53	--	.6
25				918	27	67	94	--	2.0
26				492	15	20	100	--	1.9
27				323	--	13	85	--	1.4
28				237	20	13	1350	856	S 10700
29				190	--	7.7	2650	221	K 1700
30				160	--	4.3	2440	528	K 3900
31				--	--	--	2050	300	B 1660
Total	0	--	0	12949	--	38724.4	10778	--	17995.5

Day	JANUARY			FEBRUARY			MARCH		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	1030	200	B 556	504	185	K 260	96	9	2.3
2	635	145	249	406	--	82	100	--	1.1
3	488	--	140	332	--	22	94	--	.8
4	380	--	72	462	71	K 160	89	--	.5
5	323	--	26	819	142	K 330	85	--	.2
6	277	7	5.2	735	22	K 51	81	--	.2
7	249	--	2.7	534	--	5.8	77	1	.2
8	211	--	1.7	444	--	4.8	72	--	.2
9	187	2	1.0	370	--	4.0	68	--	.4
10	169	--	.9	314	--	3.4	66	--	.4
11	149	--	.8	273	--	2.9	64	2	.3
12	138	--	.7	237	--	1.9	62	--	.2
13	130	--	.7	211	--	1.1	59	--	.2
14	117	2	.6	187	1	.5	57	--	.2
15	110	--	.6	172	--	.5	55	1	.1
16	103	--	.6	154	--	.4	52	--	.1
17	94	--	.8	146	--	.4	52	--	.1
18	89	--	1.0	140	--	.4	50	--	.3
19	85	--	1.4	192	--	2.6	48	--	.3
20	83	7	1.6	181	--	1.5	47	--	.4
21	79	--	1.3	146	1	.4	45	--	.4
22	74	--	1.0	140	--	.4	44	4	.5
23	72	--	.8	132	--	.4	44	--	.5
24	70	--	.6	122	--	.3	42	--	.3
25	68	--	.6	114	--	.6	41	--	.3
26	64	--	.3	114	--	.6	40	--	.3
27	64	--	.3	105	--	.9	38	--	.2
28	61	--	.3	100	--	1.1	38	--	.2
29	431	779	S 5100	--	--	--	38	--	.2
30	1530	3540	S 16800	--	--	--	37	2	.2
31	516	1260	K 1900	--	--	--	35	--	.2
Total	8076	--	24868.5	7786	--	939.9	1816	--	11.8

S Computed by subdividing day.
B Computed from estimated-concentration graph.
K Computed from estimated-concentration graph and subdividing day.

11-1488. NACIMIENTO RIVER NEAR BRYSON, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	33	2	0.2	13	2	0.1	9.0	--	
2	32	--	.2	12	2	.1	8.4	--	
3	32	--	.2	11	--	.1	7.2	--	
4	30	--	.2	11	--	.1	7.2	--	
5	29	--	.2	11	2	.1	6.6	--	
6	29	--	.1	11	--	.1	6.0	--	
7	28	--	.1	11	--	.1	6.6	--	
8	27	--	.1	12	--	.1	6.6	--	
9	27	--	.1	13	--	.1	6.0	--	
10	30	--	.1	14	--	.1	6.0	--	
11	35	1	.1	14	--	.1	5.6	--	
12	32	--	.3	15	--	.1	5.2	--	
13	29	6	.5	14	--	.1	4.5	--	
14	28	--	.3	14	--	.1	3.6	--	
15	27	3	.2	13	--	.1	2.6	1	
16	24	--	.2	12	--	.1	2.2	--	
17	22	--	.1	11	--	.1	2.0	3	
18	22	2	.1	10	--	.1	1.9	--	
19	22	--	.1	9.6	--	.1	1.9	--	
20	22	13	.8	9.6	--	.1	1.9	--	
21	21	--	.2	9.0	--	T	1.6	--	
22	21	3	.2	8.4	--	T	1.4	--	
23	20	--	.2	7.8	--	T	1.2	--	
24	19	--	.3	7.8	--	T	1.2	--	
25	18	7	.3	7.2	--	T	.9	--	
26	17	--	.3	7.2	--	T	.8	--	
27	15	8	.3	7.2	--	T	.6	--	
28	15	--	.2	7.2	--	T	.6	--	
29	14	2	.1	7.8	--	T	.4	--	
30	14	--	.1	8.4	--	T	.2	--	
31	0	--	--	8.4	--	T	--	--	
Total	734	--	6.4	327.6	--	2.4	109.9	--	0.4

	JULY			AUGUST			SEPTEMBER		
Total	0	--	0	0	--	0	0	--	0

Total discharge for year (cfs-days)..... 42576.5
Total load for year (tons)..... 82549.3

T Less than 0.05 ton.

11-1488. NACIMIENTO RIVER NEAR BRYSON, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 17, 1965.....	1410	59		1250	237							77	88	99	100	---		V
Nov. 23.....	1100	55		1100	122							68	77	94	99	100		V
Nov. 24.....	1130	54		2140	129							82	89	96	100	---		V
Nov. 26.....	1000	49		510	15							37	49	76	93	100		S
Dec. 29.....	1230	48		1610	67							89	97	100	---	---		V

11-1494. NACIMIENTO RIVER BELOW NACIMIENTO DAM, NEAR BRADLEY, CALIF.

LOCATION.--Lat 35°45'41", 120°51'16", at gaging station, 2.2 miles downstream from Nacimiento Dam, and 7.6 miles southwest of Bradley, Monterey County.
DRAINAGE AREA.--322 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1962 to September 1966 (discontinued).

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Nov. 2, 1965.....	240					9.4		141	0		5.3			0.0				137	21	0.4	302	8.0
Jan. 5, 1966.....	.1					9.5		162	2		6.9			.0				161	25	.3	344	8.3
Mar. 1.....	4.7					10		168	2		6.0			.1				162	21	.3	353	8.3
May 10.....	372	10		27	14	9.6	1.3	125	0	33	6.9		0.9	.1	172	0.23		125	23	.4	281	8.2
July 19.....	466					10		126	2		7.0			.0				131	24	.4	294	8.4
Sept. 1.....	494	12		30	15	9.5	1.1	128	4	33	5.3		.5	.0	A 173	.24		136	24	.4	297	8.4

A Calculated from sum of determined constituents.

11-1499. SAN ANTONIO RIVER NEAR LOCKWOOD, CALIF.

LOCATION.--Lat 35°53'48", long 121°05'14", at gaging station in Los Ojitos Grant at highway bridge, 0.4 mile upstream from Tule Canyon, and 3.3 miles south of Lockwood, Monterey County.
DRAINAGE AREA.--223 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1965 to September 1966.
Sediment records: October 1965 to September 1966.
EXTREMES, 1965-66.--Sediment concentrations: Maximum daily, 394 ppm Dec. 31; minimum daily, no flow for several months.
Sediment loads: Maximum daily, 654 tons Dec. 31; minimum daily, 0 ton on many days.
REMARKS.--No flow Oct. 1 to Nov. 17, June 3 to Sept. 30.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	58	56	--	62	54	55	55	52	--	--	--	57	60	--	--
December	--	--	55	--	--	--	54	--	--	--	--	--	--	53	--	47	--	--	--	--	--	--	--	47	51	--	--	--	47	46	48	--
January	46	42	51	50	--	--	--	--	53	--	--	--	--	48	--	--	--	--	--	42	--	53	--	--	--	--	--	--	50	49	48	--
February	--	--	37	--	46	--	--	--	--	--	--	47	--	--	--	--	51	--	--	44	--	--	--	--	--	--	43	--	--	--	--	--
March	48	--	--	--	74	--	--	61	--	--	71	--	--	66	--	66	--	--	--	--	--	--	70	--	--	--	--	--	--	75	--	--
April	--	--	--	--	--	--	--	--	--	--	63	--	76	--	79	--	70	--	68	--	69	--	71	--	78	--	79	--	80	--	--	--
May	81	--	78	--	78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	66	--	--	--	--	--	--	--	--	--	--	--	--
June	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
July	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
August	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
September	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

11-1499. SAN ANTONIO RIVER NEAR LOCKWOOD, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1				0	--	0	27	10	0.7
2				0	--	0	21	--	.3
3				0	--	0	20	--	.2
4				0	--	0	20	--	.2
5				0	--	0	18	--	.1
6				0	--	0	18	--	.1
7				0	--	0	16	2	.1
8				0	--	0	15	--	.1
9				0	--	0	15	--	.1
10				0	--	0	15	--	.1
11				0	--	0	23	--	.3
12				0	--	0	36	--	1.0
13				0	--	0	48	--	1.2
14				0	--	0	43	7	.8
15				0	--	0	36	--	.6
16				0	--	0	32	--	.4
17				0	--	0	27	--	.3
18				96	328	S 93	27	--	.3
19				85	24	S 5.8	27	--	.2
20				51	6	.8	27	--	.2
21				39	3	.3	27	--	.2
22				46	35	K 11	27	--	.2
23				209	294	K 180	27	--	.2
24				167	78	35	27	3	.2
25				149	73	29	30	--	.4
26				100	--	16	54	--	1.2
27				57	--	6.3	40	--	.9
28				41	--	2.9	50	--	1.1
29				34	18	1.7	100	250	68
30				30	--	1.1	300	227	K 190
31				--	--	--	609	394	S 654
Total	0	--	0	1104	--	382.9	1802	--	923.7

Day	JANUARY			FEBRUARY			MARCH		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	472	190	S 255	127	--	27	60	5	0.8
2	278	90	68	127	--	15	57	--	.8
3	240	36	23	123	11	3.7	54	--	.9
4	225	41	25	118	--	1.6	51	--	1.0
5	199	--	17	209	32	K 18	54	--	1.2
6	176	--	12	235	--	19	51	--	1.2
7	172	--	9.8	195	--	13	51	--	1.4
8	158	--	7.7	167	--	10	48	11	1.4
9	127	16	5.5	145	--	8.6	46	--	1.4
10	110	--	4.5	136	--	7.3	46	--	1.2
11	96	--	3.9	132	--	8.9	46	--	1.2
12	75	--	3.0	127	24	8.2	46	--	1.2
13	69	--	2.8	103	--	6.4	43	--	1.2
14	69	22	4.1	96	--	5.7	46	--	1.1
15	66	--	3.6	85	--	4.8	48	--	1.0
16	60	--	2.9	78	--	4.2	48	8	1.0
17	60	--	2.6	78	--	2.1	46	--	1.0
18	57	--	2.3	78	--	1.5	41	--	1.1
19	60	--	2.3	82	--	1.1	41	--	1.3
20	54	--	1.9	96	3	.8	41	--	1.5
21	51	--	1.7	75	--	.6	41	--	1.8
22	51	11	1.5	69	--	.7	41	--	2.0
23	48	--	1.3	69	--	.9	41	18	2.0
24	43	--	.9	69	--	.9	41	--	1.9
25	42	--	.7	66	--	1.1	41	--	1.8
26	42	--	.5	66	--	1.2	39	--	1.5
27	41	--	.3	60	8	1.3	39	--	1.3
28	41	--	.3	60	--	1.0	36	--	1.0
29	85	10	2.3	--	--	--	34	--	.8
30	181	159	S 90	--	--	--	32	9	.8
31	149	126	51	--	--	--	27	--	.7
Total	3597	--	607.4	3071	--	174.6	1376	--	38.5

S Computed by subdividing day.
K Computed from estimated-concentration graph and subdividing day.

11-1499. SAN ANTONIO RIVER NEAR LOCKWOOD, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	21	8	0.5	7.2	2	T	.2	1	T
2	21	--	.4	5.8	--	T	.1		T
3	23	--	.4	5.8	3	T	0		0
4	21	--	.3	6.4	--	0.1	0		0
5	20	5	.3	7.2	2	T	0		0
6	20	--	.3	6.4	--	T	0		0
7	15	--	.2	5.8	--	T	0		0
8	15	--	.2	5.8	--	T	0		0
9	20	--	.3	5.2	--	T	0		0
10	16	--	.2	5.2	--	T	0		0
11	23	5	.3	5.8	--	.2	0		0
12	21	--	.2	8.0	--	.2	0		0
13	21	3	.2	6.4	--	.1	0		0
14	20	--	.2	6.4	--	.1	0		0
15	15	3	.1	5.8	--	.1	0		0
16	11	--	.1	6.4	--	.1	0		0
17	11	2	.1	4.8	--	T	0		0
18	12	--	.1	4.3	--	T	0		0
19	12	2	.1	3.5	--	T	0		0
20	14	--	.1	3.5	--	T	0		0
21	14	1	T	3.5	--	T	0		0
22	14	--	.1	3.5	--	T	0		0
23	14	3	.1	3.5	--	T	0		0
24	14	--	.2	2.9	--	T	0		0
25	12	6	.2	1.0	--	T	0		0
26	11	--	.2	1.0	--	T	0		0
27	10	8	.2	.7	--	T	0		0
28	10	--	.1	.7	--	T	0		0
29	10	3	.1	.6	--	T	0		0
30	9.0	--	.1	.6	--	T	0		0
31	--	--	--	.5	--	T	--		--
Total	470.0	--	5.9	134.2	--	1.4	0.3	--	0.0

Day	JULY			AUGUST			SEPTEMBER		
Total	0	--	0	0	--	0	0	--	0

Total discharge for year (cfs-days)..... 11554.5
Total load for year (tons)..... 2134.4

T Less than 0.05 ton.

11-1499. SAN ANTONIO RIVER NEAR LOCKWOOD, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 23, 1965.....	1235	55		230	330							76	86	98	100			V
Dec. 29.....	1445	47		E 110	235							39	48	82	100			V
Dec. 31.....	1415	48		651	269							26	35	95	100			V

E Estimated.

11-1500. SAN ANTONIO RIVER AT PLEYTO, CALIF.

LOCATION.--Lat 35°51'55", long 120°59'30", at gaging station at old townsite of Pleyto, Monterey County, 1.1 miles downstream from Copperhead Creek, and 15 miles west of Bradley.
DRAINAGE AREA.--284 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1962 to July 1966 (discontinued).
Water temperatures: February 1961 to September 1965.
Sediment records: February 1961 to September 1965.

Chemical analyses, in parts per million, October 1965 to July 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Nov. 2, 1965.....						22		187	2		16			0.0				186	29	0.7	442	8.3
Jan. 4, 1966.....						12		136	8		7.0			.0				167	42	.4	371	8.4
Mar. 1.....						13		157	4		8.4			.0				179	44	.4	402	8.4
May 10.....		27		52	16	19	1.5	182	0	65	11		0.2	.0	286	0.39		194	45	.6	440	8.2
July 19.....						22		176	8		13			.0				188	31	.7	439	8.4

11-1505. SALINAS RIVER NEAR BRADLEY, CALIF.

LOCATION.--Lat 35°55'40", long 120°52'00", at gaging station 6 miles northwest of Bradley, Monterey County, and 7 miles downstream from San Antonio River.
DRAINAGE AREA.--2,536 square miles.
RECORDS AVAILABLE.--Chemical analyses: August 1962 to September 1966 (discontinued).

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 12, 1965....	260	--		--	--	12	--	134	6	--	7.6		--	0.2	--	--		141	21	0.4	318	8.5
Nov. 2.....	244	--		--	--	14	--	146	4	--	7.8		--	.0	--	--		146	20	.5	338	8.4
Dec. 7.....	16	--		--	--	49	--	225	8	--	32		--	.1	--	--		266	68	1.3	694	8.6
Jan. 5, 1966.....	334	--		--	--	40	--	211	12	--	32		--	.0	--	--		255	62	1.1	643	8.4
Feb. 11.....	206	--		--	--	43	--	253	6	--	36		--	.1	--	--		280	63	1.1	707	8.4
Mar. 1.....	88	--		--	--	58	--	254	14	--	44		--	.2	--	--		298	67	1.5	777	8.7
Apr. 12.....	16	--		--	--	63	--	226	12	--	54		--	.2	--	--		304	99	1.6	818	8.6
May 10.....	466	12		30	15	13	1.3	139	0	40	8.9		0.8	.1	196	0.27		136	22	.5	318	8.2
June 15.....	288	--		--	--	12	--	134	2	--	7.3		--	.0	--	--		137	24	.4	318	8.4
July 19.....	511	--		--	--	12	--	128	4	--	7.0		--	.0	--	--		136	24	.4	306	8.4
Sept. 1.....	490	12		31	15	11	1.3	143	0	40	5.8		.5	.0	188	.26		139	22	.4	314	8.2

11-1518.7. ARROYO SECO NEAR GREENFIELD, CALIF.

LOCATION.--Lat 36°14'15", long 121°28'50", at gaging station 0.6 mile downstream from Rocky Creek, and 14.5 miles southwest of Greenfield, Monterey County.
DRAINAGE AREA.--113 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1962 to September 1966.
Sediment records: October 1962 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Minimum, 39°F on several days during December.
Sediment concentrations: Maximum daily, (estimated) 76 ppm Jan 30; minimum daily, no flow Aug. 25-27.
Sediment loads: Maximum daily, 210 tons Dec. 28; minimum daily, 0 ton Aug. 25-27.
EXTREMES, 1962-66.--Water temperatures (1964-66): Minimum, 39°F Dec. 18, 20-24, 1965.
Sediment concentrations: Maximum daily, 2,720 ppm Jan. 31, 1963; minimum daily, no flow Aug. 25-27, 1966.
Sediment loads: Maximum daily, 61,200 tons Jan. 31, 1963; minimum daily, 0 ton Aug. 25-27, 1966.
REMARKS.--No flow Aug. 25-27, 1966.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	--	63	--	--	65	--	--	--	62	--	--	64	--	--	--	55	--	--	58	--	--	--	57	--	--	55	55	--	--	54	--	--
November	--	53	--	--	--	55	--	--	54	--	--	--	54	54	54	55	54	54	53	54	52	51	52	51	49	48	48	47	47	48	--	--
December	46	47	47	46	46	47	46	46	46	46	46	47	46	44	44	40	40	39	40	39	39	39	39	39	--	42	43	44	46	46	47	44
January	44	45	--	--	--	47	44	45	49	49	46	44	46	45	43	--	48	43	44	40	41	42	41	40	42	42	45	45	45	45	43	44
February	46	45	--	45	44	44	41	45	45	45	45	45	--	--	44	--	45	--	45	--	--	45	--	47	--	47	--	49	--	--	--	--
March	--	46	45	--	--	47	--	--	47	--	--	47	--	--	53	--	--	--	--	55	--	--	54	--	--	--	55	--	--	60	--	--
April	--	--	--	--	--	64	--	64	--	--	60	--	63	--	65	--	--	60	--	62	--	--	62	--	65	--	68	--	68	--	--	--
May	--	70	--	70	--	68	--	--	65	--	70	--	71	--	--	70	--	73	--	75	--	--	74	--	74	--	74	--	--	74	72	--
June	69	--	70	--	--	68	--	70	--	74	--	--	75	--	74	--	73	--	--	74	--	70	--	70	--	--	74	--	71	--	--	--
July	71	--	--	73	--	77	--	72	--	--	72	--	73	--	71	--	--	73	--	74	--	75	--	--	78	--	78	--	75	--	--	--
August	--	--	78	--	79	--	--	80	--	79	--	78	--	--	80	--	80	--	--	--	--	80	--	80	--	78	--	--	79	--	76	--
September	--	75	--	--	78	--	78	--	74	--	--	70	--	70	--	70	--	--	68	--	72	--	69	--	--	70	--	71	--	--	72	--

11-1518.7. ARROYO SECO NEAR GREENFIELD, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	5.1	--	T	4.0	--	T	85	1	0.2
2	4.3	1	T	4.3	1	T	74	1	.2
3	3.9	--	T	4.5	--	T	67	5	.9
4	3.5	--	T	5.1	--	T	61	1	.2
5	3.7	1	T	5.3	--	T	57	2	.3
6	3.9	--	T	5.3	4	0.1	53	27	3.9
7	3.9	--	T	5.4	--	T	50	8	1.1
8	4.0	--	T	5.6	--	T	47	4	.5
9	3.9	1	T	6.1	1	T	45	3	.4
10	4.0	--	T	6.8	--	T	44	5	.6
11	4.2	--	T	7.4	--	T	45	4	.5
12	4.5	3	T	8.0	--	T	107	13 S	4.3
13	4.9	--	T	29	5	.4	80	8	1.7
14	4.5	--	T	159	38 S	21	63	14	2.4
15	4.5	--	T	84	12	2.7	58	14	2.2
16	4.9	1	T	184	48 S	29	54	3	.4
17	5.4	--	T	490	34 K	94	51	3	.4
18	5.8	--	T	576	27 S	49	48	1	.1
19	5.8	1	T	238	9	5.8	46	3	.4
20	5.8	--	T	134	1	.4	44	2	.2
21	5.8	--	T	97	1	.3	44	4	.5
22	5.6	--	T	102	5 K	3.9	42	4	.5
23	5.3	1	T	348	32 K	34	42	6	.7
24	4.7	--	T	489	31 K	47	40	1	.1
25	3.9	--	T	387	10	10	175	17 K	12
26	3.9	2	T	252	4	2.7	116	4	1.3
27	3.9	5	0.1	185	3	1.5	87	2	.5
28	4.0	--	T	143	3	1.2	488	39 K	210
29	4.0	--	T	118	2	.6	1040	56 K	190
30	4.2	1	T	100	--	.5	910	37	91
31	4.0	--	T	--	--	--	850	18	41
Total	139.8	--	0.6	4182.8	--	304.4	5013	--	568.5

	JANUARY			FEBRUARY			MARCH		
1	598	12	19	252	7 S	4.7	94	1	0.3
2	440	7	8.3	220	3	1.8	101	1	.3
3	351	--	2.8	193	--	1.0	94	1	.3
4	290	--	1.6	240	9 K	8.3	90	--	.2
5	260	--	.7	327	7 K	6.6	89	--	.5
6	223	1	.6	360	4	3.9	87	3	.7
7	203	--	2.2	302	1	.8	83	--	.7
8	187	4	2.0	265	--	.7	81	--	1.1
9	173	4	1.9	230	1	.6	78	7	1.5
10	159	3	1.3	207	--	.6	76	--	1.0
11	147	1	.4	189	1	.5	75	--	.6
12	137	2	.7	185	1	.5	73	2	.4
13	130	2	.7	166	--	.4	71	--	.4
14	120	5	1.6	154	--	.4	70	--	.6
15	112	3	.9	145	1	.4	68	4	.7
16	105	--	.9	138	--	.4	66	--	.5
17	98	4	1.1	131	1	.4	65	--	.4
18	93	3	.8	126	--	.3	63	--	.2
19	89	4	1.0	142	6	2.3	61	--	.2
20	85	2	.5	130	--	1.8	60	1	.2
21	81	3	.7	122	--	1.3	58	--	.2
22	78	3	.6	114	4	1.2	57	--	.2
23	75	8	1.6	113	--	.9	56	1	.2
24	72	1	.2	109	1	.3	54	--	.1
25	70	1	.2	105	--	.3	53	--	.1
26	68	1	.2	106	1	.3	52	--	.1
27	68	1	.2	101	--	.3	51	1	.1
28	65	1	.2	98	1	.3	50	--	.1
29	135	26 K	45	--	--	--	49	--	.3
30	605	76 K	160	--	--	--	47	3	.4
31	282	3	2.3	--	--	--	45	--	.4
Total	5599	--	260.2	4970	--	41.3	2117	--	13.0

S Computed by subdividing day.
T Less than 0.05 ton.
K Computed from estimated-concentration graph and subdividing day.

11-1518.7. ARROYO SECO NEAR GREENFIELD, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	44	2	0.2	24	2	0.1	11	2	0.1
2	44	--	.2	23	2	.1	11	--	T
3	42	--	.2	22	--	.1	10	1	T
4	42	--	.1	22	2	.1	10	--	T
5	42	--	.3	22	--	.1	8.6	--	T
6	41	12	1.3	23	2	.1	7.9	2	T
7	40	--	.9	22	--	.1	8.2	--	T
8	40	6	.6	22	--	.1	8.4	1	T
9	39	--	.4	22	1	.1	8.2	--	T
10	53	6	.9	22	--	.1	7.6	1	T
11	43	1	.1	22	1	.1	7.2	--	T
12	39	1	.1	22	--	.1	6.6	--	.1
13	38	2	.2	20	3	.2	6.2	4	.1
14	37	3	.3	20	--	.1	6.0	--	.1
15	35	7	.7	18	--	.1	6.2	4	.1
16	32	4	.3	18	2	.1	5.6	--	.1
17	32	2	.2	18	--	.1	5.6	3	T
18	32	1	.1	17	4	.2	5.6	--	T
19	32	1	.1	16	--	.1	5.6	--	T
20	32	1	.1	15	1	T	4.7	3	T
21	32	1	.1	14	--	T	4.2	--	T
22	32	2	.2	13	--	T	4.0	4	T
23	31	2	.2	13	1	T	4.3	--	T
24	31	2	.2	13	--	.1	5.3	4	.1
25	28	1	.1	12	3	.1	4.3	--	T
26	27	--	.1	12	--	.1	4.5	--	T
27	26	1	.1	12	2	.1	4.2	5	.1
28	28	--	.1	11	--	.1	3.7	--	T
29	28	2	.2	12	--	.1	3.2	4	T
30	26	--	.1	13	4	.1	2.9	--	T
31	--	--	--	11	2	.1	--	--	--
Total	1068	--	8.7	546	--	3.1	190.8	--	1.6

Day	JULY			AUGUST			SEPTEMBER		
1	2.7	5		2.2	--	T	0.2	4	
2	2.8	--		2.5	4	T	.3	5	
3	2.8	--		2.2	4	T	.5	--	
4	2.9	6		1.9	--	T	.3	--	
5	2.9	--		1.6	4	T	.2	5	
6	2.9	5		1.3	--	T	.2	--	
7	2.8	--		1.2	--	T	.1	2	
8	2.6	6		1.2	5	T	.2	--	
9	2.6	--		.8	--	T	.4	6	
10	2.7	--		.6	10	T	.4	--	
11	3.2	4		.4	--	T	.5	--	
12	3.9	--		.4	6	T	.6	4	
13	3.9	4		.4	--	T	.6	--	
14	3.9	--		.4	--	T	.6	5	
15	3.7	4		.4	7	T	.6	--	
16	3.5	--		.3	--	T	.7	3	
17	3.1	--		.2	16	T	.8	--	
18	2.6	3		.2	--	T	.8	--	
19	2.4	--		.2	6	T	.8	4	
20	2.1	2		.2	--	T	1.0	--	
21	2.0	--		.2	--	T	1.2	2	
22	1.6	7		.2	8	T	1.2	--	
23	1.3	--		.2	--	T	1.1	2	
24	1.2	--		.1	8	T	1.0	--	
25	1.0	5		0	--	0	1.0	--	
26	.8	--		0	--	0	1.0	2	
27	.6	4		0	--	0	1.0	--	
28	.5	--		.1	--	T	1.0	9	
29	.4	1		.1	3	T	1.0	--	
30	.7	--		.1	--	T	1.0	1	
31	1.9	--		.2	--	T	--	--	
Total	72.0	--	0.9	19.8	--	0.3	20.3	--	0.2

Total discharge for year (cfs-days)..... 23938.5
Total load for year (tons)..... 1202.8

T Less than 0.05 ton.

11-1518.7. ARROYO SECO NEAR GREENFIELD, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 14, 1965.....	1200	54		290	47							99	100					S
Nov. 18.....	1230	54		530	36							45	59	90	100			V

11-1525. SALINAS RIVER NEAR SPRECKLES, CALIF.

LOCATION.--Lat 36°37'50", long 121°40'40", at gaging station 80 feet upstream from bridge on Salinas-Monterey highway, 0.5 mile upstream from El Toro (revised) Creek, 2 miles west of Spreckles, Monterey County, and 4 miles south of Salinas.
DRAINAGE AREA.--4,157 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 13, 1965....	5.4	--		--	--	68	--	328	16	--	74		--	0.0	--	--		302	8	1.7	894	8.6
Nov. 18.....	82	--		--	--	36	--	256	0	--	42		--	.0	--	--		235	25	1.0	655	8.0
Dec. 7.....	22	--		--	--	79	--	374	10	--	82		--	.2	--	--		390	67	1.7	1070	8.4
Jan. 13, 1966....	130	--		--	--	50	--	232	6	--	42		--	.1	--	--		298	98	1.3	770	8.4
Feb. 11.....	170	--		--	--	52	--	247	0	--	46		--	.1	--	--		304	101	1.3	800	8.2
Mar. 15.....	9.2	--		--	--	100	--	404	0	--	95		--	.2	--	--		432	101	2.1	1230	7.4
Apr. 12.....	7.7	--		--	--	129	--	714	0	--	140		--	.1	--	--		554	0	2.4	1620	8.1
May 12.....	20	23		97	31	74	26	448	0	59	74		25	.0	630	0.86		370	3	1.7	1040	7.3
June 15.....	2.3	--		--	--	140	--	326	0	--	157		--	.4	--	--		304	37	3.5	1260	8.0
July 14.....	.9	--		--	--	135	--	196	0	--	135		--	.3	--	--		248	87	3.7	1120	7.3
Sept. 13.....	1.8	48		56	39	141	10	320	0	152	127		25	.6	757	1.03		300	38	3.5	1240	7.3

PAJARO RIVER BASIN

11-1540. UVAS CREEK NEAR MORGAN HILL, CALIF.

LOCATION.--Lat 37°01'00", long 120°40'05", downstream from Uvas Dam at the outlet, 0.6 mile downstream from Eastman Canyon, and 4.8 miles southwest of Morgan Hill, Santa Clara County.
DRAINAGE AREA.--30.4 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Nov. 10, 1965....		--		--	--	11	--	194	2	--	5.2		--	0.1	--	--		178	16	0.4	371	8.3
Jan. 12, 1966....		--		--	--	9.2	--	153	2	--	6.0		--	.1	--	--		146	17	.3	319	8.3
Mar. 2.....		--		--	--	10	--	152	5	--	6.0		--	.1	--	--		151	18	.4	325	8.4
May 11.....		15		30	18	10	0.9	163	1	28	7.0		1.0	.1	201	0.27		150	15	.4	325	8.3
July 13.....		--		--	--	12	--	176	6	--	7.0		--	.0	--	--		175	21	.4	366	8.5
Sept. 7.....		18		45	21	13	1.4	220	0	32	8.0		.4	.1	A 247	.34		199	19	.4	412	8.2

A Calculated from sum of determined constituents.

PAJARO RIVER BASIN--Continued

11-1565. SAN BENITO RIVER NEAR WILLOW CREEK SCHOOL, CALIF.

LOCATION (revised).--Lat 36°36'34", long 121°12'07", at gaging station 1.3 miles downstream from Willow Creek, 0.9 mile northwest of Willow Creek School, and 10 miles northwest of San Benito, San Benito County. Prior to Oct. 1, 1965, at site 0.9 mile downstream.
DRAINAGE AREA.--249 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Nov. 2, 1965.....	0.2	--		--	--	246	--	504	26	--	208		--	2.2	--	--		600	144	4.4	2130	8.6
Jan. 6, 1966.....	17	--		--	--	109	--	462	28	--	72		--	.9	--	--		498	73	2.1	1280	8.6
Mar. 1.....	40	--		--	--	48	--	431	26	--	26		--	.5	--	--		427	31	1.0	884	8.7
May 9.....	1.8	3.2		13	103	163	4.3	408	16	284	119		0.0	1.4	932	1.27		456	95	3.3	1480	8.6
July 15.....	.3	--		--	--	205	--	468	28	--	160		--	1.4	--	--		544	114	3.8	1760	8.6
Sept. 2.....	.1	17		38	115	241	5.8	510	27	389	170		.7	1.9	1260	1.71		568	106	4.4	1940	8.5

11-1590. PAJARO RIVER AT CHITTENDEN, CALIF.

LOCATION.--Lat 36°54'01", long 121°35'48", at gaging station on State highway bridge in Salsipuedes Grant, 0.6 mile downstream from Pescadero Creek, 0.6 mile southeast of Chittenden, Santa Cruz County, and 2.3 miles downstream from San Benito River.
DRAINAGE AREA.--1,186 square miles.
RECORDS AVAILABLE.--Chemical analyses; October 1953 to September 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 12, 1965....	3.7	--		--	--	100	--	403	20	--	96		--	0.4	--	--		415	52	2.1	1146	8.4
Nov. 18.....	34	--		--	--	66	--	444	6	--	74		--	.4	--	--		576	202	1.2	1270	8.3
Dec. 7.....	18	--		--	--	98	--	398	22	--	100		--	.4	--	--		628	266	1.7	1430	8.6
Jan. 13, 1966....	44	--		--	--	80	--	300	4	--	78		--	.4	--	--		426	173	1.7	1090	8.3
Feb. 11.....	75	--		--	--	71	--	290	0	--	70		--	.3	--	--		373	135	1.6	1010	8.0
Mar. 15.....	26	--		--	--	85	--	370	4	--	90		--	.4	--	--		558	248	1.6	1330	8.3
Apr. 12.....	16	--		--	--	82	--	386	12	--	81		--	.4	--	--		552	216	1.5	1270	8.4
May 3.....	20	21		136	51	100	2.9	434	8	242	85		17	.4	888	1.21		548	179	1.9	1350	8.4
June 15.....	6.4	--		--	--	120	--	464	16	--	106		--	.5	--	--		536	129	2.3	1390	8.5
July 14.....	4.4	--		--	--	160	--	522	4	--	158		--	.7	--	--		524	89	3.0	1550	8.3
Sept. 15.....	.2	28		83	67	265	4.1	504	8	113	371		1.6	1.7	1220	1.66		482	56	5.3	2060	8.3

SOQUEL CREEK BASIN

11-1600. SOQUEL CREEK AT SOQUEL, CALIF.

LOCATION.--Lat 36°59'29", long 121°57'17", at gaging station, 0.2 mile upstream from highway bridge in town of Soquel, Santa Cruz County, and 0.4 mile downstream from Bates Creek.
DRAINAGE AREA.--40.2 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
Water temperatures: January to September 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Nov. 10, 1965....	3.5	--		--	--	49	--	250	2	--	80		--	0.1	--	--		306	98	1.2	821	8.3
Jan. 11, 1966....	25	--		--	--	36	--	188	2	--	34		--	.1	--	--		242	85	1.0	624	8.3
Mar. 18	14	--		--	--	43	--	202	12	--	43		--	.1	--	--		276	91	1.1	701	8.6
May 3.....	5.8	28		79	24	52	4.2	241	4	117	'60		0.2	.1	496	0.67		295	91	1.3	774	8.3
July 13.....	1.5	--		--	--	45	--	224	12	--	58		--	.0	--	--		292	89	1.2	740	8.6
Sept. 7.....	1.6	42		77	24	43	5.0	227	10	101	54		.2	.2	484	.66		290	87	1.1	723	8.5

Temperature (°F) of water, January to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
December																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
January																																
Maximum	--	--	--	--	--	--	--	--	--	--	48	--	--	52	50	49	49	49	48	47	--	--	50	--	48	48	49	50	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	40	--	--	42	43	40	40	42	40	39	--	--	40	--	43	46	44	45	--	--	--	--
February																																
Maximum	51	49	49	50	52	52	51	50	50	50	50	50	50	49	50	50	51	52	53	53	52	54	55	54	52	52	52	51	--	--	--	51
Minimum	47	47	46	49	50	49	47	47	47	47	46	45	43	42	43	44	45	47	48	51	49	51	52	51	50	48	48	48	--	--	--	47
March																																
Maximum	52	51	50	49	52	53	54	54	55	56	65	56	61	64	63	62	60	59	61	60	62	--	--	--	--	63	62	61	60	60	62	58
Minimum	49	48	47	45	49	51	52	52	53	54	53	51	53	54	52	49	46	48	50	47	47	--	--	--	--	49	53	53	53	53	52	50
April																																
Maximum	63	62	60	59	60	58	69	69	60	66	68	69	70	73	76	74	61	68	70	71	71	73	77	77	74	76	75	70	73	75	--	69
Minimum	54	52	55	56	56	56	54	57	56	54	55	55	52	54	55	56	59	55	52	52	52	53	55	57	58	58	55	58	57	58	--	55
May																																
Maximum	77	78	61	72	73	76	76	66	63	73	73	71	73	73	73	74	73	74	76	74	68	75	72	74	74	74	64	62	62	66	73	71
Minimum	55	57	58	55	54	54	57	58	58	57	58	57	58	53	54	54	54	56	58	59	59	57	58	58	59	60	59	57	57	56	55	57
June																																
Maximum	74	72	73	75	74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	52	52	53	54	56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
July																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
August																																
Maximum	--	--	73	76	76	77	76	76	74	74	74	74	74	76	76	78	77	78	74	67	70	74	73	73	74	75	74	74	73	63	74	74
Minimum	--	--	59	59	59	59	61	60	59	60	61	60	60	60	59	60	61	61	61	60	60	59	59	57	58	58	58	58	57	55	60	59
September																																
Maximum	74	73	73	75	69	65	73	74	74	71	71	68	66	67	67	68	68	70	68	72	71	71	72	71	72	69	70	71	70	69	--	70
Minimum	61	60	60	60	60	61	61	58	59	58	57	54	55	55	55	56	57	60	56	58	58	57	58	59	59	59	58	58	59	60	--	58

SAN LORENZO RIVER BASIN

11-1605. SAN LORENZO RIVER AT BIG TREES, CALIF.

LOCATION.--Lat 37°01'40", long 122°03'30", At Sequoia Picnic and Camp Grounds at Big Trees, Santa Cruz County, approximately 0.5 mile upstream from gaging station, and 4 miles north of Santa Cruz.
DRAINAGE AREA--111 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966 (discontinued).
Water temperatures: May to September 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (Calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 18, 1965....	18	--		--	--	21	--	136	4	--	22		--	0.2	--	--		139	21	0.8	303	8.4
Nov. 9.....	18	--		--	--	22	--	144	2	--	21		--	.0	--	--		142	21	.8	379	8.3
Dec. 8.....	33	--		--	--	16	--	183	4	--	10		--	.1	--	--		214	57	.5	459	8.4
Jan. 11, 1966....	110	--		--	--	18	--	112	0	--	18		--	.1	--	--		124	32	.7	333	8.1
Feb. 14.....	118	--		--	--	19	--	117	0	--	18		--	.0	--	--		130	34	.7	352	8.2
Mar. 10.....	84	--		--	--	12	--	121	2	--	18		--	.1	--	--		140	38	.4	373	8.3
Apr. 13.....	49	--		--	--	21	--	132	0	--	20		--	.1	--	--		139	31	.8	371	8.0
May 3.....	31	22		40	8.5	21	1.6	135	0	43	20		0.8	.0	224	0.30		135	24	.8	363	8.0
June 16.....	22	--		--	--	21	--	136	5	--	22		--	.0	--	--		141	21	.8	379	8.5
July 12.....	16	--		--	--	24	--	138	2	--	24		--	.0	--	--		138	22	.9	372	8.4
Sept. 13.....	11	24		41	7.5	22	1.9	138	0	34	24		1.5	.0	224	.30		134	21	.8	363	8.1

11-1605. SAN LORENZO RIVER AT BIG TREES, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	60	59	59	58	56	56	59	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	56	57	57	55	52	51	54	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
December																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
January																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
February																																
Maximum	--	--	50	52	52	52	50	48	49	50	48	48	48	47	47	47	47	49	50	51	51	53	54	53	50	50	50	50	--	--	--	50
Minimum	--	--	48	50	51	50	48	47	47	48	46	45	45	44	44	44	44	46	48	49	48	50	52	50	49	48	46	47	--	--	--	47
March																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
April																																
Maximum	62	62	60	62	63	59	62	63	58	60	59	60	61	62	63	64	60	59	61	61	62	62	64	66	66	66	65	64	64	65	--	62
Minimum	54	54	56	57	58	57	56	57	56	55	56	56	52	55	55	56	56	55	53	53	52	54	55	56	57	58	55	57	56	57	--	55
May																																
Maximum	65	67	62	63	63	65	64	62	58	61	62	63	64	62	63	64	64	65	67	67	62	66	67	67	67	68	64	58	57	59	64	64
Minimum	55	57	58	56	54	55	56	56	56	55	55	55	56	54	53	54	53	55	57	58	57	56	57	56	57	58	58	55	54	54	53	56
June																																
Maximum	64	64	65	65	65	61	66	67	68	69	68	70	71	70	69	66	69	70	70	68	67	69	69	69	69	69	70	70	70	68	--	68
Minimum	52	52	53	53	53	57	57	57	58	59	56	57	60	61	62	61	60	60	60	60	59	57	59	58	59	59	59	60	60	58	--	58
July																																
Maximum	68	70	69	70	70	70	70	70	69	71	68	69	69	69	69	70	70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	58	60	58	58	60	60	59	60	60	60	59	59	58	59	58	58	58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
August																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
September																																
Maximum	--	--	--	--	--	--	69	68	69	68	67	65	62	64	65	66	67	66	66	66	66	66	66	66	67	66	66	67	66	67	--	66
Minimum	--	--	--	--	--	--	63	60	60	59	59	56	56	55	56	56	59	62	59	60	58	57	58	58	60	60	59	59	60	61	--	59

11-1625. PESCADERO CREEK NEAR PESCADERO, CALIF.

LOCATION.--Lat 37°15'40", long 122°19'40", temperature recorder at gaging station on left bank at downstream side of highway bridge, 3.0 miles east of Pescadero, San Mateo County, and 5.3 miles upstream from mouth.
DRAINAGE AREA.--45.9 square miles.
RECORDS AVAILABLE.--Water temperatures: April 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 71°F July 22-24, 31; minimum, 35°F Dec. 18.
EXTREMES, April 1965 to September 1966.--Water temperatures: Maximum, 71°F Aug. 9, 1965, July 22-24, 31, 1966; minimum, 35°F Dec. 18, 1965.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	--	54	52	53	54	54	54	55	54	54	53	52	50	51	51	50	49	48	46	45	46	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	51	51	52	52	53	54	54	53	52	52	49	47	49	50	48	47	46	44	44	45	--	--
December																																
Maximum	46	45	45	46	46	45	44	43	46	45	45	46	44	42	40	39	38	38	39	38	39	42	40	44	47	46	44	47	48	48	48	44
Minimum	44	44	44	44	44	43	42	41	43	43	43	44	42	40	38	37	36	35	36	36	36	39	38	39	44	43	41	44	47	47	47	41
January																																
Maximum	47	44	45	48	50	50	50	51	50	48	46	46	44	45	45	45	44	43	43	42	41	44	45	44	44	46	46	45	48	49	49	46
Minimum	44	42	42	45	48	50	48	50	48	46	44	43	43	43	44	44	43	41	42	41	39	41	44	42	42	43	45	43	46	48	48	44
February																																
Maximum	49	49	50	52	52	52	51	48	48	49	48	48	47	46	45	45	45	47	49	50	49	51	52	52	51	50	48	48	--	--	--	49
Minimum	48	46	48	50	51	51	47	45	45	47	44	46	44	43	43	42	42	45	47	47	46	48	50	50	49	47	45	47	--	--	--	47
March																																
Maximum	49	48	47	46	49	51	52	51	51	52	52	51	53	54	54	54	50	50	53	51	52	51	52	53	54	54	53	55	56	57	57	52
Minimum	48	46	44	44	45	48	50	50	50	51	49	50	51	52	52	50	48	48	50	48	48	48	48	49	51	52	52	51	52	53	52	49
April																																
Maximum	58	59	60	58	60	57	59	61	57	58	60	59	59	59	61	62	59	58	60	59	60	60	62	63	63	63	62	61	62	62	--	60
Minimum	54	52	54	56	56	55	54	56	56	55	56	56	54	52	53	54	55	54	54	52	54	53	54	55	57	56	54	53	55	56	--	54
May																																
Maximum	62	62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	53	54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
June																																
Maximum	--	--	--	64	62	60	64	63	64	65	66	66	68	69	68	64	67	68	69	66	62	67	66	68	68	67	68	68	67	66	--	66
Minimum	--	--	--	54	54	56	56	58	57	58	56	55	57	58	60	60	58	58	58	58	58	56	60	58	57	58	57	57	57	58	--	57
July																																
Maximum	67	68	67	63	68	66	66	66	68	69	64	62	65	67	69	69	70	68	70	70	70	71	71	71	70	69	69	68	66	65	71	68
Minimum	58	58	56	56	58	59	59	58	58	61	60	60	58	58	60	60	60	61	61	61	61	60	61	61	59	59	61	61	61	60	60	59
August																																
Maximum	69	68	69	69	69	69	68	68	68	70	69	70	69	69	68	68	70	69	67	64	66	68	68	67	67	68	67	67	66	65	63	68
Minimum	60	60	60	60	61	58	60	59	60	61	62	62	61	61	59	60	61	61	61	61	61	61	61	57	59	61	57	60	61	60	61	60
September																																
Maximum	66	66	66	66	65	66	66	65	65	63	64	62	62	62	62	62	65	63	64	63	63	63	63	64	65	64	64	64	64	64	--	64
Minimum	60	58	60	60	61	61	62	59	59	61	60	58	58	55	54	54	57	61	59	58	57	56	56	59	61	61	57	58	58	59	--	59

COLMA CREEK BASIN

11-1627.2. COLMA CREEK AT SOUTH SAN FRANCISCO, CALIF.

LOCATION.--Lat 37°39'14", long 122°25'31", at gaging station in Buri Buri Grant, in Orange Memorial Park, 1.0 mile southwest of South San Francisco Post Office, San Mateo County.
DRAINAGE AREA.--10.9 square miles.
RECORDS AVAILABLE.--Sediment records: October 1965 to September 1966.
EXTREMES, 1965-66.--Sediment concentrations: Maximum daily, 6,140 ppm Feb. 1, 1966; minimum daily, (estimated) 5 ppm on many days.
Sediment loads: Maximum daily, 5,750 tons Dec. 28, 1965; minimum daily, less than 0.05 ton on many days.

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	0.5			0.6	--	T	0.6	151	0.2
2	.5			.7	--	T	.6	--	.2
3	.5			1.2	--	T	.6	--	.2
4	.5			.9	--	T	.6	--	.1
5	.4			.6	--	T	.6	--	.1
6	.4			.7	--	T	.6	--	.1
7	.4			15	880 K	40	.4	--	T
8	.4			4.4	690 K	20	.4	--	T
9	.4			.3	--	.1	.6	--	T
10	.4			.3	--	.1	.4	--	T
11	.4			.3	--	T	28	1590 K	327
12	.4			59	3270 K	1470	5.3	1040 K	39
13	.6			98	3580 K	2350	.7	--	.8
14	.6			49	3410 K	1560	.7	--	.8
15	.6			6.0	511 K	8.9	.7	--	.7
16	.6			10	230 K	13	.7	--	.7
17	.6			92	3060 K	1880	.7	--	.7
18	.6			27	1800 S	390	.7	--	.7
19	.6			1.4	--	.2	.7	--	.6
20	.6			1.2	--	.1	.7	--	.6
21	.6			.7	--	T	.7	314	.6
22	.6			1.4	101 K	2.7	.7	--	.5
23	.6			26	2200 K	250	.6	--	.3
24	.6			40	2900 K	660	53	2790 K	1100
25	.6			15	1100 K	76	11	1700 K	100
26	.6			1.2	--	1.1	1.2	--	1.3
27	.6			.9	--	.7	.9	--	.5
28	.6			.6	--	.4	160	5670 S	5750
29	.6			.6	--	.4	61	4770 S	1340
30	.6			.6	--	.3	53	3780 K	880
31	.6			--	--	--	22	1470 K	133
Total	16.6	--	0.5	455.6	--	8724.2	408.4	--	9678.8

S Computed by subdiving day.
T Less than 0.05 ton.
K Computed from estimated-concentration graph and subdividing day.

11-1627.2. COLMA CREEK AT SOUTH SAN FRANCISCO, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	JANUARY				FEBRUARY				MARCH			
	Mean discharge (cfs)	Suspended sediment			Mean discharge (cfs)	Suspended sediment			Mean discharge (cfs)	Suspended sediment		
		Mean concentration (ppm)		Tons per day		Mean concentration (ppm)		Tons per day		Mean concentration (ppm)		Tons per day
1	5.3	--		5.7	80	6140	S	3640	2.1	107	K	1.8
2	3.0	--		2.0	6.7	--		5.4	1.2	--		.2
3	3.0	--		1.2	45	3320	S	804	.7	--		.1
4	64	3520	K	863	59	3250	S	1080	.7	--		T
5	76	4430	K	1480	8.2	--		11	.6	--		T
6	8.2	--		11	9.9	540	K	29	.6	--		T
7	4.6	--		1.9	3.4	--		.7	3.3	375	S	13
8	3.4	--		.9	2.1	--		.4	.6	--		.1
9	2.5	--		.6	1.8	--		.3	12	950	S	120
10	2.1	--		.5	1.4	--		.2	2.1	--		.9
11	1.8	--		.3	1.4	--		.2	.9	--		.1
12	1.8	--		.2	1.2	--		.1	.7	--		T
13	1.4	--		.1	1.2	--		T	1.2	--		.1
14	1.4	--		.1	1.2	--		T	1.4	--		.1
15	1.2	--		T	1.2	--		T	3.2	352	S	18
16	1.2	--		T	1.2	--		T	1.8	--		1.0
17	.9	--		T	1.2	--		T	1.4	--		.3
18	.9	--		T	5.8	210	K	17	1.8	--		.2
19	.9	--		T	12	1400	K	74	2.7	221	S	5.6
20	.9	--		T	1.4	--		1.9	.6	--		.1
21	.9	--		T	1.4	--		.8	.7	--		.1
22	1.8	292	K	3.1	17	1100	K	139	.6	--		.1
23	.9	--		.2	1.8	--		1.7	.7	--		.1
24	.9	--		.2	19	2690	K	396	.7	--		.1
25	.7	--		.1	16	2200	K	334	.6	--		.1
26	.7	--		.1	1.8	--		3.9	.6	--		.1
27	.6	--		T	1.4	--		.6	.6	--		.1
28	.6	--		T	1.4	55		.2	.7	--		.1
29	118	5690	K	4120	--	--		--	.6	--		.1
30	31	2570	K	496	--	--		--	.6	118		.2
31	6.0	620		10	--	--		--	.6	--		.2
Total	346.6	--		6997.4	305.1	--		6540.5	46.6	--		163.0

Day	APRIL				MAY				JUNE			
	Mean discharge (cfs)	Suspended sediment			Mean discharge (cfs)	Suspended sediment			Mean discharge (cfs)	Suspended sediment		
		Mean concentration (ppm)		Tons per day		Mean concentration (ppm)		Tons per day		Mean concentration (ppm)		Tons per day
1	0.4	--		0.1	0.7			T	0.6			T
2	.6	--		.1	.9			T	.1	5		T
3	.6	--		.1	.7			T	.2			T
4	.6	--		.1	.9			0.2	1.0			0.1
5	.6	--		.1	1.2			.2	.9			.1
6	.4	--		T	1.2			.1	1.9			1.0
7	.4	--		T	1.2			.1	.6			.1
8	.4	--		T	1.2			.1	.4			.1
9	3.7	455	S	22	3.6	740	K	17	.3			T
10	.9	--		.5	.6			.5	.3			T
11	7.4	522	S	42	.2			.1	.3			T
12	1.9	275	S	3.2	.2			T	.3			T
13	.7	--		.1	.2			T	.4			T
14	.7	--		T	.3			T	.6			T
15	.9	--		.2	.2			T	.4			T
16	.7	--		.1	.3			T	.4			T
17	.7	--		.1	.4			T	.6			T
18	.7	--		.1	.6			.1	.4			T
19	.7	--		.1	.2			T	.4			T
20	.7	--		T	.2			T	.4			T
21	.7	--		T	.2			T	.4			T
22	.7	--		T	.2			T	.4			T
23	.7	--		T	.3			T	.4			T
24	.7	--		T	.4			T	.7			T
25	.7	--		T	.3			T	.7			T
26	.7	--		T	.4			T	.6			T
27	.7	--		T	.4			T	.6			T
28	.7	--		T	.4			T	.6			T
29	.7	--		T	.2			T	.6			T
30	.7	--		T	.4			T	.7			T
31	--	--		--	.4			T	--			--
Total	30.7	--		69.2	18.6	--		18.8	16.2	--		1.8

S Computed by subdividing day.
T Less than 0.05 ton.
K Computed from estimated-concentration graph and subdividing day.

11-1627.2. COLMA CREEK AT SOUTH SAN FRANCISCO, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	JULY			AUGUST			SEPTEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	0.7	--	T	0.4		T	0.3	--	T
2	.4	--	T	.6		0.2	.4	--	T
3	.4	--	T	.7		.1	.3	--	T
4	.6	--	T	.9		.2	.4	--	T
5	1.3	70 K	3.5	.7		.2	.6	--	T
6	.9	174 K	1.4	.6		.1	.4	--	T
7	.4	--	.1	.6		.1	.6	--	T
8	.3	--	T	.6		T	.6	--	T
9	.3	--	T	.4		T	.6	--	0.1
10	.3	--	T	.4		T	.4	--	T
11	.3	--	T	.4		T	.4	--	T
12	.3	--	T	.4		T	.4	--	T
13	.4	--	T	.4		T	.4	--	T
14	.6	--	T	.4		T	.4	--	T
15	.6	--	T	.4		T	.4	--	T
16	.6	--	T	.4		T	.4	--	T
17	.6	--	T	.6		T	.7	--	.1
18	.6	--	T	.6		T	3.5	677 K	21
19	.6	--	T	.6		T	.6	--	.2
20	.7	--	T	.6		T	.6	--	.1
21	.4	--	T	.6		T	.6	--	.1
22	.4	--	T	.6		T	.6	--	T
23	.4	--	T	.4		T	.6	30 B	T
24	.6	--	T	.4		T	.6	20 B	T
25	.6	--	T	.4		T	.6	20 B	T
26	.6	--	T	.4		T	.6	20 B	T
27	.6	--	T	.4		T	.7	20 B	T
28	.4	--	T	.4		T	.7	10 B	T
29	.4	--	T	.4		T	.7	10 B	T
30	.4	--	T	2.0	233 K	5.1	.6	10 B	T
31	.4	--	T	.3		.1	--	--	--
Total	16.1	--	5.4	17.0	--	6.4	18.7	--	22.3

Total discharge for year (cfs-days)..... 1696.2
Total load for year (tons)..... 32228.3

T Less than 0.05 ton.
B Computed from estimated-concentration graph.
K Computed from estimated-concentration graph and subidiving day.

11-1627.2. COLMA CREEK AT SOUTH SAN FRANCISCO, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 17, 1965.....	2145	55		54	2200		--	72	--	87	--	94	97	99	100	--		SPWC
Nov. 18.....	0625	55		109	2570		22	30	36	46	58	74	92	100	--	--		VPWC
Nov. 18.....	0650	54		292	11700		15	18	21	31	43	57	92	98	100	--		VPWC
Nov. 18.....	0930	56		27	3250		--	74	--	95	--	99	99	100	--	--		SPWC
Dec. 28.....	1520	--		818	19300		24	28	32	43	55	66	89	97	100	--		V
Dec. 28.....	1715	--		328	11700		--	--	--	--	--	62	82	95	100	--		V
Dec. 28.....	2200	49		49	3440		--	64	--	82	--	90	95	100	--	--		VPWC
Feb. 1, 1966.....	0350	47		147	9400		10	11	14	20	30	44	83	97	100	--		VPWC
Feb. 1.....	0405	47		198	13900		--	--	--	--	--	44	85	96	100	--		V
Feb. 1.....	0440	47		414	18400		--	--	--	--	--	42	66	91	99	100		S
Feb. 1.....	0520	47		680	26100		18	20	28	34	44	51	78	97	100	--		SPWC
Feb. 1.....	0535	47		536	25000		--	--	--	--	--	52	86	98	100	--		V
Feb. 1.....	0615	47		522	20200		--	--	--	--	--	63	88	98	100	--		V
Feb. 1.....	0840	47		46	4760		--	52	--	68	--	77	80	87	94	98		VPWC
Feb. 1.....	1045	47		139	8630		--	--	--	--	--	44	77	95	100	--		V
Feb. 1.....	2145	48		7.4	663		--	--	--	--	--	97	100	--	--	--		S
Feb. 3.....	1500	49		97	5380		--	--	--	--	--	53	81	98	100	--		V
Feb. 3.....	1535	49		167	12300		16	18	21	28	35	43	76	97	100	--		VPWC
Feb. 3.....	1915	49		56	3320		40	44	56	63	70	74	85	97	100	--		VPWC
Feb. 24.....	0910	51		6.7	2780		64	71	84	92	98	99	99	100	--	--		SPWC
Feb. 28.....	1045	51		1.4	55		--	--	--	--	--	98	100	--	--	--		S
Mar. 30.....	1200	68		.6	118		--	--	--	--	--	98	100	--	--	--		S
May 9.....	0940	58		20	6060		37	47	60	77	87	92	98	100	--	--		V
Aug. 5.....	1330	73		.7	110		--	--	--	--	--	84	100	--	--	--		S

42 74

42% clay
32% silt
26% sand

11-1627.22. SPRUCE BRANCH AT SOUTH SAN FRANCISCO, CALIF.

LOCATION.--Lat 37°38'46", long 122°25'15", at gaging station in Buri Buri Grant, 0.5 mile upstream from mouth, and 1.0 mile southwest of South San Francisco Post Office, San Mateo County.
DRAINAGE AREA.--1.68 square miles.
RECORDS AVAILABLE.--Sediment records: October 1965 to September 1966.
EXTREMES, 1965-66.--Sediment concentrations: Maximum daily, 3,040 ppm Dec. 28; minimum daily, no flow on many days.
Sediment loads: Maximum daily, 841 tons Dec. 28; minimum daily, 0 ton on many days.
REMARKS.--No flow Oct. 1, 2, 18-25, 27, 28, Oct. 30 to Nov. 6, Nov. 9-11, May 11-13, 16, June 25-29, July 6, 29, Sept. 19.

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER				DECEMBER			
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment			Mean discharge (cfs)	Suspended sediment		
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)		Tons per day		Mean concentration (ppm)		Tons per day
1	0		0	0	--		0	0.1	38		T
2	0		0	0	--		0	.1	--		T
3	.1		T	0	--		0	.1	--		T
4	.1		T	0	--		0	.1	--		T
5	.1		T	0	--		0	.1	--		T
6	.2		T	0	--		0	.1	--		T
7	.2		T	4.3	540	K	68	.2	--		T
8	.2		T	.3	333	K	1.0	.2	--		T
9	.2		T	0	--		0	.2	--		T
10	.2		T	0	--		0	.2	--		T
11	.1		T	0	--		0	6.6	1180	K	87
12	.1		T	17	2020	K	305	1.1	333	K	2.4
13	.2		T	20	2300	K	260	.1	--		T
14	.1		T	11	1260	K	168	.1	--		T
15	.1		T	.8	--		.2	.2	--		T
16	.2		T	2.0	270	K	3.6	.2	--		T
17	.1		T	20	2230	S	250	.2	--		T
18	0		0	6.7	792	S	57	.2	--		T
19	0		0	.1	45		T	.2	--		T
20	0		0	.1	--		T	.4	--		.1
21	0		0	.1	--		T	.2	140		.1
22	0		0	.8	201	K	2.5	.4	--		.1
23	0		0	6.3	820	K	39	.6	--		.2
24	0		0	16	2260	K	194	24	2260	K	407
25	0		0	3.0	645	K	7.8	5.9	1130	K	39
26	.1		T	.2	--		T	.5	--		.1
27	0		0	.1	--		T	.5	--		.1
28	0		0	.1	--		T	43	3040	S	841
29	.1		T	.1	--		T	16	2400	K	170
30	0		0	.1	--		T	14	2160	K	180
31	0		0	--	--		--	3.7	582	K	9.8
Total	2.4	--	0.2	109.1	--		1356.2	119.5	--		1737.2

S Computed by subdividing day.
T Less than 0.05 ton.
K Computed from estimated-concentration graph.

11-1627.22. SPRUCE BRANCH AT SOUTH SAN FRANCISCO, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	JANUARY			FEBRUARY			MARCH		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	0.8	--	0.2	17	1920 S	300	0.6	130 K	1.1
2	.2	--	T	1.0	--	.5	.2	--	T
3	.2	--	T	9.5	1630 S	103	.2	--	T
4	19	2870 S	171	17	1720 S	190	.1	--	T
5	18	1690 K	196	.8	--	.2	.2	--	T
6	.8	--	.3	1.8	--	.5	.2	--	T
7	.5	--	.1	.4	--	.1	1.0	271 K	3.9
8	.4	--	.1	.2	--	T	.2	--	T
9	.2	--	T	.1	--	T	3.6	485 K	22
10	.2	--	T	.2	--	T	.2	--	T
11	.2	--	T	.1	--	T	.1	--	T
12	.2	--	T	.1	--	T	.1	--	T
13	.2	--	T	.1	--	T	.1	--	T
14	.4	--	.1	.1	--	T	.1	--	T
15	.5	--	.1	.1	--	T	.2	--	T
16	.6	--	.1	.1	--	T	.1	--	T
17	.6	--	.1	.1	--	T	.1	--	T
18	.6	--	.1	.6	92 K	1.6	.1	--	T
19	.6	50	.1	4.0	569 K	12	.7	430 K	4.5
20	.5	--	.1	.1	--	T	.1	--	T
21	.4	--	.1	.1	--	T	.1	--	T
22	.4	--	.1	2.2	--	2.4	.1	--	T
23	.1	--	T	.1	--	T	.1	--	T
24	.1	--	T	3.4	720 K	23	.1	--	T
25	.1	47	T	4.2	640 K	51	.1	--	T
26	.2	--	T	.2	--	.1	.1	--	T
27	.2	--	T	.1	--	T	.1	--	T
28	.2	--	T	.1	74	T	.1	--	T
29	31	2760 K	538	--	--	--	.1	--	T
30	4.8	670 K	13	--	--	--	.1	26	T
31	.8	234 S	.6	--	--	--	.1	--	T
Total	83.0	--	920.6	63.8	--	684.6	9.3	--	31.8

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	0.1	--	T	0.1		T	0.1		T
2	.2	--	T	.1		T	.1	24	T
3	.2	--	T	.1		T	.1		T
4	.2	--	T	.1		T	.2		T
5	.2	--	T	.2		T	.2		T
6	.2	--	T	.2		T	.2		T
7	.1	--	T	.2		T	.4		0.6
8	.1	--	T	.2		T	.1		T
9	1.8	359 K	13	.7	215	0.4	.1		T
10	.2	--	.1	.1		T	.1		T
11	2.1	376 K	12	0		0	.1		T
12	.6	313 K	1.4	0		0	.1		T
13	.1	--	T	0		0	.2		T
14	.1	--	T	.1		T	.2		T
15	.1	--	T	.1		T	.1		T
16	.1	--	T	0		0	.1		T
17	.1	--	T	.1		T	.1		T
18	.1	--	T	.1		T	.1		T
19	.1	--	T	.1		T	.1		T
20	.1	--	T	.1		T	.1		T
21	.1	--	T	.1		T	.1		T
22	.2	--	T	.2		T	.1		T
23	.2	--	T	.1		T	.1		T
24	.2	--	T	.1		T	.1		T
25	.1	--	T	.1		T	0		0
26	.1	--	T	.1		T	0		0
27	.1	--	T	.1		T	0		0
28	.1	--	T	.2		T	0		0
29	.1	--	T	.1		T	0		0
30	.1	--	T	.1		T	.1		T
31	--	--	--	.1		T	--		--
Total	8.1	--	26.7	3.9	--	1.0	3.3	--	0.8

S Computed by subdividing day.
T Less than 0.05 ton.
K Computed from estimated-concentration graph.

COLMA CREEK BASIN--Continued

11-1627.22. SPRUCE BRANCH AT SOUTH SAN FRANCISCO, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	JULY			AUGUST			SEPTEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	0.1		T	0.1		T	0.1		T
2	.1		T	.1		T	.1		T
3	.2		T	.1		T	.1		T
4	.1		T	.1		T	.1		T
5	.1		T	.1	29	T	.1		T
6	0		0	.2		T	.1		T
7	.1		T	.2		T	.1		T
8	.1		T	.2		T	.1		T
9	.1		T	.2		T	.1		T
10	.1		T	.4		T	.1		T
11	.1		T	.2		T	.2		T
12	.1		T	.2		T	.1		T
13	.1		T	.2		T	.1		T
14	.1		T	.2		T	.1		T
15	.1		T	.2		T	.2		T
16	.1		T	.2		T	.2		T
17	.1		T	.2		T	.2		T
18	.1		T	.2		T	.2		T
19	.1		T	.5		T	0		0
20	.2		T	.4		T	.1		T
21	.2		T	.2		T	.1		T
22	.1		T	.1		T	.1		T
23	.1		T	.2		T	.1		T
24	.1		T	.2		T	.1		T
25	.1		T	.5		T	.1		T
26	.1		T	.5		T	.1		T
27	.1		T	.2		T	.1		T
28	.1		T	.2		T	.1		T
29	0		0	.2		T	.2		T
30	.1		T	.3		T	.2		T
31	.1		T	.1		T	--		--
Total	3.2	--	0.2	6.9	--	0.5	3.6	--	0.2

Total discharge for year (cfs-days)..... 416.1
Total load for year (tons)..... 4760.0

T Less than 0.05 ton.

COLMA CREEK BASIN--Continued

11-1627.22. SPRUCE BRANCH AT SOUTH SAN FRANCISCO, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 17, 1965.....	2115	57		6.3	649		--	--	--	--	--	70	96	100	--	--		S
Nov. 17.....	2345	56		22	5190		22	24	28	35	44	64	94	99	99	100		VPWC
Nov. 18.....	0715	--		37	4330		23	28	36	44	57	77	96	100	--	--		VPWC
Feb. 1, 1966.....	0420	47		88	9230		12	14	16	21	28	45	88	98	100	--		VPWC
Feb. 1.....	0505	47		203	9880		10	12	16	20	28	46	92	99	100	--		VPWC
Feb. 1.....	0720	47		9.8	2440		--	--	--	--	--	43	69	89	96	100		V

GUADALUPE RIVER BASIN

11-1680. LOS GATOS CREEK AT LOS GATOS, CALIF.

LOCATION.--Lat 37°12'30", long 121°59'15", at gaging station 0.3 mile downstream from Trout Creek, 0.5 mile downstream from Lexington Reservoir, and 1 mile south of Los Gatos, Santa Clara County.
DRAINAGE AREA.--38.6 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 18, 1965....	3.3	--		--	--	14	--	184	5	--	9.0		--	0.2	--	--		202	43	0.4	414	8.5
Nov. 9.....	2.8	--		--	--	15	--	198	0	--	9.0		--	.1	--	--		209	47	.4	457	8.1
Dec. 8.....	45	--		--	--	24	--	138	2	--	23		--	.0	--	--		147	31	.9	397	8.3
Jan. 12, 1966....	32	--		--	--	13	--	141	3	--	8.9		--	.0	--	--		179	58	.4	402	8.3
Feb. 14.....	43	--		--	--	15	--	149	0	--	10		--	.0	--	--		181	59	.5	420	8.2
Mar. 2.....	2.2	--		--	--	16	--	162	8	--	8.5		--	.1	--	--		213	67	.5	468	8.6
Apr. 13.....	6.1	--		--	--	17	--	166	2	--	11		--	.1	--	--		211	72	.5	469	8.3
May 11.....	14	15		55	20	18	1.6	180	0	90	11		1.2	.0	310	0.42		220	72	.5	486	8.0
June 16.....	6.7	--		--	--	21	--	195	5	--	12		--	.1	--	--		243	75	.6	531	8.4
July 13.....	1.7	--		--	--	20	--	204	8	--	12		--	.0	--	--		262	82	.5	549	8.6
Sept. 7.....	2.2	14		73	27	23	2.6	245	0	112	14		.6	.2	400	.54		293	92	.6	616	8.2

11-1700. COYOTE CREEK NEAR MADRONE, CALIF.

LOCATION.--Lat 37°10'06", long 121°38'55", at gaging station near southeast corner of La Laguna Seca Grant, 1.2 miles downstream from Anderson Dam, and 1.8 miles northeast of Madrone, Santa Clara County.
DRAINAGE AREA.--196 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to July 1966 (discontinued)

Chemical analyses, in parts per million, October 1965 to July 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 18, 1965....	59					16		165	6		10			0.3				160	15	0.6	329	8.5
Nov. 10.....	46					17		183	0		10			.1				167	17	.6	386	8.1
Dec. 8.....	37					18		182	6		11			.1				198	39	.6	400	8.6
Jan. 12, 1966....	.1					18		181	4		14			.1				180	25	.6	419	8.4
Feb. 14.....	5.7					21		194	3		15			.1				182	18	.7	436	8.4
Mar. 2.....	.1					21		175	5		12			.1				176	24	.7	422	8.6
apr. 13.....	70					22		189	6		10			.1				190	25	.7	441	8.5
May 11.....	75	9.3		41	16	18	1.6	172	4	46	12		1.4	.1	234	0.32		170	22	.6	398	8.4
June 16.....	63					19		186	8		14			.1				188	22	.6	433	8.6
July 14.....	.6					26		240	8		19			.0				238	28	.7	537	8.5

11-1765. ARROYO VALLE NEAR LIVERMORE, CALIF.

LOCATION.--Lat 37°37'24", long 121°45'28", at gaging station 900 feet downstream from highway bridge, 1.1 miles upstream from Dry Creek, 4.1 miles south of Livermore, Alameda County, and 6.9 miles southeast of Pleasanton.
DRAINAGE AREA.--147 square miles.
RECORDS AVAILABLE.--Chemical analyses: December 1958 to July 1966 (discontinued).
Water temperatures: October 1959 to September 1961, October 1962 to September 1966.
Sediment records: October 1962 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 87°F June 14; minimum, 39°F Jan. 2.
Sediment concentrations: Maximum daily, 266 ppm Dec. 29; minimum daily, no flow on many days.
Sediment loads: Maximum daily, 167 tons Dec. 29; minimum daily, 0 ton on many days.
EXTREMES, 1962-66.--Water temperatures (1963-66): Maximum, 87°F June 14, 1966; minimum, 39°F Jan. 2, 1966.
Sediment concentrations: Maximum daily, 3,290 ppm Feb. 1, 1963; minimum daily, no flow on many days during 1962-66.
Sediment loads: Maximum daily, 45,900 tons Feb. 1, 1963; minimum daily, 0 ton on many days during 1962-66.
REMARKS.--No flow Oct. 1 to Nov. 12, July 23 to Sept. 30.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Dec. 10, 1965	4.2					36		290	3		30			0.5				295	52	0.9	676	8.3
Jan. 14, 1966	12					23		235	12		16			.7				243	31	.6	532	8.5
Feb. 9	32					20		223	4		12			.2				213	24	.6	474	8.4
Mar. 3	11					24		244	8		17			.4				237	24	.7	531	8.6
Apr. 13	3.5					34		284	7		24			.5				274	30	.9	618	8.5
May 20	.5	19		67	37	50	2.4	342	6	77	40		0.1	.9	467	0.64		318	28	1.2	763	8.4
June 14	.3					48		315	0		40			.7				284	26	1.2	729	8.2
July 20	.1					70		360	4		63			1.4				324	22	1.7	883	8.3

11-1765. ARROYO VALLE NEAR LIVERMORE, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	50	51	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	47	48	--	--	--	--
December																																
Maximum	--	--	--	--	--	51	49	48	48	50	48	50	48	48	46	45	44	44	44	43	44	45	44	45	49	45	46	48	48	46	44	47
Minimum	--	--	--	--	--	50	48	47	48	48	47	48	47	46	44	42	42	41	41	41	42	43	41	43	45	42	43	45	43	44	43	44
January																																
Maximum	43	42	45	46	49	50	49	50	49	48	47	47	48	48	49	47	47	46	46	45	46	47	47	47	47	47	49	49	51	50	48	47
Minimum	40	39	40	44	46	46	47	48	46	44	43	42	43	43	45	43	42	42	43	41	41	44	45	43	43	44	45	44	46	47	46	44
February																																
Maximum	50	49	47	49	48	48	47	47	48	49	49	48	50	50	50	50	50	51	52	51	51	51	54	53	51	51	52	49	--	--	--	50
Minimum	47	45	46	47	46	47	42	42	42	44	41	44	42	42	42	42	42	45	47	46	44	47	48	44	47	44	44	44	--	--	--	44
March																																
Maximum	49	49	--	--	53	56	56	55	52	57	58	55	58	57	58	55	57	59	59	58	55	59	61	61	60	60	56	64	64	55	67	57
Minimum	46	43	--	--	47	49	50	48	49	51	49	51	51	51	50	48	46	47	50	46	47	48	48	50	47	52	52	54	54	53	55	49
April																																
Maximum	71	67	60	68	64	60	63	64	62	61	63	63	65	67	70	69	65	62	65	64	66	67	71	71	70	69	70	70	71	69	--	66
Minimum	57	57	57	60	61	56	54	56	54	54	54	56	53	54	56	56	56	54	52	52	52	53	54	56	56	56	55	56	55	55	--	55
May																																
Maximum	71	74	71	72	70	74	73	68	66	66	71	75	72	72	72	73	76	78	78	77	75	77	78	79	78	75	74	74	72	69	74	73
Minimum	55	57	60	58	58	58	58	58	59	59	59	58	60	55	57	58	56	60	60	60	61	61	61	61	62	62	62	62	62	62	60	59
June																																
Maximum	72	73	75	75	73	65	74	75	74	75	79	81	86	87	84	79	80	83	81	75	67	76	75	80	83	82	86	83	70	81	--	78
Minimum	58	57	59	58	61	62	62	62	61	61	61	63	65	67	69	68	64	64	66	64	59	59	64	61	65	65	66	67	65	63	--	63
July																																
Maximum	77	82	84	84	82	77	78	80	80	80	77	76	78	79	79	78	80	81	80	80	83	85	--	--	--	--	--	--	--	--	--	--
Minimum	65	64	64	65	66	66	64	66	66	63	65	65	63	63	63	63	62	64	65	63	64	67	--	--	--	--	--	--	--	--	--	--
August																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
September																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

11-1765. ARROYO VALLE NEAR LIVERMORE, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1				0		0	7.5	--	0.4
2				0		0	7.0	--	.4
3				0		0	6.0	--	.2
4				0		0	5.5	--	.2
5				0		0	4.8	--	.2
6				0		0	4.6	15	.2
7				0		0	4.6	--	.2
8				0		0	4.6	--	.2
9				0		0	4.2	--	.1
10				0		0	4.2	--	.1
11				0		0	3.8	--	.1
12				0		0	4.6	--	.1
13				0.2		T	5.0	--	.1
14				.3		T	5.0	8	.1
15				.3		T	4.2	--	.2
16				.2		T	3.8	--	.4
17				1.0		T	3.5	--	.5
18				7.0		0.4	3.5	--	.5
19				10		.8	3.2	--	.5
20				9.0		.6	3.2	--	.5
21				6.0		.2	3.5	--	.6
22				3.5		.1	3.5	59	.6
23				4.0		.2	3.5	--	.5
24				10		.8	3.8	--	.6
25				30		4.0	19	103 K	7.3
26				27		3.3	31	143 K	12
27				18		1.9	20	--	6.5
28				13		1.2	17	122 S	5.7
29				9.9		.8	216	266 S	167
30				8.5		.6	223	126 S	75
31				--		--	254	144 S	99
Total	0	--	0	157.9	--	14.9	887.1	--	380.0

Day	JANUARY			FEBRUARY			MARCH		
1	174	--	56	26	--	2.4	11	--	0.3
2	84	--	18	27	--	2.3	11	10	.3
3	60	--	7.3	22	--	1.8	11	--	.3
4	47	22	2.8	20	30	1.6	9.4	--	.2
5	38	--	1.9	21	--	1.6	8.8	9	.2
6	34	--	1.6	32	--	2.0	7.8	--	.2
7	25	--	.9	49	16	2.1	7.4	--	.1
8	22	11	.7	40	--	1.2	7.0	--	.1
9	19	--	.6	32	--	.7	7.0	5	.1
10	17	--	1.1	26	--	.4	7.4	--	.1
11	15	--	.6	23	--	.3	8.2	--	.1
12	13	--	.6	20	4	.2	7.8	--	.1
13	12	--	.6	18	--	.2	7.4	--	.1
14	12	--	.6	15	--	.2	7.0	6	.1
15	11	--	.6	13	--	.2	6.6	--	.1
16	9.9	--	.6	13	7	.2	6.6	11	.2
17	9.4	--	.6	12	--	.2	6.2	--	.2
18	8.8	22	.5	12	--	.2	5.8	--	.1
19	8.2	--	.6	12	6	.2	5.8	--	.1
20	7.8	--	.7	8.8	--	.2	5.4	--	.1
21	7.8	--	.7	7.4	--	.2	5.4	4	.1
22	7.4	33	.7	9.4	--	.3	5.0	--	.1
23	7.4	--	.7	11	13	.4	4.2	--	T
24	7.4	--	.7	11	--	.4	3.5	--	T
25	7.0	35	.7	12	--	.6	3.5	--	.1
26	7.0	--	.7	12	--	.6	3.2	9	.1
27	6.6	--	.6	13	--	.6	3.5	--	.1
28	6.2	--	.7	13	--	.5	3.2	--	.1
29	7.4	41	.8	--	--	--	2.9	6	T
30	17	--	2.1	--	--	--	2.9	--	T
31	26	35	2.5	--	--	--	2.9	7	.1
Total	734.3	--	107.8	530.6	--	21.8	194.8	--	4.0

S Computed by subdividing day.
T Less than 0.05 ton.
K Computed from estimated-concentration graph and subdividing day.

11-1765. ARROYO VALLE NEAR LIVERMORE, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	2.6	--	T	1.8	--	0.1	0.5	11	T
2	2.9	--	0.1	1.4	11	T	.4	--	T
3	3.2	--	.1	1.4	9	T	.5	37	T
4	2.9	12	.1	1.2	19	.1	.6	--	0.1
5	2.9	--	.1	1.2	20	.1	.6	--	.1
6	2.9	--	.1	1.2	15	T	.7	36	.1
7	2.9	--	.1	1.1	15	T	.6	--	.1
8	2.9	18	.1	1.2	--	T	.5	31	T
9	3.2	--	.1	1.2	15	T	.5	--	T
10	4.2	9	.1	1.1	20	.1	.5	16	T
11	3.5	--	.1	1.1	13	T	.5	--	T
12	4.2	23	.3	.9	21	.1	.6	--	.1
13	3.5	13	.1	.8	17	T	.5	38	.1
14	3.5	20	.2	.9	12	T	.3	--	T
15	2.9	8	.1	1.1	--	T	.3	38	T
16	3.3	16	.1	.9	17	T	.3	--	T
17	3.2	--	.1	.7	29	.1	.2	25	T
18	2.8	--	.2	.7	20	T	.3	--	T
19	2.4	10	.1	.6	13	T	.3	--	.1
20	2.4	11	.1	.5	15	T	.4	108	.1
21	2.0	17	.1	.6	30	T	.4	--	.1
22	1.8	18	.1	.8	--	.1	.4	100	.1
23	1.8	17	.1	.6	24	T	.3	--	.1
24	2.0	--	.1	.5	31	T	.2	40	T
25	1.8	16	.1	.6	45	.1	.2	--	T
26	1.6	21	.1	.5	18	T	.3	--	T
27	1.6	11	T	.6	28	T	.2	50	T
28	1.6	10	T	.8	20	T	.2	--	T
29	1.6	11	T	.8	--	T	.2	49	T
30	1.8	10	T	.8	17	T	.2	43	T
31	--	--	--	.6	19	T	--	--	--
Total	79.9	--	3.1	28.2	--	1.6	11.7	--	1.6

	JULY			AUGUST			SEPTEMBER		
1	0.2	48	T						
2	.2	--	T						
3	.2	--	0.1						
4	.2	104	.1						
5	.2	--	.1						
6	.3	76	.1						
7	.4	--	.1						
8	.4	46	T						
9	.4	--	T						
10	.4	--	T						
11	.4	32	T						
12	.3	--	T						
13	.2	25	T						
14	.3	--	T						
15	.3	13	T						
16	.2	--	T						
17	.1	--	T						
18	.2	32	T						
19	.1	--	T						
20	.1	--	T						
21	.1	--	T						
22	.1	--	T						
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	--	0						
Total	5.3	--	0.8	0	--	0	0	--	0

Total discharge for year (cfs-days)..... 2629.8
Total load for year (tons)..... 535.6

T Less than 0.05 ton.

ALAMEDA CREEK BASIN--Continued

11-1765. ARROYO VALLE NEAR LIVERMORE, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment											Method of analysis
							Percent finer than size indicated, in millimeters											
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Dec. 28, 1965.....	1500	54		16	118							100	--	--				V
Dec. 29.....	0945	44		250	310							95	98	100				V
Dec. 30.....	1230	48		226	117							77	89	96	100			V

11-1790. ALAMEDA CREEK NEAR NILES, CALIF.

LOCATION.--Lat 37°35'14", long 121°57'35", at gaging station 0.3 mile downstream from railroad bridge, and 1.2 miles northeast of Niles, Alameda County.
DRAINAGE AREA.--633 square miles.
RECORDS AVAILABLE.--Chemical analyses: February 1952 to September 1966.
Water temperatures: July 1956 to September 1966.
Sediment records: January 1957 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 78°F July 22; minimum, 41°F Dec. 1.
Sediment concentrations: Maximum daily, 1,250 ppm Dec. 29; minimum daily, 6 ppm on several days during December and January.
Sediment loads: Maximum daily, 1,420 tons Dec. 29; minimum daily, 0.1 ton on several days.
EXTREMES, 1956-66.--Water temperatures: Maximum (1956-62, 1964-66), 88°F June 1, 1960; minimum, 37°F Jan. 5, 1961, Jan. 14, 1963.
Sediment concentrations (1957-66): Maximum daily, 5,340 ppm Apr. 3, 1958; minimum daily, no flow on many days during 1957, 1959-61.
Sediment loads (1957-66): Maximum daily, 285,000 tons Apr. 3, 1958; minimum daily, 0 ton on many days during 1957, 1959-61.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 14, 1965....	42	--		--	--	52	--	126	0	--	72		--	0.1	--	--		136	33	1.9	455	8.2
Nov. 9.....	44	--		--	--	54	--	126	0	--	85		--	.3	--	--		149	46	1.9	579	8.0
Dec. 10.....	16	--		--	--	71	--	284	0	--	96		--	.7	--	--		306	73	1.8	894	8.2
Jan. 11, 1966....	16	--		--	--	50	--	245	13	--	60		--	.5	--	--		286	64	1.3	744	8.5
Feb. 14.....	42	--		--	--	126	--	301	0	--	198		--	.8	--	--		284	37	3.2	1220	7.8
Mar. 11.....	12	--		--	--	82	--	204	6	--	105		--	.6	--	--		252	75	2.3	866	8.4
Apr. 13.....	11	--		--	--	69	--	249	2	--	88		--	.6	--	--		277	70	1.8	848	8.3
May 19.....	46	11		28	13	42	1.8	111	0	41	55		1.1	.1	256	0.35		125	34	1.6	460	8.0
June 17.....	36	--		--	--	37	--	119	0	--	46		--	.3	--	--		118	20	1.5	409	8.2
July 14.....	27	--		--	--	52	--	146	0	--	72		--	.2	--	--		148	28	1.9	548	8.0
Aug. 5.....	44	--		--	--	68	--	106	0	--	104		--	.1	--	--		126	39	2.6	584	8.2
Sept. 22.....	27	7.6		30	19	70	3.1	138	0	44	100		.6	.2	348	.47		153	40	2.5	645	7.9

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October.....	63	63	64	64	63	65	60	65	65	64	63	64	64	62	62	58	53	53	63	61	61	61	62	61	60	60	61	61	61	61	61	62
November.....	60	61	60	61	61	61	60	61	61	60	60	60	60	61	60	56	57	56	56	56	54	55	54	53	--	--	52	53	50	50	--	57
December.....	41	50	48	50	50	50	48	49	50	52	52	48	49	46	50	--	51	--	--	48	--	49	--	48	46	43	44	47	47	47	46	48
January.....	45	47	45	48	46	47	46	48	50	49	48	47	47	47	46	47	45	45	--	--	--	47	47	45	44	45	--	--	49	48	50	47
February.....	48	49	48	48	49	47	45	46	47	49	50	49	48	49	49	48	47	46	50	49	47	48	50	55	54	53	55	50	--	--	--	49
March.....	53	55	55	54	53	57	55	--	48	50	60	58	48	50	55	56	50	50	53	56	50	51	55	58	62	60	60	62	65	65	68	56
April.....	64	65	60	65	68	60	63	65	60	60	65	65	67	65	70	70	65	60	62	61	65	70	75	72	68	65	65	68	68	70	--	66
May.....	70	68	65	68	65	65	65	65	68	65	68	68	68	70	70	70	70	70	73	75	75	75	75	75	70	70	70	70	68	68	69	69
June.....	65	65	68	70	70	68	68	70	70	70	70	75	75	75	75	70	75	70	70	70	70	70	70	70	73	75	73	74	73	72	--	71
July.....	73	75	--	75	75	75	73	70	70	72	70	68	68	70	72	70	71	71	--	71	72	78	74	73	73	72	73	75	75	75	74	73
August.....	75	75	75	74	75	75	76	73	74	74	--	--	73	70	73	75	75	75	75	76	75	75	72	74	70	72	72	70	70	70	69	73
September.....	70	67	70	70	70	70	71	71	75	75	75	74	70	68	70	69	69	70	70	70	70	70	70	70	70	70	70	75	70	--	--	71

11-1790. ALAMEDA CREEK NEAR NILES, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	39	62	6.5	53	56	8.0	32	89 S	7.8
2	38	48	4.9	53	49	7.0	23	68	4.2
3	38	--	4.9	45	32 S	3.9	15	42	1.7
4	40	59	6.4	48	44	5.7	11	34	1.0
5	42	48	5.4	47	90	11	8.2	24	.5
6	39	42	4.4	46	64	7.9	5.9	21	.3
7	33	46	4.1	46	61	7.6	5.2	15	.2
8	40	49	5.3	53	77	11	6.4	10	.2
9	40	43	4.6	44	70 S	8.8	7.1	10	.2
10	40	42	4.5	8.2	31	.7	8.0	12	.3
11	48	45	5.8	6.1	26	.4	8.5	13	.3
12	59	40	6.4	7.9	27	.6	16	14	.6
13	40	41	4.4	16	34 K	1.7	9.7	20	.5
14	42	57	6.5	34	120 K	13	6.8	9	.2
15	39	45	4.7	18	200	9.7	6.8	15	.3
16	33	51 S	4.8	12	162	5.2	7.1	13	.2
17	40	46	5.0	39	238 S	27	7.5	7	.1
18	40	42	4.5	76	587 S	130	9.3	--	.2
19	40	43	4.6	37	204 S	22	9.5	--	.2
20	48	80 S	12	15	36 S	1.6	9.6	6	.2
21	59	142	23	9.9	21	.6	8.2	--	.1
22	48	88	11	8.7	17	.4	7.2	6	.1
23	37	51	5.1	16	155 S	12	7.4	--	.1
24	44	55	6.5	93	857 S	281	7.0	8	.2
25	44	53	6.3	83	451 S	108	71	824 S	221
26	44	48	5.7	28	183 S	15	23	490 S	33
27	44	45	5.3	14	103	3.9	12	260	8.4
28	44	89 S	12	9.7	63	1.6	105	467 K	443
29	54	152	22	8.7	42	1.0	390	1250 K	1420
30	52	85	12	16	57 S	3.4	420	453 S	523
31	54	59	8.6	--	--	--	535	250 S	372
Total	1342	--	227.2	991.2	--	709.7	1798.4	--	3040.1

Day	JANUARY			FEBRUARY			MARCH		
1	380	125	128	104	458 S	160	14	25	0.9
2	187	113	57	86	461 S	114	25	31	2.1
3	109	100	29	53	175	25	22	15	.9
4	85	73	17	67	130	24	21	10	.6
5	75	55	11	60	160	26	20	7	.4
6	52	48	6.7	76	174 S	38	13	13	.5
7	37	36	3.6	74	312 S	65	12	12	.4
8	30	20	1.6	64	100	17	14	18	.7
9	22	19	1.1	52	70	9.8	24	30	1.9
10	18	12	.6	42	50	5.7	25	29	2.0
11	16	6	.3	70	221 S	45	12	16	.6
12	17	8	.4	50	68	9.2	12	16	.5
13	17	9	.4	44	21	2.5	11	14	.4
14	14	19	.7	42	15	1.7	9.0	16	.4
15	12	17	.6	38	14	1.4	8.5	18	.4
16	9.2	18	.4	34	19	1.7	8.8	24	.6
17	8.0	--	.3	19	27	1.4	10	23	.6
18	8.3	12	.3	16	21	.9	9.2	24	.6
19	8.2	--	.2	16	20	.9	9.1	19	.5
20	9.2	--	.2	15	16	.6	11	24	.7
21	9.3	--	.3	14	9	.3	8.0	22	.5
22	9.3	9	.2	13	16	.6	7.8	17	.4
23	7.6	--	.2	12	17	.6	7.8	17	.4
24	7.2	13	.3	13	17	.6	7.9	18	.4
25	7.1	18	.3	17	27	1.2	8.2	18	.4
26	7.9	6	.1	23	30	1.9	8.2	20	.4
27	8.9	--	.2	15	24	1.0	8.7	27	.6
28	9.3	--	.4	13	22	.8	8.0	23	.5
29	13	26 K	1.1	--	--	--	6.7	18	.3
30	230	1050 K	682	--	--	--	7.2	18	.3
31	69	433 S	89	--	--	--	7.4	18	.4
Total	1492.5	--	1033.5	1142	--	556.8	376.5	--	20.3

S Computed by subdividing day.
K Computed from estimated-concentration graph and subdividing day.

11-1765. ALAMEDA CREEK NEAR NILES, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	8.1	22	0.5	33	65	5.8	37	49	4.9
2	7.8	23	.5	35	100	9.4	37	49	4.9
3	12	24	.8	44	128	15	39	46	4.8
4	12	24	.8	39	128	13	42	47	5.3
5	11	33	1.0	40	100	11	41	46	5.1
6	7.7	31	.6	39	85	9.0	40	41	4.4
7	8.0	42	.9	40	75	8.1	38	40	4.1
8	8.5	34	.8	40	75	8.1	40	39	4.2
9	8.1	30	.7	42	78	8.8	39	57	6.0
10	15	34	1.4	44	83	9.9	39	48	5.1
11	11	30	.9	50	92	12	46	89	11
12	11	40	1.2	48	95	12	46	63	7.8
13	11	35	1.0	49	95	13	45	47	5.7
14	10	34	.9	50	88	12	44	41	4.9
15	16	54 K	3.0	52	82	12	41	61	6.8
16	28	68	5.1	50	80	11	35	49	4.6
17	30	60	4.9	47	78	9.9	36	44	4.3
18	26	53 S	3.8	46	65	8.1	37	46	4.6
19	9.1	38	.9	46	63	7.8	38	38	3.9
20	6.2	41	.7	46	62	7.7	36	40	3.9
21	6.2	42	.7	43	55	6.4	35	43	4.1
22	8.0	48	1.0	45	63	7.7	32	38	3.3
23	29	210	16	45	52	6.3	38	45	4.6
24	32	105	9.1	42	31	3.5	37	40	4.0
25	31	102	8.5	43	42	4.9	37	42	4.2
26	26	98	6.9	42	44	5.0	39	45	4.7
27	30	98	7.9	41	42	4.6	38	36	3.7
28	30	98	7.9	39	42	4.4	36	43	4.2
29	30	94	7.6	38	48	4.9	37	52	5.2
30	30	90	7.3	39	51	5.4	36	40	3.9
31	--	--	--	38	52	5.3	--	--	--
Total	508.7	--	103.3	1335	--	262.0	1161	--	148.2

Day	JULY			AUGUST			SEPTEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	36	35	3.4	46	37	4.6	2.5	11	0.1
2	37	30	3.0	45	32	3.9	1.9	14	.1
3	38	31	3.2	44	40	4.8	1.8	22	.1
4	36	30	2.9	44	49	5.8	2.1	20	.1
5	35	24	2.3	44	28	3.3	2.3	29	.2
6	35	21	2.0	44	28	3.3	2.0	18	.1
7	34	25	2.3	45	37	4.5	5.5	17	.3
8	35	30	2.8	44	34	4.0	30	17	1.4
9	48	29	3.8	43	27	3.1	31	10	.8
10	52	31	4.4	43	25	2.9	31	9	.8
11	44	26	3.1	43	23	2.7	31	8	.7
12	24	29	1.9	44	21	2.5	32	11	1.0
13	24	30	1.9	44	21	2.5	31	12	1.0
14	27	26	1.9	44	22	2.6	26	21	1.5
15	41	37	4.1	43	27	3.1	31	14	1.2
16	43	70	8.1	39	24	2.5	31	10	.8
17	43	75	8.7	27	17	1.2	31	12	1.0
18	43	61	7.1	31	18	1.5	28	16	1.2
19	42	55	6.2	44	18	2.1	27	11	.8
20	40	58	6.3	44	14	1.7	29	7	.5
21	40	67	7.2	45	16	1.9	27	11	.8
22	40	66	7.1	45	13	1.6	27	11	.8
23	42	44	5.0	44	18	2.1	27	9	.7
24	43	65	7.5	43	20	2.3	28	9	.7
25	43	54	6.3	44	20	2.4	28	7	.5
26	33	48	4.3	41	16	1.8	27	11	.8
27	19	44	2.3	36	11	1.1	28	9	.7
28	26	26	1.8	36	11	1.1	28	7	.5
29	44	27	3.2	35	8	.8	29	18	1.4
30	46	28	3.5	30	7	.6	30	11	.9
31	48	30	3.9	4.8	9	.1	--	--	--
Total	1181	--	131.5	1248.8	--	78.4	686.1	--	21.5

Total discharge for year (cfs-days)..... 13263.2
Total load for year (tons)..... 6332.5

S Computed by subdividing day.
K Computed from estimated-concentration graph and subdividing day.

ALAMEDA CREEK BASIN--Continued

11-1790. ALAMEDA CREEK NEAR NILES, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 24, 1965.....	1535	53		142	1230							100					S
Dec. 25.....	1200	46		108	1250							100					V
Dec. 27.....	1340	44		12	268							100					V
Dec. 30.....	1345	47		394	366							100					V
Feb. 7, 1966.....	1250	--		67	305							100					S
May 31.....	1350	66		37	53							100					S

11-1853.5. KERN RIVER NEAR QUAKING ASPEN CAMP, CALIF.

LOCATION.--Lat 36°08'05", long 118°25'45", temperature recorder at gaging station on right bank, 0.4 mile upstream from Little Kern River, and 6.8 miles east of Quaking Aspen Camp, Tulare County.
DRAINAGE AREA.--530 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 70°F July 26, 28; minimum, freezing point on several days during January and February.
REMARKS.--Clock stopped Dec. 11-16; temperature range, 34°F to 41°F.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	53	53	53	51	52	53	54	54	54	53	53	52	52	51	50	46	47	47	48	48	48	48	50	48	47	47	48	48	48	48	48	50
Minimum	47	47	48	46	47	47	48	49	49	49	48	47	47	47	46	43	41	42	43	44	44	44	43	43	42	42	42	43	44	43	43	45
November																																
Maximum	47	47	46	46	46	45	45	44	43	43	42	42	44	44	44	44	44	44	44	43	43	43	43	43	42	40	39	40	40	40	--	43
Minimum	43	43	42	42	42	42	41	40	40	40	39	39	42	43	43	44	42	42	43	42	42	43	42	42	40	37	37	38	39	38	--	41
December																																
Maximum	40	40	40	40	39	40	40	41	41	41	--	--	--	--	--	--	34	34	34	34	36	36	35	36	35	35	36	36	36	35	35	37
Minimum	39	38	38	39	38	38	38	38	39	41	--	--	--	--	--	--	33	33	33	33	34	34	34	34	33	34	34	35	33	33	33	36
January																																
Maximum	33	33	33	33	33	35	36	38	36	36	36	36	36	37	38	36	35	34	33	33	33	33	33	33	34	34	35	35	35	36	36	35
Minimum	33	33	33	32	32	32	34	36	34	34	34	33	34	34	35	34	33	32	33	33	32	33	32	32	32	32	33	32	33	34	33	33
February																																
Maximum	36	37	37	38	38	39	38	37	35	36	34	36	36	36	37	38	40	40	41	41	42	43	42	42	41	42	41	42	--	--	--	39
Minimum	34	33	34	36	36	36	37	34	33	34	33	32	33	32	32	35	34	35	35	36	37	38	39	40	37	38	36	37	--	--	--	35
March																																
Maximum	41	38	37	38	41	44	45	44	45	46	47	45	47	45	45	45	45	46	46	47	45	46	45	44	45	46	48	48	48	48	49	45
Minimum	38	35	34	34	37	39	39	40	38	40	41	42	42	42	41	41	40	41	42	42	41	41	41	42	41	42	43	43	44	43	44	40
April																																
Maximum	49	48	48	47	47	48	48	48	45	48	47	48	48	49	49	50	49	46	46	47	47	47	48	50	50	48	48	48	48	48	--	48
Minimum	45	45	45	45	44	44	45	45	43	45	43	44	44	45	44	45	46	44	41	42	42	43	44	45	46	46	46	45	45	45	--	44
May																																
Maximum	49	48	48	48	50	50	50	49	48	48	50	50	51	51	51	51	52	52	52	52	52	52	53	53	53	55	53	53	53	52	51	51
Minimum	46	46	46	46	47	47	48	48	46	46	47	46	48	49	49	49	50	52	51	50	49	50	51	51	52	52	51	52	52	50	48	49
June																																
Maximum	52	52	52	53	54	54	54	54	53	56	57	58	58	58	56	54	57	59	59	58	57	56	57	57	59	60	61	61	61	61	--	57
Minimum	49	49	48	49	50	52	51	52	50	51	54	53	54	55	54	50	53	55	56	55	54	52	52	53	54	57	56	57	56	56	--	53
July																																
Maximum	60	60	61	60	61	60	60	58	58	60	60	59	60	60	60	62	62	63	63	64	65	66	67	68	68	70	69	70	68	67	69	63
Minimum	55	55	55	54	55	56	55	54	55	54	53	53	51	52	52	52	53	54	54	55	55	56	59	60	60	62	62	62	63	64	62	56
August																																
Maximum	67	67	69	69	68	68	68	68	68	68	68	68	68	69	69	69	69	69	69	68	67	66	66	63	65	65	64	64	63	62	60	67
Minimum	63	64	63	64	63	63	61	61	60	60	60	60	60	61	61	60	61	62	62	60	60	58	57	58	58	57	56	56	57	55	54	60
September																																
Maximum	60	62	63	62	61	62	62	61	61	60	59	58	55	54	54	58	60	60	56	55	59	60	62	61	60	57	57	58	57	57	--	59
Minimum	53	54	55	56	56	55	57	54	54	54	53	52	50	48	48	50	53	55	51	52	52	53	55	56	53	52	53	53	54	52	--	53

11-1855. KERN RIVER CANAL NO. 3 NEAR KERNVILLE, CALIF.

LOCATION.--Lat 35°54'20", long 118°28'00", temperature recorder located at gaging station 4 miles downstream from intake, and 12 miles north of Kernville, Kern County.
RECORDS AVAILABLE.--Water temperatures: October 1962 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 71°F on several days during July and August; minimum, freezing point on many during December and January.
EXTREMES, 1962-66.--Water temperatures: Maximum, 71°F on several days during July and August in 1964 and 1966; minimum, freezing point on several days during December 1963, Nov. 19, 20, 1964, December 1965 and January 1966.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	55	54	55	55	56	56	56	57	57	56	57	56	56	56	55	54	53	51	51	52	53	53	53	53	54	53	52	54	51	50	51	54
Minimum	49	49	50	51	51	51	52	53	54	53	52	51	51	51	52	47	44	44	46	47	47	48	47	48	46	46	46	46	46	46	46	49
November																																
Maximum	51	51	50	50	50	50	50	51	48	47	47	46	46	46	45	45	45	45	45	45	44	44	44	44	45	41	40	40	40	40	--	46
Minimum	46	46	44	43	44	42	42	41	41	41	40	41	42	43	43	44	43	42	42	42	42	42	42	42	39	37	37	37	37	37	--	41
December																																
Maximum	41	40	38	38	38	39	39	39	39	40	40	39	38	36	36	35	36	35	35	35	34	35	35	33	34	34	34	35	35	35	34	37
Minimum	38	37	37	37	37	37	37	36	37	39	38	37	35	33	33	32	32	32	32	32	32	32	32	32	32	33	33	33	33	33	33	34
January																																
Maximum	35	35	34	34	33	34	34	35	35	35	35	35	35	35	35	35	35	35	35	35	35	34	34	34	34	34	34	35	35	35	35	35
Minimum	32	32	32	32	32	32	33	34	34	33	33	33	33	33	34	33	33	33	32	32	32	32	32	32	32	32	33	33	33	33	33	33
February																																
Maximum	35	35	35	35	35	35	36	36	36	36	36	35	35	35	35	35	35	35	36	37	37	38	38	39	39	39	39	39	--	--	--	36
Minimum	34	33	33	34	35	35	35	34	34	33	33	33	33	33	33	33	33	33	34	34	35	37	37	38	37	37	37	37	--	--	--	35
March																																
Maximum	39	39	38	38	38	41	42	42	42	43	44	44	44	44	43	44	43	43	43	45	45	45	44	44	45	45	47	47	48	48	49	43
Minimum	38	36	35	34	36	38	39	40	39	41	41	43	42	42	41	42	41	41	42	43	42	42	42	43	42	43	44	45	46	46	46	41
April																																
Maximum	50	50	50	50	49	50	50	50	50	50	49	49	49	50	52	51	51	51	48	47	48	48	49	51	52	53	53	51	51	52	--	50
Minimum	47	47	48	47	47	48	47	47	47	47	47	47	46	47	47	48	48	47	44	44	44	46	46	48	50	50	50	48	48	49	--	47
May																																
Maximum	53	53	53	53	53	54	53	53	53	52	53	53	54	54	54	54	54	56	56	55	55	56	56	56	57	57	57	57	57	57	55	55
Minimum	51	50	51	51	51	51	52	51	51	49	50	51	51	52	51	52	52	53	54	53	53	53	53	54	54	55	55	55	55	54	52	52
June																																
Maximum	56	56	55	55	55	55	56	56	56	58	60	60	61	62	62	60	60	62	62	62	61	60	61	61	61	63	64	65	65	64	--	60
Minimum	51	52	50	51	52	54	53	54	53	53	55	57	57	59	58	56	57	58	59	59	58	57	55	57	58	59	60	61	62	60	--	56
July																																
Maximum	64	64	64	64	64	64	64	64	64	65	65	64	64	65	65	66	67	67	69	69	69	69	71	71	71	71	71	71	71	70	70	67
Minimum	61	61	60	60	60	61	61	59	60	59	59	59	59	60	61	61	61	62	63	64	63	64	66	67	67	67	68	68	69	68	65	63
August																																
Maximum	71	70	68	70	70	70	70	70	70	70	70	69	69	70	70	70	70	71	70	70	70	69	68	68	68	68	67	67	66	64	63	69
Minimum	68	68	65	67	67	67	67	68	65	66	66	66	66	66	66	66	67	67	66	67	67	66	65	65	65	65	64	64	62	61	59	66
September																																
Maximum	62	63	63	65	63	65	64	64	63	63	64	63	62	61	59	59	61	61	61	60	61	62	64	64	64	63	62	62	62	62	--	62
Minimum	56	58	59	60	61	61	61	61	61	60	61	61	58	56	56	57	59	61	59	57	59	60	62	61	62	60	59	59	60	60	--	60

11-1870. KERN RIVER AT KERNVILLE, CALIF.

LOCATION (revised).--Lat 35°45'15", long 118°25'25", temperature recorder at gaging station on right bank, 300 feet downstream from highway bridge at Kernville, Kern County, 1.1 mile upstream from Caldwell Creek, 8.9 miles upstream from Isabella Dam, and 41 miles northeast of Bakersfield.
DRAINAGE AREA.--1,009 square miles.
RECORDS AVAILABLE.--Water temperatures: June 1962 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 80°F Aug. 5, 6, 8; minimum, 34°F on several days during January.
EXTREMES, 1962-66.--Water temperatures: Maximum (1962-63, 1964-66), 80°F Aug. 5, 6, 8, 1966; minimum, 34°F Jan. 13, 14, 1963, Jan. 1, 1965, and on several days during January 1966.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	58	59	59	59	59	61	62	62	62	61	61	61	60	59	57	54	54	54	56	56	55	54	54	--	--	--	--	54	54	54	54	58
Minimum	53	53	54	56	55	57	58	58	58	57	57	56	56	57	53	50	50	51	52	52	51	51	51	--	--	--	--	50	51	50	51	54
November																																
Maximum	53	53	53	52	52	51	51	50	50	50	49	48	49	50	50	50	50	50	50	50	49	49	49	49	48	43	42	43	--	--	--	49
Minimum	50	50	49	49	49	48	48	47	48	47	46	46	48	49	49	50	49	48	47	48	48	48	48	48	43	40	40	40	--	--	--	47
December																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	37	38	38	37	38	38	39	40	40	40	39	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	36	36	36	34	36	36	37	38	39	37	39	--
January																																
Maximum	39	36	36	36	37	39	40	42	42	40	40	40	39	40	40	40	39	39	37	37	38	38	37	36	37	38	40	40	40	40	41	39
Minimum	35	34	34	35	35	35	37	40	38	37	38	37	36	37	38	38	36	36	35	34	34	34	34	34	34	37	37	37	37	39	38	36
February																																
Maximum	41	40	40	42	42	43	43	42	41	40	40	40	41	42	42	42	44	44	45	45	46	47	46	46	47	45	45	45	--	--	--	43
Minimum	39	37	37	40	41	42	41	40	39	39	37	37	38	39	39	39	40	41	40	41	42	44	42	44	42	42	42	41	--	--	--	40
March																																
Maximum	45	44	43	42	44	48	49	50	49	51	51	51	51	51	50	50	50	49	50	51	51	50	50	47	49	50	52	53	53	--	--	49
Minimum	43	40	39	38	41	43	44	45	44	46	46	48	46	47	46	46	45	44	46	47	46	44	45	46	45	46	48	49	49	--	--	45
April																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	58	56	55	56	56	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	52	52	50	50	50	--	--
May																																
Maximum	57	57	56	56	58	59	58	58	58	56	59	59	59	60	60	61	61	61	62	62	61	62	62	63	63	64	63	63	63	61	60	60
Minimum	51	52	52	52	52	54	55	55	54	52	52	53	53	55	54	54	55	56	57	56	56	56	56	57	57	58	58	58	58	56	56	55
June																																
Maximum	60	60	60	62	62	62	64	64	62	65	67	67	68	69	69	66	67	69	69	69	--	--	--	--	--	--	--	--	68	68	--	--
Minimum	53	55	54	56	57	59	58	60	58	58	61	62	62	63	62	60	61	63	64	64	--	--	--	--	--	--	--	--	64	64	--	--
July																																
Maximum	68	68	68	68	69	69	69	68	69	69	68	68	69	70	70	70	70	70	70	70	70	70	71	72	72	72	73	74	73	73	76	70
Minimum	63	64	64	63	64	65	64	64	65	65	63	63	63	64	64	64	64	65	66	65	64	64	66	66	67	67	68	68	71	70	70	65
August																																
Maximum	78	78	78	79	80	80	79	80	79	79	78	77	78	78	78	78	78	78	76	75	74	74	74	74	74	74	74	74	74	72	71	77
Minimum	72	73	73	75	76	75	75	75	74	73	73	72	73	73	72	72	72	72	71	70	68	66	68	68	68	68	66	66	66	65	64	71
September																																
Maximum	71	70	72	73	74	74	72	71	70	71	70	69	66	65	65	67	69	67	65	66	70	71	73	73	71	69	68	70	68	72	--	70
Minimum	64	64	66	66	66	66	64	64	65	63	63	62	59	58	58	59	62	65	62	60	62	64	66	67	64	64	64	64	66	65	--	63

11-1875. BOREL CANAL BELOW ISABELLA DAM, CALIF.

LOCATION.--Lat 35°38'30", long 118°28'10", temperature recorder at gaging station on right bank, 500 feet downstream from Isabella Dam, Kern County, and 3 miles upstream from point where canal crosses Erskine Creek.
RECORDS AVAILABLE.--Water temperatures: October 1958 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 77°F Aug. 3, 5, 15, 16; minimum, 42°F on several days during January and February.
EXTREMES, 1958-66.--Water temperatures: Maximum, 80°F July 31 to Aug. 1, 1959; minimum, 33°F Jan. 17, 18, 1960.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	67	67	66	66	65	65	66	68	66	66	66	66	65	65	65	64	64	63	64	63	63	64	64	64	64	64	64	63	63	63	63	65
Minimum	66	66	65	65	64	64	64	66	66	65	65	65	65	65	64	63	63	63	62	62	63	63	63	63	63	63	63	62	62	62	62	64
November																																
Maximum	63	62	61	61	61	61	60	60	59	59	58	58	58	57	57	57	57	57	57	56	56	57	56	56	56	55	55	55	54	53	--	58
Minimum	62	61	60	60	60	60	60	59	59	58	58	58	57	57	57	57	57	57	56	56	56	56	56	56	55	55	55	54	53	53	--	57
December																																
Maximum	53	53	52	52	51	51	51	51	51	50	49	48	47	47	47	47	47	47	47	47	47	47	47	46	46	46	47	46	46	46	46	48
Minimum	53	52	52	51	51	51	51	51	50	49	48	47	47	47	47	46	47	47	46	47	47	47	46	46	46	46	46	46	46	46	46	48
January																																
Maximum	46	45	45	45	45	45	45	45	45	44	44	44	44	44	44	44	42	42	42	42	42	42	42	42	42	43	43	43	43	43	43	44
Minimum	45	45	45	45	45	45	45	45	44	44	44	43	43	44	44	42	42	42	42	42	42	42	42	42	42	42	42	43	43	43	43	43
February																																
Maximum	43	43	43	43	43	43	43	43	43	43	43	43	44	43	44	45	44	45	44	45	44	44	45	45	44	44	45	45	--	--	--	44
Minimum	43	42	42	43	43	43	43	43	43	43	42	43	43	43	43	44	43	43	43	44	44	43	44	44	44	44	44	45	--	--	--	43
March																																
Maximum	45	45	45	45	45	47	46	46	47	47	52	50	50	49	51	50	52	53	51	51	51	52	52	52	53	53	54	54	55	57	57	50
Minimum	45	45	45	44	45	45	45	45	46	47	47	49	49	49	49	50	50	50	51	51	51	51	52	52	52	52	52	52	53	53	54	49
April																																
Maximum	57	57	61	60	61	63	59	59	57	55	56	56	58	59	61	60	58	58	56	59	58	58	62	61	61	58	61	62	60	62	--	59
Minimum	54	54	54	58	60	59	55	54	54	55	55	55	56	57	57	58	58	56	56	56	57	57	59	58	58	57	57	60	58	58	--	57
May																																
Maximum	63	65	65	65	66	60	64	62	59	59	59	62	61	61	61	60	62	65	65	65	64	62	65	67	67	65	65	66	65	63	63	63
Minimum	59	61	64	64	60	59	59	59	59	59	59	59	61	60	60	60	60	61	63	63	62	61	61	63	65	63	63	63	63	63	63	61
June																																
Maximum	64	64	64	63	65	64	64	64	64	64	64	66	69	70	70	70	68	73	69	69	68	68	67	67	70	70	71	72	71	70	--	67
Minimum	61	64	63	63	63	64	64	64	64	64	64	64	66	66	68	66	66	66	68	66	66	67	67	67	67	68	68	69	69	69	--	66
July																																
Maximum	68	68	68	70	70	68	67	69	70	70	70	69	69	69	72	72	72	71	73	74	76	75	73	73	75	74	73	72	75	73	74	71
Minimum	68	67	66	67	67	67	67	67	69	69	69	68	68	68	68	69	69	69	70	70	71	72	72	72	72	72	72	71	72	72	72	69
August																																
Maximum	74	74	77	76	77	76	75	75	76	76	74	76	75	75	77	77	76	76	75	75	75	75	76	76	75	75	74	73	73	72	71	75
Minimum	72	72	74	72	72	72	73	72	74	73	73	74	74	74	74	74	74	74	74	74	74	73	73	73	74	73	72	72	72	71	70	73
September																																
Maximum	71	72	72	72	73	74	74	73	73	71	69	69	68	68	70	70	70	67	67	68	69	71	73	70	67	68	70	69	67	68	--	70
Minimum	70	69	70	70	70	69	69	69	69	69	69	68	67	66	66	66	66	66	66	66	66	67	66	67	66	65	63	65	65	65	--	67

BUENA VISTA LAKE BASIN--Continued

11-1940. KERN RIVER NEAR BAKERSFIELD, CALIF.

LOCATION (revised).--Lat 35°25'54", long 118°56'43", at gaging station at Kern County Land Co. diversion weir, 1.9 miles upstream from Sacramento Gulch, 0.8 mile east of Oil City, and 5.8 miles northeast of Bakersfield, Kern County.
DRAINAGE AREA.--2,407 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to July 1966 (discontinued).

Chemical analyses, in parts per million, October 1965 to July 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 9, 1965.....	815					8.6		52	0		2.6			0.1				34	0	0.6	108	7.2
Nov. 2.....	579					9.6		56	0		2.7			0				36	0	.7	105	7.7
Dec. 6.....	578					11		59	0		3.7			0				43	0	.7	125	7.7
Jan. 6, 1966.....	590					18		50	0		7.5			1				39	0	1.2	147	7.0
Feb. 1.....	395					12		68	0		4.0			1				44	0	.8	149	8.1
Mar. 2.....	640					13		74	0		5.7			2				46	0	.8	157	8.1
Apr. 4.....	748					13		71	0		4.8			3				46	0	.9	151	8.1
May 5.....	675	3.7		14	2.4	14	1.7	66	0	14	4.8		0.4	3	102	0.14		45	0	.8	161	7.6
June 7.....	678					9.7		39	0		3.4			1				33	1	.7	111	6.3
July 5.....	1210					10		52	0		2.6			0				32	0	.8	111	7.5

MISCELLANEOUS ANALYSES OF STREAMS IN BUENA VISTA LAKE BASIN

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
11-1860. KERN RIVER NEAR KERNVILLE, CALIF. (355600 1182910)																						
Jan. 10, 1966....	41					11		64	0		3.6			0.0				38	0	0.8	132	8.1
May 5.....	768	9.5		5.4	0.4	4.1	0.7	23	0	4.0	1.2		0.0	.0	40	0.05		15	0	.5	50	7.3
11-1910. KERN RIVER BELOW ISABELLA DAM, CALIF. (353830 1182855)																						
Jan. 10, 1966....	5.0					11		66	0		3.2			0.1				39	0	0.8	133	7.6
May 5.....	79	11		12	1.7	11	1.3	59	0	7.0	3.7		0.9	.1	84	0.11		37	0	.8	123	8.1

TULARE LAKE BASIN

11-2032. TULE RIVER NEAR SPRINGVILLE, CALIF.

LOCATION.--Lat 36°05'41", long 118°50'09", at gaging station 15 feet upstream from highway bridge, 2 miles southwest of Springville, Tulare County, and 4 downstream from North Fork.
DRAINAGE AREA.--225 square miles.
RECORDS AVAILABLE.--Chemical analyses: November 1963 to July 1966 (discontinued).
Water temperatures: October 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 85°F Aug. 3, 4, 19.

Chemical analyses, in parts per million, October 1965 to July 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 8, 1965.....	10					23		246	0		11			0.1	--	--		169	0	0.8	408	8.0
Nov. 15.....	52					20		218	0		8.9			.1	--	--		151	0	.7	370	8.1
Dec. 6.....	63					15		172	0		7.3			.0	193	0.26		123	0	.6	295	8.2
Jan. 3, 1966.....	104					15		151	0		8.2			.0	172	.23		107	0	.6	269	8.1
Feb. 1.....	74					15		159	6		7.0			.1	--	--		118	0	.6	289	8.5
Mar. 9.....	90					13		148	0		6.0			.0	--	--		102	0	.6	254	8.2
Apr. 4.....	170					7.8		84	0		2.6			.0	--	--		62	0	.4	153	7.8
Apr. 9.....	80	17		28	3.4	9.2	1.8	114	0	2.0	4.2		0.5	.0	133	.18		84	0	.4	198	8.0
June 6.....	25					15		188	0		7.5			.1	--	--		132	0	.6	318	8.1
July 5.....	47					22		218	4		10			.0	220	.30		153	0	.8	376	8.4

11-2032. TULE RIVER NEAR SPRINGVILLE, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																														Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																															
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	60	61	62	62	63	62	62	61	60	60	60	60	60	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	56	57	58	58	59	59	58	58	57	57	57	56	56	--
November																															
Maximum	60	59	58	58	57	57	57	57	58	58	56	55	56	57	57	57	58	58	58	56	55	55	55	55	53	49	48	47	48	48	--	55
Minimum	57	57	55	55	55	54	54	54	55	56	55	54	55	56	56	57	56	57	56	54	53	53	53	53	49	47	46	44	45	47	--	53
December																															
Maximum	47	47	48	48	47	47	47	47	49	49	49	48	47	47	47	45	44	44	44	44	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	45	45	45	45	46	46	45	45	46	49	48	47	46	46	44	43	43	41	41	41	--	--	--	--	--	--	--	--	--	--	--	--
January																															
Maximum	--	--	--	--	--	--	42	46	45	46	47	48	47	48	47	48	46	45	46	45	45	45	46	46	46	46	47	47	47	47	48	46
Minimum	--	--	--	--	--	--	41	42	42	44	45	44	44	45	45	46	40	42	43	42	42	42	43	42	44	44	43	44	46	46	46	43
February																															
Maximum	47	47	48	50	50	50	48	48	50	47	47	48	48	48	48	49	50	50	51	52	53	55	53	54	52	51	51	52	--	--	--	50
Minimum	44	44	44	47	47	48	47	46	46	44	42	43	44	43	44	44	44	45	46	47	48	50	51	50	48	48	46	46	--	--	--	46
March																															
Maximum	51	47	47	47	51	54	55	55	55	55	57	55	57	56	57	56	52	55	55	56	55	--	--	--	--	--	--	--	--	--	--	--
Minimum	47	45	41	41	46	48	50	50	49	52	51	53	52	53	52	50	46	48	51	52	51	--	--	--	--	--	--	--	--	--	--	--
April																															
Maximum	--	--	--	--	--	--	62	63	62	60	59	57	61	62	63	63	62	58	54	57	58	59	61	62	62	63	62	62	61	62	--	61
Minimum	--	--	--	--	--	--	57	57	58	58	55	54	54	56	56	56	56	51	49	50	51	52	54	55	56	57	56	55	55	56	--	55
May																															
Maximum	63	64	63	64	64	64	62	62	61	57	56	63	65	65	65	65	67	68	68	69	69	68	69	70	72	72	72	71	70	68	68	66
Minimum	57	58	58	59	58	57	58	58	57	55	55	55	58	59	58	59	59	61	62	63	63	62	62	63	65	66	66	65	65	62	61	60
June																															
Maximum	68	67	67	68	69	68	70	67	69	72	74	74	76	77	79	79	78	79	80	80	77	75	75	75	77	78	79	81	81	80	--	75
Minimum	61	60	60	61	62	64	64	64	63	66	67	68	69	71	72	73	72	73	73	73	71	68	67	68	69	71	71	72	73	72	--	68
July																															
Maximum	79	79	78	79	80	79	80	75	80	80	80	78	78	79	80	80	80	81	82	82	83	83	83	83	83	82	82	81	79	77	81	80
Minimum	71	71	70	69	70	73	71	71	72	71	71	70	69	70	71	71	72	72	72	73	73	74	74	75	75	75	75	74	74	75	73	72
August																															
Maximum	83	82	85	85	84	84	83	82	81	80	80	80	80	81	83	84	84	84	85	84	81	80	80	80	78	77	76	76	76	--	--	81
Minimum	75	76	76	76	76	76	75	75	74	74	74	74	75	76	75	78	78	79	79	79	77	76	76	76	73	72	71	71	71	--	--	75
September																															
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	72	73	72	71	71	71	69	70	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	67	67	68	65	65	65	67	65	--	--

11-2049. TULE RIVER BELOW SUCCESS DAM, CALIF.

LOCATION.--Lat 36°03'23", long 118°55'22", at gaging station 1,000 feet downstream from Success Dam, Tulare County, and 5 miles east of Porterville.
DRAINAGE AREA.--393 square miles.
RECORDS AVAILABLE.--Chemical analyses: December 1961 to September 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 8, 1965.....	399					11		129	0		3.7			0.1	142	0.19		89	0	0.5	217	8.0
Nov. 15.....	.4					23		243	2		6.4			.3	235	.32		168	0	.8	399	8.3
Dec. 6.....	72					14		154	0		6.5			.0	177	.24		107	0	.6	271	7.8
Jan. 3, 1966.....	95					15		152	0		7.5			.0	166	.23		107	0	.6	269	7.9
Feb. 1.....	1.9					18		198	4		7.0			.1	215	.29		144	0	.6	344	8.4
Mar. 9.....	86					15		149	0		7.7			.1	167	.23		106	0	.6	269	8.2
Apr. 4.....	43					15		151	0		7.7			.0	170	.23		109	0	.6	272	7.7
May 9.....	56	22		33	4.7	14	2.0	150	0	5.0	6.4		0.6	.0	167	.23		102	0	.6	255	8.2
June 6.....	6.7					13		136	3		6.4			.0				98	0	.6	245	8.4
July 5.....	9.8					13		136	0		5.2			.0	140	.19		94	0	.6	235	8.2

11-2080. MARBLE FORK KAWEAH RIVER AT POTWISHA CAMP, CALIF.

LOCATION.--Lat 36°31'10", long 118°48'10", temperature recorder at gaging station on left bank, 0.1 mile north of Potwisha Camp, Tulare County, and 0.3 mile upstream from confluence with Middle Fork Kaweah River.
DRAINAGE AREA.--51.4 square miles.
RECORDS AVAILABLE.--Water temperatures: January 1962 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 74°F Aug. 4, 17-19; minimum, 36°F Feb. 2-4.
EXTREMES, 1962-66.--Water temperatures: Maximum, 74°F July 30, 1964; Aug. 4, 17-19, 1966; minimum (1963-66), 34°F Jan. 1, 1965.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	54	55	55	54	55	55	55	56	56	56	56	56	55	55	55	53	50	49	50	51	52	52	53	53	53	53	53	52	52	52	52	53
Minimum	54	54	54	53	54	54	54	55	56	56	55	55	54	54	53	50	48	48	49	49	51	51	52	52	53	52	52	51	51	51	51	52
November																																
Maximum	51	52	52	51	50	50	49	49	49	50	50	49	50	50	49	50	49	48	48	48	48	48	47	46	44	41	41	41	41	42	--	48
Minimum	51	51	50	50	50	49	49	48	48	49	49	48	49	49	49	49	48	48	48	48	48	47	46	44	41	40	40	41	41	41	--	47
December																																
Maximum	42	42	43	43	43	43	43	43	44	44	44	44	43	43	42	42	41	41	41	41	41	41	41	40	40	40	40	41	41	40	39	42
Minimum	41	41	42	43	43	43	43	43	43	44	44	43	43	42	42	41	41	41	41	41	41	41	40	40	40	40	40	40	40	39	39	41
January																																
Maximum	40	40	40	40	40	40	40	41	41	41	41	41	40	40	40	39	39	39	39	39	39	39	39	39	38	38	38	37	37	37	37	39
Minimum	39	40	40	40	40	40	40	40	41	41	41	40	40	40	39	39	39	39	39	39	39	39	39	38	38	38	37	37	37	37	37	39
February																																
Maximum	37	37	36	37	37	37	37	37	37	37	37	37	37	37	37	37	37	38	38	38	38	39	40	40	40	39	39	39	--	--	--	38
Minimum	37	36	36	36	37	37	37	37	37	37	37	37	37	37	37	37	37	37	38	38	38	38	39	39	39	38	38	38	--	--	--	37
March																																
Maximum	39	38	38	38	39	39	40	40	45	45	46	44	47	45	46	44	43	45	44	43	43	45	45	45	45	47	47	48	48	48	49	44
Minimum	38	38	38	38	38	38	39	39	39	42	40	43	43	42	41	42	39	41	42	42	40	40	42	43	41	43	43	43	43	43	43	41
April																																
Maximum	50	50	49	49	49	49	49	50	49	47	46	45	47	49	50	51	50	48	42	44	46	47	48	50	51	51	50	49	50	51	--	49
Minimum	44	43	44	44	44	44	44	44	43	44	43	44	43	44	44	46	44	42	39	40	41	44	44	46	47	46	45	44	44	45	--	44
May																																
Maximum	52	52	51	53	52	53	53	52	51	47	50	51	54	53	53	54	56	57	57	56	56	56	58	58	59	60	60	59	58	56	55	55
Minimum	46	46	47	48	48	47	48	48	47	46	47	47	48	48	48	48	49	52	52	52	52	51	52	53	53	54	55	54	54	51	51	50
June																																
Maximum	55	54	54	55	57	58	57	55	57	60	60	62	63	63	64	65	65	65	66	66	64	62	64	64	66	68	67	70	71	68	--	62
Minimum	51	50	50	51	53	56	53	54	53	55	56	58	57	59	59	60	61	62	62	62	61	57	57	57	58	61	61	62	63	62	--	57
July																																
Maximum	67	69	68	68	67	68	68	65	69	67	67	66	68	68	67	70	69	69	70	70	70	70	72	72	72	72	71	69	69	68	70	69
Minimum	61	61	61	60	61	63	62	62	62	61	61	60	61	62	62	62	63	64	65	65	65	65	65	67	67	67	66	66	66	66	65	63
August																																
Maximum	72	71	72	74	72	72	71	73	72	72	70	70	70	72	73	72	74	74	74	72	71	69	70	70	68	65	66	67	67	64	63	70
Minimum	67	69	67	68	68	67	66	66	66	66	67	66	67	67	68	68	68	69	68	67	66	65	66	65	63	61	60	60	61	60	59	66
September																																
Maximum	64	64	66	67	66	67	64	63	64	64	64	62	60	58	57	59	61	61	61	59	61	62	63	64	63	64	64	64	63	63	--	63
Minimum	58	59	60	61	62	62	61	60	60	60	60	58	56	54	54	55	58	60	58	57	58	59	61	62	61	60	60	58	60	61	--	59

TULARE LAKE BASIN--Continued

11-2099. KAWEAH RIVER AT THREE RIVERS, CALIF.

LOCATION.--Lat 36°26'38", long 118°54'09", at gaging station opposite schoolhouse in Three Rivers, Tulare County, and 0.25 mile downstream from North Fork Kaweah River.
DRAINAGE AREA.--418 square miles.
RECORDS AVAILABLE.--Chemical analyses: November 1963 to July 1966 (discontinued).
Water temperatures: October 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 83°F Aug. 18; minimum, 39°F on several days during winter months.

Chemical analyses, in parts per million, October 1965 to July 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....	63					6.8		55	0		3.5			0.0	--	--		43	0	0.5	111	7.9
Nov. 8.....	45					7.0		68	0		4.2			.0	--	--		50	0	.4	131	8.0
Dec. 7.....	234					4.6		34	0		2.1			.0	57	0.08		26	0	.4	71	7.6
Jan. 3, 1966.....	261					4.9		45	0		2.3			.0	72	.10		37	0	.3	98	7.6
Feb. 7.....	238					5.1		44	0		1.9			.1	--	--		32	0	.4	90	7.5
Mar. 7.....	225					4.5		46	0		2.3			.0	--	--		32	0	.4	87	7.7
Apr. 4.....	1120					2.3		18	0		.8			.0	--	--		14	0	.3	37	7.3
May 9.....	996	6.5		4.2	0.0	1.6	0.4	15	0	1.0	.5		0.4	.0	26	.04		10	0	.2	29	7.2
June 7.....	539					2.3		20	0		.8			.0	--	--		16	0	.2	42	7.2
July 11.....	95					3.8		38	0		2.0			.0	50	.07		30	0	.3	79	7.7

TULARE LAKE BASIN--Continued

11-2099. KAWEAH RIVER AT THREE RIVERS, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	68	68	67	65	67	68	70	70	68	68	68	68	66	62	61	60	61	62	63	64	64	64	64	---	---	---	---	---	---	---	---	---
Minimum	58	58	57	59	58	58	60	61	62	60	60	60	60	57	54	52	53	54	54	56	56	56	56	---	---	---	---	---	---	---	---	---
November																																
Maximum	61	60	59	58	57	58	57	58	57	58	57	54	54	54	56	55	55	55	55	53	54	52	52	51	49	46	46	46	47	47	---	54
Minimum	53	54	52	52	52	51	51	51	52	54	52	51	53	52	52	54	52	53	52	51	50	50	51	49	44	43	42	42	42	43	---	50
December																																
Maximum	46	46	48	48	47	48	48	48	49	49	50	49	47	48	46	45	44	44	44	43	44	44	45	46	45	48	47	47	49	50	47	47
Minimum	42	42	43	44	45	45	45	45	47	49	48	45	45	44	43	41	41	39	39	40	41	43	42	41	42	45	43	45	47	47	46	44
January																																
Maximum	46	45	46	48	50	50	50	52	51	50	51	50	48	48	49	48	47	45	44	45	45	45	45	45	45	44	45	46	44	44	45	47
Minimum	43	41	41	42	45	45	45	48	48	48	48	46	42	43	45	44	41	39	39	40	39	39	39	40	39	40	40	39	41	42	41	42
February																																
Maximum	45	46	46	46	46	47	48	46	46	45	48	46	47	48	48	47	48	48	47	49	50	51	50	50	49	45	48	48	---	---	---	47
Minimum	41	40	40	44	43	46	44	42	42	42	39	40	40	40	40	39	40	41	41	42	42	44	46	46	43	43	41	41	---	---	---	42
March																																
Maximum	46	45	47	47	48	52	55	54	55	55	56	52	56	55	56	53	52	53	53	54	52	54	54	53	55	56	57	57	57	58	58	53
Minimum	41	42	39	39	44	45	47	48	47	50	49	50	49	50	48	48	45	45	48	48	47	46	48	49	47	48	50	50	51	51	52	47
April																																
Maximum	58	57	57	56	56	57	57	57	55	55	55	55	58	60	60	60	59	55	52	55	56	58	59	61	61	61	59	58	57	58	---	57
Minimum	51	52	52	51	51	51	51	52	51	52	49	50	49	52	53	53	53	48	47	46	48	51	52	54	55	54	53	52	51	52	---	51
May																																
Maximum	59	59	58	60	60	60	58	58	56	53	57	60	62	60	61	61	62	64	64	63	64	63	64	66	66	66	66	65	64	62	63	61
Minimum	53	53	53	54	54	53	54	55	53	52	52	54	54	56	54	55	55	57	57	57	57	56	57	59	59	60	60	59	58	56	56	56
June																																
Maximum	65	63	63	64	64	66	64	61	65	68	69	69	70	70	72	72	72	72	74	73	71	69	70	70	72	73	74	75	75	73	---	69
Minimum	56	55	54	56	56	59	59	59	58	59	61	62	62	64	63	63	65	65	66	66	64	60	60	61	62	64	64	66	66	65	---	61
July																																
Maximum	73	73	73	73	74	74	74	70	74	75	75	74	74	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	64	64	64	64	65	67	66	65	65	65	65	65	65	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
August																																
Maximum	82	76	80	82	82	82	81	81	81	80	80	80	81	81	82	82	82	83	82	80	79	79	79	79	78	77	77	77	77	75	74	80
Minimum	72	74	72	73	72	72	71	71	71	71	70	70	71	71	72	72	72	73	73	71	69	69	69	69	68	67	66	66	67	66	65	70
September																																
Maximum	75	76	77	78	78	78	77	77	75	77	75	74	72	71	72	73	75	70	72	71	74	75	77	77	76	74	75	75	72	73	---	75
Minimum	65	66	67	67	68	68	67	68	68	67	67	65	63	61	61	62	64	67	66	64	63	66	68	69	68	67	67	66	68	67	---	66

TULARE LAKE BASIN--Continued

11-2109.5. KAWEAH RIVER BELOW TERMINUS DAM, CALIF.

LOCATION.--Lat 36°24'51", long 119°00'42", at gaging station 0.6 mile downstream from Terminus Dam, Tulare County, and 2.2 miles northeast of Lemoncove.
DRAINAGE AREA.--561 square miles.
RECORDS AVAILABLE.--Chemical analyses: December 1961 to September 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....	5.0					4.0		44	0		1.8			0.0	52	0.07		40	4	0.3	88	7.5
Nov. 8.....	29					4.6		53	0		2.6			.0	--	--		40	0	.3	105	7.8
Dec. 7.....	332					3.8		36	0		2.2			.0	57	.08		27	0	.3	75	7.9
Jan. 3, 1966.....	335					4.4		40	0		2.1			.0	63	.09		32	0	.3	85	7.0
Feb. 7.....	336					4.9		46	0		2.2			.0	61	.08		36	0	.3	97	7.9
Mar. 7.....	232					4.7		47	0		2.6			.0	65	.09		36	0	.3	96	7.6
Apr. 4.....	460					2.8		24	0		1.0			.2	39	.05		18	0	.3	50	7.5
May 9.....	379	8.3		5.4	0.2	2.1	0.6	20	0	1.0	.6		0.5	.0	33	.04		14	0	.2	40	7.0
June 7.....	1090					1.8		19	0		.3			.0	29	.04		14	0	.2	38	7.5
July 11.....	498					2.3		26	0		.9			.2	36	.05		21	0	.2	54	7.4

11-2135. KINGS RIVER ABOVE NORTH FORK, NEAR TRIMMER, CALIF.

LOCATION.--Lat 36°51'45", long 119°07'25", temperature recorder at gaging station on right bank at Rogers Crossing, 0.9 mile upstream from North Frok, 2.9 miles south of Balch Camp, and 9.6 miles southeast of Trimmer, Fresno County.
DRAINAGE AREA.--952 square miles.
RECORDS AVAILABLE.--Water temperatures: December 1965 to September 1966.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
November																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
December																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38	36	35	36	36	37	39	38	39	37	39	40	41	42	44	44	44	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	36	34	33	33	33	34	36	37	36	35	36	39	38	41	42	42	42	---
January																																
Maximum	42	39	40	41	44	44	45	47	46	44	44	43	42	43	44	42	41	40	40	40	40	40	40	40	40	41	42	42	42	43	44	42
Minimum	38	37	37	38	41	42	42	44	43	42	42	41	40	40	42	41	38	37	37	38	37	37	37	37	37	38	38	38	39	42	41	39
February																																
Maximum	43	43	44	45	45	46	46	44	44	45	43	44	44	44	44	44	45	46	47	47	47	49	49	48	48	49	48	47	---	---	---	46
Minimum	42	41	41	43	43	45	43	42	41	41	39	40	41	40	40	40	40	42	43	43	43	47	47	45	45	44	44	43	---	---	---	42
March																																
Maximum	46	44	43	44	47	50	52	51	52	55	54	51	54	52	53	53	50	50	50	51	51	51	52	50	51	53	53	53	53	53	53	51
Minimum	44	41	39	39	42	46	47	47	47	50	50	50	49	50	49	49	45	45	47	47	47	46	47	48	46	48	49	50	49	49	49	47
April																																
Maximum	53	52	53	52	52	52	52	52	52	52	52	53	53	54	54	54	54	52	47	50	52	53	54	55	55	54	53	52	---	---	---	53
Minimum	49	49	49	49	49	49	49	49	50	50	49	50	49	50	50	51	50	46	45	46	48	49	50	51	52	51	50	50	---	---	---	49
May																																
Maximum	---	---	---	---	---	---	55	55	54	53	55	56	56	56	---	---	---	---	57	57	57	57	59	58	59	---	---	59	---	---	---	56
Minimum	---	---	---	---	---	---	52	52	52	51	52	52	53	53	---	---	---	---	54	54	53	54	55	54	55	---	---	56	---	---	---	53
June																																
Maximum	57	57	56	58	58	58	58	60	60	62	62	63	63	64	62	64	64	65	66	65	63	62	62	63	64	65	---	---	---	---	---	62
Minimum	54	53	52	53	55	57	56	57	56	57	59	59	59	60	59	58	60	61	62	61	60	58	58	58	59	60	---	---	---	---	---	58
July																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
August																																
Maximum	---	---	73	74	74	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	72	71	71	72	70	69	---
Minimum	---	---	67	68	67	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	66	65	65	66	64	64	---
September																																
Maximum	70	71	72	72	73	73	72	72	70	70	70	69	67	66	66	67	68	68	66	66	68	69	71	72	73	70	68	68	65	67	---	69
Minimum	64	65	66	66	67	68	67	67	66	66	66	64	62	60	60	61	63	65	63	62	62	64	65	67	67	66	63	63	63	62	---	64

TULARE LAKE BASIN--Continued

11-2200. BIG CREEK ABOVE PINE FLAT RESERVOIR, NEAR TRIMMER, CALIF.
(Formerly published as Big Creek above Pine Flat Reservoir)

LOCATION.--Lat 36°55'05", long 119°14'45", at gaging station 2.4 miles upstream from mouth, and 2.7 miles northeast of Trimmer, Fresno County.
DRAINAGE AREA.--69.9 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1960 to June 1966 (discontinued).

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 11, 1965....	2.2	--		--	--	10	--	57	0	--	9.2		--	0.2	--	--		38	0	0.7	121	8.2
Nov. 15.....	67	--		--	--	6.0	--	23	0	--	4.2		--	.1	--	--		16	0	.6	63	7.2
Dec. 13.....	25	--		--	--	6.7	--	37	0	--	4.0		--	.1	--	--		26	0	.6	86	7.9
Jan. 28, 1966....	26	--		--	--	7.0	--	40	0	--	2.8		--	.1	--	--		26	0	.6	86	7.9
Feb. 14.....	42	--		--	--	6.8	--	42	0	--	2.6		--	.1	--	--		28	0	.6	89	8.1
Mar. 14.....	57	--		--	--	5.2	--	30	0	--	1.5		--	.0	--	--		20	0	.5	62	7.8
Apr. 11.....	50	--		--	--	4.9	--	30	0	--	2.1		--	.0	--	--		18	0	.5	62	7.6
May 9.....	18	24		9.6	0.7	6.9	1.6	41	0	3.0	3.8		0.4	.0	72	0.10		27	0	.6	87	7.6
June 13.....	8.4	25		7.4	2.3	9.0	1.5	46	0	4.0	4.5		.3	.0	A 77	.10		28	0	.7	98	8.1

A Calculated from sum of determined constituents.

11-2227. KINGS RIVER AT PEOPLES WEIR, NEAR KINGSBURG, CALIF.

LOCATION.--Lat 36°29'06", long 119°32'22", approximately 0.2 mile downstream from gaging station located on diversion weir, 2 miles south of Kingsburg, Fresno County, and approximately 12 miles northeast of Hanford.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
REMARKS.--Records of discharge furnished by Kings River Water Association.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 11, 1965....	55					10		82	2		4.8			0.1				62	0	0.6	173	8.3
Nov. 8.....	14					4.4		38	0		1.6			.0				29	0	.4	75	8.0
Dec. 13.....	108					10		85	0		5.8			.0				63	0	.6	176	8.2
Jan. 10, 1966....	94					11		86	0		5.2			.0				65	0	.6	179	7.9
Feb. 14.....	120					7.6		62	0		3.8			.1				45	0	.5	129	8.2
Mar 14.....	1182					3.3		21	0		1.0			.0				16	0	.4	49	7.5
Apr. 12.....	280					3.7		28	0		1.8			.0				22	0	.3	62	7.8
May 9.....	295	7.5		6.8	2.8	4.6	1.2	38	0	4.0	2.6		0.7	.0	52	0.07		28	0	.4	83	7.6
June 13.....	1513					2.2		14	0		.6			.2				10	0	.3	34	6.9

MISCELLANEOUS ANALYSES OF STREAMS IN TULARE LAKE BASIN

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
11-2185. KINGS RIVER BELOW NORTH FORK, NEAR TRIMMER, CALIF. (365230 1190830) (Formerly published as Kings River below North Fork, Calif.)																						
Oct. 11, 1965....	270	--		--	--	3.1	--	22	0	--	1.0		--	0.2	--	--		16	0	0.3	50	7.4
Nov. 15.....	1190	--		--	--	3.1	--	15	0	--	1.4		--	.1	--	--		12	0	.4	37	7.2
Dec. 13.....	672	--		--	--	3.7	--	19	0	--	.9		--	.1	--	--		14	0	.4	44	7.4
Jan. 28, 1966....	505	--		--	--	3.6	--	22	0	--	1.0		--	.0	--	--		16	0	.4	52	7.7
Feb. 14.....	505	--		--	--	3.8	--	24	0	--	1.2		--	.1	--	--		18	0	.4	56	7.8
Mar. 14.....	1280	--		--	--	3.1	--	17	0	--	.8		--	.0	--	--		13	0	.4	40	7.1
Apr. 11.....	2970	--		--	--	1.8	--	11	0	--	.8		--	.2	--	--		8	0	.3	25	7.2
May 9.....	4350	5.5		2.2	0.1	1.3	0.4	8	0	1.0	.3		0.0	.0	19	0.03		6	0	.2	18	6.8
June 13.....	2690	5.1		1.4	.6	1.4	.4	10	0	1.0	.3		.2	.0	17	.02		6	0	.2	19	7.2
11-2215. KINGS RIVER BELOW PINE FLAT DAM, CALIF. (364950 1192005)																						
Oct. 1, 1965.....	203	--		--	--	3.3	--	6	0	9.0	0.3		--	0.1	--	--		8	3	0.5	37	7.1
Nov. 15.....	63	--		--	--	1.9	--	11	0	--	.7		--	.0	--	--		9	0	.3	28	7.2
Dec. 13.....	125	--		--	--	1.9	--	13	0	--	.6		--	.0	--	--		10	0	.3	30	7.3
Jan. 28, 1966....	379	--		--	--	2.5	--	16	0	--	.6		--	.0	--	--		12	0	.3	38	7.5
Feb. 14.....	168	--		--	--	2.8	--	18	0	--	.8		--	.0	--	--		14	0	.3	42	7.6
Mar. 14.....	2810	--		--	--	3.2	--	18	0	--	.8		--	.0	--	--		14	0	.4	42	7.4
Apr. 11.....	2060	--		--	--	2.5	--	16	0	--	.9		--	.0	--	--		12	0	.3	39	7.7
May 9.....	2830	7.3		4.2	0.2	2.5	0.9	16	0	2.0	.5		0.5	.0	26	0.04		12	0	.3	36	7.4
June 13.....	5080	6.8		1.6	.9	2.1	.4	12	0	1.0	.4		.2	.0	23	.03		8	0	.3	26	7.4

11-2370. BIG CREEK BELOW HUNTINGTON LAKE, CALIF.

LOCATION.--Lat 37°13'10", long 119°12'50", temperature recorder at gaging station on right bank 1,200 feet upstream from Grouse Creek, and 1 mile downstream from Huntington Lake, Fresno County.
DRAINAGE AREA.--81.1 square miles.
RECORDS AVAILABLE.--Water temperatures: July 1961 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 59°F Aug. 17, 18, Sept. 23, 24, 29; minimum, freezing point on several days during December and January.
EXTREMES, 1961-66.--Water temperatures: Maximum, 62°F Aug. 20-25, 1961, July 22-24, 1963; minimum (1961-63, 1965-66), freezing point on several days during December 1965 and January 1966.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	54	54	54	54	54	55	55	56	55	55	54	55	54	54	53	50	52	52	52	53	53	53	52	52	52	52	52	52	52	51	51	53
Minimum	51	50	50	50	51	52	52	52	52	51	51	51	51	50	49	48	48	49	50	49	50	50	50	49	49	49	49	49	48	49	48	50
November																																
Maximum	51	50	50	50	50	50	47	49	48	48	48	48	48	46	47	47	46	45	45	45	44	44	43	40	40	41	41	41	41	40	--	46
Minimum	48	48	48	48	48	47	47	46	46	46	46	47	46	45	46	44	44	44	44	44	43	42	39	36	36	39	39	39	40	40	--	44
December																																
Maximum	41	41	41	41	41	41	40	41	41	41	41	39	39	39	38	37	34	34	34	35	35	35	34	34	35	34	35	35	34	32	32	37
Minimum	39	40	40	40	39	39	39	39	40	40	39	36	38	38	36	34	34	34	34	34	34	34	32	33	33	33	34	34	32	32	32	36
January																																
Maximum	32	32	32	33	33	34	34	35	35	34	34	34	34	35	35	34	34	34	34	33	33	33	33	34	34	34	34	34	34	34	33	34
Minimum	32	32	32	32	33	33	34	35	34	34	34	33	34	34	34	33	33	33	33	33	33	33	33	33	33	33	33	33	34	33	33	33
February																																
Maximum	34	34	34	35	34	34	34	34	34	34	34	33	34	33	34	34	34	34	35	35	35	36	36	36	34	34	35	35	--	--	--	34
Minimum	34	33	33	34	34	34	34	33	33	34	33	33	33	33	33	33	33	34	34	34	34	35	36	34	34	34	34	35	--	--	--	34
March																																
Maximum	35	34	34	33	35	36	38	37	37	38	37	37	39	38	38	39	38	39	39	39	39	40	40	39	40	41	41	42	43	42	42	38
Minimum	34	34	33	33	33	35	36	36	36	37	36	37	37	36	36	37	36	36	37	37	36	36	37	37	37	37	37	38	37	37	37	36
April																																
Maximum	43	43	44	44	44	44	44	46	46	42	45	44	45	46	46	48	47	44	41	44	46	46	47	48	49	49	48	48	48	49	--	46
Minimum	38	38	38	38	38	38	38	39	40	39	39	39	39	40	40	40	40	40	37	38	38	39	39	40	41	41	41	41	41	41	--	39
May																																
Maximum	50	50	48	49	49	51	50	49	47	45	47	50	51	50	51	51	52	52	53	53	52	52	52	53	53	53	52	52	51	49	50	51
Minimum	42	42	43	44	44	43	44	44	44	44	43	42	43	43	43	43	44	44	45	46	46	45	45	46	46	46	46	46	46	45	44	44
June																																
Maximum	48	50	50	51	52	49	48	48	51	53	53	54	54	55	54	55	55	55	55	55	53	53	53	54	54	55	55	56	55	55	--	53
Minimum	44	44	44	44	45	47	46	46	46	46	46	47	47	48	48	49	49	49	49	49	48	47	47	47	48	49	49	50	50	49	--	47
July																																
Maximum	49	49	48	49	49	50	50	50	50	49	48	49	49	48	49	50	50	50	51	51	51	51	52	52	52	52	52	52	52	54	53	50
Minimum	55	55	54	55	55	55	55	52	54	55	55	55	55	55	55	56	56	56	56	56	56	57	57	57	57	56	57	57	57	55	58	56
August																																
Maximum	58	57	58	58	58	58	58	58	58	58	57	58	58	58	58	58	59	59	58	58	58	58	58	58	58	57	57	57	57	55	56	58
Minimum	53	53	53	53	52	52	52	52	52	52	52	52	53	53	53	53	54	54	54	53	53	53	53	53	53	53	52	53	53	52	52	53
September																																
Maximum	57	57	58	58	57	58	58	58	57	58	57	58	55	55	56	57	58	56	56	57	58	58	59	59	58	58	58	58	59	58	58	57
Minimum	52	52	53	54	54	53	53	53	53	53	53	53	52	51	51	53	53	54	53	53	54	55	55	56	54	54	54	54	55	55	55	53

11-2465. WILLOW CREEK AT MOUTH, NEAR AUBERRY, CALIF.

LOCATION.--Lat 37°09'10", long 119°27'30", temperature recorder at gaging station on left bank, 40 feet upstream from bridge, 0.4 mile upstream from mouth, 1.3 miles downstream from Whiskey Creek, and 4.3 miles northeast of Auberry, Fresno County.
DRAINAGE AREA.--130 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1960 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 91°F Aug. 5; minimum, 37°F Dec. 18, 19.
EXTREMES, 1960-66.--Water temperatures: Maximum (1960-63, 1964-66), 91°F Aug. 5, 1966; minimum, 36°F Jan. 3, 4, 1961, Jan. 1, 1965.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	66	67	67	66	65	67	68	67	66	66	66	65	65	64	63	59	58	59	60	61	60	61	62	62	61	61	60	60	60	60	59	63
Minimum	60	60	60	60	60	60	61	60	60	60	59	59	59	60	60	56	54	54	55	56	55	55	56	56	56	56	55	55	55	55	55	57
November																																
Maximum	59	58	56	55	54	54	53	54	53	53	52	52	52	53	53	53	53	53	52	52	52	52	52	50	48	46	46	46	47	47	--	52
Minimum	54	54	52	52	51	51	50	50	51	50	50	52	52	52	52	52	52	51	50	51	50	48	50	48	46	45	44	43	45	45	--	50
December																																
Maximum	47	48	49	49	49	49	48	47	48	49	49	48	46	45	45	42	40	40	39	39	41	41	40	40	42	42	43	44	47	47	44	45
Minimum	44	45	46	46	46	45	45	44	47	48	48	45	44	44	42	39	38	37	37	38	39	40	40	39	40	40	41	43	44	44	42	43
January																																
Maximum	42	40	40	41	44	44	44	46	46	44	44	44	43	44	45	44	43	43	41	41	41	40	40	42	42	42	42	42	43	44	44	43
Minimum	39	38	38	38	41	42	42	44	42	41	43	43	41	42	42	42	41	39	39	39	38	38	38	40	39	40	39	39	41	43	43	40
February																																
Maximum	44	44	44	45	46	46	46	44	44	44	44	45	45	45	45	45	46	46	48	48	48	50	49	49	46	46	48	48	--	--	--	46
Minimum	43	41	42	44	44	45	43	41	42	43	40	41	41	42	42	42	42	43	44	44	44	47	48	46	43	45	45	44	--	--	--	43
March																																
Maximum	47	46	44	44	48	50	52	51	53	55	53	52	55	54	56	53	50	51	51	51	50	52	52	52	53	54	55	56	60	58	60	52
Minimum	46	43	40	39	43	47	48	49	49	52	50	51	51	50	49	50	45	46	49	49	46	47	48	49	48	50	51	51	52	53	54	48
April																																
Maximum	60	60	61	60	60	60	60	60	58	58	56	57	58	60	62	64	62	59	52	54	56	58	60	62	64	64	63	63	63	64	--	60
Minimum	55	56	56	55	54	54	54	55	55	55	51	52	51	53	55	57	57	52	49	47	50	52	52	54	56	57	56	56	55	56	--	54
May																																
Maximum	66	67	67	68	66	66	66	65	63	60	61	64	66	66	66	67	68	69	71	72	71	70	69	70	71	71	70	69	68	65	65	67
Minimum	58	58	60	62	62	59	60	61	60	57	57	57	59	60	59	59	60	62	63	65	65	64	62	63	64	65	65	64	63	61	59	61
June																																
Maximum	64	63	63	64	65	65	64	65	68	71	71	71	73	75	76	77	76	78	77	77	74	73	73	72	74	76	77	79	79	78	--	72
Minimum	59	57	57	57	59	61	62	62	62	64	64	64	66	68	70	72	72	72	71	71	69	66	66	66	67	69	69	71	71	70	--	66
July																																
Maximum	77	77	76	78	79	80	78	72	77	78	78	77	77	78	78	79	80	81	82	83	84	84	85	86	87	87	86	86	84	79	86	81
Minimum	69	69	68	68	68	70	69	69	68	68	68	68	68	68	68	69	70	70	71	72	72	72	72	73	74	74	74	74	74	76	76	71
August																																
Maximum	86	88	90	90	91	89	90	89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	76	77	78	78	77	75	74	75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
September																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	69	70	73	74	74	74	74	73	74	74	73	73	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	63	62	64	65	65	65	65	65	64	64	65	64	--	--

11-2470. SAN JOAQUIN RIVER BELOW KERCKHOFF POWERHOUSE, CALIF.

LOCATION.--Lat 37°04'45", long 119°33'35", temperature recorder at gaging station on left bank, 1.1 miles downstream from Kerckhoff powerhouse, Fresno County, 1.4 miles downstream from Big Sandy Creek, and 3.8 miles southeast of Prather.
DRAINAGE AREA.--1,48 square miles.
RECORDS AVAILABLE.--Water temperatures: November 1960 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 68°F Aug. 9, 17; minimum, 39°F on several days during February.
EXTREMES, 1960-66.--Water temperatures: Maximum, 73°F Aug. 22, 1961; minimum, 38°F several days in January 1961.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	61	61	61	61	61	62	62	62	63	62	62	62	62	62	62	61	60	60	60	60	60	60	60	60	60	59	58	58	57	57	57	60
Minimum	61	61	61	61	61	61	62	62	62	62	61	62	61	62	61	60	60	60	60	60	60	60	60	60	59	58	58	57	57	57	57	60
November																																
Maximum	57	57	57	57	56	56	56	56	55	55	56	55	55	55	55	55	55	55	55	55	55	54	54	54	53	51	50	50	49	48	--	54
Minimum	57	57	56	56	56	56	56	55	55	55	55	55	55	55	55	55	55	55	55	55	54	54	54	53	51	50	50	49	48	48	--	54
December																																
Maximum	48	48	48	48	48	48	48	47	47	47	47	47	47	47	47	47	46	46	45	45	45	45	45	45	44	44	44	44	44	44	44	46
Minimum	48	48	48	47	48	48	47	47	47	47	47	47	47	47	47	46	46	45	45	45	45	45	45	44	44	44	44	44	44	44	44	46
January																																
Maximum	44	43	42	42	42	41	41	41	42	42	41	41	41	40	40	40	40	40	40	40	40	41	41	41	41	40	40	40	40	40	40	41
Minimum	43	42	42	42	41	41	41	41	41	41	41	41	40	40	40	40	40	40	40	40	40	40	41	41	40	40	40	40	40	40	40	41
February																																
Maximum	40	40	40	41	41	42	41	41	41	41	41	41	41	40	40	40	40	40	39	39	40	41	41	41	41	41	41	42	--	--	--	41
Minimum	40	40	40	40	41	41	41	41	41	41	41	41	40	40	40	39	39	39	39	39	39	40	41	41	41	41	41	41	--	--	--	40
March																																
Maximum	43	42	41	41	41	42	42	43	45	45	45	44	45	45	45	45	46	45	46	46	46	47	47	47	47	48	47	47	47	47	47	45
Minimum	42	42	41	41	41	41	42	42	42	44	44	43	43	43	43	44	45	45	45	45	45	45	45	46	46	46	46	46	47	47	47	44
April																																
Maximum	48	48	48	48	49	51	49	49	49	49	49	49	49	49	49	50	50	50	49	49	49	50	50	51	51	51	51	51	51	51	--	50
Minimum	48	48	48	48	48	49	49	49	49	49	49	49	49	49	49	49	49	49	49	48	49	49	50	50	50	50	50	50	50	51	--	49
May																																
Maximum	51	52	53	52	52	51	51	51	51	51	51	51	52	52	52	52	52	52	52	53	53	52	52	53	54	54	53	53	53	53	54	52
Minimum	51	51	51	52	51	51	51	51	51	51	51	51	51	52	51	51	52	51	51	51	52	51	51	52	52	53	52	52	52	52	53	51
June																																
Maximum	54	54	55	55	55	55	54	54	54	56	56	56	56	56	56	56	56	58	59	59	58	58	58	58	58	58	58	59	59	59	--	57
Minimum	53	53	53	53	54	53	54	54	54	54	54	54	55	55	56	56	56	56	57	57	57	57	57	57	57	57	57	57	58	58	--	55
July																																
Maximum	59	59	59	61	61	59	59	62	60	59	59	59	59	59	59	59	60	60	60	60	60	60	60	61	61	61	61	61	60	61	61	60
Minimum	58	58	58	59	59	58	58	58	58	58	59	59	58	58	59	59	59	59	59	59	59	59	60	60	60	60	60	60	60	60	60	59
August																																
Maximum	62	65	64	62	62	63	63	63	68	64	64	62	62	63	63	63	68	64	64	64	63	64	64	64	64	64	66	65	65	65	65	64
Minimum	61	61	62	62	62	62	63	62	63	63	62	62	62	62	62	62	63	63	63	63	63	63	64	63	63	63	64	64	64	64	64	63
September																																
Maximum	65	65	66	66	66	66	66	66	66	66	66	65	65	64	64	65	65	65	64	64	66	66	65	65	65	64	65	64	64	64	--	65
Minimum	64	64	64	65	65	65	65	65	65	64	64	64	64	64	64	64	64	64	64	64	64	64	65	65	64	60	63	64	64	64	--	64

11-2540. SAN JOAQUIN RIVER NEAR MENDOTA, CALIF.

LOCATION.--Lat 36°48'35", 120°22'35", approximately 2.5 miles downstream from Mendota Dam, and 4 miles north of Mendota, Fresno County.
DRAINAGE AREA.--4,310 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 11, 1965....						47		95	0		65			0.1				107	29	2.0	455	8.2
Nov. 8.....						70		104	2		106			.2				134	45	2.6	627	8.4
Dec. 13.....						66		88	2		86			.3				122	47	2.6	571	8.3
Jan. 10, 1966....						63		99	0		90			.2				122	41	2.5	568	8.1
Feb. 14.....						113		122	4		144			.3				192	85	3.6	922	8.5
Mar. 14.....						88		116	0		125			.4				176	81	2.9	786	8.1
Apr. 11.....						46		90	0		60			.1				120	46	1.8	472	7.9
May 9.....		4.0		17	7.4	23	1.8	67	0	23	29		1.5	.1	164	0.22		73	18	1.2	257	7.9
June 13.....						34		91	0		41			.0				96	21	1.5	354	8.1

11-2610. SALT SLOUGH NEAR LOS BANOS, CALIF.

LOCATION.--Lat 37°09'35", long 120°48'45", at gaging station at San Luis Ranch, 600 yards downstream from confluence with Mud Slough, and 7.0 miles north of Los Banos, Merced County.
RECORDS AVAILABLE.--Chemical analyses: November 1958 to September 1966.

Chemical analyses, in parts per milllion, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 5, 1965.....	55					179		197	4	165	248			0.5	--	--		288	120	4.6	1420	8.5
Nov. 2.....	45					190		202	0	174	270			.7	--	--		294	128	4.8	1480	8.0
Nov. 30.....	203					234		208	0	302	256			1.8	--	--		358	187	5.4	1710	8.2
Jan. 4, 1966.....	132					396		236	0	670	464			3.9	--	--		628	434	6.9	2940	8.0
Feb. 8.....	79					520		262	0	860	545			5.1	--	--		740	525	8.3	3500	8.1
Mar. 8.....	95					266		188	0	372	302			2.1	--	--		438	284	5.5	1880	8.2
Apr. 5.....	140					234		166	10	295	300			1.4	1110	1.51		384	231	5.2	1770	8.4
May 4.....	98	17		54	25	123	4.6	152	0	123	172		3.4	.6	628	.85		236	111	3.5	1060	7.6
June 9.....	78					109		158	0	110	130			.3	--	--		204	74	3.3	916	7.8

11-2615. SAN JOAQUIN RIVER AT FREMONT FORD BRIDGE, CALIF.

LOCATION.--Lat 37°18'35", long 120°55'45", at gaging station in Orestimba Grant, 30 feet downstream from Fremont Ford Bridge, Merced County, 2.1 miles downstream from Salt Slough, 4.5 miles west of Stevinson, and 6.7 miles upstream from Merced River.
DRAINAGE AREA.--7,619 square miles.
RECORDS AVAILABLE.--Chemical analyses: July 1955 to September 1966.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 5, 1965.....	168					130		174	4	105	183			0.3	--	--		224	75	3.8	1080	8.3
Nov. 2.....	45					344		225	0	323	580			.7	--	--		555	370	6.4	2670	8.2
Nov. 30.....	881					89		140	0	95	95			.5	--	--		164	49	3.0	733	8.0
Jan. 4, 1966.....	1940					46		106	0	65	46			.2	--	--		108	21	1.9	451	8.0
Feb. 8.....	415					144		158	2	177	170			.8	--	--		238	105	4.0	1130	8.3
Mar. 8.....	187					294		200	0	350	400			1.5	--	--		444	280	6.1	2190	8.1
Apr. 5.....	230					252		204	0	277	352			1.0	1200	1.63		416	249	5.4	1920	7.9
May 5.....	175	13		64	34	186	6.3	190	0	154	273		1.2	.4	876	1.19		298	142	4.7	1450	8.0
June 9.....	163					158		172	0	145	210			.4	--	--		250	109	4.3	1230	7.5

11-2645. MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CALIF.

LOCATION.--Lat 37°43'54", long 119°33'28", temperature recorder at gaging station on right bank, 10 feet downstream from footbridge at Happy Isles, Mariposa County, 0.4 mile downstream from Illilouette Creek, and 2.0 miles southeast of Yosemite National Park headquarters.
DRAINAGE AREA.--181 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Minimum, freezing point on many days during winter months.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	48	48	48	47	47	50	51	51	51	50	49	49	48	48	47	43	43	46	46	46	46	46	46	46	46	45	44	45	45	45	45	47
Minimum	45	46	45	45	45	47	49	49	49	48	47	47	47	46	43	41	41	43	45	45	45	45	45	44	44	43	43	43	43	43	43	45
November																																
Maximum	45	44	44	43	43	43	43	43	42	42	42	41	42	42	42	41	42	42	43	41	40	40	41	40	35	35	35	35	36	35	--	41
Minimum	43	42	42	41	41	41	41	41	41	40	40	40	41	40	40	40	40	41	41	40	38	37	40	35	34	32	33	33	34	34	--	39
December																																
Maximum	36	38	39	39	39	38	37	38	40	39	38	35	34	33	32	32	32	32	32	33	33	33	33	34	34	33	34	34	34	33	32	35
Minimum	34	35	36	36	36	36	35	35	38	37	35	33	33	32	32	32	32	32	32	32	33	33	33	33	33	33	33	33	32	32	32	34
January																																
Maximum	32	32	33	33	34	35	36	36	35	35	35	34	34	34	35	34	33	32	33	33	33	33	34	34	33	33	33	33	33	33	33	34
Minimum	32	32	32	33	33	34	35	35	34	34	34	33	34	34	34	32	32	32	32	33	33	33	33	33	33	33	33	32	33	33	33	33
February																																
Maximum	34	33	34	34	35	35	35	34	34	34	33	33	33	33	33	33	34	34	35	35	35	36	37	36	34	34	34	34	--	--	--	34
Minimum	33	32	34	34	34	34	34	34	33	33	33	33	32	32	32	32	33	34	34	34	34	35	36	34	33	33	33	33	--	--	--	33
March																																
Maximum	35	33	33	33	34	36	38	39	38	40	39	41	40	40	40	39	37	39	40	40	39	42	42	41	41	43	42	42	42	42	43	39
Minimum	33	32	32	33	33	34	36	36	36	38	36	38	37	36	36	37	35	37	39	38	39	39	41	40	40	41	39	41	41	41	42	37
April																																
Maximum	43	45	46	46	45	46	46	45	45	43	42	42	43	45	45	47	46	44	41	42	43	43	46	46	46	45	45	45	45	45	--	45
Minimum	42	42	42	44	43	43	42	42	42	42	42	42	42	42	43	44	43	41	38	39	40	41	42	43	45	44	41	43	41	42	--	42
May																																
Maximum	45	45	45	45	45	47	47	47	47	45	45	45	45	45	45	47	47	47	47	51	52	53	54	54	52	52	53	53	53	52	--	48
Minimum	41	44	45	45	45	45	46	47	46	44	44	44	44	43	44	44	45	46	47	47	51	52	54	52	52	52	52	52	52	50	--	47
June																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
July																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	59	59	59	59	60	60	61	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	58	59	59	58	58	60	60	--
August																																
Maximum	61	62	63	63	63	61	58	59	59	59	58	58	58	59	59	59	59	61	61	61	59	59	58	58	57	57	56	55	56	55	53	59
Minimum	60	61	62	63	61	58	58	59	59	58	58	58	58	58	58	59	59	59	61	59	59	58	58	57	57	56	55	55	55	53	53	58
September																																
Maximum	53	53	54	53	54	54	54	54	53	52	52	52	51	51	51	52	52	52	51	51	53	53	54	55	55	55	55	54	53	53	--	53
Minimum	53	53	53	52	53	54	54	53	52	50	50	51	50	47	46	49	50	51	51	50	51	52	53	53	53	53	54	53	53	53	--	52

11-2725. MERCED RIVER NEAR STEVINSON, CALIF.

LOCATION.--Lat 37°22'15", long 120°55'45", at gaging station 5 miles upstream from mouth, and 6 miles northwest of Stevinson, Merced County.
DRAINAGE AREA.--1,273 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1952 to June 1966 (discontinued).

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 5, 1965.....	263					18		83	0		10			0.0				61	0	1.0	195	8.2
Nov. 2.....	128					34		154	0		22			.0				100	0	1.5	363	8.0
Nov. 30.....	4030					3.8		33	0		1.8			.0				30	3	.3	76	7.5
Jan. 4, 1966....	818					5.6		45	0		2.2			.0				37	0	.4	100	7.5
Feb. 8.....	272					16		99	0		6.4			.1				67	0	.9	210	8.0
Mar. 8.....	152					33		142	0		20			.0				92	0	1.5	330	8.0
Apr. 21.....	171					24		114	0		16			.0				76	0	1.2	262	7.9
May 5.....	104	26		25	9.1	41	2.4	150	0	18	31		6.0	.0	234	0.32		100	0	1.8	378	7.8
June 9.....	150					28		119	2		17			.2				78	0	1.4	283	8.3

11-2745.5. SAN JOAQUIN RIVER NEAR CROWS LANDING, CALIF.

LOCATION.--Lat 37°25'55", long 121°00'42", at gaging station at Crows Landing Bridge, 4.2 miles northeast of Crows Landing, Stanislaus County, and 6.4 miles southeast of Patterson.
RECORDS AVAILABLE.--Chemical analyses: January 1962 to June 1966 (discontinued).
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 5, 1965.....						78		147	0		90			0.1	405	0.55		146	25	2.8	680	8.2
Nov. 2.....						174		206	0		235			.5	849	1.15		282	113	4.5	1390	7.9
Nov. 30.....						25		60	0		23			.1	149	.20		57	8	1.4	236	7.7
Jan. 4, 1966....						55		106	0		54			.4	318	.43		111	24	2.3	497	8.0
Feb. 8.....						230		190	10		258			1.4	1220	1.66		328	156	5.5	1660	8.5
Mar. 8.....						272		210	0		322			1.3	1320	1.80		384	212	6.0	1950	8.0
Apr. 5.....						208		204	0		280			1.1	1080	1.47		354	187	4.8	1690	7.8
May 5.....		16		65	29	176	4.9	198	0	172	222		3.6	.3	796	1.08		282	120	4.6	1350	8.0
June 9.....						133		172	2		160			.1	628	.85		218	74	3.9	1040	8.3

11-2745.7. SAN JOAQUIN RIVER NEAR PATTERSON, CALIF.

LOCATION.--Lat 37°29'52", long 121°04'53", at gaging station at Patterson Bridge, 3.3 miles northeast of Pattersnon, Stanislaus County, and 7.2 miles north of Crows Landing.
RECORDS AVAILABLE.--Chemical analyses: January 1962 to June 1966 (discontinued).
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 5, 1965.....						76		153	0		108			0.1	426	0.58		154	29	2.7	728	8.2
Nov. 2.....						184		192	6		265			.6	912	1.24		300	133	4.6	1490	8.4
Nov. 30.....						32		73	0		31			.1	183	.25		67	7	1.7	293	7.8
Jan. 4, 1966.....						50		100	0		52			.2	292	.40		102	20	2.2	456	7.7
Feb. 8.....						222		206	2		258			1.2	1380	1.88		322	150	5.4	1640	8.4
Mar. 8.....						266		216	0		328			1.2	1320	1.80		368	191	6.0	1890	8.0
Apr. 21.....						179		384	0		240			.5	868	1.28		294	0	4.5	1410	8.2
May 5.....		16		62	31	176	4.5	202	0	164	220		5.9	.2	780	1.06		282	116	4.6	1340	8.0
June 9.....						130		180	4		150			.1	636	.86		218	64	3.8	1040	8.4

11-2747. SAN JOAQUIN RIVER NEAR GRAYSON, CALIF.

LOCATION.--Lat 37°33'46", long 121°09'05", at gaging station at Laird Slough Bridge, 1.8 miles east of Grayson, Stanislaus County, 5 miles upstream from confluence with Tuolumne River, and 14 miles southwest of Modesto.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to June 1966 (discontinued).
REMARKS.--Records of discharge furnished by Public Utulities Commission, City and County of San Francisco. Flow is San Joaquin River diversion into Laird Slough which returns to San Joaquin River main channel 2.1 miles downstream.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965....	840					96		160	4		122			0.2				184	46	3.0	812	8.4
Nov. 4.....	485					184		242	0		245			.4				316	118	4.5	1460	7.7
Dec. 2.....	4050					30		63	0		30			.1				63	11	1.6	275	7.8
Jan. 7, 1966.....	2910					98		138	0		96			.7				168	55	3.3	802	7.7
Feb. 7.....	1330					202		216	2		228			1.2				308	128	5.0	1530	8.3
Mar. 8.....	735					302		206	0		305			1.0				384	215	6.7	1820	8.2
Apr. 5.....	--					196		214	0		260			1.0				348	173	4.6	1580	8.2
May 5.....	--	14		62	35	166	4.0	214	0	150	215		5.4	.3	804	1.09		300	125	4.2	1330	8.0
June 9.....	--					130		204	0		165			.2				256	89	3.5	1100	8.2

11-2831. LILY CREEK NEAR PINECREST, CALIF.

LOCATION.--Lat 38°08'40", long 119°54'05", temperature recorder at gaging station on left bank 1500 feet downstream from Mud Lake, and 5.7 miles southeast of Pinecrest, Tuolumne County.
DRAINAGE AREA.--11.9 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1964 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 77°F Aug. 17; minimum, freezing point on many days during January to March.
EXTREMES, 1964-66.--Water temperatures: Maximum, 77°F Aug. 17, 1966; minimum, freezing point on many days during winter months.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	47	50	50	49	50	50	52	52	51	50	50	50	49	49	47	44	42	44	46	46	45	45	45	45	44	44	44	43	43	43	43	47
Minimum	46	46	47	47	46	47	48	49	49	48	48	47	47	47	44	40	40	41	43	44	44	43	43	43	43	42	42	42	42	42	42	45
November																																
Maximum	42	42	42	41	40	40	40	40	40	39	39	39	38	37	35	35	36	36	36	36	35	34	33	33	33	33	33	33	33	33	--	37
Minimum	41	41	40	40	39	39	39	40	38	38	38	38	37	35	35	35	35	35	35	35	34	33	33	33	33	33	33	33	33	33	--	36
December																																
Maximum	33	33	33	33	33	33	33	33	33	33	33	33	33	33	34	34	34	34	34	34	34	34	34	34	34	34	33	33	33	33	33	33
Minimum	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	34	34	33	33	34	33	33	33	33	33	33	33
January																																
Maximum	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	34	34	33	33	33	33	33	34	34	33	33	32	33
Minimum	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	32	32	33
February																																
Maximum	32	32	32	32	32	32	32	32	32	32	33	33	33	33	33	33	32	32	32	32	32	32	32	32	32	32	32	32	--	--	--	32
Minimum	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	--	--	--	32
March																																
Maximum	32	32	32	32	32	32	32	32	33	33	33	33	33	33	33	33	33	33	33	34	35	36	36	36	36	36	36	36	36	36	36	34
Minimum	32	32	32	32	32	32	32	32	32	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	34	33	33	33	33	33	33	33
April																																
Maximum	36	36	36	36	37	38	39	39	37	36	38	39	40	41	41	41	41	37	39	40	40	41	42	41	42	43	43	43	44	45	--	40
Minimum	33	33	33	33	34	35	35	35	36	34	34	34	35	35	35	36	36	35	33	33	35	35	35	36	36	36	37	38	38	38	--	35
May																																
Maximum	46	46	42	43	44	47	47	46	43	43	46	46	48	48	50	50	52	53	53	55	54	52	55	56	57	57	57	57	54	54	53	50
Minimum	38	39	39	40	40	40	40	42	42	40	40	40	41	42	42	44	44	46	47	48	48	47	48	49	50	50	50	51	51	48	47	44
June																																
Maximum	53	53	53	55	55	55	52	53	54	58	59	60	63	63	63	64	65	65	65	65	62	60	62	62	64	66	67	68	70	72	--	61
Minimum	47	45	45	48	49	51	48	49	48	50	51	54	57	59	60	61	59	60	61	62	60	57	58	58	59	60	62	63	62	65	--	56
July																																
Maximum	70	69	68	69	70	70	69	67	67	68	68	68	68	68	67	69	69	70	71	73	72	74	74	74	74	74	73	73	73	73	68	70
Minimum	64	63	61	62	63	64	63	63	61	61	62	62	62	62	61	61	62	63	64	65	65	66	67	67	67	67	67	67	67	67	65	64
August																																
Maximum	71	71	75	75	75	75	75	74	74	74	74	73	74	74	74	73	77	74	74	73	72	72	71	71	67	66	67	67	64	60	63	72
Minimum	65	64	65	67	67	65	65	65	65	65	64	64	65	64	65	65	65	64	65	64	63	62	62	62	62	58	58	58	59	57	56	63
September																																
Maximum	63	65	66	67	63	65	64	63	63	63	62	61	56	58	59	61	60	58	55	58	61	58	60	62	62	63	62	63	65	63	--	62
Minimum	56	57	57	57	58	57	57	57	56	55	55	55	54	52	52	53	54	54	52	53	54	54	55	55	56	57	56	57	57	57	--	55

11-2898. TUOLUMNE RIVER AT HICKMAN, CALIF.

LOCATION.--Lat 37°38'10", long 120°45'13", at gaging station approximately 0.6 mile south of Waterford, and 1 mile north of Hickman, Stanislaus County.
DRAINAGE AREA.--1,642 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to June 1966 (discontinued).
REMARKS.--Records of discharge furnished by California State Department of Water Resources.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	1720					2.8		18	0		2.6			0.0				14	0	0.3	45	7.5
Nov. 4.....	1380					3.7		20	0		3.8			.0				16	0	.4	51	7.2
Dec. 6.....	2650					3.2		24	0		2.2			.0				20	0	.3	56	7.2
Jan. 10, 1966....	1160					4.2		36	0		4.1			.0				34	4	.3	90	7.5
Feb. 7.....	1520					4.2		30	0		4.9			.1				25	0	.4	74	7.9
Mar. 8.....	1340					5.0		34	0		5.5			.0				29	1	.4	85	7.8
Apr. 5.....	116					4.5		87	1		88			.0				100	27	2.0	443	8.3
May 9.....	115	41		28	9.2	50	5.5	98	0	4.0	100		1.2	.1	338	0.46		108	28	2.1	486	7.7
June 9.....	96					54		104	0		106			.0				116	31	2.2	521	8.2

11-2900. TUOLUMNE RIVER AT MODESTO, CALIF.

LOCATION.--Lat 37°37'38", long 120°59'20", temperature recorder at gaging station on left bank at bridge on U.S. Highway 99 in Modesto, Stanislaus County, and 0.2 mile downstream from Dry Creek.
DRAINAGE AREA.--1,884 square miles.
RECORDS AVAILABLE.--Water temperatures: July 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 84°F Aug. 7; minimum, 46°F on several days during January to March.
EXTREMES, July 1965 to September 1966.--Water temperatures: Maximum, 84°F Aug. 7, 1966; minimum, 46°F on several days during January to March 1966.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	66	67	67	66	66	67	67	67	67	67	66	66	66	66	65	64	63	64	65	65	65	66	66	66	66	65	65	--	--	--	--	66
Minimum	64	65	65	65	64	65	65	65	66	65	65	65	64	64	64	62	61	62	63	64	64	64	64	64	64	64	63	--	--	--	--	64
November																																
Maximum	--	--	--	--	--	--	--	60	60	59	59	59	58	58	59	59	59	59	59	58	57	57	56	57	57	55	54	53	52	52	--	--
Minimum	--	--	--	--	--	--	--	59	59	58	58	58	57	57	58	58	59	58	58	57	57	56	56	56	56	54	53	52	52	51	--	--
December																																
Maximum	51	51	51	51	52	51	51	51	51	51	51	51	51	50	49	49	49	49	49	49	48	48	48	48	50	50	49	49	49	49	52	50
Minimum	51	51	51	51	51	51	51	51	51	51	51	51	51	50	49	49	48	48	48	48	48	47	47	47	48	49	49	48	48	48	47	49
January																																
Maximum	47	47	47	49	50	50	50	50	50	50	48	48	48	48	48	48	48	48	47	47	48	49	49	49	48	48	48	48	49	49	49	48
Minimum	46	46	46	46	49	49	49	49	50	49	47	47	47	47	47	46	47	46	46	46	46	48	48	48	47	47	47	47	48	48	48	47
February																																
Maximum	49	48	48	49	49	50	49	48	48	48	48	48	48	48	48	48	49	49	50	50	50	51	52	51	49	49	50	50	--	--	--	49
Minimum	48	47	47	48	48	49	48	47	47	47	46	46	46	46	47	46	47	47	48	48	49	49	50	50	48	47	47	48	--	--	--	48
March																																
Maximum	50	49	48	48	48	51	53	53	52	52	54	55	57	57	57	56	56	55	56	58	59	60	61	63	64	64	65	65	67	67	68	57
Minimum	48	47	47	46	47	48	50	51	51	51	51	53	54	54	55	54	52	53	53	52	54	54	56	58	59	60	60	60	62	63	64	54
April																																
Maximum	68	68	68	69	70	69	69	68	66	65	67	68	68	70	71	71	71	67	67	68	68	68	70	72	72	69	70	70	69	71	--	69
Minimum	63	65	64	66	65	66	64	64	64	62	63	62	63	64	65	66	67	64	62	63	63	63	64	65	67	65	62	65	64	64	--	64
May																																
Maximum	72	74	74	73	73	73	74	71	70	69	72	74	75	73	73	74	75	77	78	79	77	76	77	78	78	77	77	75	74	74	74	75
Minimum	65	67	69	67	66	67	67	68	65	66	64	67	68	68	67	68	68	70	71	72	71	70	70	72	72	71	71	69	68	68	67	68
June																																
Maximum	72	72	73	75	76	73	76	77	77	78	77	79	81	83	83	82	82	83	82	78	75	77	76	76	78	79	81	80	79	78	--	78
Minimum	68	66	66	68	69	69	67	72	72	72	71	73	76	78	77	75	75	75	77	74	70	69	70	69	72	72	73	73	72	70	--	72
July																																
Maximum	76	75	77	79	78	77	76	76	76	77	75	75	75	75	77	76	78	79	80	81	82	82	82	81	81	81	80	81	81	77	79	78
Minimum	71	70	69	71	71	71	70	70	70	70	70	69	69	69	70	71	70	75	73	76	77	77	75	75	73	73	72	73	73	72	72	72
August																																
Maximum	83	83	83	83	82	83	84	80	80	78	73	74	75	73	71	73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	77	77	76	76	75	76	77	77	75	69	69	69	68	67	67	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
September																																
Maximum	--	--	--	--	--	77	76	75	76	75	74	72	71	71	73	74	75	73	73	73	74	74	74	74	73	73	73	74	75	74	--	74
Minimum	--	--	--	--	--	72	71	69	71	71	69	68	67	67	67	67	67	69	67	69	68	69	68	69	68	69	67	68	69	70	--	69

11-2902. TUOLUMNE RIVER AT TUOLUMNE CITY, CALIF.

LOCATION.--Lat 37°36'10", long 121°07'50", at gaging station at bridge in Tuolumne City, Stanislaus County, and 3.4 miles from mouth.
DRAINAGE AREA.--1,897 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to June 1966 (discontinued).
REMARKS.--Records of dischage furnished by Public Utilities Commission, City and County of San Francisco.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	1750					19		38	0		38			0.1				42	11	1.3	196	7.6
Nov. 4.....	1680					17		35	0		36			.0				44	15	1.1	189	7.8
Dec. 3.....	3470					11		34	0		20			.0				38	10	.8	135	7.2
Jan. 7, 1966.....	1840					20		58	0		35			.0				62	14	1.1	234	8.0
Feb. 7.....	2920					10		37	0		17			.1				36	6	.7	136	7.6
Mar. 8.....	--					20		54	0		38			.0				56	12	1.2	229	7.8
Apr. 5.....	--					70		127	1		143			.2				158	52	2.4	696	8.3
May 5.....	--	32		51	16	96	6.7	154	0	12	189		5.4	.1	556	0.76		192	66	3.0	873	8.0
June 9.....	--					98		158	0		185			.0				196	66	3.0	886	8.0

11-2905. SAN JOAQUIN RIVER AT MAZE ROAD BRIDGE, NEAR MODESTO, CALIF.

LOCATION.--Lat 37°48'10", long 121°19'00", at Maze Road Bridge 0.2 mile downstream from gaging station, at Hetch Hetchy Crossing, 2.7 miles upstream from Stanislaus River, and 12 miles west of Modesto, Stanislaus County.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to June 1966 (discontinued).
REMARKS.--Records of discharge furnished by Public Utilities Commission, City and County of San Francisco.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	2370					44		84	0		66			0.1				90	21	2.0	413	8.1
Nov. 4.....	2070					56		84	0		82			.2				108	39	2.3	516	7.2
Dec. 2.....	6140					18		49	0		22			.0				49	9	1.1	199	7.5
Jan. 7, 1966.....	4740					66		104	0		74			.4				126	41	2.6	577	7.6
Feb. 7.....	3930					54		83	0		67			.3				100	32	2.4	480	7.1
Mar. 8.....	2040					90		134	0		126			.4				170	60	3.0	782	7.9
Apr. 5.....	--					138		178	0		220			.5				266	120	3.7	1210	8.2
May 5.....	--	20		63	29	141	5.2	192	0	102	222		6.0	.3	756	1.03		276	119	3.7	1220	7.9
June 9.....	--					127		184	0		190			.1				240	89	3.6	1080	8.2

11-2927. MIDDLE FORK STANISLAUS RIVER AT HELLS HALF ACRE BRIDGE, NEAR PINECREST, CALIF.

LOCATION.--Lat 38°14'49", long 120°01'51", temperature recorder at gaging station on left bank 200 feet upstream from Donnell powerhouse, 800 feet downstream from Hells Half Acre Bridge, 1.1 miles upstream from Cow Creek, and 4.7 miles northwest of Pinecrest, Tuolumne County.
DRAINAGE AREA.--287 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Minimum, freezing point on several days during December and January.
REMARKS.--Clock stopped Oct. 9-25; temperature range, 52°F to 57°F.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	55	56	58	58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	52	51	51	51	51	51	--
Minimum	--	--	--	--	--	50	52	53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	48	48	47	47	47	47	--
November																																
Maximum	52	53	52	51	51	50	50	51	50	50	49	48	49	48	48	49	48	45	45	45	44	43	43	41	39	38	39	39	40	40	--	46
Minimum	47	49	48	48	47	46	46	48	48	46	46	47	47	47	46	47	44	43	44	43	41	41	41	38	37	37	36	36	37	39	--	44
December																																
Maximum	40	40	41	41	41	41	40	40	41	41	41	39	39	37	35	34	34	34	34	35	35	35	34	36	34	34	35	35	34	32	32	37
Minimum	39	38	38	39	39	38	38	38	39	39	38	38	37	35	33	32	32	32	32	33	33	33	32	33	32	32	33	32	32	32	32	35
January																																
Maximum	33	33	33	34	35	36	37	38	37	37	37	36	37	37	39	37	36	36	36	36	35	35	35	36	36	36	36	35	37	36	37	36
Minimum	31	32	32	33	34	34	35	36	35	35	34	34	34	35	36	35	34	33	33	33	32	33	32	33	33	34	33	33	34	33	34	34
February																																
Maximum	36	38	38	39	40	38	38	38	38	38	37	38	37	37	38	38	39	40	40	40	40	41	40	39	36	38	40	39	--	--	--	38
Minimum	35	35	36	38	38	36	35	35	35	35	34	34	33	33	33	33	34	35	36	36	35	37	38	35	33	33	35	35	--	--	--	35
March																																
Maximum	39	37	38	37	42	43	46	46	47	46	44	44	46	46	44	44	42	45	45	45	44	46	47	47	47	48	48	49	49	50	50	45
Minimum	35	35	33	34	37	40	41	42	42	41	39	39	41	40	40	39	37	40	41	39	38	40	40	40	40	41	41	41	41	42	42	39
April																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
May																																
Maximum	--	--	52	53	54	54	55	55	52	52	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	48	50	50	47	49	51	50	50	49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
June																																
Maximum	--	58	58	60	60	58	58	62	60	64	64	65	67	69	70	70	71	71	72	70	65	67	67	67	70	70	71	71	72	72	--	66
Minimum	--	49	49	52	53	55	54	54	56	56	57	57	58	60	62	62	63	63	63	62	60	57	58	57	59	61	61	62	62	62	--	58
July																																
Maximum	72	70	69	70	71	72	70	65	67	69	70	70	70	70	70	70	71	71	72	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	62	62	59	60	61	62	61	61	60	59	60	60	60	60	60	61	62	62	62	--	--	--	--	--	--	--	--	--	--	--	--	--
August																																
Maximum	--	75	76	75	75	74	73	73	74	73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	67	68	68	67	65	65	65	65	65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
September																																
Maximum	--	66	67	68	66	68	68	67	67	66	65	64	61	61	61	61	62	59	60	62	64	65	66	66	65	65	64	64	65	65	--	64
Minimum	--	59	59	60	61	61	61	60	60	60	59	58	56	53	54	55	57	57	56	56	58	59	60	60	60	60	58	59	60	59	--	58

11-3020. STANISLAUS RIVER BELOW GOODWIN DAM, NEAR KNIGHTS FERRY, CALIF.

LOCATION.--Lat 37°51'01", long 120°38'13", temperature recorder at gaging station on right bank 0.1 mile upstream from Owl Creek, 1.0 mile downstream from Goodwin Dam, and 3 miles northeast of Knights Ferry, Stanislaus County.
DRAINAGE AREA.--986 square miles.
RECORDS AVAILABLE.--Water temperatures: February to September 1966.
REMARKS.--Clock stopped Mar. 3-13; temperature range, 46°F to 48°F; May 6-31; temperature range, 63°F to 71°F.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
December																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
January																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
February																																
Maximum	44	44	44	44	45	45	45	45	45	46	46	46	46	46	46	46	46	46	46	46	46	48	50	50	49	48	48	48	--	--	--	46
Minimum	44	44	44	44	44	45	45	45	45	45	46	45	45	45	45	45	45	45	45	45	46	46	48	49	48	48	48	47	--	--	--	46
March																																
Maximum	47	47	47	--	--	--	--	--	--	--	--	--	--	50	50	50	50	50	48	49	50	50	50	52	52	53	54	55	56	57	57	--
Minimum	47	47	47	--	--	--	--	--	--	--	--	--	--	49	50	50	49	48	48	48	49	49	49	49	51	52	53	54	54	56	56	--
April																																
Maximum	56	56	56	57	58	59	59	59	59	59	59	60	61	61	61	61	61	61	60	60	60	62	63	64	64	64	63	63	63	63	--	60
Minimum	55	56	56	56	57	58	59	59	59	58	58	59	59	60	60	60	60	60	59	59	59	60	61	62	63	63	63	62	62	62	--	59
May																																
Maximum	64	64	63	63	63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	61	61	62	63	63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
June																																
Maximum	69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	73	73	72	74	74	75	76	76	75	--	--
Minimum	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	71	72	71	72	72	73	73	74	74	--	--
July																																
Maximum	75	75	74	75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	74	73	73	73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
August																																
Maximum	--	--	--	--	78	78	78	78	79	78	78	78	--	--	--	78	77	78	78	77	77	77	76	76	75	75	75	--	75	74	73	--
Minimum	--	--	--	--	77	76	76	77	77	77	76	76	--	--	--	76	76	77	77	76	76	76	75	75	74	74	74	--	73	73	73	--
September																																
Maximum	74	74	74	74	75	75	75	74	74	74	74	73	72	72	71	71	71	71	71	71	72	72	72	72	71	71	72	72	72	71	--	73
Minimum	73	73	72	73	73	74	74	73	73	73	73	72	72	71	70	70	70	70	70	70	70	71	71	71	71	71	71	71	70	70	--	72

11-3033. STANISLAUS RIVER NEAR RIPON, CALIF.

LOCATION.--Lat 37°40'15", long 121°20'18", approximately 3.7 miles downstream from gaging station at Ripon, San Joaquin County, and 0.6 mile northwest of junction of Bacon and Gates Roads.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
REMARKS.--Records of discharge data furnished by California State Department of Water Resources.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 5, 1965.....	331					9.1		82	0		3.6			0.0				63	0	0.5	168	8.1
Nov. 2.....	472					7.1		76	0		3.2			.1				57	0	.4	145	7.4
Nov. 30.....	944					4.6		52	0		2.2			.0				44	1	.3	106	7.7
Jan. 4, 1966.....	1800					3.8		45	0		1.6			.0				38	1	.3	97	7.6
Feb. 8.....	1730					4.1		51	0		1.8			.0				43	1	.3	105	7.6
Mar. 8.....	243					12		124	0		7.3			.0				96	0	.5	243	8.2
Apr. 5.....	188					14		127	2		8.2			.1				99	0	.6	253	8.4
May 5.....	157	28		22	9.7	12	1.9	127	0	10	7.3		4.5	.0	168	0.23		95	0	.5	244	8.2
June 9.....	157					17		147	0		8.0			.0				106	0	.7	284	7.6

11-3035. SAN JOAQUIN RIVER NEAR VERNALIS, CALIF.

LOCATION (revised).--Lat 37°40'34", long 121°15'51", at gaging station in El Pescadero Grant, 80 feet upstream from Durham Ferry highway bridge, 2.6 miles downstream from Stanislaus River, and 3.2 miles northeast of Vernalis, San Joaquin County.
DRAINAGE AREA (revised).--13,540 square miles.
RECORDS AVAILABLE.--Chemical analyses: March 1951 to September 1966.
Water temperatures: March 1951 to September 1966.
Sediment records: November 1956 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 85°F June 14, Aug. 9, Sept. 2; minimum, 44°F Jan. 21.
Sediment concentrations: Maximum daily, 252 ppm July 12; minimum daily, 39 ppm Jan. 21, 27, Feb. 27.
Sediment loads: Maximum daily, 3,440 tons Dec. 4; minimum daily, 80 tons Aug. 12.
EXTREMES, 1951-66.--Water temperatures: Maximum, 85°F June 14, Aug. 9, Sept. 2, 1966; minimum, 37°F Jan. 24, 1962.
Sediment concentrations (1956-66): Maximum daily, 1,590 ppm Dec. 25, 1964; minimum daily, 9 ppm Jan. 4, 1960, Nov. 18, 1961.
Sediment loads (1956-66): Maximum daily, 54,100 tons Dec. 25, 1964; minimum daily, 2 tons Aug. 10, 1961.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	2930	--	--	--	--	40	--	87	0	--	56	--	--	0.1	--	--		89	18	1.8	383	8.0
Nov. 3.....	2660	--	--	--	--	42	--	73	0	--	64	--	--	.2	--	--		90	30	1.9	406	8.1
Dec. 1.....	6500	--	--	--	--	19	--	53	0	--	22	--	--	.0	--	--		51	8	1.2	200	7.7
Jan. 5, 1966.....	8810	--	--	--	--	32	--	77	0	--	36	--	--	.1	--	--		79	16	1.6	320	7.4
Feb. 8.....	5640	--	--	--	--	60	--	91	0	--	74	--	--	.2	--	--		112	37	2.5	530	7.5
Mar. 8.....	2500	--	--	--	--	80	--	110	0	--	112	--	--	.3	--	--		150	60	2.8	693	8.0
Apr. 6.....	940	20	0.01	46	19	94	7.4	150	0	82	132	0.0	6.0	.3	481	0.65		192	69	3.0	842	7.6
May 4.....	785	16	--	28	46	67	5.1	183	0	95	104	.2	3.9	.3	455	.62		259	109	1.8	837	7.6
June 8.....	780	27	.00	56	24	119	4.8	178	0	81	180	.3	5.1	.1	585	.80		240	94	3.3	1040	8.2
Aug. 3.....	573	24	.00	58	32	140	5.4	196	0	92	220	.2	7.1	.4	676	.92		278	117	3.6	1200	8.2
Sept. 7.....	686	26	.00	58	30	146	4.5	196	0	105	225	.3	7.0	.3	A 704	.96		268	107	3.9	1220	8.1

A Residue at 180°C.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October.....	62	62	63	62	64	64	63	65	65	64	64	63	65	62	62	60	60	56	61	59	59	60	60	61	60	63	61	60	60	64	63	62
November.....	60	57	65	57	62	62	62	62	59	57	60	60	58	56	59	61	60	60	60	60	57	55	55	--	55	50	52	50	50	52	--	58
December.....	51	52	50	49	50	49	50	49	49	49	50	50	49	48	48	48	48	47	47	45	47	46	48	45	46	48	46	50	48	46	48	48
January.....	48	46	45	45	46	46	48	51	52	50	51	51	49	49	51	49	49	46	46	45	44	46	46	46	47	47	48	48	52	50	49	48
February.....	49	50	48	50	51	50	48	50	48	49	48	48	50	50	47	49	50	50	49	51	50	52	56	54	54	51	52	53	--	--	--	50
March.....	54	52	50	58	58	58	61	60	60	60	55	60	61	60	60	58	55	55	60	62	57	55	57	62	62	65	62	63	65	65	69	59
April.....	69	70	66	72	68	68	68	67	65	65	66	68	65	68	70	73	74	72	64	62	64	64	68	70	71	71	67	71	72	67	--	68
May.....	73	71	72	70	71	70	72	72	72	70	68	70	75	70	70	70	72	80	81	76	80	70	68	72	80	77	78	74	74	69	73	73
June.....	69	66	67	74	78	78	70	73	78	74	78	78	78	85	82	78	75	80	78	75	70	70	74	67	78	75	82	72	78	73	--	75
July.....	78	72	75	75	80	74	77	72	76	71	71	68	--	68	68	71	70	73	74	82	84	78	82	79	80	67	72	74	74	75	76	75
August.....	75	76	84	84	84	77	72	79	85	79	75	74	74	74	75	74	78	78	74	72	74	76	80	72	70	69	70	75	70	69	75	76
September.....	83	85	84	83	84	82	83	78	72	79	70	68	78	68	81	71	72	70	72	70	68	72	71	72	71	74	69	77	71	71	--	75

11-3035. SAN JOAQUIN RIVER NEAR VERNALIS, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	2800	83	627	3010	43	349	6500	152	2670
2	2910	76	597	2850	51	392	7370	154	3060
3	2990	82	662	2660	50	359	7950	159	3410
4	3030	80	654	2650	46	329	8670	147	3440
5	2970	78	625	2640	55	392	9270	127	3180
6	2930	90	712	2650	45	322	9570	119	3070
7	3100	97	812	2600	52	365	9690	124	3240
8	3150	86	731	2520	53	361	9410	100	2540
9	3150	99	842	2430	52	341	8720	107	2520
10	3030	90	736	2510	48	325	7220	85	1660
11	3030	88	720	2660	55	395	6180	67	1120
12	3130	84	710	2860	46	355	5810	58	910
13	3290	84	746	3000	50	405	5610	61	924
14	3420	94	868	3120	53	446	5430	73	1070
15	3610	94	916	3130	46	389	5390	59	859
16	3850	80	832	3070	48	398	5330	50	720
17	3780	69	704	3150	65	553	5270	49	697
18	3550	66	633	3490	69	650	5490	61	904
19	3460	72	673	3620	70	684	5630	69	1050
20	3340	65	586	3710	66	661	5520	62	924
21	3160	63	538	4020	67	727	5500	53	787
22	2570	62	430	4310	66	768	5590	56	845
23	2270	62	380	4450	60	721	5620	53	804
24	2150	52	302	4770	97	1250	5540	57	853
25	2060	57	317	5190	85	1190	4860	54	709
26	2010	49	266	5510	76	1130	4180	60	677
27	2060	59	328	5630	78	1190	3820	53	547
28	1990	60	322	5700	87	1340	3820	57	588
29	2480	78	522	5670	89	1360	4160	76	854
30	2960	58	464	5730	88	1360	4390	89	1050
31	3040	47 B	386	---	---	---	5720	116	1790
Total	91270	---	18641	109310	---	19507	193230	---	47472
	JANUARY			FEBRUARY			MARCH		
1	7330	125	2470	5050	86	1170	2720	50	367
2	8500	119	2730	5010	66	893	2850	55	423
3	9330	120	3020	4910	66	875	3020	59	481
4	9590	107	2770	4780	59	761	3020	49	400
5	8810	103	2450	4640	59	739	3010	53	431
6	7570	92	1880	4650	62	778	2970	46	369
7	6530	78	1380	5330	86	1240	2670	45	324
8	5950	67	1080	5640	78	1190	2500	50	338
9	5600	68	1030	4950	55	735	2460	48	319
10	5350	59	852	4700	54	685	2490	46	309
11	5210	56	788	4690	49	620	2450	49	324
12	5430	59	865	4660	45	566	2090	47	265
13	5560	55	826	4530	41	501	1960	48	254
14	5480	55	814	4420	40	477	1890	49	250
15	5370	64	928	4180	50	564	1830	57	282
16	4910	68	901	3840	59	612	1810	52	254
17	4650	54	678	3660	52	514	1710	49	226
18	4530	50	612	3540	57	545	1630	44	194
19	4500	51	620	3770	59	601	1690	52	237
20	4420	45	537	3580	56	541	1480	45	180
21	4350	39	458	3410	52	479	1380	47	175
22	4230	40 B	457	3330	44	396	1240	51	171
23	4080	43	474	3160	44	375	1220	58	191
24	3590	48	465	2920	48	378	1220	60	198
25	3130	48	406	2860	48	371	1170	56	177
26	3020	43	351	2840	44	337	1140	58	179
27	3020	39	318	2800	39	295	1140	63	194
28	2980	45	362	2710	45	329	1200	69	224
29	2940	43	341	---	---	---	1200	72	233
30	3160	50	427	---	---	---	1120	70	212
31	4190	86	973	---	---	---	1080	70	204
Total	163310	---	32263	114560	---	17567	59360	---	8385

B Computed from estimated-concentration graph.

11-3035. SAN JOAQUIN RIVER NEAR VERNALIS, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	1130	80	244	826	138	308	605	154	252
2	1080	78	227	852	153	352	597	140	226
3	1020	87	240	794	137	294	636	139	239
4	1010	90	245	785	139	295	614	132	219
5	955	90	232	780	140	295	700	122	231
6	940	98	249	826	130	290	736	135	268
7	888	97	233	826	132	294	776	125	262
8	868	96	225	862	144	335	780	122	257
9	970	114	299	902	138	336	731	117	231
10	1220	128	422	1020	139	383	736	126	250
11	1380	124	462	1140	131	403	641	124	215
12	1440	133	517	1120	126	381	628	117	198
13	1360	125	459	1060	127	363	601	135	219
14	1200	123	399	1050	139	394	581	155	243
15	1150	144	447	1060	147	421	437	159	188
16	1040	186	522	1060	131	375	373	153	154
17	905	206	503	1000	177	478	373	146	147
18	888	177	424	950	207	531	393	132	140
19	892	168	405	888	201	482	465	133	167
20	848	150	343	834	203	457	549	164	243
21	804	162	352	798	204	440	477	158	203
22	820	175	387	834	199	448	413	144	161
23	852	153	352	852	202	465	481	170	221
24	892	148	356	808	178	388	529	127	181
25	888	150	360	744	125	251	525	125	177
26	820	158	350	664	119	213	517	151	211
27	784	146	309	690	135	252	565	145	221
28	776	141	295	610	142	234	585	138	218
29	820	155	343	695	130	244	581	143	224
30	808	139	303	731	158	312	469	163	206
31	--	--	--	695	157	295	--	--	--
Total	29448	--	10504	26756	--	11009	17094	--	6372

Day	JULY			AUGUST			SEPTEMBER		
1	393	163	173	650	77	135	597	66	106
2	429	171	198	628	62	105	593	59	94
3	469	164	208	573	62	96	585	69	109
4	509	168	231	477	76	98	672	62	112
5	549	203	301	425	102	117	718	61	118
6	509	240	330	401	136	147	682	65	120
7	457	200	247	405	128	140	686	81	150
8	409	234	258	425	101	116	636	62	106
9	433	164	192	437	96	113	654	54	95
10	453	198	242	409	109	120	659	55	98
11	493	246	327	358	93	90	718	58	112
12	481	252	327	389	76	80	740	59	118
13	485	242	317	409	78	86	744	66	133
14	469	195	247	449	88	107	695	66	124
15	501	194	262	505	94	128	695	64	120
16	517	166	232	481	114	148	731	60	118
17	517	142	198	425	130	149	713	63	121
18	545	234	344	385	143	149	726	66	129
19	501	206	279	381	133	137	776	69	145
20	429	208	241	377	95	97	780	72	152
21	362	232	227	449	92	112	790	83	177
22	373	245	247	565	99	151	808	70	153
23	334	216	195	589	84	134	830	65	146
24	377	211	215	501	90	122	803	64	139
25	453	222	272	529	88	126	780	67	141
26	369	210	209	553	86	128	803	62	134
27	351	191	181	632	87	148	803	63	137
28	326	117	103	659	80	142	776	60	126
29	323	125	109	708	85	162	780	75	158
30	326	104	92	682	88	162	785	71	150
31	489	106	140	641	91	157	--	--	--
Total	13631	--	7144	15497	--	3902	21758	--	3841

Total discharge for year (cfs-days)..... 855224
Total load for year (tons)..... 186607

11-3035. SAN JOAQUIN RIVER NEAR VERNALIS, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Oct. 5, 1965	0815	64		3110	77	647						77	89	94	98	100		S
Nov. 1	1220	62		3010	45	366						80	92	100	--			V
Dec. 1	0950	51		6410	154	2660						78	84	97	100			V
Feb. 1, 1966	1110	51		5080	81	1110						69	80	92	100			V
Apr. 8	1110	67		860	86	200						94	98	100	--			S
May 16	1200	71		1280	119	411						96	99	100	--			S
June 20	1145	75		561	148	224						100	--	--	--			V
July 7	1310	77		469	148	187						98	100	--	--			S
Aug. 15	1140	79		521	92	129						99	100	--	--			V
Sept. 16	1120	71		744	59	118						--	--	--	--			

11-3042. SAN JOAQUIN RIVER AT MOSSDALE, CALIF.

LOCATION.--Lat 37°47'10", long 121°18'25", at boat landing at Mossdale Bridge at Mossdale, San Joaquin County, opposite tidal gaging station, and 7.6 miles northeast of Tracy.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to June 1966 (discontinued).
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....						40		91	0		55			0.1				93	18	1.8	392	8.1
Nov. 3.....						48		84	0		69			.1				100	31	2.1	452	8.2
Dec. 2.....						17		52	0		20			.1				52	9	1.0	193	7.7
Jan. 4, 1966.....						15		50	0		17			.0				49	8	.9	178	7.6
Feb. 8.....						41		74	0		48			.3				84	23	1.9	385	7.4
Mar. 7.....						71		107	0		98			.2				139	51	2.6	628	8.2
Apr. 5.....						127		164	0		185			.4				244	110	3.5	1080	8.0
May 2.....		17		54	27	113	2.6	180	0	83	185		4.0	.2	628	0.85		246	98	3.1	1050	7.8
June 7.....						129		180	6		204			.2				254	97	3.5	1090	8.4

11-3048. SAN JOAQUIN RIVER AT GARWOOD BRIDGE, NEAR STOCKTON, CALIF.

LOCATION.--Lat 37°55'45", long 121°19'38", at boat landing at Garwood Bridge on State Highway 4, opposite tidal gaging station, and 1.8 miles west of Stockton, San Joaquin County.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to June 1966 (discontinued).
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....						42		92	0		56			0.1				94	19	1.9	399	8.2
Nov. 3.....						39		72	0		54			.0				83	24	1.9	373	8.1
Dec. 2.....						19		54	0		22			.0				52	8	1.2	202	7.7
Jan. 4, 1966.....						14		47	0		15			.1				46	7	.9	163	7.3
Feb. 8.....						34		70	0		40			.3				77	20	1.7	330	7.6
Mar. 7.....						66		101	0		88			.2				127	44	2.5	574	8.2
Apr. 5.....						98		136	0		140			.3				184	72	3.1	839	8.1
May 2.....		7.1		43	20	100	3.3	144	0	69	150		5.4	.2	496	0.67		188	70	3.2	871	7.8
June 7.....						95		138	2		154			.3				176	60	3.1	837	8.3

11-3085.5. CALAVERAS RIVER ABOVE NEW HOGAN DAM, CALIF.

LOCATION.--Lat 38°10'40", long 120°47'20", approximately 6 miles upstream from Hogan Dam, Calaveras County, 1.2 miles west of San Andreas, and 5 miles east of Valley Springs.
RECORDS AVAILABLE.--Chemical analyses: January 1965 to July 1966 (discontinued).
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to July 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 4, 1965.....						9.5		120	3		9.1			0.1				112	9	0.4	262	8.4
Nov. 1.....						9.3		133	0		9.2			.1				118	9	.4	269	8.2
Dec. 2.....						6.8		93	5		6.5			.0				98	14	.3	224	8.4
Jan. 3, 1966.....						5.5		79	0		4.8			.0				76	11	.3	180	8.0
Feb. 7.....						4.8		59	0		3.0			.0				52	4	.3	129	7.7
Mar. 7.....						7.2		102	0		3.9			.0				91	7	.3	209	8.2
Apr. 4.....						5.4		105	0		5.3			.0				89	3	.2	204	8.2
May 3.....		16		27	6.9	7.1	1.8	111	0	14	4.6		0.3	.0	138	0.19		96	5	.3	220	7.9
June 6.....						8.6		118	4		6.3			.0				109	6	.4	248	8.5
July 11.....						10		142	0		9.0			.0				126	10	.4	283	7.8

11-3089. CALAVERAS RIVER BELOW NEW HOGAN DAM, NEAR VALLEY SPRINGS, CALIF.

LOCATION.--Lat 38°08'53", long 120°49'26", at gaging station at county road bridge, 0.5 mile upstream from Cosgrove Creek, 0.8 mile downstream from Hogan Dam, Calaveras County, and 3.0 miles south of Valley Springs.
DRAINAGE AREA.--363 square miles.
RECORDS AVAILABLE.--Chemical analyses: January 1964 to August 1966 (discontinued).

Chemical analyses, in parts per million, October 1965 to August 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 4, 1965.....	97					5.0		76	0		2.8			0.1				67	5	0.3	152	8.2
Nov. 1.....	32					4.8		83	1		2.8			.1				70	0	.3	157	8.4
Dec. 2.....	32					5.1		84	5		3.9			.0				78	1	.2	175	8.5
Jan. 3, 1966.....	178					5.2		84	0		3.8			.0				78	9	.3	180	7.4
Feb. 7.....	30					5.5		89	0		3.3			.1				82	9	.3	189	8.2
Mar. 7.....	31					5.6		88	0		2.2			.0				83	11	.3	185	8.1
Apr. 4.....	56					5.4		87	0		4.5			.0				81	10	.3	184	7.5
May 3.....	171	10		21	6.4	5.1	1.8	87	0	13	2.2		1.5	.0	110	0.15		79	8	.2	178	7.6
June 1.....	136					5.1		91	0		3.2			.0				82	7	.2	175	8.0
July 11.....	174					5.5		93	0		3.4			.0				82	6	.3	183	8.2
Aug. 8.....	142					5.3		92	0		3.4			.0				82	7	.3	182	7.8

11-3095. CALAVERAS RIVER AT JENNY LIND, CALIF.

LOCATION.--Lat 38°05'20", long 120°51'53", at bridge on Milton Road 70 feet upstream from gaging station, 0.2 mile south of Jenny Lind, Calaveras County, and 6.5 miles downstream from Cosgrove Creek.
DRAINAGE AREA.--393 square miles.
RECORDS AVAILABLE.--Chemical analyses: November 1954 to May 1966 (discontinued).

Chemical analyses, in parts per million, October 1965 to May 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 13, 1965....	26					5.0		78	0		2.7			0.0				69	5	0.3	154	8.2
Nov. 9.....	40					4.6		80	0		2.2			.0				71	5	.2	157	8.2
Dec. 6.....	37					5.2		86	0		4.1			.0				79	8	.3	181	8.1
Jan. 6, 1966.....	1430					4.8		85	0		3.4			.0				76	6	.2	175	8.2
Feb. 1.....	76					7.7		90	0		6.5			.2				89	15	.3	212	8.2
Mar. 1.....	37					7.1		107	1		5.9			.1				100	11	.3	226	8.3
Apr. 11.....	66					5.7		88	2		2.8			.0				84	9	.3	188	8.4
May 4.....	150	9.0		20	7.3	5.0	2.1	89	0	10	4.1		1.6	.0	116	0.16		80	7	.2	179	8.0

11-3105. CALAVERAS RIVER NEAR STOCKTON, CALIF.

LOCATION.--Lat 37°59'18", long 121°15'48", at gaging station at Central California Traction Railroad bridge, 3.3 miles southwest of Waterloo, and 4.6 miles northeast of Stockton, San Joaquin County.
RECORDS AVAILABLE.--Chemical analyses: October 1961 to June 1966 (discontinued).
REMARKS.--Records of discharge furnished by California State Department of Water Resources. Flow includes diversion from Stockton Diverting Canal. Stream dry most of the year.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Dec. 6, 1965.....	7.5					5.2		77	0		4.3			0.0				79	16	0.3	178	8.2
Jan. 6, 1966.....	138					7.1		87	0		7.2			.0				80	9	.3	205	7.5
Feb. 1.....	68					6.2		49	0		5.0			.2				50	10	.4	141	7.7
Mar. 1.....	2.5					7.6		96	1		7.2			.0				88	8	.4	212	8.4
Apr. 13.....	1.4					6.5		92	1		3.6			.1				84	7	.3	195	8.3
May 12.....	33	10		19	6.9	6.0	2.2	89	0	11	5.0		0.5	.0	113	0.15		76	3	.3	172	7.6
June 1.....	14					7.0		92	0		5.3			.0				78	3	.3	190	8.0

11-3112. STOCKTON SHIP CHANNEL NEAR RINDGE PUMP ON RINDGE TRACT, CALIF.

LOCATION.--Lat 37°58'15", long 121°25'15", at boat landing at ship channel downstream from confluence with Fourteen Mile Slough, downstream from tidal gaging station, and approximately 9.6 miles northwest of Stockton, San Joaquin County.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....						68		137	3		93			0.1				130	13	2.6	597	8.3
Nov. 3.....						62		110	0		94			.2				121	31	2.5	568	8.1
Dec. 2.....						35		74	0		42			.1				76	15	1.7	334	7.8
Jan. 4, 1966.....						32		63	0		38			.2				77	25	1.6	322	7.2
Feb. 8.....						50		85	0		66			.3				114	44	2.0	495	7.9
Mar. 7.....						85		116	0		110			.5				160	65	2.9	730	8.1
Apr. 5.....						56		98	0		80			.2				128	48	2.2	536	8.2
May 2.....		6.4		26	12	48	2.7	91	0	41	73		1.5	.1	274	0.37		114	39	2.0	477	7.6
June 7.....						29		90	0		39			.1				88	14	1.3	327	8.2

11-3127. OLD RIVER AT SOUTH TIP OF FABIAN TRACT, NEAR TRACY, CALIF.

LOCATION.--Lat 37°47'20", long 121°28'30", at southern tip of Fabian Tract at trash rack of pump intake at end of Lammers Road, approximately 3 miles east of Bethany, and 6.1 miles north of Tracy, San Joaquin County.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....						50		102	1		73			0.1				115	30	2.0	488	8.3
Nov. 3.....						48		90	0		68			.1				104	30	2.0	466	8.1
Dec. 2.....						38		80	0		45			.2				85	19	1.8	366	7.7
Jan. 4, 1966.....						22		57	0		26			.1				58	11	1.3	230	7.7
Feb. 8.....						63		96	0		82			.4				122	43	2.5	566	8.0
Mar. 7.....						76		112	0		103			.3				152	60	2.7	667	7.5
Apr. 5.....						135		184	0		195			.4				276	125	3.5	1180	8.1
May 2.....		7.3		64	29	139	6.0	192	0	91	224		2.2	.4	660	0.90		280	123	3.6	1200	7.8
June 7.....						140		204	6		258			.4				316	139	3.4	1330	8.3

11-3129.9. DELTA-MENDOTA CANAL ABOVE TRACY PUMPING PLANT, NEAR TRACY, CALIF.

LOCATION.--Lat 37°48'45", long 121°34'40", at Byron Road bridge, 1.1 miles upstream from Tracy Pumping Plant, Alameda-Contra Costa County line, and 9.2 miles northwest of Tracy, San Joaquin County.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
REMARKS.--Records of discharge given for Delta-Mendota Canal at Tracy Pumping Plant, near Tracy. No appreciable inflow between sampling point and gaging station.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 5, 1965.....	1882					65		115	0		91			0.4				138	44	2.4	603	8.2
Nov. 2.....	1194					84		129	0		131			.3				178	72	2.7	795	8.1
Dec. 13.....	0					50		87	0		66			.2				98	27	2.2	457	8.1
Feb. 8, 1966.....	870					65		96	0		83			.4				124	45	2.5	551	8.0
Mar. 8.....	2047					69		104	0		95			.2				136	51	2.6	612	8.0
Apr. 6.....	2596					43		85	0		55			.2				114	70	1.8	444	8.0
May 4.....	3671	14		15	6.4	18	1.3	64	0	18	22		1.3	.0	142	0.19		64	12	1.0	220	7.5
June 8.....	3690					20		79	0		19			.2				71	6	1.0	238	8.1

11-3130.1. DELTA-MENDOTA CANAL BELOW TRACY PUMPING PLANT, NEAR TRACY, CALIF.

LOCATION.--Lat 37°46'25", long 121°34'50", at canal bridge 4.98, 0.5 mile downstream from Mountain House Road siphon, 2.9 miles downstream from Tracy Pumping Plant, and 8.5 miles northwest of Tracy, San Joaquin County.
RECORDS AVAILABLE.--Chemical analyses: July 1959 to June 1963.
Water temperatures: July 1959 to September 1966.
Sediment records: July 1959 to June 1960, October 1962 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 79°F Aug. 1, 2, 7, 10, 13.
Sediment concentrations: Maximum daily, 204 ppm Aug. 3; minimum daily, no flow on many days during November to January.
Sediment loads: Maximum daily, 2,290 tons Aug. 3; minimum daily, 0 ton on many days during November to January.
EXTREMES, 1959-66.--Water temperatures: Maximum, 81°F July 25, 1960; minimum (1960-63, 1964-65), 41°F Jan. 21, 1961.
Sediment concentrations (1959-60, 1962-66): Maximum daily, 500 ppm Mar. 1, 1965; minimum daily, no flow on many days during 1962-66.
Sediment loads (1959-60, 1962-66): Maximum daily, 3,220 tons Mar. 1, 1965; minimum daily, 0 ton on many days during 1962-66.
REMARK.--No flow Nov. 30 to Jan. 3, Jan. 5-12, 16-29.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	65	65	--	--	67	66	65	63	64	65	64	63	63	62	61	64	63	65	66	67	65	64	66	--	--	64	65	64	64	62	64	64
November	65	63	62	63	62	64	63	63	62	61	60	60	58	59	58	57	58	57	57	56	55	55	53	54	52	53	52	51	50	--	--	58
December	52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
January	--	--	--	--	--	--	--	--	--	--	--	--	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	47	47	--	--
February	48	48	48	47	48	49	49	50	49	48	49	50	48	49	49	48	50	49	51	50	51	52	53	53	52	53	54	52	--	--	--	50
March	52	51	52	52	52	53	55	54	55	56	56	57	58	57	58	59	57	58	58	58	58	57	59	58	60	59	58	59	60	62	63	57
April	65	66	68	68	67	67	68	67	65	64	64	66	67	68	67	66	65	65	65	65	66	66	67	67	66	67	66	67	68	68	--	66
May	69	68	67	68	68	66	67	66	66	66	67	67	66	66	67	67	69	70	72	72	70	69	68	68	67	68	66	68	67	68	67	68
June	68	--	69	--	68	--	68	--	70	--	71	--	72	--	74	--	75	--	74	--	75	--	74	--	76	--	76	--	77	--	--	--
July	76	--	75	--	--	74	74	--	75	--	--	--	76	--	--	75	--	76	76	75	75	76	77	78	78	76	76	77	76	77	78	--
August	79	79	77	78	78	78	79	78	77	79	78	78	79	77	77	76	73	74	72	73	72	73	72	71	71	72	71	72	70	70	72	75
September	73	73	73	72	71	71	--	71	70	70	71	69	70	70	71	71	69	70	69	70	69	68	68	69	68	69	68	69	67	67	--	70

11-3130.1. DELTA-MENDOTA CANAL BELOW TRACY PUMPING PLANT, NEAR TRACY, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs) 1/	Suspended sediment		Mean discharge (cfs) 1/	Suspended sediment		Mean discharge (cfs) 1/	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	2020	52	284	1190	36	116			
2	1810	44	215	1190	33	106			
3	1880	40	203	960	28	73			
4	1880	40	203	959	28	73			
5	1880	50	254	929	26	65			
6	1770	62	296	927	29	73			
7	1780	50	240	930	26	65			
8	1850	56	280	930	21	53			
9	1890	49	250	645	24	42			
10	1920	70	363	646	37	65			
11	1920	57	295	646	54	94			
12	1920	40	207	645	49	85			
13	1850	42	210	610	43	71			
14	1850	43	215	613	39	65			
15	1850	48	240	611	32	53			
16	1810	44	214	502	28	38			
17	1770	41	196	503	34	46			
18	1760	47	223	504	25	34			
19	1770	46	220	395	25	27			
20	1640	56	248	395	18	19			
21	1660	50	224	394	40	43			
22	1660	40	179	394	58	62			
23	1660	37	166	395	58	62			
24	1460	38	150	395	52	55			
25	1470	42	167	358	59	57			
26	1500	38	154	357	52	50			
27	1400	32	121	213	38	22			
28	1360	35	129	213	37	21			
29	1290	33	115	143	41	16			
30	1190	37	119	0	--	0			
31	1210	37	121	--	--	--			
Total	52670	--	6501	17592.0	--	1651	0	--	0

Day	JANUARY			FEBRUARY			MARCH		
1	0		0	869	--	120	1590	48	206
2	0		0	867	58	136	1710	42	194
3	0		0	869	51	120	1660	38	170
4	44		10	870	45	106	1680	49	222
5	0		0	872	35	82	1540	54	225
6	0		0	872	37	87	1540	54	225
7	0		0	872	59	139	1610	60	261
8	0		0	870	50	117	2050	74	410
9	0		0	540	35	51	2110	62	353
10	0		0	251	32	22	2250	69	419
11	0		0	132	29	10	2510	71	481
12	0		0	476	23	30	2520	94	640
13	134		15	475	24	31	2590	120	839
14	69		11	475	24	31	2620	104	736
15	108		12	615	28	46	2620	81	573
16	0		0	552	40	60	2620	96	679
17	0		0	867	48	112	2710	161	1180
18	0		0	867	34	80	2680	139	1010
19	0		0	868	36	84	2680	118	854
20	0		0	865	36	84	2670	112	807
21	0		0	928	31	78	2670	112	807
22	0		0	962	28	73	2740	104	769
23	0		0	997	27	73	2760	96	715
24	0		0	1340	26	94	2860	70	541
25	0		0	1470	29	115	2850	71	546
26	0		0	1480	32	128	2920	63	497
27	0		0	1470	33	131	2920	67	528
28	0		0	1410	30	114	2920	66	520
29	0		0	--	--	--	2850	60	462
30	644		94	--	--	--	2790	75	565
31	867		120	--	--	--	2770	77	576
Total	1866	--	262	24001	--	2354	75010	--	17010

1/ Daily discharge values are shown to three places because of computer rounding. For more refinement of values, see Part 1, Vol. 2 of this report.

11-3130.1. DELTA-MENDOTA CANAL BELOW TRACY PUMPING PLANT, NEAR TRACY, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	2590	84	587	4670	154	1940	3490	98	923
2	2520	95	646	3640	122	1200	3500	102	964
3	2530	95	649	3660	104	1030	3560	103	990
4	2530	84	574	3670	96	951	3560	96	923
5	2600	61	428	3660	121	1200	3560	86	827
6	2600	67	470	3570	112	1080	3720	85	854
7	2590	68	476	3500	118	1120	3810	88	905
8	2520	64	435	3500	128	1210	3690	85	847
9	2530	65	444	3450	108	1010	3710	81	811
10	2590	89	622	2780	80	600	3740	83	838
11	2590	100	699	2520	93	633	3730	85	856
12	2520	77	524	2520	97	660	3790	84	860
13	2520	74	503	2640	79	563	3790	85	870
14	2580	95	662	2830	76	581	3730	87	876
15	2740	95	703	2890	97	757	3750	89	901
16	2910	90	707	2910	102	801	3970	91	975
17	2920	90	710	2910	87	684	3960	93	994
18	2850	94	723	2920	84	662	3960	97	1040
19	3110	106	890	2990	70	565	4620	98	1220
20	3070	112	928	3070	55	456	3640	77	757
21	3430	94	871	3140	60	509	4160	110	1240
22	3660	89	879	3280	67	593	4210	138	1570
23	3550	99	949	3140	72	610	4370	143	1690
24	3500	105	992	3140	130	1100	4330	136	1590
25	3490	101	952	3170	148	1270	4260	129	1480
26	3590	96	931	3170	150	1280	4130	129	1440
27	3740	101	1020	3170	114	976	3980	130	1400
28	3940	103	1100	3170	121	1040	3980	122	1310
29	3940	89	947	3880	128	1340	3990	111	1200
30	3930	126	1340	3870	126	1320	4150	127	1420
31	--	--		3160	108	921	--	--	
Total	90180	--	22361	100590	--	22239	116840	--	32571

Day	JULY			AUGUST			SEPTEMBER		
1	4220	120	1370	4930	100	1330	2520	96	653
2	4290	114	1320	4800	110	1430	2350	71	450
3	4430	110	1320	4160	204	2290	2020	77	420
4	4440	110	1320	4150	95	1060	2020	86	469
5	4380	119	1410	4220	117	1330	2020	93	507
6	4150	133	1490	4270	90	1040	2010	90	488
7	4150	93	1040	4270	75	865	2600	74	519
8	4140	92	1030	4410	95	1130	2620	97	686
9	4130	116	1290	4450	115	1380	2690	114	828
10	4130	123	1370	4460	97	1170	2630	151	1070
11	4130	119	1330	4410	96	1140	2630	97	689
12	4130	114	1270	4480	97	1170	2560	92	636
13	4140	109	1220	4480	106	1280	2390	78	503
14	4200	108	1220	4470	114	1380	2270	61	374
15	4310	109	1270	4460	100	1200	1950	55	290
16	4440	113	1350	4440	93	1110	1950	47	247
17	4440	111	1330	4230	127	1450	2020	58	316
18	4430	103	1230	4320	112	1310	2050	95	526
19	4380	122	1440	4320	141	1640	2020	170	927
20	4440	99	1190	4380	145	1710	1920	123	638
21	4440	87	1040	4380	104	1230	1850	157	784
22	4440	104	1250	4190	68	769	1840	127	631
23	4430	109	1300	3900	53	558	1930	99	516
24	4690	80	1010	3830	54	558	1850	93	465
25	4430	61	730	3730	56	564	1920	84	435
26	4650	71	891	3420	73	674	1930	85	443
27	4670	125	1580	3310	68	608	1960	118	624
28	4670	117	1480	3150	89	757	1970	120	638
29	4800	69	894	3080	78	649	2140	102	589
30	4810	94	1220	2810	40	303	2070	70	391
31	4790	104	1350	2690	100	726	--	--	
Total	136320	--	38555	126600	--	33811	64700	--	16752

Total discharge for year (cfs-days)..... 806369
Total load for year (tons)..... 194067

11-3130.1. DELTA-MENDOTA CANAL BELOW TRACY PUMPING PLANT, NEAR TRACY, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs) 1/	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Oct. 5, 1965.....	1012	68		1882	43							96	100	--				S
Mar. 3, 1966.....	1110	52		1658	35							97	98	100				S
Apr. 11.....	1325	64		2588	58							99	100	--				S
May 16.....	1425	67		2909	49							98	99	100				V
June 20.....	1335	--		3641	69							98	98	100				V
July 7.....	1445	74		4151	67							93	99	100				V
Aug. 15.....	1350	80		4456	76							93	99	100				V

1/ Daily mean discharge.

11-3130.5. DELTA-MENDOTA CANAL NEAR MENDOTA, CALIF.

LOCATION.--Lat 37°46'25", long 121°34'50", approximately 1 mile upstream from control gates into Mendota Pool and 2 miles north of Mendota, Fresno County.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 11, 1965....						50		96	0		69			0.2				114	35	2.0	380	8.2
Nov. 8.....						68		105	0		100			.1				136	50	2.5	619	7.7
Dec. 13.....						66		94	0		86			.3				128	51	2.5	594	8.2
Jan. 10, 1966....						61		84	4		78			.3				120	45	2.4	552	8.6
Feb. 14.....						119		134	0		143			.7				200	90	3.7	943	8.2
Mar. 14.....						86		116	0		118			.3				168	73	2.9	760	8.2
Apr. 11.....						65		105	0		92			.3				152	66	2.3	630	8.1
May 9.....		14		16	7.3	22	1.4	68	0	22	28		1.5	.2	167	0.23		70	14	1.1	253	7.9
June 13.....						96		144	4		155			.4				208	83	2.9	883	8.4

11-3132. GRANT LINE CANAL AT TRACY ROAD BRIDGE, CALIF.

LOCATION.--Lat 37°49'15", long 121°27'01", at bridge on Tracy Road approximately 5 miles north of Tracy, San Joaquin County.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to June 1966 (discontinued).
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....						42		92	0		60			0.1				102	27	1.8	415	8.2
Nov. 3.....						40		69	0		56			.0				84	27	1.9	377	8.2
Dec. 2.....						20		56	0		24			.1				56	10	1.2	217	7.9
Jan. 4, 1966.....						14		48	0		15			.1				47	8	.9	165	7.6
Feb. 8.....						52		88	0		67			.3				108	36	2.2	476	8.0
Mar. 7.....						62		96	0		84			.2				126	47	2.6	547	8.1
Apr. 5.....						122		162	0		170			.4				240	107	3.4	1050	8.0
May 2.....		11		58	28	127	4.6	182	0	81	207		1.7	.3	624	0.85		260	111	3.4	1120	7.8
June 7.....						125		176	8		215			.3				268	111	3.3	1130	8.6

11-3132.5. OLD RIVER AT CLIFTON COURT FERRY, NEAR BETHANY, CALIF.

LOCATION.--Lat 37°49'28", long 121°33'05", at Clifton Court Ferry Crossing, 0.3 mile downstream from tidal gaging station, 2.1 miles east of Herdlyn, and 3.6 miles north of Bethany, San Joaquin County.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to June 1966 (discontinued).
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....						42		91	0		60			0.2				97	22	1.9	418	8.2
Nov. 3.....						43		75	0		64			.0				92	30	2.0	411	8.2
Dec. 2.....						32		72	0		40			.2				76	17	1.6	320	7.8
Jan. 4, 1966.....						20		52	0		24			.1				54	11	1.1	215	7.6
Feb. 8.....						62		94	0		79			.4				122	45	2.4	552	8.1
Mar. 7.....						66		100	0		90			.2				130	48	2.5	583	8.2
Apr. 5.....						50		92	0		71			.2				128	53	1.9	505	8.1
May 2.....		13		21	8.6	32	1.5	77	0	28	44		1.4	.1	191	0.26		88	25	1.5	328	7.5
June 7.....						18		78	0		22			.1				72	8	.9	238	8.2

11-3133.5. INDIAN SLOUGH NEAR BRENTWOOD, CALIF.

LOCATION.--Lat 37°55'05", long 121°37'20", at East Contra Costa Irrigation District Pumping station on Bixler Road, 3.6 miles north of Byron, and 4.1 miles southeast of Brentwood, Contra Costa County.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
REMARKS.--No discharge records available.

Chemical analyses,*in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 14, 1965....						92		152	5		118			1.2				165	32	3.1	768	8.4
Nov. 9.....						138		314	12		169			2.0				362	85	3.2	1280	8.4
Dec. 6.....						94		200	0		115			1.5				218	54	2.8	870	8.2
Jan. 6, 1966.....						138		185	0		159			1.7				219	67	4.0	1070	7.9
Feb. 8.....						250		282	12		270			4.4				350	99	5.8	1760	8.5
Mar. 9.....						224		264	0		240			2.5				322	106	5.4	1570	8.2
Apr. 13.....						40		95	0		46			.3				103	25	1.7	405	8.0
May 13.....		14		16	7.3	23	1.5	75	0	21	26		1.4	.2	159	0.22		70	8	1.2	253	7.5
June 3.....						18		78	0		18			.1				69	5	.9	226	8.1

11-3134. OLD RIVER AT ORWOOD BRIDGE, NEAR MIDDLE RIVER, CALIF.

LOCATION.--Lat 37°56'24", long 121°33'32", at Atchison, Topeka and Santa Fe Railroad bridge, 1.6 miles west of Middle River, San Joaquin County, and 7.9 miles east of Brentwood.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to June 1966 (discontinued).
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 14, 1965....						27		94	0		32			0.1				93	16	1.2	316	8.1
Nov. 9.....						46		86	0		67			.1				105	34	2.0	450	8.2
Dec. 6.....						26		58	0		32			.4				64	16	1.4	262	7.8
Jan. 6, 1966.....						26		56	0		31			.1				68	22	1.4	267	7.6
Feb. 9.....						74		88	0		97			.6				148	76	2.6	669	8.1
Mar. 9.....						84		88	0		113			.5				190	118	2.6	786	7.8
Apr. 13.....						22		75	0		46			.0				78	16	1.1	263	8.2
May 13.....		14		13	6.0	12	1.1	61	0	12	14		0.7	.0	108	0.15		57	7	.7	175	7.3
June 3.....						15		75	0		15			.0				63	1	.8	206	7.7

11-3134.2. ROCK SLOUGH NEAR KNIGHTSEN, CALIF.

LOCATION.--Lat 37°58'35", 121°38'25", at Contra Costa Canal intake at the end of Tule Lane, 2 miles northeast of Knightsen, Contra Costa County, and 4.2 miles southeast of Oakley.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....						25		95	0		24			0.1				84	6	1.2	280	8.2
Nov. 4.....						38		99	0		48			.1				100	19	1.6	390	8.2
Dec. 1.....						63		108	0		85			.6				128	39	2.4	572	7.9
Jan. 3, 1966.....						70		94	0		88			.4				144	67	2.5	644	7.9
Feb. 8.....						109		128	0		135			.9				210	105	3.3	938	8.2
Mar. 9.....						91		107	0		124			.5				186	98	2.9	825	8.2
Apr. 5.....						29		81	0		34			.1				90	24	1.3	325	8.0
May 2.....		14		14	5.1	12	1.1	61	0	14	13		0.7	.0	111	0.15		56	6	.7	172	7.7
June 8.....						16		81	0		16			.1				68	2	.8	218	8.2

11-3134.5. OLD RIVER AT MANDEVILLE ISLAND, CALIF.

LOCATION.--Lat 38°04'00", long 121°34'30", on northwest side of Mandeville Island, San Joaquin County, approximately 0.5 mile upstream from confluence with San Joaquin River, and approximately 5.5 miles southwest of Terminous.
RECORDS AVAILABLE.--Chemical analyses: December 1954 to September 1966.
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 13, 1965....						20		88	0		20			0.2								
Nov. 9.....						26		81	0		32			.0				80	14	1.3	293	8.2
Dec. 6.....						41		80	0		54			.4				92	26	1.9	398	7.7
Jan. 13, 1966....						39		70	0		52			.2				108	51	1.6	428	7.6
Feb. 1.....						34		81	0		42			.5				98	32	1.5	369	8.1
Mar. 1.....						36		82	0		44			.1				102	35	1.6	373	7.5
Apr. 11.....						13		64	0		10			.0				.62	10	.7	187	8.1
May 12.....		14		12	5.6	10	1.1	61	0	10	10		0.7	.0	102	0.14		53	3	.6	157	7.8
June 1.....						13		73	0		13			.0				63	3	.7	194	8.2

11-3195. MOKELUMNE RIVER NEAR MOKELUMNE HILL, CALIF.

LOCATION.--Lat 38°18'46", long 120°43'09", temperature recorder at gaging station on downstream side of bridge, 1.2 miles northwest of Mokelumne Hill, Calaveras County, and 8 miles downstream from confluence of North and South Forks.
DRAINAGE AREA.--544 square miles.
RECORDS AVAILABLE.--Water temperatures: February 1961 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 70°F June 26.
EXTREMES, 1961-66.--Water temperatures: Maximum, 70°F June 26, 1966; minimum (1961-65), 39°F Jan. 23-28, 1962, Jan. 28-30, 1963.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	58	58	59	59	59	60	60	60	60	60	60	60	60	60	60	60	59	59	59	59	59	58	58	57	56	---	---	---	---	---	---	59
Minimum	58	58	58	59	59	59	60	60	60	60	60	60	60	60	60	59	59	59	59	59	59	57	56	56	55	---	---	---	---	---	---	59
November																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
December																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
January																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38	38	37	37	37	38	38	37	37	37	38	38	39	39	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38	37	36	35	36	36	36	36	36	36	36	36	37	38	---
February																																
Maximum	39	40	40	41	43	42	42	41	40	42	40	40	40	39	39	39	39	41	43	44	44	45	48	44	43	44	44	45	---	---	---	42
Minimum	38	38	39	39	39	41	40	38	38	39	37	38	37	36	36	36	37	37	39	41	42	41	43	43	41	41	41	41	---	---	---	39
March																																
Maximum	45	42	42	42	44	46	46	46	46	47	48	46	48	49	46	46	44	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	42	41	39	39	40	42	44	44	44	44	45	45	45	46	45	44	42	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---
April																																
Maximum	---	---	---	---	---	54	54	54	51	51	52	52	53	52	54	53	55	54	52	52	53	53	53	55	57	55	58	58	58	57	---	54
Minimum	---	---	---	---	---	---	52	51	51	50	50	50	50	50	49	51	52	52	50	48	48	49	49	51	52	53	52	52	52	52	---	51
May																																
Maximum	60	57	56	57	58	60	59	60	60	59	60	60	60	61	61	63	63	63	63	63	63	61	60	60	60	61	60	59	58	56	62	60
Minimum	53	54	54	54	54	54	54	55	58	57	56	55	55	56	56	56	57	57	59	59	58	56	56	57	57	57	56	56	55	53	52	56
June																																
Maximum	58	56	58	57	58	55	56	58	60	61	60	60	62	64	65	63	62	62	62	61	59	60	58	60	62	70	63	62	61	60	---	60
Minimum	51	52	52	52	53	54	53	54	55	52	53	55	56	56	57	57	57	57	56	56	56	57	56	57	57	56	57	57	57	57	---	55
July																																
Maximum	60	62	60	60	60	59	58	58	58	57	58	59	59	59	60	59	59	60	60	60	63	63	62	61	61	61	61	62	61	58	63	60
Minimum	57	56	54	55	55	54	54	55	55	54	54	55	56	56	54	54	54	55	55	56	57	56	56	58	56	56	56	54	56	54	54	55
August																																
Maximum	63	60	63	63	63	63	60	60	62	63	58	61	60	60	60	62	63	62	59	61	60	62	59	60	61	60	60	62	59	58	59	61
Minimum	56	55	55	55	57	56	56	57	56	57	56	54	55	55	55	56	55	56	55	58	56	56	56	56	56	54	55	56	56	56	56	56
September																																
Maximum	60	60	59	59	60	59	60	60	58	59	59	59	59	57	57	58	58	58	58	58	60	61	62	60	61	60	60	62	62	60	---	59
Minimum	55	51	56	56	56	56	56	56	56	56	56	55	54	54	54	54	54	56	56	56	58	57	58	58	58	58	58	58	58	58	---	56

11-3235. MOKELUMNE RIVER BELOW CAMANCHE DAM, CALIF.

LOCATION.--Lat 38°13'15", long 121°02'20", temperature recorder at gaging station on left bank 0.7 mile downstream from Murphy Creek, and 3.4 miles northeast of Clements, San Joaquin County.
DRAINAGE AREA.--627 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1961 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Minimum, 46°F Mar. 10, 11.
EXTREMES, 1961-63, 1964-66.--Water temperatures: Maximum (1961-63, 1964-65), 64°F Oct. 14-16, 1961; minimum (1961-63, 1965-66), 45°F Jan. 22-26, 1962.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Nov. 9, 1965.....	2080					2.3		20	0		0.8			0.0				16	0	0.2	45	7.6
Jan. 6, 1966.....	475					3.7		22	0		1.5			.0				19	1	.4	50	7.5
Mar. 1.....	1070					2.5		19	0		1.6			.0				17	1	.3	48	7.5
May 4.....	542	9.2		5.4	1.1	2.6	0.8	21	0	3.0	1.9		0.8	.0	36	0.05		18	1	.3	51	7.2

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																														Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																															
Maximum	55	56	56	56	56	56	57	57	57	57	57	57	58	58	58	58	59	59	59	58	59	59	59	59	59	59	59	59	59	59	59	58
Minimum	55	56	56	56	56	56	56	57	57	57	57	57	57	58	58	58	58	58	58	58	58	58	59	59	59	59	59	59	59	59	59	58
November																															
Maximum	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	58	58	57	57	57	---	59
Minimum	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	58	58	57	57	57	56	---	59
December																															
Maximum	56	56	56	56	56	55	55	54	54	54	54	54	54	54	53	53	53	53	52	52	52	52	51	51	51	50	50	50	50	50	50	53
Minimum	56	56	56	55	55	55	54	54	54	54	54	54	54	53	53	53	53	52	52	52	52	51	51	51	50	50	50	50	50	50	49	53
January																															
Maximum	49	49	49	49	49	49	49	48	49	48	49	48	48	48	48	48	48	48	48	47	47	47	47	47	47	47	47	47	47	47	47	48
Minimum	49	49	49	49	49	48	48	48	48	48	48	48	48	48	48	48	48	47	47	47	47	47	47	47	47	47	47	47	47	47	47	48
February																															
Maximum	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	---	---	---	---	47
Minimum	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	---	---	---	---	47
March																															
Maximum	47	47	47	47	47	47	47	47	47	46	47	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	49	49	49	48
Minimum	47	47	47	47	47	47	47	47	47	46	46	47	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	49	49	48
April																															
Maximum	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	---	49
Minimum	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	---	49
May																															
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
June																															
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
July																															
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
August																															
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	61	61	61	61	61	61	61	61	61	61	61	61	61	61	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	61	61	61	61	61	61	61	61	61	61	61	61	61	61	---
September																															
Maximum	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	---	61
Minimum	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	---	61

11-3235. MOKELUMNE RIVER BELOW CAMANCHE DAM, CALIF.--Continued

Periodic determinations of suspended-sediment discharge, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment										Method of analysis
							Percent finer than size indicated, in millimeters										
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Oct. 29, 1965.....	1445	62		2070	4	22											
Nov. 12.....	1215	62		2090	4	23											
Dec. 6.....	1400	55		812	5	11											
Jan. 6, 1966.....	1430	48		475	2	2.6											
Feb. 2.....	1315	48		698	2	3.8											
Apr. 8.....	0945	50		213	3	1.7											
May 6.....	1045	56		536	3	4.3											
June 3.....	1045	57		515	3	4.2											
Sept. 1.....	0945	62		340	3	2.8											

11-3255. MOKELUMNE RIVER AT WOODBRIDGE, CALIF.

LOCATION (revised).--Lat 38°09'30", long 121°18'10", temperature recorder at gaging station on left bank at Woodbridge, 0.3 mile downstream from county highway bridge, and 0.4 mile downstream from dam and canal intake of Woodbridge Irrigation District.
DRAINAGE AREA.--661 square miles.
RECORDS AVAILABLE.--Chemical analyses: March 1951 to September 1963.
Water temperatures: March 1951 to September 1958, November 1960 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 74°F Aug. 8-10; minimum, 46°F on several days during January and February.
EXTREMES, 1951-58, 1960-66.--Water temperatures: Maximum (1951-54, 1956-58, 1960-66), 83°F July 9, 1951; minimum (1951-55, 1956-58, 1961-66), 35°F Jan. 29, 30, 1954.
REMARKS.--Samples for chemical analyses collected at dam, 0.4 mile upstream from gaging station.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Nov. 1, 1965.....	1750					2.1		19	0		1.0			0.0				14	0	0.2	40	7.5
Jan. 6, 1966.....	442					2.9		22	0		1.3			.0				18	0	.3	51	7.4
Mar. 8.....	957					2.5		20	0		1.6			.0				17	1	.3	49	7.6
May 3.....	18	9.3		5.2	1.3	3.2	1.1	22	0	4.0	1.5		0.6	.0	39	0.05		18	0	.3	52	7.4

11-3255. MOKELUMNE RIVER AT WOODBRIDGE, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	61	60	61	61	61	61	61	61	62
Minimum	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	61	60	60	60	61	61	61	61	61	61
November																																
Maximum	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	60	60	60	60	59	59	59	58	56	56	--	61
Minimum	61	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	60	60	60	60	59	59	59	58	56	56	56	--	60
December																																
Maximum	56	55	55	55	55	55	55	55	54	54	54	54	54	54	53	52	51	50	50	50	50	49	48	48	48	48	48	47	48	48	48	52
Minimum	55	55	55	55	55	55	55	54	54	54	54	54	53	53	52	51	50	50	50	50	49	48	48	47	47	47	47	47	47	48	48	51
January																																
Maximum	48	47	46	46	47	48	48	48	48	48	48	48	48	48	48	48	48	48	48	47	47	47	47	46	46	46	46	46	46	47	47	47
Minimum	47	46	46	46	46	47	48	48	48	48	48	48	48	48	48	48	48	48	47	47	47	47	46	46	46	46	46	46	46	46	47	47
February																																
Maximum	47	47	47	47	47	47	48	48	48	48	48	48	47	47	47	47	47	47	47	48	49	49	49	49	49	49	49	49	--	--	--	48
Minimum	47	47	47	47	47	47	47	48	48	48	48	47	46	46	46	47	47	47	47	47	48	49	49	49	49	49	49	49	--	--	--	48
March																																
Maximum	49	49	49	49	50	50	50	50	50	50	50	52	54	55	56	55	54	53	54	54	54	55	54	54	54	55	56	56	56	57	57	53
Minimum	49	49	49	49	49	50	50	50	50	50	50	50	52	54	54	54	53	53	53	53	53	54	54	54	54	54	54	54	54	55	56	52
April																																
Maximum	59	58	58	58	58	58	58	58	58	58	57	58	59	60	64	66	65	63	61	59	59	58	59	62	64	63	62	62	62	62	--	60
Minimum	57	57	57	57	57	57	56	57	58	57	57	57	58	59	60	63	62	59	58	57	56	56	57	58	60	60	60	59	59	59	--	58
May																																
Maximum	63	65	64	63	62	62	61	60	61	60	60	62	63	62	64	64	63	64	64	65	65	64	64	65	66	66	66	65	64	63	63	63
Minimum	60	61	61	61	58	58	58	59	59	59	58	58	59	60	60	60	60	60	61	62	62	61	61	62	62	63	63	62	63	62	60	60
June																																
Maximum	62	62	62	63	64	63	63	64	67	69	69	69	70	71	71	70	70	70	70	70	68	67	67	68	69	70	70	72	72	71	--	68
Minimum	60	60	60	60	61	61	61	61	62	65	65	66	66	67	68	68	67	67	68	68	67	65	65	65	66	66	67	68	68	68	--	65
July																																
Maximum	70	69	69	69	70	70	69	70	70	70	70	70	70	70	70	70	71	71	72	72	72	73	73	73	73	73	72	72	72	70	70	71
Minimum	68	67	67	67	67	67	67	68	68	68	68	68	68	67	68	68	68	68	69	69	70	70	70	70	70	70	70	70	69	68	68	68
August																																
Maximum	71	73	73	73	73	73	73	74	74	74	73	73	72	72	73	73	73	73	73	72	71	72	72	72	71	71	71	72	71	70	69	72
Minimum	68	70	70	70	70	70	71	71	71	71	71	70	70	70	70	71	71	71	71	70	69	69	70	70	70	69	69	69	69	69	68	70
September																																
Maximum	70	71	72	72	72	72	71	70	69	69	69	68	67	67	66	67	67	67	67	67	67	68	68	68	68	68	67	67	67	67	--	68
Minimum	68	69	69	69	70	69	69	68	68	67	68	66	65	65	65	65	65	66	67	67	67	66	66	66	66	66	66	66	66	66	--	67

11-3350. COSUMNES RIVER AT MICHIGAN BAR, CALIF.

LOCATION (revised).--Lat 38°30'00", long 121°02'45", at gaging station on downstream side of midstream pier of highway bridge at Michigan Bar, Sacramento County, 5.5 miles southwest of Latrobe, and 12 miles downstream from confluence of North and Middle Forks.
DRAINAGE AREA.--536 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1963.
Water temperatures: October 1962 to September 1966.
Sediment records: October 1962 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 83°F Aug. 8; minimum, 35°F Dec. 19, 20, 23, 24.
Sediment concentrations: Maximum daily, 109 ppm Dec. 29; minimum daily, 1 ppm on many days.
Sediment loads: Maximum daily, 576 tons Dec. 29; minimum daily, less than 0.05 ton Sept. 10-30.
EXTREMES, 1962-66.--Water temperatures: Maximum (1965-66), 83°F Aug. 8, 1966; minimum (1963-66), 35°F Dec. 19, 20, 23, 24, 1965.
Sediment concentrations: Maximum daily, 3,070 ppm Feb. 1, 1963; minimum daily, 1 ppm on many days during 1962-66.
Sediment loads: Maximum daily, 245,000 tons Feb. 1, 1963; minimum daily, less than 0.05 ton on many days during 1962-66.
REMARKS.--Clock stopped Nov. 26 to Dec. 6 and June 8 to July 6; temperature ranges, 46°F to 51°F and 66°F to 73°F, respectively.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Nov. 2, 1965.....	32					4.1		45	0		1.3			0.0				36	0	0.3	90	7.9
Jan. 5, 1966.....	896					5.0		60	0		3.6			.0				56	7	.3	136	7.8
Mar. 1.....	306					4.7		58	0		2.7			.1				54	6	.3	118	8.2
May 12.....	246	15		6.6	1.5	2.6	0.9	30	0	3.0	1.1		0.3	.0	47	0.06		22	0	.2	57	7.3

11-3350. COSUMNES RIVER AT MICHIGAN BAR, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	68	69	67	70	69	69	70	71	72	70	70	69	68	67	68	65	64	63	66	64	64	64	64	64	64	64	64	63	62	62	61	66
Minimum	63	63	62	63	63	64	64	66	67	65	64	64	64	64	63	60	60	60	60	60	60	60	60	60	60	60	60	58	59	58	57	62
November																																
Maximum	63	60	60	60	60	60	61	62	60	59	58	58	57	57	57	57	58	58	56	55	54	52	52	53	52	--	--	--	--	--	--	58
Minimum	58	57	56	57	58	56	56	58	57	54	55	57	56	56	56	55	55	56	54	53	52	50	51	52	50	--	--	--	--	--	--	55
December																																
Maximum	--	--	--	--	--	--	47	46	46	45	46	46	46	45	43	40	38	37	37	36	36	37	36	41	42	42	41	45	45	45	44	42
Minimum	--	--	--	--	--	--	46	46	46	44	44	45	45	43	40	38	36	36	35	35	36	36	35	35	40	40	40	41	44	44	43	41
January																																
Maximum	43	41	41	44	46	47	47	47	47	46	46	45	44	43	42	43	42	42	41	40	39	40	40	40	41	41	41	42	44	46	46	43
Minimum	41	39	40	41	44	45	45	45	46	45	45	43	42	41	41	41	40	39	39	38	38	38	38	39	39	40	39	40	41	44	44	41
February																																
Maximum	47	47	46	48	49	50	49	46	45	45	45	45	45	44	44	44	45	46	48	49	50	50	52	52	51	48	48	48	--	--	--	47
Minimum	45	45	45	46	48	49	46	44	44	44	43	43	43	42	42	42	42	44	46	47	48	49	50	51	47	46	46	47	--	--	--	46
March																																
Maximum	49	48	47	46	48	53	55	55	55	54	54	53	55	55	54	53	52	51	53	53	52	52	54	56	57	57	57	58	58	59	59	54
Minimum	48	47	45	44	45	49	53	54	53	53	53	52	53	52	52	52	49	48	51	51	49	48	51	54	55	55	55	57	57	57	56	52
April																																
Maximum	59	59	59	60	61	61	61	59	59	57	57	57	57	58	60	61	62	62	60	57	57	59	60	62	63	63	62	62	62	62	--	60
Minimum	57	58	56	58	58	60	59	57	57	56	55	55	55	55	57	59	61	60	56	54	54	56	57	59	60	62	59	60	60	60	--	58
May																																
Maximum	63	64	65	65	65	65	65	66	65	64	63	65	66	66	67	67	68	70	71	72	72	70	71	72	73	73	73	71	69	69	69	68
Minimum	60	61	63	63	63	63	63	64	64	63	61	62	64	64	64	64	66	67	69	70	69	67	67	68	69	69	69	68	65	64	64	65
June																																
Maximum	68	67	68	69	69	68	69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	65	63	63	64	66	66	65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
July																																
Maximum	--	--	--	--	--	--	74	73	77	74	74	73	72	72	72	72	72	74	75	75	76	76	76	76	74	74	75	74	74	74	74	74
Minimum	--	--	--	--	--	--	70	70	70	71	71	70	70	70	70	70	70	71	73	73	74	74	74	74	73	72	72	72	72	71	70	71
August																																
Maximum	76	77	77	77	77	77	77	83	81	82	82	81	80	80	80	80	81	82	82	80	79	78	78	77	77	77	75	74	73	73	73	78
Minimum	74	75	75	75	74	74	74	74	77	77	77	77	77	77	77	78	79	79	78	76	76	75	75	73	74	74	73	70	70	69	67	75
September																																
Maximum	74	74	76	76	77	78	76	75	76	77	76	76	74	74	74	75	75	73	76	75	76	76	75	76	76	75	74	76	76	76	76	75
Minimum	68	70	70	71	72	72	70	68	68	66	67	66	66	63	62	64	64	68	68	67	67	67	66	67	68	66	68	66	67	67	68	67

11-3350. COSUMNES RIVER AT MICHIGAN BAR, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	28	--	0.1	32	--	0.1	134	1	0.4
2	26	--	.1	32	--	.1	124	--	.4
3	26	--	.1	31	--	.1	119	1	.4
4	23	1	.1	32	--	.1	116	--	.3
5	23	--	.1	32	--	.1	116	2	.6
6	22	--	.1	32	--	.1	116	1	.3
7	22	--	.1	32	--	.1	114	1	.3
8	21	--	.1	33	1	.1	111	--	.3
9	20	--	.1	33	--	.1	111	1	.3
10	20	--	.1	33	--	.1	109	--	.3
11	20	1	.1	34	--	.1	109	1	.3
12	21	--	.1	35	1	.1	154	--	.8
13	22	--	.1	40	--	.1	165	1	.5
14	24	--	.1	68	2	.3	137	--	.4
15	27	--	.1	184	--	2.9	121	1	.4
16	39	--	.1	132	--	1.1	109	--	.3
17	50	2	.3	145	--	1.6	100	1	.3
18	43	--	.2	505	51	S 121	87	--	.3
19	39	--	.1	660	65	S 120	89	1	.3
20	35	--	.1	298	14	11	89	--	.3
21	35	--	.1	187	4	2.1	95	1	.3
22	34	--	.1	142	2	.7	107	--	.3
23	32	--	.1	154	2	.8	98	1	.3
24	29	1	.1	312	4	S 4.1	89	3	S 1.5
25	30	--	.1	474	12	15	731	55	S 119
26	34	--	.1	302	7	5.7	316	17	S 15
27	32	--	.1	224	2	1.1	200	12	S 6.8
28	32	--	.1	181	2	.9	492	16	S 44
29	32	1	.1	159	1	.5	1790	109	S 576
30	32	--	.1	145	--	.4	1540	49	S 223
31	32	1	.1	--	--	--	1970	45	S 270
Total	905	--	3.4	4703	--	290.5	9758	--	1263.7

	JANUARY			FEBRUARY			MARCH		
1	890	19	S 52	620	11	S 19	306	5	4.3
2	478	6	S 8.5	508	6	8.1	298	4	3.3
3	345	3	2.8	395	4	4.3	278	4	3.1
4	318	3	S 2.9	380	3	3.0	258	4	2.8
5	896	10	S 26	488	4	S 7.3	250	6	4.0
6	788	15	S 33	1820	49	S 262	250	5	3.5
7	550	7	S 11	1090	25	S 82	258	4	2.8
8	425	5	6.0	706	6	S 13	278	5	3.9
9	365	4	4.0	538	4	5.9	302	8	6.6
10	318	3	2.5	442	3	3.5	425	8	9.4
11	282	3	2.3	375	4	4.1	620	14	24
12	258	3	2.1	330	5	4.6	578	11	17
13	240	3	1.9	306	4	3.4	606	6	9.7
14	226	2	1.1	282	3	2.3	683	9	16
15	218	2	1.1	270	1	.8	655	6	10
16	208	--	1.7	254	1	.8	634	5	8.9
17	201	3	1.6	243	1	.7	571	4	6.3
18	194	2	1.0	240	1	.7	520	3	4.2
19	187	2	.9	240	1	.7	508	2	2.5
20	180	2	.9	240	1	.7	520	3	4.2
21	168	1	.5	236	1	.7	472	1	1.4
22	168	2	.8	232	1	.7	448	2	2.2
23	174	2	.9	246	1	.7	448	2	2.2
24	168	1	.5	306	1	.9	454	5	6.4
25	161	1	.5	410	6	S 6.7	484	4	5.3
26	155	1	.5	460	7	8.7	508	4	5.6
27	155	1	.5	365	6	5.8	557	5	7.8
28	149	1	.4	322	4	3.5	606	6	9.7
29	210	5	S 8.0	--	--	--	714	11	21
30	1520	49	S 216	--	--	--	815	14	31
31	896	20	S 52	--	--	--	860	14	33
Total	11491	--	443.9	12324	--	454.6	15164	--	272.1

S Computed by subdividing day.

11-3350. COSUMNES RIVER AT MICHIGAN BAR, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	1000	14	38	314	4	3.5	75	3	0.6
2	923	13	32	302	2	1.5	70	--	.6
3	869	9	21	294	3	2.4	68	3	.5
4	851	8	19	286	2	1.4	62	--	.5
5	833	7	16	282	2	1.4	61	--	.5
6	797	7	15	278	1	.8	59	2	.3
7	754	7	14	266	1	.8	59	--	.3
8	722	6	12	258	1	.8	57	1	.2
9	683	5	9.6	246	1	.7	59	--	.2
10	788	8	17	258	1	.8	54	2	.3
11	905	12	29	286	2	1.4	43	--	.2
12	923	10	25	246	2	1.2	46	--	.2
13	833	8	18	218	2	1.1	42	2	.2
14	746	5	10	201	1	.6	41	--	.2
15	690	4	7.6	187	1	.6	39	2	.2
16	662	5	9.3	174	2	.9	47	--	.2
17	641	5	9.0	161	1	.5	53	3	.4
18	634	5	8.9	149	1	.4	71	--	.6
19	620	4	6.8	136	2	.7	66	--	.5
20	544	3	4.4	133	1	.4	61	2	.3
21	496	3	4.0	126	1	.4	50	--	.2
22	460	4	5.1	123	2	.6	49	1	.1
23	430	3	3.4	115	3	.9	49	--	.2
24	410	3	3.3	105	2	.5	49	3	.4
25	405	3	3.2	97	2	.5	53	--	.6
26	410	3	3.3	88	2	.4	47	--	.5
27	400	3	3.2	82	2	.4	31	5	.4
28	385	2	1.9	79	1	.2	27	--	.3
29	345	3	2.8	77	2	.4	28	3	.2
30	330	2	1.7	75	2	.4	49	--	.5
31	--	--	--	75	2	.4	--	--	--
Total	19489	--	353.5	5717	--	27.0	1565	--	10.4

	JULY			AUGUST			SEPTEMBER		
1	64	5	0.9	70	--	0.4	46	--	0.1
2	66	--	.9	68	--	.3	46	1	.1
3	62	--	.7	64	1	.2	44	--	.1
4	46	3	.4	54	--	.2	44	--	.1
5	43	4	.5	44	2	.2	44	1	.1
6	42	3	.3	43	--	.2	43	--	.1
7	42	--	.3	40	--	.1	41	1	.1
8	41	2	.2	36	1	.1	38	--	.1
9	42	--	.2	36	--	.1	23	1	.1
10	47	--	.2	36	2	.2	11	--	T
11	47	2	.2	32	--	.2	8.8	--	T
12	50	--	.3	34	2	.2	7.0	1	T
13	59	2	.3	42	--	.2	6.2	--	T
14	59	--	.3	50	--	.3	5.5	--	T
15	59	1	.2	51	2	.3	5.5	--	T
16	56	--	.2	53	--	.3	5.8	1	T
17	54	--	.2	51	2	.3	5.2	--	T
18	50	1	.2	44	--	.2	6.0	--	T
19	49	--	.1	43	1	.1	6.5	1	T
20	49	2	.2	42	--	.1	6.5	--	T
21	51	--	.3	42	--	.2	6.8	1	T
22	46	1	.1	41	2	.2	6.2	--	T
23	50	--	.2	42	--	.2	7.3	1	T
24	51	--	.2	42	2	.2	7.3	--	T
25	56	1	.2	42	--	.2	7.0	--	T
26	56	--	.2	42	2	.2	7.0	2	T
27	56	2	.3	44	--	.2	6.8	--	T
28	54	--	.3	47	--	.2	6.2	--	T
29	53	1	.2	46	1	.1	6.0	--	T
30	54	--	.2	46	1	.1	6.2	2	T
31	62	--	.2	46	1	.1	--	--	--
Total	1616	--	9.2	1413.0	--	6.1	509.8	--	0.9

Total discharge for year (cfs-days)..... 84654.8
Total load for year (tons)..... 3135.3

SAN JOAQUIN RIVER BASIN--Continued

11-3350. COSUMNES RIVER AT MICHIGAN BAR, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 19, 1965.....	0710	52		748	76							100						S
Dec. 29, 1965.....	0715	44		2560	147							89	95	100				V

SAN JOAQUIN RIVER BASIN--Continued

11-3366. DELTA CROSS-CHANNEL NEAR WALNUT GROVE, CALIF.

LOCATION.--Lat 38°14'43", long 121°30'18", approximately 0.2 mile downstream from control gates, 0.5 mile north of Walnut Grove, Sacramento County, and 7.5 miles south of Courtland.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to June 1966 (discontinued).
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....						8.6		72	0		4.6			0.1				57	0	0.5	148	8.2
Nov. 1.....						7.5		68	0		2.7			.0				50	0	.5	134	8.1
Nov. 29.....						6.9		63	0		4.8			.0				51	0	.4	133	8.0
Jan. 3, 1966.....						8.8		71	0		5.5			.0				55	0	.5	149	7.8
Feb. 9.....						7.8		68	0		5.0			.1				58	2	.4	153	8.0
Mar. 8.....						14		90	0		9.4			.1				75	1	.7	208	8.2
Apr. 6.....						7.2		58	0		3.3			.0				48	0	.4	121	8.0
May 3.....		16		12	4.4	7.2	1.1	60	0	8.0	4.1		0.8	.0	84	0.11		48	0	.4	129	7.8
June 8.....						15		95	0		11			.0				74	0	.8	219	8.2

11-3372. SAN JOAQUIN RIVER AT ANTIOCH, CALIF.

LOCATION.--Lat 38°01'04", long 121°48'06", at tidal gaging station at Antioch, Contra Costa County, and 4.5 miles from mouth.
RECORDS AVAILABLE.--Chemical analyses: October 1952 to June 1966 (discontinued).
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....						22		91	0		22			0.1				73	0	1.1	249	8.2
Nov. 1.....						24		76	0		32			.1				67	5	1.3	255	8.0
Dec. 1.....						18		68	0		20			.0				62	6	1.0	209	7.9
Jan. 3, 1966.....						26		68	0		36			.1				74	18	1.3	284	7.9
Feb. 9.....						33		80	0		40			.2				96	30	1.5	359	8.1
Mar. 8.....						34		82	0		41			.2				92	25	1.5	348	8.0
Apr. 5.....						20		73	0		23			.0				70	10	1.0	238	7.9
May 4.....		12		19	5.0	38	1.8	60	0	21	56		0.9	.0	190	0.26		68	19	2.0	332	7.4
June 8.....						204		78	0		350			.2				188	124	6.5	1410	8.1

MISCELLANEOUS ANALYSES OF STREAMS IN SAN JOAQUIN RIVER BASIN

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
11-2510. SAN JOAQUIN RIVER BELOW FRIANT, CALIF. (365904 1194324)																						
Jan. 10, 1966....	25					5.0		19	0		3.2			0.0				14	0	0.6	56	6.9
May 9.....	137	10		4.0	0.2	4.0		17	0	1.0	2.0		1.6	.0	38	0.05		11	0	.5	44	7.2
11-2682. MERCED RIVER ABOVE MCCLURE RESERVOIR, CALIF. (373806 1195600)																						
Mar. 16, 1966....	971	11		3.4	0.2	2.5	0.7	14	0	1.0	1.0		0.3	0.0	28	0.04		10	0	0.4	31	7.4
Apr. 11.....	2360	--		--	--	1.5	--	8	0	--	.3		--	.0	20	.03		6	0	.3	18	7.1
May 19.....	2930	4.5		.8	.2	1.1	.3	6	0	.0	.1		.5	.0	13	.02		3	0	.3	13	7.1
11-2709. MERCED RIVER BELOW MERCED FALLS DAM, NEAR SNELLING, CALIF. (373115 1201955) (Formerly published as 11-2700. Merced River at Merced Falls, Calif.)																						
Jan. 10, 1966....	41					3.9		36	0		2.2			0.0				34	4	0.3	87	7.4
May 9.....	1440	9.7		7.0	1.9	2.8	0.9	30	0	4.0	1.1		0.5	.0	4	0.07		26	1	.2	65	7.7
11-2860. TUOLUMNE RIVER ABOVE DON PEDRO RESERVOIR, NEAR CHINESE CAMP, CALIF. (375050 1202140)																						
Mar. 16, 1966....		10		3.8	1.0	2.2	0.4	18	0	1.0	0.4		0.5	0.0	30	0.04		14	0	0.3	37	7.5
Apr. 11.....		--		--	--	1.8	--	17	0	--	.3		--	.0	33	.04		12	0	.2	34	7.3
May 9.....		7.7		3.0	.2	1.5	.6	12	0	1.0	.2		.2	.0	26	.04		8	0	.2	25	7.3
11-2880. TUOLUMNE RIVER ABOVE LAGRANGE DAM, NEAR LAGRANGE, CALIF. (374235 1202445)																						
Oct. 3, 1965.....	2610					1.0		10	0		0 2			0.0				9	1	0.1	23	7.3
Jan. 10, 1966....	1540					2.4		31	0		9			.0				28	3	.2	67	7.6
May 9.....	1850	8.1		4.2	1.1	2.0	0.6	20	0	1.0	5		0.3	.0	32	0.04		15	0	.2	39	7.1
11-2986. STANISLAUS RIVER ABOVE MELONES RESERVOIR, NEAR COLUMBIA, CALIF. (380219 1202650)																						
Mar. 16, 1966....	0.2	13		4.8	1.0	2.2	0.7	22	0	0.0	0.4		0.3	0.0	35	0.05		16	0	0.2	42	7.3
Apr. 11.....	1.2	--		--	--	1.8	--	18	0	--	.2		--	.1	31	.04		12	0	.2	34	7.5
May 9.....	19	10		4.2	.6	1.8	.8	18	0	1.0	.3		.3	.0	33	.04		13	0	.2	34	7.5
11-2999.98. STANISLAUS RIVER AT TULLOCH RESERVOIR, NEAR RAYMOND, CALIF. (375233 1203618)																						
Jan. 10, 1966....						3.4		44	0		1.4			0.0				40	4	0.2	96	7.3
May 9.....		11		4.8	1.7	2.2	0.8	25	0	1.0	.5		0.4	.0	39	0.05		19	0	0.2	48	7.6
11-3360. COSUMNES RIVER AT MCCONNELL, CALIF. (382129 1212034)																						
Jan. 6, 1966.....	1250					5.3		54	0		4.1			0 0				52	8	0.3	129	7.6
Mar. 8.....	274					4.8		59	0		2.7			0				48	0	.3	116	8.1
May 4.....	247	15		5.4	1.7	2.8	0.7	29	0	1.0	.7		0.2	0	50	0.07		20	0	.3	52	7.6
11-3368. LITTLE POTATO SLOUGH NEAR TERMINOUS, CALIF. (380652 1212946)																						
Nov. 9, 1965.....						19		62	0		4.2			0.0				48	0	1.2	132	8.0
Jan. 3, 1966.....						14		58	0		30			.0				76	28	.7	235	7.5
Mar. 1.....						12		65	0		20			.0				65	12	.6	193	8.1
May 12.....		16		16	7.8	14	1.3	75	0	15	20		0.5	.0	138	0.19		72	10	.7	221	7.3

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966

(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
11-2555. PANOCHE CREEK BELOW SILVER CREEK, NEAR PANOCHE, CALIF. (363708 1204022)																		
Nov. 17, 1965.....	1330	57		5.0	18300	247	73	87	98	100		--						SPWC
Nov. 18.....	1400	60		1.3	12700	45	--	86	--	98		100						SPWC
Nov. 24.....	1315	52		21	19600	1110	61	81	96	100		--						SPWC
Nov. 24.....	1445	52		17	19800	909	--	78	--	96		100						S
11-3360. COSUMNES RIVER AT McCONNELL, CALIF. (382129 1212034)																		
Nov. 22, 1965.....	1255	50		154	32	13						--	--	--	--			
Dec. 3.....	0850	46		104	10	2.8						--	--	--	--			
Dec. 13.....	1330	46		152	33	14						--	--	--	--			
Dec. 30.....	1700	45		2070	333	1860						52	62	84	100			V
Jan. 12, 1966.....	1100	43		300	24	19						--	--	--	--			
Feb. 4.....	1100	45		449	57	69						--	--	--	--			
Mar. 8.....	0845	53		274	17	13						68	71	89	100			V
Apr. 7.....	1500	61		704	58	110						40	52	85	100			V
May 4.....	1300	67		257	26	18						--	--	--	--			
May 24.....	1000	70		78	24	5.1						--	--	--	--			
June 1.....	0840	71		D 20	8	.4						--	--	--	--			

D Daily mean discharge.

11-3414. SACRAMENTO RIVER NEAR MOUNT SHASTA, CALIF.

LOCATION.--Lat 41°15'56", long 122°18'32", temperature recorder at gaging station on left bank 200 feet upstream from Stink Creek, 0.3 mile upstream from Southern Pacific Railroad bridge, and 3.3 miles south of Mount Shasta, Siskiyou County.
DRAINAGE AREA.--134 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Minimum, 36°F Dec. 24.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	59	58	57	56	57	57	58	57	57	56	56	55	55	54	53	51	52	52	52	52	52	52	52	52	52	51	51	52	52	50	50	54
Minimum	54	52	53	53	56	53	53	53	53	53	52	52	52	51	51	49	49	49	49	48	48	49	49	48	49	48	48	49	48	48	46	50
November																																
Maximum	49	49	50	51	51	50	49	49	49	49	48	48	48	47	47	46	46	45	45	45	45	44	44	43	41	41	41	41	41	42	--	46
Minimum	47	48	49	49	48	48	49	49	48	47	47	48	47	47	46	46	45	45	45	45	44	44	43	41	41	41	41	40	40	41	--	45
December																																
Maximum	42	41	41	42	43	43	43	42	42	42	42	42	42	41	40	39	38	38	38	38	38	38	38	38	38	38	38	37	37	38	38	40
Minimum	41	41	41	41	42	42	42	42	42	42	42	42	41	40	39	38	38	38	38	38	38	38	38	36	37	38	37	37	37	37	38	39
January																																
Maximum	38	37	37	37	38	38	38	38	38	38	39	39	39	40	40	40	39	39	39	38	38	38	39	39	39	40	39	39	39	39	39	39
Minimum	37	37	37	37	37	38	38	38	38	38	38	39	39	39	40	39	38	38	38	38	37	37	38	39	39	39	38	38	37	37	39	38
February																																
Maximum	40	40	39	39	41	40	39	39	39	39	39	39	39	39	39	39	40	41	40	42	42	42	42	42	41	42	42	42	--	--	--	40
Minimum	39	39	39	39	39	39	39	39	39	39	38	39	38	38	38	38	38	39	39	40	40	42	41	41	41	40	40	40	--	--	--	39
March																																
Maximum	42	40	40	40	40	40	42	42	42	42	41	42	43	43	43	42	42	42	43	43	43	43	44	45	46	46	46	47	47	47	47	43
Minimum	40	39	38	38	39	40	40	42	41	41	40	41	42	42	42	41	40	41	42	41	42	41	41	42	44	44	44	45	45	45	46	42
April																																
Maximum	48	47	48	49	49	49	48	47	47	46	46	47	48	49	50	50	48	47	46	46	48	49	50	50	50	48	48	49	49	49	--	48
Minimum	46	46	46	47	47	47	46	46	46	46	46	46	45	46	47	47	46	45	44	44	45	46	46	46	47	46	45	46	46	46	--	46
May																																
Maximum	50	50	49	49	50	50	50	51	52	53	52	53	53	53	52	54	55	56	57	58	58	57	57	59	60	60	60	59	59	59	57	55
Minimum	47	47	47	48	48	47	47	48	51	50	49	50	51	49	50	51	52	52	53	54	56	53	52	54	56	57	57	57	56	57	55	52
June																																
Maximum	56	55	55	57	57	56	57	60	62	62	59	59	62	63	63	63	63	63	62	62	61	60	60	61	62	63	64	--	--	--	--	60
Minimum	54	53	52	52	54	56	56	56	58	58	55	55	56	58	59	59	59	60	59	58	58	57	58	57	56	58	59	--	--	--	--	57
July																																
Maximum	--	63	64	66	66	66	66	63	64	65	66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	61	59	60	--
Minimum	--	54	54	54	54	55	56	55	56	55	54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	57	59	57	--
August																																
Maximum	60	61	61	61	61	61	61	61	60	61	60	60	60	60	60	60	60	61	60	60	60	60	59	58	58	58	58	58	57	56	57	60
Minimum	57	57	58	57	57	57	57	57	57	57	57	56	56	57	57	57	58	58	57	56	56	56	57	55	55	55	55	56	54	54	54	56
September																																
Maximum	58	58	58	58	58	57	57	57	56	56	55	55	55	55	56	56	55	54	56	55	56	56	55	55	55	55	54	55	55	54	--	56
Minimum	55	55	55	54	55	54	54	54	53	53	53	52	53	53	53	53	52	53	53	54	53	53	52	52	53	53	52	52	52	51	--	53

11-3420. SACRAMENTO RIVER AT DELTA, CALIF.

LOCATION.--Lat 40°56'20", long 122°24'55", at gaging station 0.2 mile downstream from Dog Creek, 0.6 mile southeast of Delta, Shasta County, and 2.8 miles south of Lamoine.
DRAINAGE AREA.--425 squsquare miles.
RECORDS AVAILABLE.--Chemical analyses: December 1953 to September 1966.
Water temperatures: June to September 1951, October 1953 to September 1957, October 1962 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 80°F Aug. 10; minimum, 33°F Dec. 24, 25.
EXTREMES, 1951, 1953-57, 1962-66.--Water temperatures: Maximum (1951, 1953-57, 1963-66), 80°F Aug. 10, 1966; minimum, freezing point Dec. 18, 19, 1964.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 4, 1965.....	200	--		--	--	11	--	80	0	--	7.4		--	0.2		--		55	0	0.6	156	8.2
Nov. 1.....	197	--		--	--	11	--	82	0	--	7.3		--	.1		--		60	0	.6	155	8.2
Nov. 29.....	1130	--		--	--	4.2	--	55	0	--	1.8		--	.0		--		43	0	.3	100	8.1
Jan. 3, 1966.....	1020	--		--	--	5.0	--	52	0	--	2.9		--	.0		--		40	0	.3	100	8.0
Feb. 7.....	2540	--		--	--	3.3	--	42	0	--	1.5		--	.0		--		34	0	.2	81	7.8
Mar. 8.....	3130	--		--	--	3.4	--	42	0	--	.7		--	.0		--		34	0	.3	80	7.9
Apr. 5.....	3340	--		--	--	2.2	--	42	0	--	.8		--	.1		--		34	0	.2	74	8.1
May 3.....	1910	15		4.0	5.7	2.5	0.3	42	0	4.0	.5		0.1	.1	A 53	0.07		34	0	.2	73	7.8
June 7.....	570	--		--	--	5.1	--	58	0	--	2.5		--	.0		--		43	0	.3	107	8.0
July 11.....	278	--		--	--	8.7	--	73	0	--	5.2		--	.0		--		51	0	.5	136	8.2
Aug. 8.....	194	--		--	--	10	--	78	0	--	6.2		--	.0		--		53	0	.6	149	8.2
Sept. 13.....	197	30		8.4	7.7	11	1.3	78	0	3.0	7.4		.9	.1	108	.15		52	0	.7	153	8.2

A Calculated from sum of determined constituents.

11-3420. SACRAMENTO RIVER AT DELTA, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	62	60	60	55	60	65	66	64	63	61	62	61	63	59	54	53	55	52	56	59	60	59	59	59	57	59	57	59	60	59	57	59
Minimum	51	52	50	49	52	54	56	55	54	54	53	53	54	52	47	45	46	48	48	50	51	51	50	50	51	50	50	52	53	52	49	51
November																																
Maximum	55	53	53	54	55	55	52	53	53	50	49	50	51	50	50	51	52	50	50	50	49	48	48	---	---	---	---	---	---	---	---	---
Minimum	48	48	50	51	50	49	51	51	50	47	47	49	50	49	49	48	50	49	48	49	45	46	47	---	---	---	---	---	---	---	---	---
December																																
Maximum	---	---	---	---	---	---	---	46	45	44	44	43	42	40	38	37	38	36	38	37	38	39	37	37	38	38	38	41	42	42	43	---
Minimum	---	---	---	---	---	---	---	43	43	41	43	42	39	37	35	34	34	34	34	34	36	36	35	33	33	36	37	37	41	41	41	---
January																																
Maximum	41	39	38	39	44	45	45	46	46	44	44	44	44	43	47	44	45	45	43	42	41	41	43	44	44	43	44	42	42	41	44	43
Minimum	37	36	36	37	39	44	44	43	42	42	41	41	41	40	41	40	41	41	40	38	38	40	40	40	41	41	39	39	37	37	41	40
February																																
Maximum	43	44	44	46	48	48	47	47	46	48	45	47	46	45	46	46	46	46	46	48	48	48	47	47	46	48	50	49	---	---	---	47
Minimum	41	42	42	41	46	46	42	42	42	43	40	42	39	39	39	40	40	40	41	42	42	44	45	44	44	42	43	43	---	---	---	42
March																																
Maximum	47	44	46	42	42	44	46	47	47	51	50	51	51	49	47	47	47	48	49	49	51	50	52	54	55	55	55	55	56	56	57	50
Minimum	43	40	38	39	40	42	44	46	46	45	44	45	47	47	43	41	39	44	44	41	43	42	43	44	45	45	45	45	45	45	47	43
April																																
Maximum	55	54	54	54	54	54	54	52	50	46	45	47	52	54	57	57	53	50	49	49	53	54	55	56	54	52	51	52	53	55	---	52
Minimum	45	45	44	45	44	45	46	46	46	44	42	41	41	43	46	47	45	42	39	40	43	44	44	46	46	43	41	43	43	44	---	44
May																																
Maximum	55	56	54	54	54	54	56	57	56	57	56	57	57	55	53	57	58	61	62	62	61	59	60	62	64	63	63	62	61	59	58	58
Minimum	45	45	46	49	49	46	46	47	51	49	47	47	49	47	46	47	49	51	52	54	55	51	50	53	55	57	56	57	56	52	50	50
June																																
Maximum	58	56	58	61	60	57	59	65	69	68	66	67	71	74	73	72	72	73	71	67	65	65	68	67	68	70	73	73	73	72	---	67
Minimum	51	52	48	52	55	56	54	55	61	61	58	58	61	64	66	64	63	65	64	62	58	58	61	58	58	59	62	64	64	63	---	59
July																																
Maximum	70	66	68	70	71	71	69	66	66	68	69	68	68	70	70	70	71	73	74	74	76	77	77	76	75	75	75	76	77	72	74	72
Minimum	61	58	56	59	60	61	62	59	58	58	58	60	59	62	60	60	60	61	62	64	64	65	66	66	64	64	64	64	65	66	63	62
August																																
Maximum	77	77	78	78	78	79	79	78	78	80	78	77	76	77	77	74	76	77	77	76	74	74	73	71	69	69	72	70	69	63	67	75
Minimum	65	---	68	68	68	67	68	66	67	68	69	67	66	66	66	67	66	67	67	66	65	64	65	62	61	60	61	61	62	58	55	65
September																																
Maximum	70	72	75	75	75	72	69	70	70	70	69	66	63	63	63	66	67	68	66	68	70	71	68	68	66	67	68	67	68	70	---	69
Minimum	58	61	63	64	65	64	63	62	59	58	59	56	55	54	54	57	58	60	60	61	62	61	59	58	58	60	58	58	59	60	---	59

11-3455. SOUTH FORK PIT RIVER NEAR LIKELY, CALIF.

LOCATION.--Lat 41°13'51", long 120°26'10", at gaging station, 100 feet downstream from highway bridge, 1.4 miles downstream from West Valley Creek, and 3.5 miles east of Likely, Modoc County.
DRAINAGE AREA.--247 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	34	--		--	--	5.6	--	65	0	--	0.5		--	0.0	--	--		42	0	0.4	106	8.1
Nov. 3.....	29	--		--	--	5.0	--	60	0	--	.4		--	.1	--	--		40	0	.3	100	8.2
Dec. 14.....	30	--		--	--	5.6	--	68	0	--	.6		--	.0	--	--		44	0	.4	112	8.0
Jan. 19. 1966....	20	--		--	--	5.0	--	62	0	--	.4		--	.0	--	--		43	0	3	97	7.9
Feb. 9.....	32	--		--	--	5.3	--	62	0	--	.6		--	.1	--	--		41	0	.4	106	8.1
Mar. 24.....	93	--		--	--	8.6	--	73	0	--	1.2		--	.0	--	--		47	0	.5	130	8.2
Apr. 19.....	78	--		--	--	4.2	--	50	0	--	.3		--	.0	--	--		34	0	.3	86	8.0
May 4.....	120	29		12	4.1	7.0	3.1	72	0	3.0	.8		0.8	.0	126	0.17		47	0	.4	123	7.9
June 9.....	124	--		--	--	8.7	--	86	0	--	1.2		--	.0	--	--		57	0	.5	145	8.2
July 5.....	30	--		--	--	10	--	85	2	--	1.3		--	.0	--	--		58	0	.6	152	8.4
Aug. 15.....	24	--		--	--	16	--	110	2	--	4.6		1 5	.1	--	--		75	0	.8	213	8.4
Sept. 7.....	10	35		14	6.0	11	4.5	96	0	6.0	1.5		1.4	.0	138	.19		60	0	.6	170	8.1

11-3485. PIT RIVER NEAR CANBY, CALIF.

LOCATION.--Lat 41°24'22", long 120°55'36", at gaging station at lower end of Warm Spring Valley, 4 miles southwest of Canby, Modoc County.
DRAINAGE AREA.--1,431 square miles, excluding Goose Lake basin.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966.
Water temperatures: March 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 79°F Aug. 3, 5, 6, 10; minimum, freezing point on several days during February.
EXTREMES, March 1965 to September 1966.--Water temperatures: Maximum, 79°F Aug. 3, 5, 6, 10, 1966; minimum, freezing points on several days during February 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 5, 1965.....	80	--		--	--	26	--	147	5	--	5.5		--	0.1	--	--		87	0	1.2	279	8.5
Nov. 2.....	81	--		--	--	26	--	150	4	--	6.2		--	.2	--	--		82	0	1.2	274	8.5
Dec. 14.....	85	--		--	--	27	--	140	0	--	9.0		--	.1	--	--		81	0	1.3	270	8.0
Jan. 18, 1966....	106	--		--	--	30	--	160	0	--	10		--	.1	--	--		93	0	1.3	285	7.9
Feb. 8.....	120	--		--	--	28	--	141	0	--	8.7		--	.1	--	--		79	0	1.4	279	7.9
Mar. 23.....	162	--		--	--	22	--	118	0	--	6.4		--	.2	--	--		72	0	1.1	232	8.1
Apr. 19.....	167	--		--	--	19	--	126	0	--	3.1		--	.0	--	--		74	0	1.0	227	7.6
May 4.....	12	19		21	8.4	21	4.3	142	0	14	6.7		1.0	.0	182	0.25		87	0	1.0	263	7.8
June 9.....	91	--		--	--	31	--	180	0	--	4.5		--	.1	--	--		100	0	1.4	312	8.1
July 5.....	58	--		--	--	35	--	191	0	--	6.0		--	.1	--	--		101	0	1.5	338	7.7
Aug. 15.....	47	--		--	--	29	--	172	0	--	6.6		2.5	.2	--	--		96	0	1.3	309	8.2
Sept. 8.....	14	30		24	11	30	5.3	177	0	16	8.2		1.8	.1	231	.31		105	0	1.3	324	8.2

11-3485. PIT RIVER NEAR CANBY, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	57	57	56	56	57	58	—	—	—	—	—	—	—	—	—	50	49	49	51	52	52	53	53	53	52	52	51	52	52	51	—	—
Minimum	54	55	53	53	54	54	—	—	—	—	—	—	—	—	—	47	48	48	49	48	49	49	49	50	50	49	49	51	51	51	50	—
November																																
Maximum	51	51	50	50	—	—	—	48	47	45	43	43	43	44	44	44	44	44	44	44	43	42	42	42	41	39	38	37	36	36	—	44
Minimum	49	49	50	49	—	—	—	47	45	43	42	42	42	42	43	43	43	44	43	43	42	42	42	41	39	38	37	36	35	35	—	42
December																																
Maximum	36	36	36	36	36	37	37	37	37	37	36	36	36	35	35	34	34	34	34	35	35	35	35	35	34	34	34	34	34	34	34	35
Minimum	35	35	35	35	36	36	36	36	35	35	35	36	35	35	34	34	34	34	34	34	35	35	35	34	34	34	34	34	34	34	34	35
January																																
Maximum	34	33	33	33	34	34	34	34	33	33	33	33	33	33	33	33	33	33	34	34	34	34	34	34	34	34	33	33	33	33	33	33
Minimum	33	33	33	33	33	34	34	33	33	33	33	33	33	33	33	33	33	33	33	34	34	34	34	34	34	33	33	33	33	33	33	33
February																																
Maximum	33	33	33	33	34	34	34	34	34	34	33	33	33	32	32	32	32	32	32	32	32	32	32	33	32	34	37	36	—	—	—	33
Minimum	33	33	33	33	33	34	34	34	34	33	33	33	32	32	32	32	32	32	32	32	32	32	32	32	31	32	34	36	—	—	—	33
March																																
Maximum	36	34	30	37	40	42	42	41	41	41	41	44	46	46	46	43	42	48	46	45	45	45	51	54	56	58	59	—	—	—	61	45
Minimum	34	34	34	36	37	39	40	41	41	40	40	41	44	45	43	41	41	42	45	44	44	44	44	46	47	48	50	51	53	54	54	43
April																																
Maximum	60	60	58	58	58	60	64	60	55	52	50	52	56	60	64	66	63	55	53	51	54	57	62	64	62	56	56	57	58	63	—	58
Minimum	56	55	54	52	52	54	56	55	52	48	48	49	50	53	55	57	54	48	48	48	48	49	52	54	54	53	51	54	54	54	—	52
May																																
Maximum	66	67	66	66	66	65	66	67	61	64	65	66	64	63	62	64	65	—	—	—	68	67	68	70	72	—	—	—	—	62	59	—
Minimum	54	56	56	58	58	57	56	60	59	59	57	59	59	58	57	58	59	61	62	62	61	59	58	62	64	63	61	60	59	58	57	59
June																																
Maximum	57	56	55	63	60	60	59	64	69	67	68	70	72	74	74	—	—	—	—	70	68	67	68	70	72	74	—	—	—	—	—	—
Minimum	56	55	54	55	57	59	59	59	63	63	62	62	64	66	68	66	67	66	66	62	61	61	60	60	60	60	63	64	64	64	—	62
July																																
Maximum	71	66	68	72	72	71	70	71	71	72	74	73	72	72	72	—	—	74	75	76	76	76	75	73	—	—	—	—	—	—	77	—
Minimum	62	60	60	63	64	65	62	62	62	62	62	62	64	63	62	61	—	62	63	65	66	66	65	64	63	—	—	—	—	67	66	63
August																																
Maximum	78	—	79	78	79	79	78	78	78	79	78	77	74	74	76	75	76	76	76	76	76	74	73	71	66	63	66	69	66	59	62	74
Minimum	66	67	71	69	68	68	68	67	67	67	67	66	64	68	67	67	66	66	65	66	63	63	60	60	60	59	58	59	58	54	54	64
September																																
Maximum	66	71	71	71	71	69	68	67	66	64	59	56	54	56	63	68	78	61	64	65	68	66	66	64	64	63	63	63	65	64	—	65
Minimum	56	59	60	60	60	61	58	59	57	57	53	53	53	53	52	55	52	58	59	61	61	60	58	58	57	58	56	56	56	57	—	57

11-3650. PIT RIVER NEAR MONTGOMERY CREEK, CALIF.

LOCATION.--Lat 41°50'36", long 122°00'58", at gaging station on right bank 0.5 mile upstream from Potem Creek, 1.9 miles downstream from Pit No. 7 dam and powerhouse and 5.0 miles west of town of Montgomery Creek, Shasta County.
DRAINAGE AREA (revised).--4,951 square miles, approximately, excluding Goose Lake basin.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966.
Water temperatures: June to September 1951, October 1953 to September 1957, October 1958 to August 1959.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....	2740	--		--	--	11	--	88	1	--	3.0		--	0.0	--	--		56	0	0.6	159	8.3
Nov. 4.....	2970	--		--	--	11	--	91	0	--	3.2		--	.1	--	--		56	0	.6	160	8.2
Dec. 14.....	504	--		--	--	11	--	91	0	--	3.1		--	.0	--	--		58	0	.6	161	8.0
Jan. 18, 1966....	4640	--		--	--	8.1	--	76	0	--	2.0		--	.0	--	--		50	0	.5	121	7.8
Feb. 4.....	2570	--		--	--	8.4	--	76	0	--	2.6		--	.0	--	--		49	0	.5	136	8.1
Apr. 19.....	7830	--		--	--	6.5	--	66	0	--	.8		--	.1	--	--		44	0	.4	114	7.7
May 4.....	4590	25		9.8	4.3	6.9	1.4	66	0	1.0	1.2		0.6	.0	84	0.11		42	0	.5	113	8.0
June 9.....	4790	--		--	--	7.4	--	69	0	--	1.4		--	.0	--	--		45	0	.5	119	8.2
July 5.....	3100	--		--	--	9.4	--	78	0	--	2.1		--	.0	--	--		50	0	.6	134	8.2
Aug. 4.....	3740	--		--	--	9.3	--	77	0	--	2.4		--	.0	--	--		48	0	.6	135	8.1
Sept. 8.....	315	31		10	5.7	9.3	2.1	79	0	1.0	2.4		1.4	.1	102	.14		48	0	.6	139	7.6

11-3680. MCCLOUD RIVER ABOVE SHASTA LAKE, CALIF.

LOCATION.--Lat 40°57'30", long 122°13'05", at gaging station just upstream from Shasta Lake, Shasta County, 0.2 mile downstream from Big Bollibokka Creek, and 11.3 miles east of La Moine.
DRAINAGE AREA.--604 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966.
Water temperatures: June to September 1951, October 1953 to September 1959.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 4, 1965.....	1020	--		--	--	4.7	--	54	0	--	0.8		--	0.2	--	--		36	0	0.3	95	8.2
Nov. 1.....	996	--		--	--	5.0	--	54	0	--	.9		--	.0	--	--		37	0	.4	95	8.0
Nov. 29.....	1540	--		--	--	4.2	--	51	0	--	.9		--	.0	--	--		38	0	.3	95	8.0
Jan. 3, 1966.....	714	--		--	--	3.9	--	51	0	--	.7		--	.0	--	--		41	0	.3	96	7.9
Feb. 7.....	1920	--		--	--	5.6	--	44	0	--	.8		--	.0	--	--		36	0	.4	87	8.1
Mar. 7.....	968	--		--	--	3.8	--	56	0	--	.3		--	.0	--	--		44	0	.3	101	8.0
Apr. 8.....	1160	--		--	--	3.0	--	52	0	--	.3		--	.0	--	--		42	0	.2	95	8.1
May 3.....	520	18		16	2.4	3.5	0.3	65	0	6.0	.4		0.2	.0	79	0.11		50	0	.2	112	7.9
June 7.....	388	--		--	--	4.3	--	62	0	--	.6		--	.0	--	--		46	0	.3	108	8.2
July 7.....	305	--		--	--	4.7	--	64	0	--	.9		--	.0	--	--		46	0	.3	110	7.8
Aug. 12.....	281	--		--	--	5.2	--	65	0	--	1.2		.6	.0	--	--		47	0	.3	111	8.2
Sept. 13.....	297	28		12	3.6	5.0	1.2	64	0	3.0	.9		1.0	.0	87	.12		45	0	.3	110	7.9

11-3705. SACRAMENTO RIVER AT KESWICK, CALIF.

LOCATION.--Lat 40°36'05", long 122°26'35", at gaging station 0.4 mile upstream from Middle Creek, 0.8 mile downstream from Keswick Dam, 1.6 miles downstream from Keswick, Shasta County, and 10 miles downstream from Shasta Dam.
DRAINAGE AREA (revised).--6,468 square miles, excluding Goose Lake basin.
RECORDS AVAILABLE.--Chemical analyses: December 1953 to September 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 4, 1965.....	8320	--		--	--	5.1	--	58	0	4.0	1.4		--	0.0	--	--		42	0	0.3	107	7.8
Nov. 1.....	7660	--		--	--	5.5	--	61	0	4.0	1.4		--	.0	--	--		47	0	.4	108	8.1
Nov. 29.....	6050	--		--	--	4.6	--	56	0	4.0	1.5		--	.0	--	--		41	0	.3	103	8.0
Jan. 3, 1966.....	10900	--		--	--	7.3	--	68	0	5.0	2.0		--	.0	--	--		47	0	.5	126	8.2
Feb. 7.....	8670	--		--	--	4.5	--	51	0	6.0	1.5		--	.0	--	--		39	0	.3	101	7.8
Mar. 8.....	4620	--		--	--	5.8	--	55	0	8.0	1.0		--	.0	--	--		46	1	.4	113	7.9
Apr. 5.....	5300	--		--	--	6.0	--	61	0	7.0	1.8		--	.1	--	--		45	0	.4	116	8.1
May 3.....	8880	18		9.8	4.7	5.7	1.0	58	0	6.0	1.4		0.8	.0	76	0.10		44	0	.4	111	7.4
June 7.....	10200	--		--	--	5.5	--	60	0	3.0	1.5		--	.0	--	--		45	0	.4	113	8.0
July 11.....	13900	--		--	--	6.2	--	60	0	5.0	1.6		--	.0	--	--		45	0	.4	113	7.7
Aug. 11.....	13200	--		--	--	5.2	--	60	0	--	1.5		.7	.1	--	--		44	0	.3	109	7.9
Sept. 13.....	7790	18		9.2	5.0	4.9	.9	58	0	5.0	1.4		.6	.0	74	.10		44	0	.3	107	8.0

11-3720. CLEAR CREEK NEAR IGO, CALIF.

LOCATION (revised).--Lat 40°30'50", long 122°31'20", at gaging station at highway bridge on Redding-Igo road, 1.0 mile northeast of Igo, Shasta County, 8.3 miles southwest of Redding, and 10.4 miles upstream from mouth.
DRAINAGE AREA.--228 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966 (discontinued).
Water temperatures: March 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 67°F June 14; minimum, 40°F Feb. 13-15, 17.
EXTREMES, March 1965 to September 1966.--Water temperatures: Maximum, 67°F June 14, 1966; minimum, 40°F Feb. 13-15, 17, 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....	57	--		--	--	3.0	--	52	0	--	2.0		--	0.0	--	--		54	11	0.2	95	7.9
Nov. 4.....	94	--		--	--	2.9	--	51	0	--	2.1		--	.0	--	--		44	2	.2	94	8.0
Dec. 13.....	112	--		--	--	3.4	--	44	0	--	1.8		--	.0	--	--		37	1	.2	88	8.0
Jan. 5, 1966.....	1080	--		--	--	3.6	--	16	0	--	.8		--	.0	--	--		21	8	.3	58	7.6
Feb. 4.....	563	--		--	--	3.8	--	29	0	--	1.9		--	.0	--	--		23	0	.4	63	7.7
Mar. 2.....	143	--		--	--	4.6	--	40	0	--	.9		--	.0	--	--		32	0	.4	83	7.9
Apr. 13.....	90	--		--	--	4.2	--	40	0	--	1.6		--	.0	--	--		33	0	.3	83	8.0
May 3.....	52	15		8.0	3.9	4.2	0.5	43	0	6.0	2.8		0.9	.0	62	0.08		36	1	.3	90	7.7
June 3.....	46	--		--	--	3.8	--	46	0	--	3.8		--	.0	--	--		38	0	.3	91	7.9
July 7.....	39	--		--	--	3.6	--	48	0	--	2.2		--	.0	--	--		40	1	.3	94	8.0
Sept. 2.....	37	12		6.7	6.3	3.2	.5	50	0	4.0	1.8		.4	.0	60	.08		42	1	.2	98	7.7

11-3720. CLEAR CREEK NEAR IGO, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	56	57	56	55	57	58	58	58	58	58	57	57	57	57	54	54	54	55	54	55	55	55	54	54	54	53	54	54	54	53	53	55
Minimum	52	52	52	51	54	53	54	53	54	54	53	52	54	53	51	50	51	52	52	52	52	51	51	51	51	50	50	51	51	50	49	52
November																																
Maximum	52	53	53	54	53	53	52	53	52	51	52	52	52	53	53	53	54	53	53	53	52	52	51	51	50	49	48	48	48	49	--	52
Minimum	49	49	50	51	50	50	50	51	50	49	50	51	52	52	53	51	52	53	52	52	51	50	51	50	49	47	46	45	45	47	--	50
December																																
Maximum	49	49	49	49	49	49	49	49	48	48	47	47	46	45	45	45	45	45	45	45	46	45	45	45	45	46	46	45	45	45	45	46
Minimum	46	46	46	47	48	47	48	47	46	45	46	46	44	44	44	44	43	43	43	43	43	44	43	42	43	43	45	45	45	44	44	45
January																																
Maximum	45	44	44	46	49	50	50	50	48	47	47	47	46	46	47	46	45	45	44	43	44	45	45	45	45	45	44	44	45	47	46	46
Minimum	42	44	43	44	46	48	48	47	46	45	44	44	44	43	45	43	42	42	42	41	41	44	43	43	43	43	41	41	43	45	43	44
February																																
Maximum	45	47	46	49	50	48	46	46	46	45	46	44	44	44	44	44	45	46	46	48	48	47	50	48	47	49	49	49	--	--	--	47
Minimum	44	44	45	46	48	45	43	43	43	43	41	42	40	40	40	41	40	42	44	44	44	45	47	47	45	44	45	45	--	--	--	44
March																																
Maximum	47	46	46	44	46	49	49	48	50	53	52	54	54	54	50	49	50	52	52	53	52	52	54	55	56	56	57	57	58	58	58	52
Minimum	44	43	41	41	43	45	47	47	48	49	48	51	51	50	46	44	47	48	46	48	46	47	48	49	50	50	51	51	51	52	51	48
April																																
Maximum	58	56	57	58	58	58	59	57	54	53	53	54	56	57	59	60	59	58	54	55	57	58	59	60	60	58	56	57	57	58	--	57
Minimum	51	50	51	51	52	53	53	53	52	51	50	49	49	50	51	52	52	51	49	48	50	52	53	55	55	53	51	53	53	53	--	52
May																																
Maximum	59	59	58	62	58	60	59	59	60	60	62	61	62	59	60	61	61	62	62	63	64	62	61	62	64	62	64	62	62	60	60	61
Minimum	54	55	55	58	57	55	56	56	57	55	59	57	58	54	56	56	57	58	58	60	60	58	58	59	60	60	60	60	59	56	55	57
June																																
Maximum	58	56	58	60	58	57	60	62	65	64	62	63	65	67	64	65	64	66	64	63	62	63	64	63	63	63	65	65	65	64	--	63
Minimum	55	53	52	56	55	55	55	57	61	60	58	60	61	63	62	62	61	62	62	59	59	59	60	59	59	60	60	61	60	60	--	59
July																																
Maximum	63	62	62	63	63	64	62	60	61	62	62	62	62	64	62	62	63	64	63	64	64	64	64	64	64	64	63	63	63	63	63	63
Minimum	59	57	60	60	60	61	60	56	57	58	59	59	59	60	60	60	60	60	61	61	61	61	61	61	61	61	60	60	60	59	59	60
August																																
Maximum	64	65	65	64	65	65	65	65	65	65	65	63	65	64	63	63	61	63	63	62	63	63	63	62	62	62	62	62	62	62	59	63
Minimum	61	62	62	62	61	62	62	62	63	63	61	61	61	61	61	59	59	60	61	61	61	61	61	60	60	58	60	60	58	58	57	61
September																																
Maximum	62	61	--	62	61	--	62	63	60	60	60	59	60	58	60	60	60	62	63	64	64	63	62	62	62	63	62	62	62	62	--	61
Minimum	60	60	--	61	61	--	60	60	59	59	57	56	58	57	57	59	59	60	60	62	62	61	60	60	60	60	60	60	60	60	--	60

11-3722. SOUTH COW CREEK NEAR MILLVILLE, CALIF.

LOCATION.--Lat 40°32'55", long 122°05'30", temperature recorder at gaging station on left bank 2.5 miles upstream from Old Cow Creek, and 4.4 miles east of Millville, Shasta County.
DRAINAGE AREA.--77.3 square miles.
RECORDS AVAILABLE.--Water temperatures: December 1965 to September 1966.
EXTREMES, December 1965 to September 1966.--Water temperatures: 88°F Aug. 6, 7; minimum, 33°F Dec. 17, 19, 20.
REMARKS.--Clock stopped Aug. 11 to Sept. 15; temperature range, 69°F to 85°F.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
December																																
Maximum	--	--	--	--	--	--	--	--	--	45	45	47	44	41	39	38	38	38	38	38	38	40	38	39	40	40	41	43	44	43	43	--
Minimum	--	--	--	--	--	--	--	--	--	44	44	44	40	38	35	34	33	34	33	33	35	36	34	37	38	37	40	41	41	42	41	--
January																																
Maximum	41	41	43	45	46	48	47	48	46	44	44	43	42	43	44	42	41	41	40	39	39	40	43	42	42	43	42	42	42	43	43	43
Minimum	38	40	40	43	45	46	45	46	42	43	41	40	41	39	40	38	36	36	36	35	34	39	39	38	38	39	37	37	39	42	41	40
February																																
Maximum	43	43	44	46	48	45	44	42	43	44	43	44	41	42	43	43	44	46	47	49	47	48	51	49	47	47	48	48	--	--	--	45
Minimum	42	39	42	44	44	43	38	38	38	40	36	38	34	35	37	36	37	39	45	45	42	46	48	45	45	41	41	43	--	--	--	41
March																																
Maximum	47	46	44	43	46	--	--	--	--	--	--	--	--	--	--	48	47	49	--	--	--	--	--	--	--	--	--	--	--	57	57	--
Minimum	43	40	37	38	42	--	--	--	--	--	--	--	--	--	--	44	42	46	--	--	--	--	--	--	--	--	--	--	--	52	51	--
April																																
Maximum	58	58	56	56	57	58	59	57	56	54	51	53	54	--	--	--	60	57	53	53	57	--	--	61	60	59	57	57	57	58	--	57
Minimum	52	52	51	51	52	53	57	53	53	51	47	49	48	--	--	--	54	51	47	47	50	--	--	52	54	52	48	49	49	50	--	51
May																																
Maximum	--	--	--	62	62	62	62	63	63	--	--	--	--	--	--	--	68	70	72	73	72	70	73	75	77	75	77	72	--	--	--	--
Minimum	--	--	--	57	56	54	53	55	58	--	--	--	--	--	--	--	57	58	59	61	62	60	58	61	63	64	64	65	--	--	--	--
June																																
Maximum	--	--	--	--	69	66	73	78	81	81	78	79	--	--	--	86	86	84	84	79	78	79	78	76	79	82	84	84	84	84	--	80
Minimum	--	--	--	--	61	63	63	64	68	68	66	66	--	--	--	72	70	71	70	70	67	66	68	66	64	68	69	72	73	71	--	--
July																																
Maximum	82	80	81	81	83	82	81	79	79	81	81	81	81	81	80	80	82	83	84	83	86	86	85	85	84	85	83	83	83	79	82	82
Minimum	70	66	67	67	67	69	69	68	69	68	68	68	68	70	68	67	67	68	70	72	71	73	74	74	72	71	70	70	71	73	69	69
August																																
Maximum	85	86	87	85	87	88	88	87	87	86	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	71	73	75	75	76	75	76	77	75	75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
September																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	72	72	71	72	74	74	72	71	70	70	70	69	72	72	72	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	62	63	66	64	66	66	65	64	64	64	64	63	63	64	64	--	--

11-3740. COW CREEK NEAR MILLVILLE, CALIF.

LOCATION.--Lat 40°30'20", long 122°13'55", at gaging station 4.2 miles southwest of Millville, Shasta County, and 4.3 miles downstream from Little Cow Creek.
DRAINAGE AREA.--425 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966 (discontinued).
Water temperatures: October 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 90°F Aug. 3, 4, 7; minimum, 35°F Dec. 19, 20.
REMARKS.--Recorder not operating properly June 14 to July 4 and Aug. 25 to Sept. 13; temperature ranges, 69°F to 85°F and 70°F to 82°F, respectively.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....	46	--		--	--	8.7	--	89	1	--	5.5		--	0.0	--	--		69	0	0.5	175	8.3
Nov. 4.....	73	--		--	--	8.7	--	85	0	--	5.4		--	.0	--	--		63	0	.5	162	8.2
Dec. 13.....	150	--		--	--	9.0	--	79	0	--	8.0		--	.0	--	--		62	0	.5	163	8.2
Jan. 17, 1966....	388	--		--	--	6.4	--	60	0	--	3.9		--	.0	--	--		51	2	.4	118	7.7
Feb. 4.....	3450	--		--	--	3.7	--	30	0	--	1.6		--	.1	--	--		25	0	.3	69	7.8
Mar. 7.....	715	--		--	--	6.6	--	56	0	--	2.7		--	.1	--	--		47	1	.4	126	7.7
Apr. 13.....	1380	--		--	--	4.5	--	42	0	--	1.2		--	.0	--	--		35	1	.3	91	7.9
May 2.....	375	22		10	3.2	4.7	0.6	50	0	5.0	2.0		0.3	.0	76	0.10		38	0	.3	96	7.9
June 2.....	146	--		--	--	6.4	--	67	0	--	3.0		--	.0	--	--		51	0	.4	126	8.1
July 6.....	20	--		--	--	8.9	--	94	0	--	5.2		--	.0	--	--		69	0	.5	174	8.2
Sept. 1.....	9.6	35		18	8.7	12	2.0	108	4	5.0	7.8		.5	.0	149	.20		81	0	.6	208	8.4

11-3740. COW CREEK NEAR MILLVILLE, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	70	69	69	66	68	68	70	71	71	70	69	69	69	67	63	61	61	60	62	62	63	64	63	64	63	63	63	63	63	62	60	65
Minimum	64	63	63	62	62	62	63	64	65	65	64	64	63	63	59	58	58	58	57	58	58	58	58	58	58	58	58	58	57	57	56	60
November																																
Maximum	59	59	59	60	60	60	60	60	59	58	56	56	56	56	58	57	59	57	57	57	56	54	53	53	52	50	51	50	49	51	--	56
Minimum	56	55	57	59	57	58	58	57	56	54	55	56	56	55	56	54	57	55	56	55	51	52	52	51	50	48	48	45	46	47	--	54
December																																
Maximum	50	50	50	49	49	50	50	49	48	48	47	48	47	46	43	40	40	39	39	39	38	39	39	40	40	40	39	43	43	43	45	44
Minimum	47	46	48	48	45	49	49	48	47	44	46	47	44	43	39	38	36	36	35	35	36	36	37	39	38	37	39	39	40	40	40	42
January																																
Maximum	44	42	43	45	47	49	49	49	48	47	46	46	45	46	45	45	44	43	41	41	41	41	43	44	44	44	44	43	43	42	42	44
Minimum	39	42	42	43	45	47	47	47	44	45	42	42	43	41	41	42	39	39	39	38	37	40	39	39	41	41	39	39	41	42	38	41
February																																
Maximum	41	40	42	45	46	45	44	44	44	45	44	44	44	44	45	45	45	47	47	50	49	49	52	51	49	50	51	52	--	--	--	46
Minimum	39	38	40	42	43	41	39	40	40	41	39	40	39	38	40	39	39	42	46	44	44	46	47	48	47	43	45	47	--	--	--	42
March																																
Maximum	51	48	48	48	48	50	51	51	52	55	55	55	57	57	56	52	51	52	55	53	56	55	57	60	61	62	63	64	64	64	64	55
Minimum	46	44	41	43	44	47	49	49	50	51	49	49	53	53	52	47	45	47	48	47	49	49	48	51	53	55	56	57	56	56	56	50
April																																
Maximum	64	63	61	60	61	61	61	61	58	54	52	56	57	59	62	63	62	60	56	56	59	61	63	65	65	62	60	62	63	64	--	60
Minimum	56	56	54	52	52	52	54	54	54	51	48	49	48	50	52	55	55	53	49	48	50	53	54	55	57	57	53	54	55	55	--	53
May																																
Maximum	65	67	66	67	67	67	66	67	67	68	69	69	69	67	67	69	69	72	74	75	73	71	72	74	76	76	75	74	72	71	69	70
Minimum	56	59	60	62	62	59	59	60	64	62	64	62	63	63	61	62	64	64	65	68	68	66	64	66	68	70	70	70	68	67	65	64
June																																
Maximum	69	68	68	70	69	68	71	75	78	77	76	75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	65	63	61	63	65	67	65	67	72	73	72	70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
July																																
Maximum	--	--	--	--	--	84	82	80	78	82	82	82	82	82	82	82	83	85	86	84	86	87	87	86	87	86	86	87	87	82	86	84
Minimum	--	--	--	--	74	75	74	74	74	71	72	74	73	74	73	74	74	74	76	76	77	77	77	77	76	76	76	74	77	77	75	75
August																																
Maximum	87	89	90	90	88	89	90	89	86	87	86	86	85	86	86	84	86	87	84	85	85	85	84	82	--	--	--	--	--	--	--	--
Minimum	77	79	80	79	79	80	80	79	80	78	79	78	79	78	78	78	78	78	77	77	75	76	74	73	--	--	--	--	--	--	--	--
September																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	77	76	77	78	78	78	76	79	79	77	77	76	76	75	72	72	74	76	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	69	69	71	72	74	73	73	74	73	72	72	70	71	69	67	69	69	--	--

11-3744. MIDDLE FORK COTTONWOOD CREEK NEAR ONO, CALIF.

LOCATION.--Lat 40°23'25", long 122°31'15", at gaging station on left bank, 0.4 mile upstream from North Fork, and 7.8 miles southeast of Ono, Shasta County.
DRAINAGE AREA.--249 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1963 to September 1965.
Sediment records: October 1963 to September 1966.
EXTREMES, November 1965 to April 1966.--Sediment concentrations: Maximum daily, 2,480 ppm Jan. 4.
Sediment loads: Maximum daily, 19,500 tons Jan. 4.

Suspended sediment, November 1965 to April 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
		Suspended sediment			Suspended sediment			Suspended sediment	
	Mean discharge (cfs)	Mean concentration (ppm)	Tons per day	Mean discharge (cfs)	Mean concentration (ppm)	Tons per day	Mean discharge (cfs)	Mean concentration (ppm)	Tons per day
1				--	--	--	87	5	1.2
2				--	--	--	81	6	1.3
3				--	--	--	76	4	.8
4				--	--	--	75	3	.6
5				--	--	--	75	3	.6
6				--	--	--	81	4	.9
7				--	--	--	83	4	.9
8				--	--	--	81	3	.7
9				--	--	--	77	3	.6
10				--	--	--	72	2	.4
11				--	--	--	70	1	.2
12				--	--	--	71	1	.2
13				--	--	--	66	2	.4
14				--	--	--	62	1	.2
15				--	--	--	59	1	.2
16				--	--	--	56	1	.2
17				--	--	--	53	2	.3
18				--	--	--	52	2	.3
19				231	66	41	52	2	.3
20				167	33	15	47	3	.4
21				136	13	4.8	50	3	.4
22				122	9	3.0	50	3	.4
23				115	8	2.5	44	3	.4
24				126	8	2.7	53	3	.4
25				140	17	6.4	61	3	.5
26				136	18	6.6	60	3	.5
27				127	15	5.1	57	3	.5
28				108	9	2.6	274	--	385
29				99	6	1.6	297	--	140
30				94	4	1.0	180	33	16
31				--	--		169	21	9.6
Total				1601	--	92.3	2671	--	564.4

11-3744. MIDDLE FORK COTTONWOOD CREEK NEAR ONO, CALIF.--Continued

Suspended sediment, November 1965 to April 1966--Continued

Day	JANUARY			FEBRUARY			MARCH		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	146	18	7.1	500	--	200	299	32	26
2	133	19	6.8	349	72	68	288	28	22
3	151	62 S	35	579	294 S	860	268	24	17
4	2660	2480 S	19500	1160	707 S	2330	259	21 B	15
5	2300	1090 S	7280	772	315	657	361	--	90
6	1440	530	2060	653	185	326	343	--	45
7	948	340	870	552	110	164	367	48 B	48
8	762	190	391	458	71	88	422	73 B	83
9	695	168	315	378	59	60	684	258 S	532
10	572	116	179	327	50	44	1130	626 S	1910
11	472	83	106	297	44	35	934	282	711
12	372	68	68	284	40	31	778	230	483
13	320	69	60	264	35	25	789	248	528
14	320	71	61	251	31	21	805	236	513
15	392	--	80	237	27	17	763	175	361
16	432	--	90	226	28	17	681	128	235
17	396	--	75	220	31	18	597	100	161
18	346	--	50	219	32	19	532	80	115
19	300	--	35	343	134 S	142	482	82	107
20	264	39	28	289	51	40	432	83	97
21	244	39	26	273	35	26	400	80	86
22	228	40	25	276	30	22	370	73	73
23	213	42	24	295	30	24	353	67 B	64
24	201	44	24	313	35	30	350	63 B	60
25	190	44	23	380	--	120	375	62 B	63
26	183	44	22	410	71 S	86	428	76 B	88
27	175	44	21	329	40	36	510	86 B	118
28	168	44	20	309	36	30	570	101 B	155
29	208	--	30	--	--	--	591	115 B	184
30	316	--	40	--	--	--	612	130 B	215
31	276	--	30	--	--	--	613	147 B	243
Total	15823	--	31581.9	10943	--	5536	16386	--	7448

Day	APRIL			MAY			JUNE		
1	623	153	257						
2	588	109	173						
3	521	82	115						
4	473	72	92						
5	435	63	74						
6	419	55	62						
7	410	47	52						
8	385	37	38						
9	352	32	30						
10	356	34	33						
11	363	58	57						
12	365	55	54						
13	308	38	32						
14	271	36	26						
15	252	34	23						
16	255	36	25						
17	262	35	25						
18	244	24	16						
19	221	21	13						
20	203	20	11						
21	189	20	10						
22	178	19	9.1						
23	171	18	8.3						
24	167	17	7.7						
25	165	15	6.7						
26	160	13	5.6						
27	152	11	4.5						
28	145	10	3.9						
29	138	9	3.4						
30	132	8	2.9						
31	--	--	--						
Total	8903	--	1270.1						

Total discharge for period Nov. 19 to Apr. 30 (cfs-days)..... 56327
Total load for period Nov. 19 to Apr. 30 (tons)..... 46492.7

S Computed by subdividing day.
B Computed by estimated-concentration graph.

11-3744. MIDDLE FORK COTTONWOOD CREEK NEAR ONO, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Oct. 9, 1965	0955	65		11	1	T						--	--	--	--	--		
Nov. 18	1655	53		279	219	165						90	93	96	99	100		V
Nov. 19	1255	53		242	58	38						78	82	91	100	--		V
Dec. 1	1405	46		85	123	28						100	--	--	--	--		V
Dec. 28	1720	42		599	1780	2880						86	91	98	100	--		VPWC
Jan. 4, 1966	1355	42		3160	2390	20400						79	85	94	100	--		VPWC
Jan. 4	1625	42		3450	2910	27100						73	79	91	99	100		VPWC
Jan. 5	1720	42		1790	725	3510						69	77	90	99	100		VPWC
Mar. 9	1350	49		710	288	552						73	82	96	100	--		V
Mar. 10	1250	54		1200	809	2620						56	61	70	95	100		V
May 3	1240	--		125	34	11						--	--	--	--	--		
June 4	0833	64		58	25	4						--	--	--	--	--		
June 8	0915	67		65	14	2						--	--	--	--	--		

Less than 0.05 ton.

11-3758. COTTONWOOD CREEK NEAR ONO, CALIF.

LOCATION.--Lat 40°20'10", long 122°20'15", approximately 1 mile downstream from North Fork, and approximately 8 miles southeast of Ono, Tehama County.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966 (discontinued).
REMARKS.--Records of discharge for gaging stations at Middle Fork Cottonwood Creek near Ono and North Fork Cottonwood Creek near Igo are combined to give the flow at this station.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....	11	--		--	--	11	--	160	7	--	16		--	0.0	--	--		148	5	0.4	322	8.6
Nov. 4.....	14	--		--	--	11	--	147	4	--	16		--	.0	--	--		133	6	.4	299	8.5
Dec. 13.....	66	--		--	--	7.6	--	107	1	--	6.5		--	.0	--	--		95	6	.3	216	8.3
Jan. 5, 1966.....	2300	--		--	--	5.6	--	72	0	--	2.2		--	.0	--	--		66	7	.3	158	8.0
Feb. 4.....	1160	--		--	--	6.2	--	75	0	--	2.2		--	.0	--	--		67	5	.3	161	8.0
Mar. 2.....	288	--		--	--	7.5	--	116	2	--	2.2		--	.0	--	--		105	7	.3	227	8.3
Apr. 13.....	308	--		--	--	4.7	--	89	2	--	1.2		--	.0	--	--		79	3	.2	169	8.4
May 3.....	124	18		22	11	5.6	0.8	112	0	10	3.6		0.9	.0	128	0.17		100	8	.2	209	8.2
June 3.....	60	--		--	--	6.1	--	116	0	--	4.4		--	.0	--	--		97	2	.3	223	8.2
July 7.....	20	--		--	--	8.9	--	146	7	--	8.8		--	.0	--	--		132	1	.3	278	8.6
Sept. 2.....	8.9	20		29	17	11	1.3	168	0	9.0	15		.6	.0	189	.26		142	4	.4	312	8.2

11-3758.2. SOUTH FORK COTTONWOOD CREEK NEAR COTTONWOOD, CALIF.

LOCATION (revised).--Lat 40°18'59", long 122°26'52", at gaging station 15 feet downstream from highway bridge, 0.7 mile upstream from Dry Fork, and 10.3 miles southwest of Cottonwood.
DRAINAGE AREA (revised).--217 square miles.
RECORDS AVAILABLE.--Chemical analyses: November 1958 to July 1966 (discontinued).
Sediment records: October 1962 to September 1964.
REMARKS.--No flow during August and September.

Chemical analyses, in parts per million, October 1965 to July 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....	3.2					15		162	4		22			0.1				157	18	0.5	366	8.5
Nov. 4.....	5.3					15		140	4		32			.1				154	33	.5	368	8.5
Dec. 13.....	54					19		149	2		28			.0				160	35	.7	391	8.4
Jan. 17, 1966....	245					12		146	0		12			.0				136	16	.4	279	8.2
Feb. 10.....	151					18		174	5		14			.1				171	20	.6	400	8.4
Mar. 2.....	115					19		166	5		12			.0				168	24	.6	390	8.5
Apr. 13.....	328					8.1		99	2		5.1			.0				90	6	.4	205	8.4
May 3.....	151	12		28	7.1	8.8	0.8	110	0	14	8.3		0.5	.0	138	0.19		99	9	.4	226	8.2
June 2.....	86					9.5		114	0		8.5			.0				98	5	.4	231	8.0
July 6.....	8.6					13		130	3		16			.0				120	8	.5	285	8.4

11-3758.2. SOUTH FORK COTTONWOOD CREEK NEAR COTTONWOOD, CALIF.--Continued

Periodic determinations of suspended-sediment discharge and particle-size analyses, October 1964 to September 1966

(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 9, 1964.....	1830	58		158	62	26	--	--	--	--	--	--	--	--	--	--		
Nov. 10.....	0800	58		1980	4020	2150	20	28	38	46	56	64	72	85	95	100		VPWC
Nov. 10.....	1645	55		436	506	596	--	--	--	--	--	92	93	94	96	99		S
Nov. 11.....	1730	49		263	180	128	--	--	--	--	--	--	--	--	--	--		
Nov. 12.....	0730	49		247	102	68	--	--	--	--	--	--	--	--	--	--		
Nov. 12.....	1215	52		212	58	33	--	--	--	--	--	90	91	94	99	100		S
Nov. 12.....	1800	51		240	86	56	--	--	--	--	--	--	--	--	--	--		
Nov. 13.....	0730	45		152	32	13	--	--	--	--	--	--	--	--	--	--		
Nov. 13.....	1700	47		122	18	5.9	--	--	--	--	--	--	--	--	--	--		
Nov. 15.....	0730	44		84	2	.5	--	--	--	--	--	--	--	--	--	--		
Nov. 16.....	1730	45		78	3	.6	--	--	--	--	--	--	--	--	--	--		
Nov. 22.....	0830	46		75	1	.2	--	--	--	--	--	--	--	--	--	--		
Nov. 27.....	1700	49		102	6	1.7	--	--	--	--	--	--	--	--	--	--		
Nov. 28.....	1800	50		98	2	.5	--	--	--	--	--	--	--	--	--	--		
Nov. 30.....	0900	49		184	22	11	--	--	--	--	--	--	--	--	--	--		
Dec. 1.....	0730	49		580	14	22	--	--	--	--	--	--	--	--	--	--		
Dec. 2.....	0830	49		445	100	120	--	--	--	--	--	77	79	83	95	100		S
Dec. 2.....	1630	50		508	87	119	--	--	--	--	--	--	--	--	--	--		
Dec. 3.....	1000	48		361	44	43	--	--	--	--	--	--	--	--	--	--		
Dec. 4.....	0900	43		218	17	10	--	--	--	--	--	--	--	--	--	--		
Dec. 5.....	0800	--		158	8	3.4	--	--	--	--	--	--	--	--	--	--		
Dec. 6.....	0900	42		129	6	2.1	--	--	--	--	--	--	--	--	--	--		
Dec. 7.....	0800	45		110	4	1.2	--	--	--	--	--	--	--	--	--	--		
Dec. 15.....	0930	48		D 105	6	1.7	--	--	--	--	--	--	--	--	--	--		
Dec. 16.....	1015	41		D 95	3	.8	--	--	--	--	--	--	--	--	--	--		
Dec. 19.....	1000	45		D 140	20	7.6	--	--	--	--	--	--	--	--	--	--		
Dec. 19.....	1700	51		D 140	7	2.6	--	--	--	--	--	--	--	--	--	--		
Dec. 20.....	2000	52		D 190	12	6.2	--	--	--	--	--	--	--	--	--	--		
Dec. 21.....	0900	52		D 3500	158	1490	--	--	--	--	--	--	--	--	--	--		
Dec. 21.....	1630	52		D 3500	7290	68900	20	26	40	52	64	73	88	96	99	100		VPWC
Dec. 22.....	0800	51		D 10500	6860	194000	--	--	--	--	--	--	--	--	--	--		
Dec. 22.....	1700	55		D 10500	13500	383000	26	38	48	64	77	85	95	99	100	--		VPWC
Dec. 23.....	0800	54		D 7000	16500	312000	21	31	46	60	75	82	97	100	--	--		VPWC
Dec. 28.....	0900	46		D 1500	2780	11300	--	--	--	--	--	--	--	--	--	--		
Dec. 29.....	0945	42		D 1200	1540	4990	30	41	53	66	76	82	90	96	100	--		VPWC
Dec. 29.....	1100	48		D 1200	1580	5120	--	--	--	--	--	81	89	96	100	--		V
Dec. 30.....	1300	48		D 1000	1220	3290	--	--	--	--	--	--	--	--	--	--		
Dec. 31.....	1300	48		D 900	920	2240	--	--	--	--	--	--	--	--	--	--		
Jan. 1, 1965.....	1500	44		D 800	523	1130	--	--	--	--	--	--	--	--	--	--		
Jan. 2.....	1100	48		D 750	818	1660	--	--	--	--	--	--	--	--	--	--		
Jan. 20.....	1455	48		D 900	1530	3720	19	28	40	52	62	72	83	96	100	--		VPWC
Feb. 27.....	1715	50		D 280	1320	998	25	40	56	75	88	91	95	98	100	--		VPWC

Mar. 10	1100	51	D	170	20	9.2	--	--	--	--	--	--	--	--	--	--	--	--
Mar. 10	1530	56	D	170	21	9.6	--	--	--	--	--	--	--	--	--	--	--	--
Mar. 11	1205	57	D	170	13	6.0	--	--	--	--	--	--	--	--	--	--	--	--
Mar. 12	1210	57	D	180	25	12	--	--	--	--	--	--	--	--	--	--	--	--
Mar. 14	1220	59	D	170	21	9.6	--	--	--	--	--	--	--	--	--	--	--	--
Mar. 20	1235	62	D	135	13	4.7	--	--	--	--	--	--	--	--	--	--	--	--
Apr. 2	1015	51	D	160	48	21	--	--	--	--	--	--	--	--	--	--	--	--
May 6	1045	52		--	61	46	--	--	--	--	--	--	--	--	--	--	--	--
May 6	1050	52		280	80	60	--	--	--	--	--	--	--	--	--	--	--	--
May 13	1900	66		218	46	27	--	--	--	--	--	--	--	--	--	--	--	--
May 14	1630	69		221	46	27	--	--	--	--	--	--	--	--	--	--	--	--
May 15	1600	68		218	71	42	--	--	--	--	--	--	--	--	--	--	--	--
May 16	1615	72		218	54	32	--	--	--	--	--	--	--	--	--	--	--	--
May 19	1755	67		206	48	27	--	--	--	--	--	--	--	--	--	--	--	--
May 21	1625	61		202	42	23	--	--	--	--	--	--	--	--	--	--	--	--
May 23	1350	70		174	30	14	--	--	--	--	--	--	--	--	--	--	--	--
May 24	1710	71		158	24	10	--	--	--	--	--	--	--	--	--	--	--	--
May 25	1900	72		148	20	8.0	--	--	--	--	--	--	--	--	--	--	--	--
May 26, 1965	1730	77		145	19	7.4	--	--	--	--	--	--	--	--	--	--	--	--
May 30	0845	67		142	26	10	--	--	--	--	--	--	--	--	--	--	--	--
May 31	0915	68		136	24	8.8	--	--	--	--	--	--	--	--	--	--	--	--
June 16	1050	69		104	24	6.7	--	--	--	--	--	--	--	--	--	--	--	--
June 19	1430	80		97	5	1.3	--	--	--	--	--	--	--	--	--	--	--	--
June 20	1445	85		92	7	1.7	--	--	--	--	--	--	--	--	--	--	--	--
June 21	1430	88		90	4	1.0	--	--	--	--	--	--	--	--	--	--	--	--
June 22	1730	80		88	4	1.0	--	--	--	--	--	--	--	--	--	--	--	--
June 24	0900	79		88	3	.7	--	--	--	--	--	--	--	--	--	--	--	--
June 27	1450	81		77	4	.8	--	--	--	--	--	--	--	--	--	--	--	--
July 3	0800	75		48	6	.8	--	--	--	--	--	--	--	--	--	--	--	--
July 5	--	--	D	41	3	.3	--	--	--	--	--	--	--	--	--	--	--	--
July 10	1730	82		28	3	.2	--	--	--	--	--	--	--	--	--	--	--	--
July 12	1910	85		25	2	.1	--	--	--	--	--	--	--	--	--	--	--	--
July 15	1800	87		22	4	.2	--	--	--	--	--	--	--	--	--	--	--	--
July 16	1110	76		19	2	.1	--	--	--	--	--	--	--	--	--	--	--	--
July 17	1635	--		17	2	.1	--	--	--	--	--	--	--	--	--	--	--	--
July 18	1905	55		16	1	T	--	--	--	--	--	--	--	--	--	--	--	--
July 19	1825	50		16	2	.1	--	--	--	--	--	--	--	--	--	--	--	--
July 20	2010	50		16	20	.9	--	--	--	--	--	--	--	--	--	--	--	--
July 24	1800	68		13	3	.1	--	--	--	--	--	--	--	--	--	--	--	--
July 26	1730	--		12	5	.2	--	--	--	--	--	--	--	--	--	--	--	--
July 30	1335	55		10	5	.1	--	--	--	--	--	--	--	--	--	--	--	--
Aug. 2	1800	--		10	3	.1	--	--	--	--	--	--	--	--	--	--	--	--
Aug. 4	1250	89		7.9	1	T	--	--	--	--	--	--	--	--	--	--	--	--
Aug. 12	1645	56		19	1	.1	--	--	--	--	--	--	--	--	--	--	--	--
Aug. 13	1825	50		20	1	.1	--	--	--	--	--	--	--	--	--	--	--	--
Aug. 14	1100	57		17	7	.3	--	--	--	--	--	--	--	--	--	--	--	--
Aug. 16	2030	--		7.9	1	T	--	--	--	--	--	--	--	--	--	--	--	--
Aug. 22	2130	50		7.9	1	T	--	--	--	--	--	--	--	--	--	--	--	--
Aug. 31	1205	58		4.4	18	.2	--	--	--	--	--	--	--	--	--	--	--	--
Sept. 1	1330	82		4.0	1	T	--	--	--	--	--	--	--	--	--	--	--	--
Sept. 3	1030	49		3.6	3	T	--	--	--	--	--	--	--	--	--	--	--	--
Sept. 5	1600	41		3.6	16	.2	--	--	--	--	--	--	--	--	--	--	--	--
Sept. 9	1830	49		3.3	1	T	--	--	--	--	--	--	--	--	--	--	--	--
Sept. 12	1905	43		3.0	1	T	--	--	--	--	--	--	--	--	--	--	--	--

T Less than 0.05 ton.
D Daily mean discharge.

11-3758.2. SOUTH FORK COTTONWOOD CREEK NEAR COTTONWOOD, CALIF.--Continued

Periodic determinations of suspended-sediment discharge and particle-size analyses, October 1964 to September 1966--Continued
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Sept. 13, 1965....	1715	54		2.2	2	T	--	--	--	--	--	--	--	--	--	--		
Sept. 15.....	1830	52		2.4	1	T	--	--	--	--	--	--	--	--	--	--		
Sept. 20.....	1330	66		2.2	3	T	--	--	--	--	--	--	--	--	--	--		
Sept. 22.....	1945	47		2.2	1	T	--	--	--	--	--	--	--	--	--	--		
Sept. 24.....	1635	53		1.8	1	T	--	--	--	--	--	--	--	--	--	--		
Oct. 1.....	1635	--		D 2.5	1	T	--	--	--	--	--	--	--	--	--	--		
Oct. 2.....	1045	59		D 2.4	1	T	--	--	--	--	--	--	--	--	--	--		
Oct. 4.....	1630	--		D 1.6	3	T	--	--	--	--	--	--	--	--	--	--		
Oct. 8.....	1455	75		D 2.5	2	T	--	--	--	--	--	--	--	--	--	--		
Oct. 10.....	1622	--		2.2	5	T	--	--	--	--	--	--	--	--	--	--		
Oct. 13.....	1655	--		2.4	1	T	--	--	--	--	--	--	--	--	--	--		
Oct. 14.....	1700	--		2.2	1	T	--	--	--	--	--	--	--	--	--	--		
Oct. 18.....	1730	--		4.4	1	T	--	--	--	--	--	--	--	--	--	--		
Oct. 23.....	1555	--		6.2	1	T	--	--	--	--	--	--	--	--	--	--		
Oct. 26.....	1632	--		4.4	1	T	--	--	--	--	--	--	--	--	--	--		
Oct. 31.....	1635	--		D 4.8	2	T	--	--	--	--	--	--	--	--	--	--		
Nov. 5.....	1715	--		12	1	T	--	--	--	--	--	--	--	--	--	--		
Nov. 9.....	1720	--		D 56	3	.5	--	--	--	--	--	--	--	--	--	--		
Nov. 13.....	1710	--		D 300	37	30	--	--	--	--	--	--	--	--	--	--		
Nov. 14.....	1100	--		D 700	1320	--	--	--	--	--	--	76	86	98	100	--		V
Nov. 15.....	1715	--		744	771	1550	--	--	--	--	--	66	84	99	100	--		V
Nov. 17.....	1315	56		230	33	20	--	--	--	--	--	69	78	94	100	--		S
Nov. 18.....	1100	--		458	219	271	--	--	--	--	--	87	96	100	--	--		V
Nov. 19.....	1030	--		300	76	62	--	--	--	--	--	--	--	--	--	--		
Nov. 19.....	1715	--		285	77	59	--	--	--	--	--	--	--	--	--	--		
Nov. 20.....	1025	--		195	45	24	--	--	--	--	--	--	--	--	--	--		
Nov. 21.....	1700	--		115	4	1.2	--	--	--	--	--	--	--	--	--	--		
Nov. 22.....	1125	--		95	2	.5	--	--	--	--	--	--	--	--	--	--		
Nov. 22.....	1600	--		92	6	1.5	--	--	--	--	--	--	--	--	--	--		
Nov. 24.....	0955	--		64	1	.2	--	--	--	--	--	--	--	--	--	--		
Nov. 25.....	1100	--		86	3	.7	--	--	--	--	--	--	--	--	--	--		
Nov. 25.....	1700	--		80	8	1.7	--	--	--	--	--	--	--	--	--	--		
Nov. 26.....	1110	--		76	3	.6	--	--	--	--	--	--	--	--	--	--		
Nov. 26.....	1710	--		73	3	.6	--	--	--	--	--	--	--	--	--	--		
Nov. 27.....	1000	--		63	8	1.4	--	--	--	--	--	--	--	--	--	--		

Nov. 29, 1965.....	1002	--	54	5	.7	--	--	--	--	--	--	--	--	--	--	
Nov. 29.....	1610	--	54	2	.3	--	--	--	--	--	--	--	--	--	--	
Nov. 30.....	1002	--	54	5	.7	--	--	--	--	--	--	--	--	--	--	
Nov. 30.....	1600	--	54	7	1.0	--	--	--	--	--	--	--	--	--	--	
Dec. 1.....	0918	--	48	12	1.6	--	--	--	--	--	--	--	--	--	--	
Dec. 1.....	1302	--	48	17	2.2	--	--	--	--	--	--	--	--	--	--	
Dec. 2.....	0905	--	48	14	1.8	--	--	--	--	--	--	--	--	--	--	
Dec. 3.....	1302	--	54	11	1.6	--	--	--	--	--	--	--	--	--	--	
Dec. 3.....	1430	--	54	2	.3	--	--	--	--	--	--	--	--	--	--	
Dec. 4.....	0910	--	60	15	2.4	--	--	--	--	--	--	--	--	--	--	
Dec. 5.....	0902	--	80	15	3.2	--	--	--	--	--	--	--	--	--	--	
Dec. 6.....	0902	--	103	16	4.4	--	--	--	--	--	--	--	--	--	--	
Dec. 16.....	1300	40	28	1	.1	--	--	--	--	--	--	--	--	--	--	
Dec. 22.....	1000	--	25	23	1.6	--	--	--	--	--	--	--	--	--	--	
Dec. 28.....	1700	--	500	3020	4080	--	--	--	--	--	--	--	--	--	--	
Dec. 29.....	1710	--	275	319	237	--	--	--	--	--	--	--	--	--	--	
Jan. 1, 1966.....	1630	--	80	48	10	--	--	--	--	--	--	--	--	--	--	
Jan. 4.....	1550	42	2240	5560	33600	--	--	--	--	--	--	--	--	--	--	
Jan. 4.....	1550	42	2240	6260	37900	--	16	--	32	--	47	60	80	92	100	VPWC
Jan. 4.....	1630	42	2240	6090	36800	--	--	--	--	--	--	--	--	--	--	
Jan. 12.....	1730	--	285	18	14	--	--	--	--	--	--	--	--	--	--	
Jan. 27.....	1715	--	106	20	5.7	--	--	--	--	--	--	--	--	--	--	
Jan. 30.....	1700	38	146	20	7.9	--	--	--	--	--	--	--	--	--	--	
Feb. 2.....	1320	45	142	14	5.4	--	--	--	--	--	--	--	--	--	--	
Feb. 2.....	1745	45	138	20	7.5	--	--	--	--	--	--	--	--	--	--	
Feb. 3.....	0930	40	120	10	3.2	--	--	--	--	--	--	--	--	--	--	
Feb. 3.....	1300	43	128	8	2.8	--	--	--	--	--	--	--	--	--	--	
Feb. 5.....	1000	44	394	66	70	--	--	--	--	--	--	--	--	--	--	
Feb. 5.....	1700	45	346	59	55	--	--	--	--	--	--	--	--	--	--	
Feb. 6.....	0915	41	290	35	27	--	--	--	--	--	--	--	--	--	--	
Feb. 6.....	1700	45	270	27	20	--	--	--	--	--	--	--	--	--	--	
Feb. 7.....	1000	46	235	26	16	--	--	--	--	--	--	--	--	--	--	
Feb. 7.....	1405	49	225	25	15	--	--	--	--	--	100	--	--	--	--	V
Feb. 7.....	1405	49	225	28	17	--	--	--	--	--	--	--	--	--	--	
Feb. 7.....	1630	46	220	28	17	--	--	--	--	--	--	--	--	--	--	
Feb. 8.....	1000	44	200	22	12	--	--	--	--	--	--	--	--	--	--	
Feb. 9.....	1505	47	165	10	4.5	--	--	--	--	--	--	--	--	--	--	
Feb. 10, 1966.....	1710	49	142	12	4.6	--	--	--	--	--	--	--	--	--	--	
Feb. 11.....	1100	43	128	7	2.4	--	--	--	--	--	--	--	--	--	--	
Feb. 12.....	0905	41	120	12	3.9	--	--	--	--	--	--	--	--	--	--	
Feb. 12.....	1800	47	115	11	3.4	--	--	--	--	--	--	--	--	--	--	
Feb. 18.....	1800	42	98	20	5.3	--	--	--	--	--	--	--	--	--	--	
Feb. 19.....	0900	40	133	21	7.5	--	--	--	--	--	--	--	--	--	--	
Feb. 19.....	1605	45	210	70	40	--	--	--	--	--	--	--	--	--	--	
Feb. 19.....	1800	45	200	59	32	--	--	--	--	--	--	--	--	--	--	
Feb. 20.....	0825	44	146	14	5.5	--	--	--	--	--	--	--	--	--	--	
Feb. 20.....	1045	47	142	12	4.6	--	--	--	--	--	--	--	--	--	--	
Feb. 20.....	1730	52	133	11	4.0	--	--	--	--	--	--	--	--	--	--	
Feb. 23.....	1400	45	138	14	5.2	--	--	--	--	--	--	--	--	--	--	
Feb. 24.....	1505	46	138	8	3.0	--	--	--	--	--	--	--	--	--	--	
Feb. 26.....	1030	45	190	32	16	--	--	--	--	--	--	--	--	--	--	
Mar. 9.....	1040	50	240	70	45	--	--	--	--	--	--	--	--	--	--	
Mar. 13.....	1735	46	388	188	197	--	--	--	--	--	--	--	--	--	--	
Mar. 14.....	1720	46	418	166	187	--	--	--	--	--	--	--	--	--	--	
Mar. 15.....	1740	46	400	174	188	--	--	--	--	--	--	--	--	--	--	
Mar. 17.....	1800	47	285	170	131	--	--	--	--	--	--	--	--	--	--	

T Less than 0.05 ton.
D Daily mean discharge.

11-3758.2. SOUTH FORK COTTONWOOD CREEK NEAR COTTONWOOD, CALIF.--Continued

Periodic determinations of suspended-sediment discharge and particle-size analyses, October 1964 to September 1966--Continued
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Mar. 18	1805	48		255	164	113	--	--	--	--	--	--	--	--	--	--		
Mar. 19	1730	47		240	164	106	--	--	--	--	--	--	--	--	--	--		
Mar. 20	1735	47		210	174	99	--	--	--	--	--	--	--	--	--	--		
Mar. 21	1800	48		190	172	88	--	--	--	--	--	--	--	--	--	--		
Mar. 22	1700	50		175	158	75	--	--	--	--	--	--	--	--	--	--		
Mar. 23	1730	51		170	168	77	--	--	--	--	--	--	--	--	--	--		
Mar. 24	1805	51		175	172	81	--	--	--	--	--	--	--	--	--	--		
Mar. 25	1745	51		200	156	84	--	--	--	--	--	--	--	--	--	--		
Mar. 26	1800	52		250	172	116	--	--	--	--	--	--	--	--	--	--		
Mar. 27	1720	52		310	159	133	--	--	--	--	--	--	--	--	--	--		
Mar. 28	1740	53		388	173	181	--	--	--	--	--	--	--	--	--	--		
Mar. 29	1730	53		444	172	206	--	--	--	--	--	--	--	--	--	--		
Mar. 31	1805	53		507	162	222	--	--	--	--	--	--	--	--	--	--		
Apr. 1	1730	51		549	10	15	--	--	--	--	--	--	--	--	--	--		
Apr. 2	1105	50		542	45	66	--	--	--	--	--	--	--	--	--	--		
Apr. 3	1530	51		472	44	56	--	--	--	--	--	--	--	--	--	--		
Apr. 5	1430	52		418	118	133	--	--	--	--	--	--	--	--	--	--		
Apr. 6	1512	64		424	153	175	--	--	--	--	--	--	--	--	--	--		
Apr. 9, 1966	1125	54		394	101	107	--	--	--	--	--	--	--	--	--	--		
Apr. 10	0930	52		430	144	167	--	--	--	--	--	--	--	--	--	--		
Apr. 11	1030	54		437	126	149	--	--	--	--	--	--	--	--	--	--		
Apr. 12	1730	54		364	147	144	--	--	--	--	--	--	--	--	--	--		
Apr. 14	1740	54		280	123	93	--	--	--	--	--	--	--	--	--	--		
Apr. 15	1715	54		265	117	84	--	--	--	--	--	--	--	--	--	--		
Apr. 16	1730	64		290	25	20	--	--	--	--	--	--	--	--	--	--		
Apr. 20	1810	68		255	6	4.1	--	--	--	--	--	--	--	--	--	--		
Apr. 22	1730	70		220	29	17	--	--	--	--	--	--	--	--	--	--		
Apr. 28	1745	70		180	14	6.8	--	--	--	--	--	--	--	--	--	--		
Apr. 30	1730	70		146	62	24	--	--	--	--	--	--	--	--	--	--		
May 5	1040	63		215	31	18	--	--	--	--	--	--	--	--	--	--		

11-3760. COTTONWOOD CREEK NEAR COTTONWOOD, CALIF.

LOCATION.--Lat 40°23'10", long 122°14'15", at gaging station 2 miles east of Cottonwood, Shasta County, and 2.4 miles upstream from mouth.
DRAINAGE AREA.--922 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
Water temperatures: October 1962 to September 1966.
Sediment records: October 1962 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 82°F June 15; minimum, 38°F Dec. 17, 19, 20, Jan. 1.
Sediment concentrations: Maximum daily, 3,080 ppm Jan. 5; minimum daily, 2 ppm Oct. 11-13.
Sediment loads: Maximum daily, 81,000 tons Jan. 5; minimum daily, 0.4 ton Oct. 11-13.
EXTREMES, 1962-66.--Water temperatures (1962-63, 1964-66): Maximum (1964-66), 84°F on several days during July 1965; minimum, freezing point on several days during 1963-64.
Sediment concentrations: Maximum daily, 4,520 ppm Dec. 22, 1964; minimum daily, 1 ppm on many days during 1963-65.
Sediment loads: Maximum daily, 597,000 tons Dec. 22, 1964; minimum daily, 0.1 ton Sept. 30, Oct. 1, 6, 1964.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (Residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....	89	--		--	--	7.3	--	103	2	--	4.3		--	0.0	--	--		86	0	0.3	197	8.4
Nov. 4.....	87	--		--	--	8.3	--	118	2	--	7.2		--	.0	--	--		97	0	.4	221	8.3
Dec. 13.....	298	--		--	--	10	--	117	2	--	12		--	.0	--	--		112	13	.4	258	8.3
Jan. 17, 1966....	1080	--		--	--	7.7	--	124	0	--	5.6		--	.0	--	--		110	8	.3	217	8.0
Feb. 10.....	1070	--		--	--	9.1	--	125	0	--	5.9		--	.0	--	--		107	5	.4	254	8.2
Mar. 2.....	968	--		--	--	9.9	--	126	0	--	4.8		--	.0	--	--		113	10	.4	254	8.2
Apr. 13.....	1040	--		--	--	6.0	--	97	0	--	2.3		--	.0	--	--		83	3	.3	186	8.2
May 2.....	426	16		25	9.4	7.1	0.8	122	0	11	5.2		0.7	.0	A 135	0.18		101	1	.3	220	8.2
June 2.....	260	--		--	--	7.4	--	110	2	--	5.2		--	.0	--	--		92	0	.3	207	8.3
July 6.....	85	--		--	--	8.7	--	128	0	--	5.8		--	.0	--	--		103	0	.4	232	8.0
Aug. 12.....	54	--		--	--	7.9	--	111	0	--	3.2		.9	.1	--	--		88	0	.4	200	8.2
Sept. 1.....	54	22		18	9.8	7.8	1.4	110	0	7.0	3.2		.7	.0	125	.17		86	0	.4	194	8.1

A Calculated from sum of determined constituents.

SACRAMENTO RIVER BASIN--Continued

11-3760. COTTONWOOD CREEK NEAR COTTONWOOD, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	71	69	69	66	67	69	70	70	70	70	69	69	69	68	64	62	64	62	64	64	64	65	65	65	65	65	65	66	64	64	63	66
Minimum	64	62	62	62	62	62	64	64	64	64	64	63	63	62	59	57	59	58	59	58	58	59	59	59	59	59	59	60	59	58	58	61
November																																
Maximum	62	63	63	63	62	61	60	61	59	58	58	58	57	54	55	55	56	55	54	54	54	52	52	53	51	49	49	48	47	50	--	56
Minimum	58	58	60	59	58	58	58	58	56	55	56	57	54	53	53	53	55	54	54	53	51	52	52	51	49	48	47	45	46	47	--	54
December																																
Maximum	49	49	49	49	51	--	49	49	49	48	47	48	47	45	43	43	42	42	42	42	42	42	42	42	44	42	43	44	42	42	44	45
Minimum	47	46	48	48	48	--	48	49	47	46	47	47	45	42	41	40	39	40	39	39	40	40	40	42	41	41	42	42	41	42	42	43
January																																
Maximum	43	43	43	43	45	46	47	49	50	50	50	50	50	49	49	49	50	49	49	49	49	49	49	49	50	49	49	49	48	47	47	48
Minimum	39	41	42	41	42	43	45	47	48	49	48	48	48	47	47	47	47	47	47	47	47	48	48	47	48	47	46	46	47	46	46	46
February																																
Maximum	47	47	48	47	49	50	50	48	48	48	48	48	48	48	47	48	48	48	49	50	49	49	51	51	49	48	49	49	--	--	--	49
Minimum	45	45	46	46	48	48	47	46	46	46	45	46	46	45	45	45	45	47	48	47	47	48	47	48	47	45	46	47	--	--	--	46
March																																
Maximum	48	48	48	48	46	48	48	48	48	49	49	50	52	52	51	49	49	49	51	52	53	53	54	55	56	57	58	59	59	59	59	52
Minimum	46	46	45	46	45	46	47	48	48	47	46	47	49	49	48	47	46	47	49	49	50	50	49	51	53	54	55	55	55	55	56	49
April																																
Maximum	61	61	60	61	61	61	61	62	60	59	57	56	57	58	59	60	61	62	61	59	59	60	60	62	63	63	63	62	62	63	--	60
Minimum	57	58	57	57	58	58	59	59	59	56	54	53	53	54	55	56	59	59	56	56	56	57	57	59	59	60	58	58	59	59	--	57
May																																
Maximum	63	63	64	64	65	64	65	65	65	65	65	66	65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	59	59	60	62	62	62	61	61	64	62	62	62	62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
June																																
Maximum	--	--	--	--	--	--	--	--	--	--	75	76	78	80	82	80	80	79	81	76	76	78	77	76	80	80	81	80	78	78	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	66	66	68	70	70	70	70	69	68	66	66	66	66	65	64	66	66	66	65	65	--	--
July																																
Maximum	76	76	79	80	77	74	74	72	72	77	77	74	74	75	76	76	75	77	78	75	76	76	77	77	78	76	76	78	78	74	77	76
Minimum	65	62	63	64	64	65	65	64	66	66	66	65	66	67	67	67	67	67	68	68	69	68	70	70	69	69	69	69	70	70	68	67
August																																
Maximum	78	78	80	80	78	78	77	74	76	76	76	74	77	78	78	75	74	76	74	75	75	74	74	74	72	70	71	72	70	69	70	75
Minimum	70	71	72	72	71	72	71	70	70	71	70	69	71	70	70	70	70	70	69	69	69	69	69	68	68	66	67	68	67	66	66	69
September																																
Maximum	70	70	70	70	71	70	70	70	70	70	--	--	70	69	70	72	70	71	72	72	72	70	69	69	67	68	68	69	69	69	--	70
Minimum	66	66	66	66	68	66	67	66	65	66	--	--	67	66	65	66	66	67	66	66	66	66	64	65	64	65	63	64	65	65	--	66

11-3760. COTTONWOOD CREEK NEAR COTTONWOOD, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	93	--	2.4	123	--	1.6	390	7 B	7.4
2	110	--	2.8	102	--	1.3	370	7 B	7.0
3	95	--	2.4	90	--	1.2	346	7 B	6.5
4	92	--	2.2	87	--	1.1	342	7 B	6.5
5	110	--	2.6	89	--	1.1	342	6 B	5.5
6	95	--	2.3	90	--	1.2	350	6 B	5.7
7	89	--	2.0	112	--	2.0	358	6	5.8
8	89	--	1.9	160	--	6.0	346	7	6.5
9	82	--	1.4	199	--	10	330	7	6.2
10	79	5 B	1.1	147	--	5.0	318	8	6.9
11	82	2	.4	126	--	4.5	306	8	6.6
12	82	2	.4	141	--	9.0	310	8	6.7
13	76	2 B	.4	449	297 K	460	298	7	5.6
14	92	5 B	1.2	1620	925 K	4100	280	7	5.3
15	102	5	1.4	4520	1040 K	16000	269	7	5.1
16	112	5	1.5	1220	84 K	320	258	7	4.9
17	118	4	1.3	1420	221 K	1700	248	7	4.7
18	135	4	1.5	2350	325 K	2200	241	7	4.6
19	123	4	1.3	1380	100 B	373	234	7	4.4
20	129	3	1.0	934	50 B	126	227	6	3.7
21	138	3	1.1	712	25 B	48	216	6	3.5
22	120	4	1.3	600	12 B	19	224	6	3.6
23	108	4	1.2	540	9 B	13	213	6	3.5
24	112	4	1.2	535	9 B	13	230	17 B	11
25	108	--	1.2	584	8 B	13	255	21 B	14
26	108	--	1.2	550	8 B	12	262	20	14
27	102	--	1.1	540	8 B	12	248	20	13
28	98	--	1.0	459	8 B	9.9	597	69 K	230
29	115	--	1.4	430	8 B	9.3	1300	46 K	210
30	112	--	1.3	410	7 B	7.7	746	24 K	49
31	115	--	1.4	--	--	--	630	35	60
Total	3221	--	44.9	20719	--	25479.9	11084	--	727.2

	JANUARY			FEBRUARY			MARCH		
1	540	15	22	1720	835 K	5200	1020	29	80
2	482	8	10	1350	120	437	968	26	68
3	468	8	10	1480	351 K	2800	886	23	55
4	6350	1670 K	48000	5970	2660 K	45000	848	22 B	50
5	9200	3080 K	81000	3360	684 K	6700	1160	43 K	140
6	4890	1470 K	20000	2640	249 K	1800	1170	47	148
7	3470	469 K	4500	1800	115	559	1110	41	123
8	2750	190 B	1410	1440	58	226	1080	32	93
9	2330	110 B	692	1210	40	131	1320	104 K	400
10	1840	50 B	248	1070	35	101	2260	522 K	3200
11	1500	28 B	113	950	34	87	2210	301 S	1810
12	1260	26 B	88	878	29	69	1950	155	816
13	1120	23 B	70	818	22	49	1930	140	730
14	1060	21 B	60	774	20	42	1980	140	748
15	1080	18 B	52	732	17	34	1930	118	615
16	1110	17 B	51	692	14	26	1810	61	298
17	1080	16	47	660	16	29	1580	65	277
18	1010	16	44	648	17	30	1420	70	268
19	942	19	48	918	33 S	91	1310	62	219
20	878	17	40	950	40 S	104	1210	45	147
21	810	16	35	802	23	50	1140	33	102
22	781	16	34	760	19	39	1080	36	105
23	746	16	32	818	25	55	1020	36	99
24	706	17	32	878	24	57	986	39	104
25	673	19	35	930	37 K	110	986	43	114
26	648	13	23	2000	197 K	1100	1030	52	145
27	630	16	27	1240	90 B	301	1140	102 S	315
28	600	22	36	1090	40	118	1300	121	425
29	636	25 B	43	--	--	--	1410	162	617
30	1170	127 K	410	--	--	--	1510	203	828
31	918	100 B	248	--	--	--	1570	208	882
Total	51678	--	157460	38578	--	65345	42324	--	14021

S Computed by subdividing day.
B Computed from estimated-concentration graph.
K Computed from estimated-concentration graph and subdividing day.

11-3760. COTTONWOOD CREEK NEAR COTTONWOOD, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	1630	223	981	450	9	B 11	276	14	10
2	1620	155	678	426	9	B 10	260	13	9.1
3	1480	122	488	418	9	B 10	245	12	7.9
4	1350	93	339	450	15	18	235	12	7.6
5	1270	80	274	466	12	15	225	13	7.9
6	1270	76	261	482	12	16	230	12	7.5
7	1230	76	252	466	16	20	230	11	6.8
8	1190	75	241	450	15	18	225	10	6.1
9	1160	70	219	434	14	16	220	10	5.9
10	1190	72	231	442	14	17	204	12	6.6
11	1170	65	205	458	20	25	192	12	6.2
12	1140	43	132	434	19	22	184	13	6.5
13	1040	42	118	410	15	17	177	13	6.2
14	938	37	94	378	15	15	167	13	5.9
15	874	38	90	354	16	15	154	14	5.8
16	874	42	99	370	13	13	161	14	6.1
17	914	40	99	338	10	9.1	161	14	6.1
18	898	22	53	324	9	7.9	146	13	5.1
19	826	20	45	318	9	7.7	130	12	4.2
20	738	18	36	306	9	7.4	130	11	3.9
21	674	16	29	300	9	7.3	140	21 B	7.9
22	634	14	24	306	9	7.4	130	25	8.8
23	602	12	20	300	9	7.3	130	23	8.1
24	570	11	17	288	9	7.0	133	20	7.2
25	562	11	17	276	9	6.7	128	16	5.5
26	554	10	15	260	9	6.3	123	13	4.3
27	538	10	15	260	9	6.3	117	12	3.8
28	506	10	14	265	10	7.2	110	11	3.3
29	474	10	13	260	13	9.1	102	11	3.0
30	458	10 B	12	260	12	8.4	94	11	2.8
31	--	--	--	270	12	8.7	--	--	--
Total	28374	--	5111	11219	--	371.8	5159	--	186.1

Day	JULY			AUGUST			SEPTEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	92	10	2.5	68	9	1.7	54	11	1.6
2	91	10	2.5	70	8	1.5	54	12	1.7
3	96	9	2.3	68	10	B 1.8	54	13	1.9
4	102	9	2.5	68	22	B 4.0	62	13	2.2
5	94	9	2.3	56	17	2.6	72	12	2.3
6	85	9	2.1	49	12	1.6	68	11	2.0
7	81	9	2.0	49	12	1.6	66	10	1.8
8	83	9	2.0	42	14	B 1.6	70	11	2.1
9	85	9	2.1	47	22	B 2.8	72	12	2.3
10	100	9	2.4	56	18	B 2.7	68	14	2.6
11	92	9	2.2	51	12	B 1.7	62	13	2.2
12	89	9	2.2	54	10	B 1.5	53	12	1.7
13	83	9 B	2.0	60	9	1.5	53	12	1.7
14	83	12 B	2.7	68	8	1.5	56	13	2.0
15	89	15 B	3.6	75	8	1.6	58	12	1.9
16	79	15 B	3.2	75	7	1.4	87	11	2.6
17	74	14 B	2.8	60	6	1.0	83	11	2.5
18	75	14 B	2.8	54	4	.6	96	12	3.1
19	75	14 B	2.8	56	4	.6	108	12	3.5
20	72	14 B	2.7	53	5	.7	98	12	3.2
21	72	13 B	2.5	56	5	.8	100	11	3.0
22	68	13 B	2.4	60	5	.8	89	11	2.6
23	54	13	1.9	58	4	.6	87	11	2.6
24	54	10	1.5	70	4	.8	75	12	2.4
25	56	7	1.1	56	4	.6	68	13	2.4
26	53	6	.9	56	4	.6	64	14	2.4
27	56	6 B	.9	66	5	.9	54	14	2.0
28	70	12 B	2.3	72	6	1.2	64	14	2.4
29	66	12	2.1	62	7	1.2	68	13	2.4
30	56	12	1.8	60	9	1.5	64	13	2.2
31	58	10	1.6	56	10	1.5	--	--	--
Total	2383	--	68.7	1851	--	44.5	2127	--	69.3

Total discharge for year (cfs-days)..... 218717
Total load for year (tons)..... 268929.4

B Computed from estimated-concentration graph.

11-3760. COTTONWOOD CREEK NEAR COTTONWOOD, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 16, 1965.....	0900	55		1240	91		--	--	--	--	--	88	94	100	--	--		V
Nov. 18.....	1217	54		2430	310		--	--	--	--	--	80	88	98	100	--		V
Jan. 5, 1966.....	1000	42		9400	3190		12	19	25	31	39	45	63	87	99	100		VPWC
Feb. 2.....	1705	45		1230	45		--	--	--	--	--	71	77	97	100	--		V
Feb. 4.....	1600	46		5080	2400		14	17	24	29	35	42	52	68	78	92	100	VPWC
Mar. 9.....	1205	48		1300	72		--	--	--	--	--	78	88	98	100	--		V

11-3765.5. BATTLE CREEK BELOW COLEMAN FISH HATCHERY, NEAR COTTONWOOD, CALIF.

LOCATION.--Lat 40°23'55", long 122°08'45", at gaging station on right bank 3.7 miles downstream from Spring Branch, 5.7 miles upstream from mouth, and 7.0 miles east of Cottonwood, Shasta County.
DRAINAGE AREA.--358 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1961 to September 1966 (discontinued).
Water temperatures: December 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 69°F Aug. 2-5; minimum, 41°F Dec. 17.
REMARKS.--Clock stopped Aug. 20 to Sept. 12; temperature range, 57°F to 66°F.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....	272	--		--	--	8.2	--	83	1	--	1.3		--	0.0	--	--		58	0	0.5	142	8.3
Nov. 4.....	272	--		--	--	8.1	--	84	0	--	1.3		--	.0	--	--		55	0	.5	143	8.2
Dec. 13.....	308	--		--	--	7.6	--	78	0	--	2.1		--	.0	--	--		52	0	.5	138	7.8
Jan. 5, 1966.....	939	--		--	--	5.0	--	46	0	--	1.6		--	.0	--	--		34	0	.4	85	7.7
Feb. 4.....	844	--		--	--	4.9	--	50	0	--	1.4		--	.1	--	--		36	0	.4	93	8.1
Mar. 8.....	377	--		--	--	7.1	--	77	0	--	.9		--	.0	--	--		52	0	.4	131	8.1
Apr. 12.....	583	--		--	--	5.4	--	57	0	--	.6		--	.0	--	--		38	0	.4	100	8.0
May 2.....	436	35		8.8	5.4	6.1	1.6	66	0	3.0	1.3		0.5	.0	101	0.14		44	0	.4	110	7.9
June 2.....	331	--		--	--	7.0	--	73	0	--	1.2		--	.0	--	--		48	0	.4	125	8.2
July 6.....	266	--		--	--	7.9	--	84	0	--	1.4		--	.0	--	--		55	0	.5	142	8.2
Sept. 1.....	190	46		10	8.0	9.2	2.3	91	0	3.0	1.8		.1	.0	A 125	.17		58	0	.5	152	8.2

A Calculated from sum of determined constituents.

11-3765.5. BATTLE CREEK BELOW COLEMAN FISH HATCHERY, NEAR COTTONWOOD, CALIF.--Continued

Temperature (°F) of water, December 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
December																																
Maximum	--	--	--	--	--	--	--	--	--	48	48	48	47	46	44	43	43	43	44	44	43	44	44	45	44	45	45	46	46	46	46	--
Minimum	--	--	--	--	--	--	--	--	--	46	47	47	46	44	42	42	41	42	42	42	42	43	42	43	43	44	45	44	43	45	46	--
January																																
Maximum	46	45	46	47	49	51	51	50	50	47	47	45	45	46	46	46	45	45	44	43	44	44	45	45	45	45	45	45	44	44	45	46
Minimum	44	44	44	46	46	48	49	50	46	46	46	44	45	44	46	44	43	43	43	42	42	43	44	44	44	43	43	43	44	43	44	45
February																																
Maximum	45	45	46	48	48	48	47	45	46	46	46	46	46	46	46	46	47	48	49	49	50	50	51	51	47	48	50	50	--	--	--	48
Minimum	44	43	45	45	47	42	43	43	44	45	44	45	43	43	44	44	44	46	47	47	48	49	50	47	46	45	46	48	--	--	--	45
March																																
Maximum	49	48	47	47	50	52	52	52	52	53	53	53	54	54	53	49	49	50	52	51	53	52	53	54	55	56	56	56	57	57	57	52
Minimum	48	46	44	46	47	50	51	51	51	52	49	50	52	52	49	47	45	48	49	48	49	49	49	51	52	52	53	54	53	53	53	50
April																																
Maximum	58	57	56	57	58	58	58	58	57	54	53	54	56	58	59	60	60	59	54	54	57	58	59	60	61	60	57	58	58	59	--	58
Minimum	54	54	52	53	54	54	55	54	54	52	51	51	50	52	54	56	56	54	50	50	52	53	55	56	57	56	52	54	54	54	--	53
May																																
Maximum	60	60	60	62	61	60	61	62	61	61	62	61	62	61	60	62	62	64	64	65	64	62	63	65	65	64	64	63	62	61	--	62
Minimum	55	56	57	58	59	56	57	58	59	57	58	57	58	58	56	57	57	58	60	60	61	60	58	60	61	61	61	60	60	59	--	58
June																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
July																																
Maximum	--	--	--	--	64	64	64	63	63	63	63	63	--	63	63	63	64	65	65	66	66	66	66	66	65	65	64	64	65	65	64	64
Minimum	--	--	--	--	--	62	61	60	60	60	60	60	60	--	60	60	60	61	62	62	62	63	63	63	62	62	61	61	62	61	59	61
August																																
Maximum	69	69	69	69	69	68	68	68	68	68	68	68	67	67	67	66	67	68	67	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	62	66	66	66	65	65	65	65	64	64	65	64	65	64	64	64	64	65	64	--	--	--	--	--	--	--	--	--	--	--	--	--
September																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	60	59	60	61	61	61	62	62	62	62	61	60	60	60	60	61	61	60	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	56	56	58	58	59	58	60	59	59	58	58	58	58	57	57	58	58	--	--

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966

(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Oct. 9, 1965.....	1125	58		273	3	2.2						--	--	--	--			
Nov. 18.....	1023	51		827	73	163						83	88	94	100			V
Nov. 18.....	1034	51		827	102	228						--	--	--	--			
Dec. 16.....	0910	41		282	7	5.3						--	--	--	--			
Jan. 5, 1966.....	1525	46		906	21	51						57	67	81	100			V
Mar. 1.....	1050	48		380	20	21						--	--	--	--			
Mar. 10.....	1420	52		425	12	14						--	--	--	--			
Mar. 31.....	1220	53		535	39	56						--	--	--	--			
Apr. 11.....	1435	49		620	21	35						--	--	--	--			
May 2.....	1310	57		450	10	12						--	--	--	--			

11-3772. SACRAMENTO RIVER AT BEND, CALIF.

LOCATION.--Lat 40°16'10", long 122°13'40", at highway bridge at Bend, Tehama County, approximately 7.9 miles upstream from gaging station near Red Bluff, 0.3 mile upstream from Spring Creek, and approximately 9 miles north of Red Bluff.
DRAINAGE AREA.--9,022 square miles, excluding Goose Lake basin, upstream from gaging station.
RECORDS AVAILABLE.--Chemical analyses: May 1955 to September 1966.
Water temperatures: May 1955 to June 1963.
REMARKS.--Records of discharge given for Sacramento River near Red Bluff. No appreciable inflow between sampling point and gaging station.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 4, 1965.....	8320	--		--	--	5.7	--	61	0	--	1.4		--	0.0	--	--		45	0	0.4	114	8.0
Nov. 1.....	8540	--		--	--	6.1	--	66	0	--	2.0		2.0	.0	--	--		48	0	.4	118	8.1
Nov. 29.....	10500	--		--	--	5.6	--	61	0	5.0	2.4		--	.0	--	--		47	0	.4	117	7.9
Jan. 3, 1966.....	13700	--		--	--	7.4	--	67	0	--	2.6		.7	.0	--	--		49	0	.5	133	8.1
Feb. 7.....	15600	--		--	--	5.4	--	53	0	--	2.3		.9	.0	--	--		44	1	.3	113	7.9
Mar. 8.....	8400	--		--	--	7.3	--	64	0	--	2.0		.6	.0	--	--		55	3	.4	141	7.8
Apr. 5.....	7890	--		--	--	6.6	--	67	0	--	3.0		.5	.1	--	--		50	0	.4	130	8.2
May 3.....	9720	19		11	5.0	6.5	1.0	65	0	6.0	1.7		.5	.0	83	0.11		48	0	.4	121	7.7
June 7.....	10700	--		--	--	6.2	--	64	0	--	2.3		--	.0	--	--		48	0	.4	123	7.9
July 11.....	13200	--		--	--	6.2	--	62	0	--	2.0		.8	.0	--	--		48	0	.4	117	8.2
Aug. 9.....	13000	--		--	--	5.7	--	61	0	--	1.7		--	.0	--	--		46	0	.4	115	7.6
Sept. 13.....	7970	19		9.8	5.3	5.8	1.0	62	0	5.0	2.0		.6	.0	80	.11		46	0	.4	116	7.7

11-3775. PAYNES CREEK NEAR RED BLUFF, CALIF.

LOCATION.--Lat 40°15'50", long 122°11'10", at gaging station, 0.4 mile upstream from mouth, and 6.5 miles northeast of Red Bluff, Tehama County.
DRAINAGE AREA.--92.7 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to June 1966 (discontinued).
REMARKS.--No flow July to September.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	0.8	--		--	--	18	--	113	2	--	15		--	0.4	--	--		77	0	0.9	228	8.4
Nov. 3.....	1.8	--		--	--	19	--	115	0	--	14		--	.4	--	--		76	0	1.0	233	8.2
Dec. 15.....	11	--		--	--	17	--	114	0	--	14		--	.3	--	--		77	0	.8	229	8.0
Jan. 17, 1966....	31	--		--	--	13	--	94	0	--	8.6		--	.2	--	--		63	0	.7	164	7.8
Feb. 9.....	111	--		--	--	7.8	--	68	0	--	3.2		--	.2	--	--		46	0	.5	128	8.0
Mar. 2.....	76	--		--	--	8.7	--	71	0	--	3.8		--	.1	--	--		48	0	.5	131	8.0
Apr. 12.....	18	--		--	--	13	--	97	0	--	7.8		--	.2	--	--		66	0	.7	189	8.2
May 2.....	2.6	42		14	8.0	15	1.5	106	0	2.0	10		1.4	.4	148	0.20		68	0	.8	201	8.0
June 2.....	.4	--		--	--	16	--	110	0	--	14		--	.3	--	--		86	0	.8	221	7.9

11-3780. SACRAMENTO RIVER NEAR RED BLUFF, CALIF.

LOCATION.--Lat 40°13'55", long 122°10'50", temperature recorder at gaging station on left bank at lower end of Iron Canyon, 0.5 mile downstream from Sevenmile Creek, and 4.6 miles northeast of Red Bluff, Tehama County.
DRAINAGE AREA.--9,022 square miles.
RECORDS AVAILABLE.--Water temperatures: November 1960 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 58°F on several days during May; minimum, 45°F on several days during January and February.
EXTREMES, 1960-66.--Water temperatures: Maximum (1961-63, 1964-66), 60°F Oct. 3-7, 1961; minimum, 39°F Jan. 22, 23, 1962.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	53	54	54	54	54	54	54	54	54	54	55	55	55	55	55	54	53	52	52	52	52	52	52	52	52	52	52	53	53	53	53	53
Minimum	53	53	54	54	54	54	54	54	54	54	54	55	55	55	54	53	52	52	52	52	52	52	52	52	52	52	52	52	53	53	53	53
November																																
Maximum	53	53	52	53	53	52	52	52	52	52	52	52	52	52	53	53	55	54	53	53	53	52	52	52	51	51	51	51	51	50	--	52
Minimum	53	52	52	52	52	52	52	52	52	52	52	52	52	52	52	53	53	53	53	53	52	52	52	51	51	50	50	51	50	50	--	52
December																																
Maximum	50	51	51	51	51	51	51	51	51	51	51	51	51	51	51	50	50	50	50	50	50	50	50	50	49	49	49	49	49	48	48	50
Minimum	50	50	51	51	51	51	51	51	51	51	51	51	51	51	50	50	50	50	50	50	50	50	50	49	49	49	49	49	48	48	47	50
January																																
Maximum	47	47	47	47	46	47	48	48	48	48	48	48	48	48	48	48	47	47	47	47	46	46	46	46	46	46	46	46	46	46	46	47
Minimum	47	47	47	46	46	46	47	48	48	48	48	48	48	48	48	47	47	47	47	46	46	46	46	46	46	46	46	46	46	46	45	47
February																																
Maximum	45	45	45	46	47	47	47	47	46	46	46	46	46	46	47	47	47	47	47	47	47	47	47	47	45	45	46	46	--	--	--	46
Minimum	45	45	45	45	46	47	47	46	46	46	46	46	46	46	46	47	47	47	47	47	47	47	47	45	45	45	45	46	--	--	--	46
March																																
Maximum	46	46	46	46	46	46	46	47	48	49	49	49	50	50	50	49	49	49	48	48	48	48	48	49	50	51	51	52	52	53	54	49
Minimum	46	46	46	46	46	46	46	46	47	48	49	49	49	50	49	49	48	48	48	48	48	48	48	48	49	50	51	52	52	52	53	48
April																																
Maximum	54	54	54	54	54	54	54	54	54	54	53	52	53	53	53	54	54	54	53	52	51	51	52	52	52	52	52	52	52	52	--	53
Minimum	54	54	54	54	54	54	54	54	54	53	52	52	52	53	53	53	54	53	52	51	51	51	51	52	52	52	52	52	52	52	--	53
May																																
Maximum	52	53	53	54	54	55	55	55	55	55	56	56	55	55	55	55	56	56	56	57	57	58	58	58	58	58	58	58	58	57	56	56
Minimum	52	52	53	53	54	54	55	55	55	55	55	55	55	55	55	55	55	56	56	56	57	57	58	58	58	58	58	58	57	56	55	56
June																																
Maximum	55	55	54	54	55	55	54	55	55	55	55	55	56	56	57	56	56	56	55	54	54	54	53	53	53	53	53	53	53	53	--	54
Minimum	55	54	54	54	54	54	54	54	55	55	55	55	55	56	56	56	55	55	54	54	53	53	53	53	53	53	53	53	53	53	--	54
July																																
Maximum	53	53	52	52	54	54	54	54	53	53	53	53	52	52	52	52	52	52	53	53	53	53	53	53	53	53	53	53	53	53	52	53
Minimum	53	52	52	52	52	53	53	53	52	52	52	51	51	51	51	51	51	51	51	51	51	51	51	52	52	52	52	52	52	52	52	52
August																																
Maximum	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	53	53	54	54	54	54	54	54	54	54	54	54	54	54	54	54
Minimum	52	53	54	54	53	54	53	53	53	53	53	53	53	53	53	53	53	53	53	54	54	53	53	54	54	54	54	54	54	54	54	53
September																																
Maximum	54	55	55	55	55	55	55	55	55	55	55	55	55	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	--	56
Minimum	54	54	55	55	55	55	55	55	55	55	55	55	55	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	--	56

11-3785. SACRAMENTO RIVER AT RED BLUFF, CALIF.

LOCATION.--Lat 40°10'40", long 122°13'50", at U.S. Highway 99E bridge at Red Bluff, Tehama County, approximately 5 miles downstream from gaging station near Red Bluff.
DRAINAGE AREA (revised).--9,022 square miles, excluding Goose Lake basin, upstream from gaging station.
RECORDS AVAILABLE.--Water temperatures: October 1957 to September 1966.
Sediment records: October 1957 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 61°F May 23; minimum, 44°F Jan. 26, Feb. 2.
Sediment concentrations: Maximum daily, 1,660 ppm Jan. 5; minimum daily, 2 ppm Aug. 26, 27.
Sediment loads: Maximum daily, 306,000 tons Jan. 5; minimum daily, 63 tons Sept. 28.
EXTREMES, 1957-66.--Water temperatures: Maximum, 66°F June 1, 1960; minimum, 38°F Jan. 22, 1962.
Sediment concentrations: Maximum daily, 2,920 ppm Dec. 22, 1964; minimum daily, 1 ppm on many days in 1964.
Sediment loads: Maximum daily, 876,000 tons Dec. 22, 1964; minimum daily, 12 tons Dec. 8-10, 14, 15, 1964.
REMARKS.--Records of daily discharge data given for Sacramento River near Red Bluff. No appreciable inflow between sampling point and gaging station except during periods of heavy local runoff.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	--	55	--	53	--	56	--	56	--	55	--	54	--	55	--	52	--	52	--	53	--	53	--	54	--	54	--	54	--	53	--	--
November	52	--	53	--	54	--	54	--	53	--	53	--	54	53	55	54	55	54	54	52	52	52	52	50	49	49	50	50	50	52	--	52
December	52	49	49	50	49	49	50	49	50	49	49	49	--	--	49	--	49	49	48	47	--	49	47	47	51	49	47	48	47	47	47	49
January	46	45	46	46	45	48	48	52	49	46	47	46	46	47	50	48	47	47	45	45	47	--	47	45	45	44	46	45	45	--	45	46
February	45	44	45	46	47	46	45	45	46	47	49	46	47	47	45	46	47	--	47	48	47	48	47	48	47	47	48	48	--	--	--	47
March	--	46	48	45	48	49	48	49	50	52	52	52	54	55	51	49	48	50	51	51	51	52	52	53	53	55	55	56	56	57	57	52
April	58	58	58	56	57	58	58	58	56	54	53	58	57	58	58	59	58	55	59	59	55	57	58	59	60	--	58	59	55	--	--	57
May	59	59	55	57	54	--	57	59	55	57	60	56	56	56	56	56	56	56	56	58	57	--	61	58	57	58	57	56	57	56	56	57
June	57	--	56	--	--	55	--	57	--	57	--	--	57	--	60	--	58	--	--	57	--	55	--	56	--	--	55	--	56	--	--	--
July	56	--	--	56	--	55	--	55	--	--	56	--	56	--	56	--	--	54	--	54	--	54	--	--	55	--	55	--	55	--	--	--
August	55	--	55	--	55	--	--	55	--	56	--	56	--	--	55	--	55	--	58	--	--	58	--	--	--	57	--	--	57	--	57	--
September	56	57	--	--	59	58	58	--	--	58	--	58	--	58	--	58	--	--	58	--	58	--	58	--	--	59	--	59	--	59	--	--

11-3785. SACRAMENTO RIVER AT RED BLUFF, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	8320	8	180	8540	10	231	7870	19	404
2	8270	10	223	8350	7	158	11400	23	708
3	8290	12	269	8320	5	112	13400	28	1010
4	8320	8	180	8350	5	113	13700	23	851
5	8320	8	180	8320	6	135	13800	23	857
6	8320	8	180	8350	9	203	13800	18	671
7	8350	9	203	8370	11	249	13900	15	563
8	8350	10	225	8620	9	209	14100	15	571
9	8350	9	203	8650	8	187	14100	14	533
10	8350	9	203	8590	7	162	14100	15	571
11	8370	9	203	8510	7	161	14100	20	761
12	8400	9	204	8700	8	188	14100	15	571
13	8430	8	182	9210	14	348	14100	13 B	495
14	8480	9	206	11700	34 S	1090	14000	19 B	718
15	8560	15	347	18800	1230 S	73100	14000	24	907
16	8510	18	414	12300	199 S	7280	13900	20	751
17	8560	13	300	12400	406 S	16400	13900	14	525
18	8560	10	231	17700	568 S	29300	14000	13	491
19	8620	12	279	13000	75	2630	13900	11	413
20	8590	10	232	12900	70	2440	13900	7	263
21	8590	6	139	13000	32	1120	13100	15	531
22	8590	5	116	12200	20	659	12700	19	652
23	8560	7	162	12600	23	782	12700	11	377
24	8540	8	184	14400	36	1400	13200	14	499
25	8540	8	184	14800	35	1400	13500	11	401
26	8540	7	161	15300	52	2150	13200	13	463
27	8560	6	139	15700	44	1870	13000	9	316
28	8590	6	139	14400	23	894	14200	44 S	2010
29	8620	5	116	10500	19	539	18100	218 S	11200
30	8620	5	116	8140	17	374	15500	63 S	2660
31	8650	8	187	--	--	--	17700	176 S	8820
Total	262720	--	6287	340720	--	145884	426970	--	40563
	JANUARY			FEBRUARY			MARCH		
1	14500	27	1060	15700	40	1700	8370	12	271
2	13800	10	373	14900	40	1610	8080	13	284
3	13700	9	333	13100	16	566	7430	15	301
4	26400	668 S	73200	25200	575 S	41000	6850	15	277
5	63800	1660 S	306000	19300	240	12500	7510	20	406
6	29700	330	26500	23600	409 S	27500	7860	20	424
7	23100	160	9980	15600	70	2950	7810	15	316
8	21200	100	5720	13200	28	998	8400	15	340
9	20900	74	4180	12200	22	725	8700	21	493
10	19900	48	2580	11700	22	695	11800	84	2680
11	19100	44	2270	10700	16	462	11200	76	2300
12	18600	40	2010	9950	13	349	9690	55	1440
13	18100	33	1610	9720	16	420	8950	44	1060
14	18000	27	1310	9520	14	360	9040	35	854
15	18000	30	1460	9370	12	304	9630	37	962
16	18000	34	1650	8760	13	307	10400	42	1180
17	18000	28	1360	8210	12	266	10900	35	1030
18	17900	30	1450	8160	18	397	11600	50	1570
19	17600	33	1570	8900	28	673	12600	39	1330
20	17600	25	1190	10100	45	1230	12300	35	1160
21	17500	23	1090	8210	15	333	12500	31	1050
22	17500	22	1040	7860	11	233	12200	31	1020
23	17500	20	945	8290	11	246	11600	21	658
24	17500	20	945	10000	31	837	11900	16	514
25	17400	21	987	10100	32	873	10200	21	578
26	16300	16	704	12000	168	5440	8980	19	461
27	14800	15	599	9490	33	846	9750	18	474
28	13900	18	676	8730	12	283	9430	15	382
29	13200	20	713	--	--	--	8620	22	512
30	16100	92	4000	--	--	--	8400	26	590
31	13800	21	782	--	--	--	8430	31	706
Total	603400	--	458287	332570	--	104103	301130	--	25623

S Computed by subdividing day.
B Computed from estimated-concentration graph.

11-3785. SACRAMENTO RIVER AT RED BLUFF, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	8480	30	687	9780	13	343	9490	7	179
2	8480	42	962	9780	22	581	9520	8	206
3	8350	46	1040	9720	17	446	9810	11	291
4	8130	30	659	9780	11	290	10600	9	258
5	7890	24	511	9840	13	345	10600	7	200
6	7700	21	437	9890	14	374	10700	7	202
7	7620	39	802	9860	14	373	10700	8	231
8	7590	27	553	9840	14	372	10700	9	260
9	7590	16	328	9840	16	425	10600	9	258
10	9920	381	10200	10200	22	606	10500	7	198
11	9720	110	2890	10800	18	525	10500	6	170
12	10200	56	1540	10700	18	520	10500	11	312
13	8430	34	774	10700	14	404	10400	24	674
14	8080	21	458	10600	9	258	10400	25	702
15	8650	27	631	10600	12	343	10600	16	458
16	9520	30	771	10500	21	595	11500	20	621
17	10500	25	709	10500	23	652	11500	32	994
18	11300	33	1010	10300	23	640	11800	32	1020
19	11600	34	1060	9460	20	511	12500	24	810
20	11400	20	616	9460	11	281	12500	15	506
21	11300	14	427	9430	17	433	12600	20	680
22	11200	13	393	9400	17	431	12600	26	885
23	11000	18	535	9350	10	252	12600	23	782
24	11000	16	475	9320	6	151	12500	12	405
25	10700	16	462	9350	8	202	12500	10	338
26	10100	13	355	9320	15	377	12500	12	405
27	9980	15	404	9350	11	278	12600	14	476
28	9920	13	348	9400	8	203	12600	15	510
29	9840	11	292	9430	11	280	12500	13	439
30	9810	11	291	9460	13	332	12600	12	408
31	--	--	--	9520	13	334	--	--	--
Total	286000	--	30620	305480	--	12157	341020	--	13878

Day	JULY			AUGUST			SEPTEMBER		
1	12600	10	340	12800	8	276	9150	10	247
2	12700	9	309	13100	11	389	8730	5	118
3	13100	11	389	13200	14	499	8700	4	94
4	13100	13	460	13100	13	460	8700	5	117
5	13100	13	460	13000	12	421	8760	5	118
6	13100	9	318	13000	14	491	8670	4	94
7	13200	9	321	13000	18	632	8370	4	90
8	13200	10	356	13000	18	632	8390	3	68
9	13200	11	392	13000	16	562	8240	3	67
10	13300	11	395	13000	13	456	7890	3	64
11	13500	11	401	13000	10	351	7860	3	64
12	14100	13	495	13000	8	281	7920	4	86
13	14100	14	533	12800	7	242	7970	4	86
14	14200	12	460	13000	7	246	7940	4	86
15	14200	9	345	13000	6	211	7940	4	86
16	14200	8	307	13000	7	246	7940	3	64
17	14300	9	347	13000	8	281	7970	3	65
18	14400	9	350	13000	7	246	7940	3	64
19	14500	9	352	13000	4	140	8020	5	108
20	14500	8	313	13100	4	141	8000	5	108
21	14500	10	392	13100	4	141	7940	4	86
22	14600	12	473	12900	4	139	7890	3	64
23	14000	10	378	12400	4	134	7890	3	64
24	13700	7	259	12100	4	131	7860	3	64
25	13700	4	148	12100	3	98	7860	3	64
26	13700	3	111	12100	2	65	7810	4	84
27	13800	4	149	12100	2	65	7750	4	84
28	14000	5	189	12100	3	98	7750	3	63
29	14300	6	232	12000	4	130	7750	4	84
30	12900	7	244	11700	4	126	7780	5	105
31	12900	7	244	10200	4	110	--	--	--
Total	424700	--	10462	392900	--	8440	243380	--	2656

Total discharge for year (cfs-days)..... 4260990
Total load for year (tons)..... 858960

11-3785. SACRAMENTO RIVER AT RED BLUFF, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 15, 1965.....	1625	55		23400	2030		40	57	67	79	89	93	97	100	--			VPWC
Nov. 16.....	1320	52		11400	105							74	79	93	100			V
Nov. 18.....	0725	54		19600	323							82	88	99	100			V
Jan. 5, 1966.....	0830	45		76300	1840							59	67	84	100			V
Feb. 1.....	1505	47		17700	40							48	59	82	100			V
Feb. 6.....	1015	46		28000	481							78	89	99	100			V
Mar. 2.....	1435	46		8050	12							66	78	85	100			S

11-3788. RED BANK CREEK NEAR RED BLUFF, CALIF.

LOCATION.--Lat 40°05'25", long 122°24'45", at gaging station, on road bridge, 0.1 mile downstream from unnamed tributary, 1.8 miles southeast of Red Bank, and about 13 miles west of Red Bluff, Tehama County.
DRAINAGE AREA.--93.5 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1959 to September 1966.
REMARKS.--No flow during most of year.

Chemical analyses, in parts per million, October 1965 to May 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Dec. 2, 1966.....	17					17		240	16		14			0 0				270	47	0.5	542	8.6
Jan. 6, 1966.....	130					8.4		148	0		1.9			0				134	13	.3	281	8.2
Feb. 9.....	25					13		243	5		3.1			0				236	29	.4	468	8.4
Mar. 8.....	12					16		236	10		5.0			0				246	36	.4	490	8.6
Apr. 6.....	21					17		260	4		6.0			0				256	36	.5	513	8.3
May 4.....	37	15		56	28	17	1.2	274	0	51	9.6		0.4	0	312	0.42		254	29	.5	520	8.2

11-3790. ANTELOPE CREEK NEAR RED BLUFF, CALIF.

LOCATION.--Lat 40°12'10", long 122°07'05", at gaging station in Rio De Los Berrendos Grant, 1.8 miles upstream from diversion dam of Los Molinos Mutual Water Co., 6.5 miles east of Red Bluff, Tehama County, and 9.7 miles upstream from mouth.
DRAINAGE AREA.--123 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966 (discontinued).

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	40	--		--	--	10	--	79	2	--	7.0		--	0.1	--	--		59	0	0.6	154	8.4
Nov. 3.....	42	--		--	--	9.9	--	82	1	--	6.1		--	.0	--	--		57	0	.6	156	8.3
Dec. 13.....	47	--		--	--	9.2	--	80	0	--	7.6		--	.0	--	--		57	0	.5	151	8.2
Jan. 17, 1966....	69	--		--	--	7.3	--	72	0	--	4.9		--	.0	--	--		50	0	.5	118	8.0
Feb. 9.....	131	--		--	--	5.6	--	62	0	--	2.8		--	.1	--	--		43	0	.4	109	8.0
Mar. 2.....	128	--		--	--	6.5	--	60	0	--	3.0		--	.0	--	--		43	0	.4	109	8.1
Apr. 12.....	165	--		--	--	4.2	--	40	0	--	1.2		--	.0	--	--		28	0	.3	75	7.9
May 2.....	117	25		6.6	3.6	4.9	0.8	50	0	1.0	1.9		0.3	.0	73	0.10		32	0	.4	84	7.9
June 2.....	52	--		--	--	7.8	--	69	0	--	5.3		--	.0	--	--		47	0	.5	128	8.2
July 6.....	34	--		--	--	11	--	80	0	--	7.1		--	.1	--	--		54	0	.7	154	8.2
Sept. 1.....	32	37		12	7.4	11	1.3	82	3	2.0	6.7		.1	.1	121	16		60	0	.6	163	8.4

A Calculated from sum of determined constituents.

11-3791. ANTELOPE CREEK NEAR MOUTH, NEAR LOS MOLINOS, CALIF.

LOCATION.--Lat 40°06'32", long 122°06'35", at U.S. Highway 99E bridge, 0.2 mile northwest of Lassen View Union School, and approximately 6 miles north of Los Molinos, Tehama County.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to June 1966 (discontinued).
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....						16		73	0		16			0.5				64	4	0.9	205	8.1
Nov. 3.....						18		75	0		27			.5				60	0	1.0	213	8.2
Dec. 13.....						9.2		86	0		7.5			.1				72	1	.5	180	7.6
Jan. 17, 1966....						7.8		100	0		5.5			.0				81	0	.4	169	7.9
Feb. 10.....						5.6		72	0		3.0			.1				56	0	.3	131	7.9
Mar. 2.....						5.1		66	0		1.3			.0				49	0	.3	117	8.0
Apr. 12.....						8.1		51	0		4.0			.2				45	3	.5	133	7.8
May 2.....		33		13	8.4	11	2.8	77	0	16	7.4		1.6	.3	159	0.22		67	4	.6	188	7.7
June 2.....						12		89	0		11			.3				80	7	.6	233	7.5

11-3795. ELDER CREEK NEAR PASKENTA, CALIF.

LOCATION (revised).--Lat 40°01'30", long 122°30'35", at gaging station 2.5 miles downstream from South Fork, 8.2 miles northeast of Flournoy, and 10 miles north of Paskenta, Tehama County.
DRAINAGE AREA.--92.9 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966 (discontinued).
Water temperatures: October 1962 to September 1963.
Sediment records: October 1962 to September 1963.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....	4.5	--		--	--	60	--	217	11	--	123		--	0.1	--	--		248	52	1.7	744	8.6
Nov. 2.....	5.3	--		--	--	56	--	208	16	--	117		--	.1	--	--		248	51	1.5	723	8.7
Dec. 2.....	42	--		--	--	16	--	207	9	--	24		--	.0	--	--		204	20	.5	439	8.6
Jan. 6, 1966.....	1020	--		--	--	4.7	--	100	0	--	1.8		--	.0	--	--		85	3	.2	185	8.0
Feb. 9.....	146	--		--	--	10	--	184	9	--	8.3		--	.1	--	--		174	8	.3	356	8.6
Mar. 8.....	122	--		--	--	10	--	181	6	--	7.8		--	.0	--	--		168	10	.3	347	8.5
Apr. 6.....	178	--		--	--	5.0	--	88	0	--	5.2		--	.0	--	--		75	3	.3	166	8.2
May 4.....	54	14		23	14	9.4	0.6	132	2	9.0	11		0.2	.0	A 148	0.20		116	4	.4	261	8.3
June 8.....	20	--		--	--	19	--	174	12	--	30		--	.0	--	--		174	12	.6	402	8.7
Sept. 13.....	2.0	14		43	33	92	1.6	176	8	11	207		.9	.1	552	.75		243	86	2.6	942	8.5

A Calculated from sum of determined constituents.

11-3795. ELDER CREEK NEAR PASKENTA, CALIF.--Continued

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966

(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment											Method of analysis
							Percent finer than size indicated, in millimeters											
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Oct. 8, 1965.....	1030	64		4.5	1	T						--	--	--	--			
Nov. 16.....	1530	57		190	308	158						96	98	99	100			V
Dec. 15.....	1045	34		27	15	1.1						--	--	--	--			
Jan. 5, 1966.....	1250	46		1280	1720	5940		29		44		56	61	71	81	100		VPCW
Jan. 5.....	1302	46		1280	1750	6050						--	--	--	--			
Feb. 3.....	1205	43		122	53	17						82	85	90	100			V
Feb. 7.....	1106	42		190	44	23						--	--	--	--			
Feb. 7.....	1109	42		190	48	25						--	--	--	--			
Mar. 3.....	1355	49		79	11	2.3						--	--	--	--			
Apr. 5.....	1207	53		170	38	17						--	--	--	--			
Apr. 11.....	1105	59		146	24	9.5						--	--	--	--			
May 6.....	1105	64		50	5	.7						--	--	--	--			
June 3.....	1110	59		20	—	T						--	--	--	--			

T Less than 0.05 ton.

11-3805. ELDER CREEK AT GERBER, CALIF.

LOCATION.--Lat 40°03'05", long 122°09'53", at U.S. Highway 99W bridge, 1,200 feet upstream from gaging station, 1.2 miles west of Gerber, Tehama County, and 3.7 miles upstream from mouth.
DRAINAGE AREA.--136 square miles.
RECORDS AVAILABLE.--Chemical analyses: January 1959 to June 1966 (discontinued).

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Dec. 13, 1965....	29					16		200	6		26			0.0				194	21	0.5	429	8.5
Jan. 17, 1966....	127					8.6		171	3		7.6			.0				153	8	.3	284	8.4
Feb. 10.....	147					9.7		181	9		9.2			.1				173	10	.3	358	8.6
Mar. 2.....	104					11		190	6		11			.0				176	10	.4	369	8.5
Apr. 12.....	138					6.6		110	2		5.3			.0				97	4	.3	211	8.4
May 2.....	49	14		27	16	9.1	0.9	147	4	10	14		0.7	.0	168	0.23		133	6	.3	287	8.4
June 2.....	15					14		182	11		24			.0				182	15	.5	390	8.7

11-3816.2. MILL CREEK AT MOUTH, NEAR LOS MOLINOS, CALIF.

LOCATION.--Lat 40°02'34", long 122°05'57", at bridge on U.S. Highway 99, 0.8 mile upstream from confluence with Sacramento River, and 4.7 miles downstream from gaging station near Los Molinos, Tehama County.
DRAINAGE AREA.--131 square miles upstream from gaging station.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
REMARKS.--Records of daily discharge data given for Mill Creek near Los Molinos. Considerable diversion between gaging station and sampling point.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	112	--		--	--	15	--	68	0	--	16		--	0.5	--	--		63	7	0.8	206	8.2
Nov. 3.....	104	--		--	--	16	--	63	0	--	18		--	.5	--	--		56	4	.9	202	8.2
Dec. 13.....	140	--		--	--	16	--	56	0	--	22		--	.4	--	--		53	7	1.0	194	8.0
Jan. 17, 1966....	184	--		--	--	13	--	54	0	--	16		--	.4	--	--		50	6	.8	159	8.0
Feb. 10.....	200	--		--	--	7.5	--	56	0	--	14		--	.4	--	--		48	2	.5	129	8.0
Mar. 2.....	200	--		--	--	12	--	56	0	--	10		--	.4	--	--		48	2	.8	164	8.0
Apr. 12.....	543	--		--	--	7.1	--	29	0	--	4.5		--	.2	--	--		28	4	.6	99	7.7
May 2.....	372	25		8.6	2.8	7.8	1.6	32	0	18	6.2		0.3	.2	103	0.14		33	7	.6	117	7.5
June 2.....	220	--		--	--	10	--	37	0	--	9.6		--	.3	--	--		42	12	.7	143	7.8
July 6.....	128	--		--	--	15	--	80	0	--	14		--	.4	--	--		74	8	.8	224	8.1
Aug. 1.....	110	--		--	--	17	--	88	0	--	18		--	.4	--	--		80	8	.8	241	8.0
Sept. 1.....	97	38		18	10	17	2.8	94	0	21	21		1.1	.5	177	.24		86	9	.8	258	8.1

11-3820. THOMES CREEK AT PASKENTA, CALIF.

LOCATION.--Lat 39°52'55", long 122°33'05", at gaging station 0.25 mile upstream from Digger Creek, and 0.3 mile upstream from highway bridge at Paskenta, Tehama County.
DRAINAGE AREA.--194 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966.
Water temperatures: October 1961 to September 1966.
Sediment records: October 1962 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 92°F July 22 and sometime during period Aug. 1-5; minimum, freezing point on many days during December and January.
Sediment concentrations: Maximum daily, 8,460 ppm Jan. 6; minimum daily, 1 ppm on many days.
Sediment loads: Maximum daily, 67,400 tons Jan. 6; minimum daily, less than 0.05 ton on many days.
EXTREMES, 1961-66.--Water temperatures: Maximum, 93°F July 15, 1965; minimum, freezing point on many days during December 1965 and January 1966.
Sediment concentrations (1962-66): Maximum daily, 57,900 ppm Dec. 22, 1964; minimum daily, no flow Oct. 4, 1964.
Sediment loads (1962-66): Maximum daily, 5,070,000 tons Dec. 22, 1964; minimum daily, 0 ton Oct. 4, 1964.
REMARKS.--Clock stopped Aug. 1-5; temperature range, 65°F to 92°F.
REVISIONS.--The following figures were omitted from the suspended-sediment table in the 1965 water year report: Date, Nov. 28, 1964; mean discharge, 486 cfs; mean concentration, 541 ppm; tons per day, S 1330 tons.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....	7.5	--		--	--	13	--	176	2	--	20		1.3	0.1	--	--		247	99	0.4	522	8.3
Nov. 4.....	9.8	--		--	--	16	--	156	2	--	24		2.0	.1	--	--		242	111	.5	520	8.3
Dec. 2.....	83	--		--	--	8.2	--	134	4	--	6.0		.2	.0	--	--		155	39	.3	328	8.4
Jan. 6, 1966.....	2840	--		--	--	3.0	--	74	0	--	.9		.5	.1	--	--		75	14	.2	164	8.1
Feb. 9.....	290	--		--	--	6.8	--	132	4	--	3.4		.3	.1	--	--		134	19	.3	281	8.5
Mar. 8.....	434	--		--	--	5.3	--	109	0	--	1.4		--	.1	--	--		104	15	.2	223	8.1
Apr. 6.....	1130	--		--	--	2.6	--	61	0	--	.8		.3	.1	--	--		53	3	.2	115	8.2
May 4.....	484	8.2		19	3.0	3.0	0.6	66	0	11	.7		.3	.0	87	0.12		60	6	.2	131	8.1
June 8.....	86	--		--	--	5.1	--	112	2	--	3.0		--	.0	--	--		113	18	.2	242	8.3
July 13.....	23	--		--	--	8.5	--	149	6	--	9.0		1.1	.0	--	--		178	46	.3	367	8.5
Aug. 10.....	6.6	--		--	--	11	--	140	3	--	14		--	.0	--	--		191	71	.3	408	8.5
Sept. 13.....	4.7	12		48	16	13	1.3	109	2	92	20		1.2	.1	308	.42		186	93	.4	425	8.4

11-3820. THOMES CREEK NEAR PASKENTA, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	79	77	77	72	77	78	80	80	77	77	79	77	77	64	64	63	70	67	71	70	73	73	74	75	73	73	71	74	73	72	71	73
Minimum	55	55	53	53	57	56	58	56	58	57	56	55	56	54	48	47	50	50	50	52	52	51	52	54	55	53	52	54	54	53	51	53
November																																
Maximum	67	64	66	68	67	66	56	60	59	60	59	54	52	52	55	54	54	54	54	54	55	49	49	47	48	44	49	49	46	51	--	55
Minimum	50	49	51	53	53	50	53	50	48	47	51	52	50	49	51	49	50	48	46	45	44	44	45	43	41	40	39	36	38	41	--	47
December																																
Maximum	49	49	46	43	51	49	47	44	43	48	42	46	46	45	43	44	44	42	44	43	40	43	41	40	42	41	39	42	44	45	45	44
Minimum	39	38	37	40	40	40	42	41	40	38	40	39	37	35	33	32	32	32	32	30	32	34	32	36	35	33	37	38	38	37	35	36
January																																
Maximum	42	40	41	42	42	44	45	48	45	42	45	47	47	47	51	47	47	46	45	45	44	45	45	48	43	48	49	47	43	45	44	45
Minimum	32	34	38	40	42	41	41	41	38	38	37	38	39	38	41	38	36	36	36	35	33	35	35	36	36	37	36	36	39	40	37	37
February																																
Maximum	45	47	44	48	52	50	50	51	50	51	51	50	50	51	52	52	52	49	47	54	51	46	53	52	44	54	55	51	--	--	--	50
Minimum	40	38	41	44	44	42	38	38	39	40	36	38	35	36	38	36	36	39	43	40	40	43	42	40	39	38	39	40	--	--	--	39
March																																
Maximum	51	46	50	43	48	54	52	49	46	50	50	51	54	53	48	48	48	49	53	53	55	54	55	56	56	56	55	56	55	54	55	52
Minimum	39	36	34	35	39	43	43	45	44	43	42	42	44	45	43	39	35	40	42	38	40	41	39	41	41	42	42	42	43	42	43	41
April																																
Maximum	55	54	55	55	55	56	56	55	48	49	48	51	56	58	61	61	57	55	54	55	58	59	62	63	63	58	59	61	62	63	--	57
Minimum	43	43	43	43	43	44	44	45	45	43	40	40	41	43	45	47	47	44	40	39	42	45	46	47	49	46	43	44	44	45	--	44
May																																
Maximum	65	66	64	65	61	64	65	66	59	60	66	68	68	66	68	69	70	72	74	74	73	71	74	76	78	77	77	74	73	70	71	69
Minimum	47	49	50	53	49	46	48	50	53	53	53	50	52	49	49	51	51	53	54	56	57	55	54	55	58	59	60	60	58	57	55	53
June																																
Maximum	71	66	73	76	72	64	74	80	82	81	79	80	84	87	87	84	85	83	86	80	79	81	79	79	84	86	89	86	86	86	--	80
Minimum	56	52	50	53	55	59	58	58	61	60	56	58	62	65	66	64	62	65	64	62	62	61	61	61	60	62	65	66	64	64	--	60
July																																
Maximum	83	81	83	85	86	85	83	76	81	83	84	84	84	84	84	86	86	90	90	89	90	92	90	90	89	89	90	91	91	--	--	86
Minimum	63	59	60	62	63	64	62	62	62	61	62	62	63	63	63	64	64	66	66	68	67	68	69	68	67	67	67	67	68	--	--	64
August																																
Maximum	--	--	--	--	--	91	91	90	89	90	88	89	88	90	89	83	90	90	88	88	88	86	85	84	82	82	85	84	80	72	81	86
Minimum	--	--	--	--	--	69	70	68	68	67	68	67	68	68	67	68	69	70	67	67	66	66	65	60	61	60	62	62	60	61	58	65
September																																
Maximum	81	84	85	88	86	84	79	82	83	81	--	--	--	78	81	81	82	74	80	83	84	80	80	79	79	78	74	79	80	81	--	81
Minimum	61	61	62	64	64	63	63	63	60	61	--	--	--	56	58	60	61	62	61	63	64	63	61	61	60	63	60	61	62	62	--	61

11-3820. THOMES CREEK AT PASKENTA, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	7.5	5	0.1	7.0	1	T	86	28	6.5
2	7.5	5	.1	8.2	1	T	83	44	9.9
3	7.5	4	.1	9.0	1	T	89	72	17
4	7.0	4	.1	9.8	1	T	110	98	29
5	7.0	4	.1	11	2	0.1	130	135	47
6	7.5	4	.1	12	2	.1	214	252	146
7	7.5	4	.1	23	51 S	6.6	192	164	85
8	7.5	4	.1	97	260 S	81	171	112	52
9	7.5	4	.1	39	12	1.3	137	68	25
10	7.5	4	.1	25	11	.7	117	43	14
11	8.2	4	.1	15	11	.4	110	33	9.8
12	7.5	3	.1	37	81 S	17	114	32	9.8
13	7.0	3	.1	578	1780 S	4310	104	28	7.9
14	7.5	3	.1	1230	2280 S	8680	89	22	5.3
15	7.5	3	.1	1050	1700 S	6780	77	17	3.5
16	8.2	3	.1	237	270	173	69	12	2.2
17	8.2	3	.1	382	551 S	800	64	10	1.7
18	8.2	2	T	512	880	1220	64	10	1.7
19	9.0	2	T	325	410	360	60	9	1.5
20	9.0	3	.1	223	140	84	55	9	1.3
21	8.2	3	.1	184	80	40	55	9	1.3
22	8.2	2	T	148	58	23	53	11	1.6
23	7.5	2	T	134	51	18	44	9	1.1
24	7.5	2	T	180	176 S	89	72	39 K	11
25	7.5	2	T	160	70	30	107	52 S	16
26	7.5	2	T	130	48	17	72	20	3.9
27	7.5	2	T	117	40	13	62	15	2.5
28	8.2	2	T	107	35	10	340	997 S	1510
29	8.2	2	T	100	32	8.6	232	334 S	232
30	7.0	1	T	91	29	7.1	148	98	39
31	6.6	1	T	--	--	--	120	81	26
Total	238.2	--	2.4	6181	--	22770.0	3440	--	2320.5
	JANUARY			FEBRUARY			MARCH		
1	86	43	10.0	345	234 K	220	260	87	61
2	77	36	7.5	300	108	87	250	75	51
3	97	405 S	151	500	-- E	550	218	72	42
4	2000	7430 K	55000	800	670	1450	227	67	41
5	2480	6330 K	43000	604	409	667	280	84	64
6	2840	8460 S	67400	491	257	341	285	102	78
7	1400	4150	15700	382	173	178	388	314 A	329
8	870	3130	7350	335	127	115	434	593 S	709
9	670	2120	3840	290	117	92	710	2170 S	4320
10	548	1370	2030	260	107	75	1090	3410 K	10000
11	458	965	1190	218	97	57	790	1740	3710
12	416	780	876	201	86	47	680	1370	2520
13	394	662	704	175	69	33	860	2120 A	4920
14	399	662	713	160	65	28	980	1870	4950
15	422	660	752	152	61	25	890	1250	3000
16	452	855	1040	138	57	21	730	920	1810
17	422	632	720	138	62	23	604	650	1060
18	399	520	560	163	90	40	564	540	822
19	372	422	424	265	273	195	548	450	666
20	340	350	321	250	140	95	505	355	484
21	305	315	259	237	117	75	505	340	464
22	285	252	194	241	109	71	512	330	456
23	265	215	154	270	153	112	548	370	547
24	237	187	120	295	156	124	640	765	1320
25	218	171	101	285	136	105	760	1000	2050
26	196	156	83	285	120	92	910	1230	3020
27	184	135	67	255	91	63	1070	1520	4390
28	163	115	51	260	93	65	1190	2070	6650
29	223	559 S	413	--	--	--	1280	2070 A	7150
30	290	215	168	--	--	--	1310	2000	7070
31	209	124	70	--	--	--	1350	2070 A	7550
Total	17717	--	203468.5	8295	--	5046	21368	--	80304

E Estimated.
S Computed by subdividing day.
T Less than 0.05 ton.
A Computed from partly estimated-concentration graph.
K Computed from estimated-concentration graph and subdividing day.

11-3820. THOMES CREEK AT PASKENTA, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL				MAY				JUNE			
	Mean discharge (cfs)	Suspended sediment			Mean discharge (cfs)	Suspended sediment			Mean discharge (cfs)	Suspended sediment		
		Mean concentration (ppm)		Tons per day		Mean concentration (ppm)		Tons per day		Mean concentration (ppm)		Tons per day
1	1410	2300	A	8760	360	105		102	86	13		3.0
2	1320	2020		7200	372	135		136	83	11		2.5
3	1180	2020		6440	394	180		191	86	11		2.6
4	1140	1380		4250	484	206		269	77	11	A	2.3
5	1120	1130		3420	491	170		225	76	9	B	1.8
6	1130	1140		3480	394	124		132	75	6		1.2
7	1140	1110		3420	345	116	A	108	79	5		1.1
8	1070	995		2870	340	102	A	94	86	5		1.2
9	1000	845		2280	345	93		87	82	6		1.3
10	1180	980		3120	355	95		91	75	7		1.4
11	1090	800		2350	355	94		90	70	6	A	1.1
12	920	695		1730	310	68		57	66	4	A	.7
13	720	515		1000	295	62		49	62	3		.5
14	650	415		728	280	54		41	60	2		.3
15	660	460		820	246	49		33	57	2		.3
16	860	595		1380	237	54		35	54	2		.3
17	1050	760	A	2150	209	44		25	52	2		.3
18	820	605		1340	201	43		23	49	2		.3
19	612	375		620	205	41		23	47	2		.3
20	526	285		405	223	42		25	44	2		.2
21	484	215		281	227	40		25	42	2		.2
22	470	165		209	209	40		23	41	1		.1
23	477	170		219	160	34		15	41	3	B	.3
24	512	210		290	148	28		11	41	6		.7
25	564	385	A	586	152	25		10	37	6	B	.6
26	556	365	A	548	160	37		16	33	4	B	.4
27	470	185		235	160	36		16	32	2		.2
28	410	160		177	160	45		19	28	2		.2
29	382	130		134	137	34		13	30	2		.2
30	360	115		112	117	20		6.3	30	2		.2
31	--	--		--	97	17		4.5	--	--		--
Total	24283	--		60554	8168	--		1994.8	1721	--		25.8

	JULY				AUGUST				SEPTEMBER			
1	30	2		0.2	9.0	5		0.1	3.3	2		
2	28	1		.1	9.0	4		.1	3.7	2		
3	25	1		.1	8.2	3		.1	3.7	2		
4	24	1		.1	7.5	3		.1	3.3	2		
5	22	1		.1	7.5	3		.1	3.3	1		
6	20	5	A	.3	7.0	7		.1	2.8	1		
7	20	6		.3	6.6	4		.1	3.7	1		
8	20	6	B	.3	7.0	2		T	4.2	1		
9	19	6	B	.3	6.6	2		T	4.2	1		
10	20	7	B	.4	6.6	2		T	4.2	1		
11	22	10		.6	6.1	2		T	4.2	1		
12	20	9	B	.5	6.1	2		T	4.7	1		
13	23	5		.3	6.1	2		T	4.7	1		
14	23	4		.2	6.1	2		T	5.2	1		
15	20	4		.2	5.6	3		T	6.1	1		
16	20	4		.2	5.6	2		T	6.6	1		
17	18	4		.2	4.7	2		T	6.1	1		
18	16	6		.3	4.7	2		T	7.0	1		
19	16	6		.3	4.2	3		T	7.5	1		
20	15	6		.2	4.2	3		T	7.5	1		
21	14	7	A	.3	3.3	4		T	7.5	1		
22	14	9		.3	2.8	5		T	5.6	1		
23	12	8		.3	2.8	3		T	4.7	3		
24	11	7		.2	2.5	2		T	4.7	2		
25	10	7		.2	2.5	3		T	4.7	2		
26	9.8	7		.2	2.2	4		T	4.2	2		
27	10	8		.2	2.0	3		T	4.2	2		
28	9.8	6		.2	2.2	3		T	4.2	1		
29	9.0	5		.1	2.2	2		T	3.7	2		
30	9.8	5		.1	3.7	2		T	4.2	2		
31	9.8	5		.1	4.2	2		T	--	--		
Total	540.2	--		7.4	158.8	--		1.4	143.7	--		0.5

Total discharge for year (cfs-days)..... 92253.9
Total load for year (tons)..... 377094.3

T Less than 0.05 ton.
A Computed from partly estimated-concentration graph.
B Computed from estimated-concentration graph.

SACRAMENTO RIVER BASIN--Continued

11-3820. THOMES CREEK AT PASKENTA, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment											Method of analysis
							Percent finer than size indicated, in millimeters											
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 19, 1965.....	1240	52		340	416							53	58	66	80	99	100	V
Dec. 6.....	1120	44		1030	264							68	75	95	--	--		V
Jan. 5, 1966.....	1445	44		2220	4930			26		45		63	74	87	94	100		VPWC
Feb. 3.....	1520	43		382	325							59	72	90	100	--		V
Apr. 5.....	1535	55		1050	1080							54	66	83	98	100		V
Apr. 11.....	1430	49		1020	630							66	76	88	94	100		V

11-3821. THOMES CREEK NEAR MOUTH, NEAR CORNING, CALIF.

LOCATION.--Lat 39°58'50", long 122°20'10", at U.S. Highway 99W bridge, 2.6 miles upstream from mouth, and 3.5 miles north of Corning, Tehama County.
RECORDS AVAILABLE.--Chemical analyses: January 1959 to July 1966 (discontinued).
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to July 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Dec. 13, 1965....						8.1		144	4		6.0			0.0				170	45	0.3	353	8.5
Jan. 17, 1966....						4.9		113	0		2.1			.0				114	21	.2	216	8.2
Feb. 10.....						7.2		158	0		3.5			.1				158	28	.2	331	8.2
Mar. 2.....						7.2		133	3		3.5			.0				142	28	.3	300	8.3
Apr. 12.....						3.1		71	0		.5			.0				66	8	.2	144	8.1
May 2.....		8.8		26	4.9	3.5	0.9	90	0	16	1.5		0.8	.0	116	0.16		85	11	.2	182	8.0
June 2.....						5.0		139	3		2.7			.0				138	19	.2	281	8.3
July 6.....						7.7		197	4		5.0			.0				206	38	.2	408	8.4

11-3838. SACRAMENTO RIVER NEAR HAMILTON CITY, CALIF.

LOCATION.--Lat 39°45'06", long 121°59'40", at gaging station on State Highway 32 bridge, 1.3 miles northeast of Hamilton City, Glenn County, and 2.4 miles upstream from Pine Creek.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
REMARKS.--Records of discharge furnished by California State Department of Water Resources.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	7690	--		--	--	6.4	--	64	0	--	2.5		--	0.0	--	--		48	0	0.4	122	8.1
Nov. 3.....	7720	--		--	--	6.7	--	66	0	--	2.8		--	.0	--	--		49	0	.4	124	7.9
Dec. 1.....	8180	--		--	--	6.8	--	69	0	--	4.0		--	.0	--	--		54	0	.4	138	8.2
Jan. 5, 1966.....	70600	--		--	--	3.6	--	45	0	--	1.5		--	.0	--	--		33	0	.3	82	7.3
Feb. 8.....	16200	--		--	--	6.5	--	63	0	--	3.0		--	.1	--	--		51	0	.4	130	8.0
Mar. 8.....	8810	--		--	--	8.0	--	74	0	--	3.3		--	.0	--	--		63	2	.4	161	8.1
Apr. 6.....	8690	--		--	--	6.6	--	69	0	--	3.2		--	.1	--	--		55	0	.4	138	8.2
May 4.....	8870	19		12	5.1	6.5	1.0	67	0	7.0	2.0		0.6	.0	87	0.12		51	0	.4	128	8.0
June 9.....	8540	--		--	--	6.6	--	64	0	--	2.4		--	.0	--	--		50	0	.4	127	7.7
July 11.....	10800	--		--	--	6.2	--	63	0	--	2.1		--	.0	--	--		46	0	.4	118	8.2
Aug. 10.....	10500	--		--	--	5.9	--	63	0	--	2.0		--	.0	--	--		46	0	.4	117	8.1
Sept. 14.....	6910	20		9.7	5.5	6.1	1.0	65	0	5.0	1.8		.9	.0	A 82	.11		46	0	.4	121	7.9

A Calculated from sum of determined constituents.

11-3840. BIG CHICO CREEK NEAR CHICO, CALIF.

LOCATION.--Lat 39°46'35", long 121°45'10", at gaging station 1.8 miles upstream from golf clubhouse in Bidwell Park, 2.6 miles upstream from Lindo Channel, and 7 miles northeast of Chico, Butte County.
DRAINAGE AREA.--72.2 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	26	--		--	--	13	--	104	2	--	9.7		--	0.1	--	--		77	0	0.6	206	8.3
Nov. 4.....	28	--		--	--	14	--	110	0	--	8.6		--	.1	--	--		76	0	.7	210	8.2
Dec. 1.....	60	--		--	--	8.2	--	74	0	--	5.6		--	.1	--	--		55	0	.5	144	8.1
Jan. 6, 1966.....	960	--		--	--	3.3	--	33	2	--	1.1		--	.1	--	--		26	0	.3	67	8.4
Feb. 8.....	243	--		--	--	4.9	--	47	0	--	1.5		--	.0	--	--		35	0	.4	89	8.1
Mar. 8.....	125	--		--	--	6.4	--	61	0	--	2.3		--	.0	--	--		44	0	.4	115	8.0
Apr. 6.....	96	--		--	--	6.7	--	66	0	--	3.3		--	.0	--	--		49	0	.4	122	8.0
May 4.....	45	33		14	6.3	9.7	0.9	84	0	5.0	6.0		0.6	.2	117	0.16		61	0	.5	162	8.1
June 9.....	31	--		--	--	14	--	97	1	--	9.1		--	.1	--	--		73	0	.7	192	8.3
July 13.....	24	--		--	--	15	--	104	3	--	10		--	.1	--	--		76	0	.7	209	8.4
Aug. 10.....	19	--		--	--	17	--	112	0	--	12		--	.1	--	--		76	0	.8	215	8.2
Sept. 14.....	22	35		16	8.8	16	1.0	111	0	6.0	14		1.2	.1	153	.21		76	0	.8	220	8.2

11-3842. BIG CHICO CREEK AT CHICO, CALIF.

LOCATION.--Lat 39°43'38", long 121°51'44", at gaging station at intersection of Bidwell Way and Rose Avenue, and approximately 1 mile west of Chico, Butte County.
RECORDS AVAILABLE.--Chemical analyses: January 1959 to June 1966 (discontinued).
REMARKS.--Records of discharge furnished by California State Department of Water Resources.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	26					13		106	2		10			0.1				76	0	0.7	211	8.4
Nov. 3.....	28					14		108	1		9.5			.1				78	0	.7	212	8.3
Dec. 1.....	60					8.2		74	0		5.6			.0				54	0	.5	143	8.2
Jan. 5, 1966.....	1970					2.7		32	0		1.1			.0				23	0	.3	58	7.7
Feb. 8.....	243					4.9		47	0		1.6			.1				36	0	.4	92	8.0
Mar. 8.....	125					6.4		6	0		2.9			.0				46	0	.4	118	8.1
Apr. 6.....	96					6.8		65	0		3.6			.0				48	0	.4	122	8.1
May 4.....	45	32		14	6.6	9.7	0.9	84	0	5.0	6.4		0.9	.2	117	0.16		62	0	.5	162	8.0
June 9.....	31					13		99	0		9.0			.1				71	0	.7	192	8.2

11-3870. STONY CREEK NEAR FRUTO, CALIF.

LOCATION.--Lat 39°40'16", long 122°31'08", at gaging station 0.3 mile downstream from Grindstone Creek, and 6.5 miles northwest of Fruto, Glenn County.
DRAINAGE AREA (revised).--598 square miles.
RECORDS AVAILABLE.--Chemical analyses: March 1964 to September 1966 (discontinued).

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 1, 1965.....	308	--		--	--	13	--	177	7	--	13		1.7	0.2	--	--		156	0	0.5	345	8.6
Nov. 1.....	123	--		--	--	20	--	214	4	--	22		2.9	.4	--	--		190	8	.6	426	8.4
Dec. 1.....	65	--		--	--	26	--	160	5	--	38		.4	.0	--	--		224	85	.8	535	8.4
Jan. 3, 1966.....	178	--		--	--	23	--	150	3	--	36		.5	.0	--	--		188	60	.7	476	8.4
Feb. 1.....	577	--		--	--	20	--	116	0	--	24		1.9	.1	--	--		118	23	.8	326	8.0
Mar. 1.....	500	--		--	--	15	--	131	1	--	12		.8	.1	--	--		126	17	.6	305	8.3
Apr. 1.....	1010	--		--	--	5.7	--	82	0	--	4.4		.6	.1	--	--		76	9	.3	174	8.2
May 2.....	435	8.8		27	5.2	7.4	1.0	98	0	15	4.5		.2	.0	126	0.17		89	9	.3	207	8.0
June 1.....	388	--		--	--	11	--	123	4	--	12		--	.1	--	--		110	3	.5	262	8.4
July 1.....	217	--		--	--	13	--	144	4	--	12		.9	.1	--	--		120	0	.5	288	8.5
Aug. 16.....	388	--		--	--	13	--	156	4	--	12		--	.1	--	--		132	0	.5	298	8.5
Sept. 1.....	288	10		27	17	14	1.0	169	2	12	14		.8	.3	A 181	.25		138	0	.5	321	8.4

A Calculated from sum of determined constituents.

11-3880. STONY CREEK BELOW BLACK BUTTE DAM, NEAR ORLAND, CALIF.

LOCATION.--Lat 39°49'00", long 122°19'25", at gaging station on left bank 200 feet downstream from road bridge, 0.6 mile downstream from Black Butte Dam, and 8.1 miles northwest of Orland, Glenn County.
DRAINAGE AREA.--741 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1957 to September 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....	124	--		--	--	13	--	172	6	--	12		1.8	0.2	--	--		152	1	0.5	341	8.5
Nov. 4.....	59	--		--	--	14	--	187	5	--	14		2.7	.2	--	--		167	5	.5	362	8.5
Jan. 6, 1966.....	2680	--		--	--	10	--	108	0	--	13		1.4	.0	--	--		104	15	.4	258	8.1
Feb. 9.....	1170	--		--	--	13	--	124	0	--	17		1.9	.2	--	--		113	11	.5	283	8.2
Mar. 8.....	24	--		--	--	15	--	134	2	--	15		--	.2	--	--		127	14	.6	311	8.3
Apr. 6.....	141	--		--	--	14	--	134	3	--	16		.7	.1	--	--		127	12	.5	305	8.5
May 4.....	155	7.8		30	11	13	0.9	133	0	18	13		.4	.1	168	0.23		119	10	.5	288	8.2
June 8.....	543	--		--	--	12	--	130	4	--	12		--	.1	--	--		121	8	.5	287	8.4
July 13.....	436	--		--	--	14	--	142	5	--	14		1.3	.0	--	--		130	5	.5	302	8.5
Aug. 10.....	391	--		--	--	14	--	162	0	--	14		--	.1	--	--		136	3	.5	318	7.9
Sept. 13.....	115	9.4		31	15	15	1.2	173	0	12	14		1.6	.2	A 184	.25		139	0	.6	330	8.2

A Calculated from sum of determined constituents.

11-3890. SACRAMENTO RIVER AT BUTTE CITY, CALIF.

LOCATION (revised).--Lat 39°27'35", long 121°59'35", at gaging station 100 feet upstream from highway bridge, 0.5 mile south of Butte City, Glenn County, and at mile 115.8 upstream from Sacramento.
DRAINAGE AREA.--12,096 square miles.
RECORDS AVAILABLE.--Chemical analyses: May 1955 to September 1966 (discontinued).
Water temperatures: May 1955 to September 1958, October 1959 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 66°F June 15, 16; minimum, 44°F Jan. 20-23.
EXTREMES, 1955-58, 1959-66.--Water temperatures: Maximum, 75°F June 2, 3, 5, 7, 1960; minimum (1955-57, 1959-62, 1963-66), freezing point Jan. 2-5, 1960.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	8240	--		--	--	6.2	--	67	0	--	2.2		--	0.0	--	--		42	0	0.4	128	8.2
Nov. 3.....	8020	--		--	--	6.5	--	66	0	--	2.0		--	.0	--	--		50	0	.4	128	8.1
Dec. 1.....	9340	--		--	--	7.1	--	70	0	--	4.2		--	.0	--	--		58	1	.4	146	8.2
Jan. 5, 1966.....	42000	--		--	--	7.0	--	52	0	--	2.2		--	.1	--	--		46	3	.4	110	7.6
Feb. 8.....	24000	--		--	--	7.2	--	70	0	--	4.2		--	.1	--	--		60	3	.4	150	8.2
Mar. 9.....	10100	--		--	--	8.1	--	79	0	--	3.1		--	.1	--	--		65	0	.4	167	8.0
Apr. 7.....	8240	--		--	--	7.1	--	73	0	--	3.2		--	.0	--	--		59	0	.4	148	8.0
May 5.....	8460	20		12	5.8	6.5	0.9	70	0	8.0	2.8		0.6	.0	99	0.13		54	0	.4	135	7.8
June 8.....	8900	--		--	--	6.7	--	69	0	--	2.5		--	.0	--	--		53	0	.4	131	8.0
July 13.....	11500	--		--	--	6.1	--	62	0	--	2.0		--	.0	--	--		48	0	.4	122	7.6
Aug. 11.....	10300	--		--	--	6.3	--	64	0	--	2.1		--	.0	--	--		49	0	.4	121	7.8
Sept. 14.....	6960	19		10	6.0	6.2	1.0	68	0	6.0	2.4		1.4	.0	87	.12		50	0	.4	128	7.9

SACRAMENTO RIVER BASIN--Continued

11-3890. SACRAMENTO RIVER AT BUTTE CITY, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	59	59	60	59	59	59	60	60	60	59	59	58	58	59	58	57	55	56	56	55	56	56	56	56	56	56	56	55	55	55	55	57
Minimum	57	57	58	58	58	58	58	58	59	58	58	57	56	58	56	54	54	55	55	55	55	55	55	55	55	55	55	54	54	54	54	56
November																																
Maximum	55	54	54	54	55	55	55	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	53	53	52	51	51	50	50	50	--	53
Minimum	54	54	54	54	54	55	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	53	53	52	51	51	50	50	50	50	--	53
December																																
Maximum	50	50	50	50	50	50	50	50	50	50	49	50	50	49	48	47	47	47	47	47	47	47	46	46	46	46	46	46	46	46	46	48
Minimum	50	50	50	50	50	50	50	50	50	49	49	49	49	48	47	47	47	47	47	47	47	46	46	46	46	46	46	46	46	46	46	48
January																																
Maximum	46	45	45	46	46	46	47	47	47	47	47	46	46	46	46	46	46	46	46	45	44	44	45	45	45	45	45	45	45	46	45	46
Minimum	45	45	45	45	45	45	46	47	47	47	46	46	46	46	46	46	46	46	45	44	44	44	44	45	45	45	45	45	45	45	45	45
February																																
Maximum	45	45	45	46	46	47	47	46	46	47	47	47	47	46	46	47	47	48	48	48	48	49	50	51	51	49	49	50	--	--	--	47
Minimum	45	45	45	45	46	46	46	45	46	46	47	46	45	46	46	46	47	47	47	48	48	48	49	50	49	48	48	48	--	--	--	47
March																																
Maximum	50	50	48	48	47	48	49	50	50	50	50	50	51	52	52	52	50	48	49	50	50	50	51	52	53	54	56	56	56	57	58	51
Minimum	49	48	47	47	47	47	48	49	50	50	50	50	50	51	52	50	48	47	47	48	49	49	49	50	51	52	54	54	54	55	56	50
April																																
Maximum	58	58	58	58	58	58	58	58	57	56	54	54	55	57	59	60	60	60	57	55	55	57	58	59	60	59	57	59	60	60	--	58
Minimum	56	56	55	56	56	56	56	57	56	54	52	53	53	54	55	57	58	57	55	53	53	53	55	56	57	57	53	55	56	57	--	55
May																																
Maximum	60	60	60	60	60	60	60	60	59	58	59	60	60	60	60	60	60	61	62	64	64	63	63	64	65	65	65	65	64	62	62	61
Minimum	57	58	58	58	58	58	57	58	57	56	56	58	58	58	57	57	57	57	58	61	61	60	59	60	61	62	62	62	60	60	59	59
June																																
Maximum	62	60	59	59	59	59	58	59	61	62	62	63	64	65	66	66	65	64	64	63	61	60	60	61	61	62	63	63	63	63	--	62
Minimum	59	57	56	56	57	57	55	56	58	59	59	59	60	61	63	63	62	61	61	61	59	57	58	58	58	59	59	59	60	60	--	59
July																																
Maximum	62	61	61	62	62	62	62	61	61	60	61	60	60	60	59	60	60	60	60	60	60	61	61	62	63	63	62	62	62	61	60	61
Minimum	59	58	58	59	59	60	60	60	59	58	59	59	58	58	58	58	58	58	58	58	58	59	59	60	60	60	60	60	60	58	58	59
August																																
Maximum	63	63	64	63	63	63	62	62	62	62	62	63	63	63	63	62	61	61	61	61	61	61	61	61	61	61	61	61	60	60	59	62
Minimum	59	61	61	61	61	61	60	60	60	60	60	60	60	60	60	60	59	59	59	59	59	59	59	59	59	59	58	58	58	58	57	59
September																																
Maximum	60	61	62	63	63	63	63	62	62	62	62	61	61	60	60	61	61	61	62	62	63	63	62	62	61	61	61	61	--	--	--	62
Minimum	58	59	60	61	61	61	61	60	60	60	60	59	59	58	58	59	60	61	60	61	61	61	60	60	60	60	60	60	--	--	--	60

11-3895. SACRAMENTO RIVER AT COLUSA, CALIF.

LOCATION.--Lat 39°12'51", long 121°59'57", at gaging station at north end of Jimeno Grant, downstream from highway bridge at Colusa, Colusa County, and at mile 89.4 upstream from Sacramento.
DRAINAGE AREA.--12,110 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966 (discontinued).

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	8050	--		--	--	6.0	--	66	0	--	2.3		--	0.0	--	--		49	0	0.4	125	8.1
Nov. 3.....	8220	--		--	--	6.6	--	67	0	--	2.7		--	.1	--	--		51	0	.4	128	7.9
Dec. 1.....	10700	--		--	--	7.3	--	71	0	--	4.1		--	.0	--	--		58	0	.4	145	8.2
Jan. 5, 1966.....	24600	--		--	--	7.3	--	69	0	--	3.0		--	.0	--	--		53	0	.4	139	7.8
Feb. 8.....	27500	--		--	--	7.1	--	66	0	--	5.1		--	.1	--	--		57	3	.4	146	8.2
Mar. 9.....	9860	--		--	--	8.4	--	81	0	--	3.3		--	.1	--	--		67	1	.5	171	7.6
Apr. 7.....	8820	--		--	--	7.1	--	74	0	--	4.0		--	.0	--	--		60	0	.4	150	7.9
May 5.....	7920	19		12	5.8	7.1	1.3	71	0	7.0	2.3		0.7	.0	90	0.12		54	0	.4	135	7.9
June 9.....	8260	--		--	--	6.9	--	70	0	--	2.8		--	.0	--	--		53	0	.4	134	8.0
July 13.....	10600	--		--	--	6.5	--	64	0	--	2.3		--	.0	--	--		48	0	.4	121	8.1
Aug. 11.....	9980	--		--	--	6.2	--	66	0	--	2.1		--	.0	--	--		49	0	.4	123	8.0
Sept. 14.....	7230	20		11	6.0	6.5	1.1	69	0	7.0	2.8		1.0	.0	89	.12		52	0	.4	129	8.1

11-3900. BUTTE CREEK NEAR CHICO, CALIF.

LOCATION.--Lat 39°43'34", long 121°42'28", at gaging station 0.7 mile downstream from Little Butte Creek, and 7.5 miles east of Chico, Butte County.
DRAINAGE AREA.--147 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
Water temperatures: November 1961 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 74°F July 21-23; minimum, 36°F sometime during period Dec. 6 to Jan. 4.
EXTREMES, 1961-66.--Water temperatures: Maximum (1961-64, 1965-66), 74°F July 21-23, 1966; minimum, 35°F Jan. 23, 24, 1962, Jan. 13, 14, 1963, Jan. 15, 1964.
REMARKS.--Clock stopped Nov. 13-17, Dec. 6 to Jan. 4, and Jan. 10-17; temperature ranges, 50°F to 51°F, 36°F to 43°F and 38°F to 44°F, respectively.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	141	--		--	--	3.6	--	68	0	--	0.4		--	0.0	--	--		51	0	0.2	111	8.2
Nov. 3.....	98	--		--	--	5.0	--	74	0	--	.5		--	.0	--	--		53	0	.3	123	8.2
Dec. 1.....	222	--		--	--	3.5	--	60	0	--	.8		--	.1	--	--		46	0	.2	101	8.1
Jan. 5, 1966.....	2320	--		--	--	2.4	--	38	0	--	.7		--	.1	--	--		28	0	.2	68	8.2
Feb. 8.....	478	--		--	--	4.1	--	50	0	--	.7		--	.0	--	--		39	0	.3	88	8.1
Mar. 8.....	391	--		--	--	3.2	--	50	0	--	.4		--	.0	--	--		38	0	.2	90	8.0
Apr. 8.....	641	--		--	--	2.3	--	33	0	--	.5		--	.0	--	--		26	0	.2	60	7.8
May 4.....	464	17		7.6	2.2	2.5	0.6	37	0	1.0	.4		0.7	.2	A 50	0.07		28	0	.2	65	7.7
June 9.....	233	--		--	--	3.7	--	51	0	--	.4		--	.0	--	--		38	0	.3	87	8.0
July 13.....	136	--		--	--	3.4	--	63	0	--	.6		--	.0	--	--		44	0	.2	102	8.1
Aug. 10.....	98	--		--	--	4.0	--	65	0	--	.4		--	.0	--	--		48	0	.2	108	8.2
Sept. 14.....	116	20		12	4.7	3.5	.9	67	0	.0	.6		.6	.0	82	.11		50	0	.2	111	7.9

A Calculated from sum of determined constituents.

11-3900. BUTTE CREEK NEAR CHICO, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	59	59	58	58	59	60	61	61	61	61	60	59	58	56	55	52	52	52	54	54	54	55	55	54	54	54	54	53	53	52	52	56
Minimum	54	55	54	54	55	56	56	57	57	57	56	55	54	55	52	48	48	48	50	50	50	50	51	50	50	50	50	50	49	49	48	52
November																																
Maximum	52	53	53	54	55	53	52	53	52	51	51	51	--	--	--	--	--	54	52	52	50	48	48	48	47	44	44	44	43	43	--	50
Minimum	48	50	50	51	52	50	50	50	50	48	49	50	--	--	--	--	--	51	51	50	48	47	47	47	44	43	43	41	41	42	--	48
December																																
Maximum	--	--	--	44	44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	43	43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
January																																
Maximum	--	--	--	--	46	46	46	45	45	--	--	--	--	--	--	--	--	41	40	39	39	40	41	41	41	41	41	40	42	41	41	--
Minimum	--	--	--	--	46	46	44	45	43	--	--	--	--	--	--	--	--	39	39	37	37	38	39	39	39	39	38	38	39	40	40	--
February																																
Maximum	42	41	42	44	45	45	43	42	42	42	41	42	40	41	40	40	41	42	42	42	42	42	45	43	41	41	42	--	--	--	--	42
Minimum	39	40	40	42	44	42	41	40	40	40	39	39	37	38	37	36	37	38	40	39	40	41	42	41	39	38	38	--	--	--	--	40
March																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	46	48	48	46	45	43	45	47	46	47	46	47	47	48	48	49	49	49	49	49	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	44	46	46	45	43	41	42	44	42	43	43	43	43	44	45	46	46	46	46	46	--
April																																
Maximum	49	48	47	50	51	51	52	51	50	49	49	50	50	51	53	54	55	52	50	50	52	52	53	55	55	55	53	54	54	55	--	52
Minimum	47	47	45	46	49	49	50	50	49	47	47	48	47	49	50	51	52	49	47	46	48	49	50	51	52	53	50	50	50	50	--	49
May																																
Maximum	56	56	56	59	59	58	58	59	58	56	59	59	59	59	59	59	60	61	62	63	62	61	60	61	62	62	62	61	61	59	59	60
Minimum	51	51	50	55	56	54	54	55	56	55	54	55	54	55	54	54	55	55	57	58	58	57	56	56	57	58	58	58	57	56	54	55
June																																
Maximum	59	58	58	59	58	56	59	60	63	64	63	64	66	66	66	68	69	70	70	67	65	65	66	66	67	68	70	70	71	70	69	65
Minimum	54	53	52	52	54	55	55	55	57	58	58	59	60	60	60	60	61	62	63	64	62	59	60	60	60	60	61	63	64	63	63	59
July																																
Maximum	69	68	70	70	70	70	68	70	70	70	69	69	69	71	73	73	73	73	73	74	74	74	74	72	73	72	71	71	71	67	70	71
Minimum	61	61	61	62	63	63	63	63	63	63	63	63	63	65	66	67	68	67	66	67	67	68	67	67	67	65	65	64	64	66	64	65
August																																
Maximum	72	74	75	75	75	74	74	73	72	74	73	73	73	73	72	72	72	73	73	72	71	70	69	68	67	67	67	68	67	63	64	71
Minimum	64	64	68	68	69	67	67	67	67	67	66	66	66	66	66	66	66	67	66	66	64	66	63	62	61	61	61	61	61	61	59	65
September																																
Maximum	65	66	66	66	67	67	66	66	65	64	64	60	61	61	61	62	63	63	63	64	65	65	65	63	63	62	62	62	63	66	--	64
Minimum	58	59	59	60	61	61	61	60	60	59	59	57	57	55	55	56	57	59	59	58	60	60	60	59	58	58	57	57	57	58	--	58

11-3906.5. SACRAMENTO RIVER ABOVE COLUSA TROUGH, AT KNIGHTS LANDING, CALIF.

LOCATION.--Lat 38°48'18", long 121°43'22", approximately 200 yards upstream from State Highway 24 bridge at Knights Landing, Yolo County, and approximately 0.3 mile upstream from gaging station.
RECORDS AVAILABLE.--Chemical analyses: July 1960 to September 1966.
REMARKS.--Records of daily discharge data given for Sacramento River at Knights Landing. Considerable inflow between sampling point and gaging station.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	8750	--		--	--	6.7	--	71	0	--	2.9		--	0.0	--	--		54	0	0.4	135	8.2
Nov. 3.....	8770	--		--	--	6.1	--	67	0	--	2.4		--	.1	--	--		51	0	.4	126	8.2
Dec. 1.....	13400	--		--	--	6.0	--	62	0	--	2.9		--	.0	--	--		50	0	.4	126	8.2
Jan. 5, 1966.....	18400	--		--	--	8.0	--	73	0	--	3.7		--	.0	--	--		54	0	.5	150	8.1
Feb. 8.....	25500	--		--	--	8.8	--	72	0	--	6.2		--	.1	--	--		60	1	.5	163	8.2
Mar. 9.....	9990	--		--	--	8.6	--	83	0	--	3.6		--	.1	--	--		70	2	.4	177	8.1
Apr. 7.....	9530	--		--	--	6.8	--	74	0	--	3.6		--	.0	--	--		58	0	.4	148	8.2
May 5.....	7070	20		14	7.5	13	1.1	84	0	17	6.5		0.9	.0	124	0.17		66	0	.7	190	7.8
June 8.....	8110	--		--	--	12	--	82	0	--	6.0		--	.1	--	--		63	0	.7	178	8.2
July 13.....	9530	--		--	--	8.1	--	69	0	--	3.1		--	.0	--	--		52	0	.5	137	8.1
Aug. 11.....	9920	--		--	--	8.4	--	72	0	--	3.2		--	.0	--	--		53	0	.5	142	8.1
Sept. 14.....	8810	20		13	8.0	10	1.1	85	0	9.0	4.2		.7	.0	A 108	.15		66	0	.5	167	7.8

A Calculated from sum of determined constituents.

11-3907. COLUSA TROUGH NEAR COLUSA, CALIF.

LOCATION.--Lat 39°11'45", long 122°03'34", at gaging station 3 miles west of Colusa, Colusa County, on State Highway 20, and 6 miles northeast of Williams.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
REMARKS.--Records of discharge furnished by California State Department of Water Resources. This water is the drainage from Colusa basin passing down the Back Barrow Pit and entering the Sacramento River just upstream from Knights Landing gaging station.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	253	21		30	23	60	2.0	198	7	70	30		1.5	0.1	349	0.47		169	0	2.0	549	8.5
Nov. 3.....	217	20		29	23	66	2.3	218	0	80	35		1.3	.2	382	.52		168	0	2.2	606	7.9
Dec. 1.....	192	19		46	38	136	2.8	302	10	177	73		3.3	.3	662	.90		270	6	3.6	1040	8.5
Jan. 5, 1966.....	1370	12		28	14	78	3.2	137	0	102	49		5.1	.2	386	.52		127	15	3.0	607	7.5
Feb. 8.....	1090	15		32	23	87	3.7	202	0	125	48		4.4	.2	472	.64		176	10	2.8	717	8.0
Mar. 9.....	A 172	15		62	56	210	1.8	356	10	320	130		1.1	.5	1040	1.41		386	78	4.7	1530	8.5
Apr. 7.....	A 259	16		30	21	88	3.0	208	0	111	40		2.2	.1	440	.60		163	0	3.0	691	8.0
May 5.....	1120	13		24	17	56	2.5	168	0	73	22		2.1	.1	298	.41		129	0	2.1	486	7.8
June 8.....	783	14		22	21	62	1.0	196	0	73	27		1.5	.2	B 319	.43		143	0	2.3	534	8.1
July 13.....	540	15		32	23	64	.9	240	0	75	38	0.4	1.8	.2	B 368	.50		176	0	2.1	589	8.1
Aug. 11.....	708	18		30	24	60	1.2	236	4	56	26		1.5	.2	B 337	.46		172	0	2.0	555	8.4
Sept. 14.....	668	18		32	22	57	1.6	232	0	64	30		2.0	.1	344	.47		170	0	1.9	570	7.9

A Estimated.
B Calculated from sum of determined constituents.

SACRAMENTO RIVER BASIN--Continued

11-3911. SACRAMENTO SLOUGH NEAR KNIGHTS LANDING, CALIF.

LOCATION.--Lat 38°50'05", long 121°45'10", at gaging station on levee near Reclamation District 1,500 pumping plant, 1 mile upstream from mouth, and 5.4 miles southeast of Knights Landing, Yolo County.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
REMARKS.--This water is entire outflow of the Sutter Bypass area and the Reclamation District 1,500. No discharge records available.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Estimated discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	567	--		--	--	38	--	216	6	--	48		--	0.0	--	--		182	0	1.2	508	8.4
Nov. 3.....	851	--		--	--	20	--	170	3	--	14		--	.1	--	--		128	0	.8	321	8.4
Apr. 7, 1966.....	1700	--		--	--	10	--	106	0	--	7.2		--	.0	--	--		80	0	.5	197	8.2
May 5.....	967	23		29	20	34	1.6	182	0	20	36		0.6	.1	264	0.36		154	5	1.2	439	7.7
June 8.....	1080	--		--	--	38	--	204	4	--	42		--	.1	--	--		172	0	1.3	484	8.4
July 13.....	1050	--		--	--	50	--	246	6	--	63		--	.0	--	--		210	0	1.5	608	8.5
Aug. 11.....	692	--		--	--	45	--	256	0	--	48		--	.0	--	--		196	0	1.4	557	8.0
Sept. 14.....	868	31		50	39	90	1.3	320	0	29	131		3.2	.1	A 533	.72		286	24	2.3	935	7.8

A Calculated from sum of determined constituents.

11-3915. BIG GRIZZLY CREEK NEAR PORTOLA, CALIF.

LOCATION.--Lat 39°52'00", long 120°27'20", temperature recorder at gaging station on left bank 500 feet upstream from small tributary, 4.3 miles upstream from mouth, and 4.5 miles north of Portola, Plumas County.
DRAINAGE AREA.--45.5 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1962 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 78°F Aug. 1, 3; minimum, freezing point on many days during January to April.
EXTREMES, 1962-66.--Water temperatures: Maximum, 78°F July 12-14, 1963, Aug. 1, 3, 1966; minimum, freezing point on many days during winter months.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	58	57	55	54	59	59	58	58	58	58	57	55	55	51	49	48	46	47	--	--	--	50	50	50	49	48	48	49	49	47	46	52
Minimum	44	45	43	43	46	46	45	45	45	45	44	43	44	45	43	39	38	40	--	--	--	39	39	39	38	38	38	38	39	37	37	42
November																																
Maximum	46	48	46	49	46	45	42	44	42	42	44	44	44	43	43	43	42	42	37	38	38	36	35	33	33	33	33	33	33	33	--	40
Minimum	37	40	38	40	38	37	37	41	38	37	40	42	43	42	41	41	41	34	34	36	34	34	33	33	33	33	33	33	33	33	--	37
December																																
Maximum	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
Minimum	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
January																																
Maximum	33	33	33	33	33	33	32	32	32	32	32	32	32	32	32	32	32	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
Minimum	33	33	33	33	33	32	32	32	32	32	32	32	32	32	32	32	32	32	33	33	33	33	33	33	33	33	33	33	33	33	33	33
February																																
Maximum	33	33	33	33	33	33	33	33	33	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	--	--	--	32
Minimum	33	33	33	33	33	33	33	33	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	--	--	--	32
March																																
Maximum	32	32	32	33	33	34	34	33	34	34	34	35	34	34	33	33	33	35	34	34	35	34	35	36	35	35	35	35	35	35	35	34
Minimum	32	32	32	32	33	33	33	32	32	32	32	32	32	32	32	32	32	33	32	32	32	32	32	32	32	32	32	32	32	32	32	32
April																																
Maximum	37	42	45	48	50	51	51	50	47	44	46	46	49	51	53	54	53	50	46	49	50	52	54	58	58	55	53	55	56	58	--	50
Minimum	32	32	33	34	36	37	39	40	41	36	36	40	40	44	46	48	49	41	40	40	43	42	44	46	48	48	43	43	43	46	--	41
May																																
Maximum	59	60	58	58	58	59	62	62	56	59	59	60	62	60	62	63	64	66	68	70	67	67	67	69	71	71	69	69	65	65	62	63
Minimum	46	46	50	50	52	47	48	52	48	48	50	49	50	50	48	48	47	48	48	50	54	54	49	49	51	51	51	53	55	53	49	50
June																																
Maximum	65	63	65	67	63	58	57	62	69	71	70	71	73	73	68	73	73	73	74	69	61	65	68	70	70	74	76	76	74	73	--	69
Minimum	49	47	47	47	47	55	53	50	54	52	52	52	54	56	56	55	54	54	56	57	52	48	49	50	49	51	54	54	55	52	--	52
July																																
Maximum	69	68	70	73	73	73	71	71	71	71	71	71	70	70	70	71	73	74	75	75	76	76	75	74	73	72	73	74	74	66	76	72
Minimum	50	52	50	51	51	51	51	54	57	53	52	52	49	49	48	50	51	51	54	54	55	56	56	56	54	52	52	52	54	60	58	53
August																																
Maximum	78	70	78	77	76	76	74	74	75	74	73	74	75	72	73	73	75	76	74	72	73	72	70	70	70	69	70	70	66	59	66	72
Minimum	59	60	58	58	56	56	55	56	55	56	56	57	57	56	57	57	58	58	57	54	54	54	52	52	55	53	51	52	54	50	48	55
September																																
Maximum	68	68	68	70	66	68	68	66	66	66	66	63	59	62	64	66	64	57	63	68	69	68	67	67	65	60	65	66	68	66	--	66
Minimum	50	49	50	52	53	54	53	49	49	48	50	48	48	46	47	49	49	54	52	54	54	54	52	53	52	52	51	52	52	52	--	51

11-3915. BIG GRIZZLY CREEK NEAR PORTOLA, CALIF.--Continued

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Oct. 10, 1965.....	1515	57		1.8	2	T												
Nov. 20.....	1320	37		14	21	0.8												
Nov. 30.....	0830	33		7.6	7	.1												
Jan. 6, 1966.....	1020	33		2.5	13	.1												
Feb. 10.....	--	32		7.0	14	.3												
Apr. 11.....	1600	45		148	33	13												
May 11.....	1300	50		62	64	11						87	98	100				V
June 14.....	1620	73		2.3	5	T												
Sept. 8.....	1630	66		.3	124	.1												

T Less than 0.05 ton.

11-3925. MIDDLE FORK FEATHER RIVER NEAR CLIO, CALIF.

LOCATION.--Lat 39°45'10", long 120°35'40", temperature recorder at gaging station 0.6 mile upstream from Frazier Creek, 1.0 mile northwest of Clio, Plumas County, and 2.2 miles southeast of Blairsden.
DRAINAGE AREA.--686 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1963 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 79°F Aug. 3; minimum, 33°F sometime during period Nov. 22-29.
EXTREMES, 1963-66.--Water temperatures: Maximum, 79°F Aug. 3, 1966; minimum, freezing point on several days during December 1963.
REMARKS.--Clock stopped Nov. 22-29; temperature range, 33°F to 40°F.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	58	58	56	56	59	59	58	57	57	57	57	56	56	56	55	51	50	50	52	51	51	51	51	51	50	50	50	50	49	49	48	54
Minimum	49	50	49	49	51	51	50	50	50	50	49	49	49	49	49	45	45	46	47	45	46	45	46	46	45	45	44	45	45	44	44	47
November																																
Maximum	48	47	47	47	47	45	45	45	45	44	44	45	45	45	44	44	44	44	40	40	40	--	--	--	--	--	--	--	--	34	--	--
Minimum	44	43	43	43	43	41	41	44	43	42	43	43	45	44	43	44	44	39	39	40	38	--	--	--	--	--	--	--	--	34	--	--
December																																
Maximum	34	34	35	35	35	34	34	34	35	35	34	35	35	34	34	34	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Minimum	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	35	35	35	35	35	35	35	35	35	35	35	35	35	35	34
January																																
Maximum	35	35	35	35	35	36	35	36	36	36	36	35	36	36	36	36	35	34	34	34	34	34	34	34	34	35	34	34	34	36	36	35
Minimum	35	35	35	35	35	35	35	35	35	35	35	35	35	35	36	35	34	34	34	34	34	34	34	34	34	34	34	34	34	34	36	35
February																																
Maximum	36	36	36	37	37	36	36	35	35	35	35	35	34	34	35	34	35	36	35	36	36	37	37	37	35	36	35	35	--	--	--	36
Minimum	36	36	35	36	36	36	35	35	34	34	34	34	34	34	34	34	34	34	34	35	34	36	37	35	35	35	35	35	--	--	--	35
March																																
Maximum	36	36	35	35	37	39	39	38	38	38	37	38	39	42	41	40	39	42	45	44	44	44	43	43	45	46	47	47	47	47	47	41
Minimum	35	35	35	35	35	37	37	38	38	37	37	37	38	39	40	39	37	39	40	40	41	40	39	40	41	42	43	43	43	41	41	39
April																																
Maximum	47	47	48	49	51	51	53	50	49	47	47	49	50	52	53	55	55	52	50	50	51	52	55	57	57	56	54	54	55	56	--	52
Minimum	41	41	43	44	44	45	47	47	46	45	43	44	44	45	47	49	51	49	45	45	45	46	47	48	49	49	46	45	46	47	--	46
May																																
Maximum	57	58	56	58	61	60	58	59	57	60	58	59	60	60	61	61	62	63	65	65	66	66	66	66	68	69	69	67	63	65	64	62
Minimum	47	47	49	51	52	49	49	51	51	52	52	50	51	53	52	52	51	53	53	54	55	55	53	54	56	56	56	59	58	57	53	53
June																																
Maximum	64	63	63	66	63	62	60	66	70	70	71	73	76	74	69	73	73	73	73	72	66	70	69	70	72	73	75	75	74	73	--	70
Minimum	53	53	52	53	55	58	56	56	58	58	58	59	59	63	60	60	59	59	60	62	58	54	56	56	56	58	60	63	63	60	--	58
July																																
Maximum	71	73	73	73	75	73	71	71	74	75	75	75	74	73	73	74	74	75	75	75	77	78	77	74	75	74	75	76	77	74	75	74
Minimum	58	61	57	59	59	59	58	61	64	59	59	59	57	59	58	59	60	60	62	62	63	64	63	62	61	58	61	60	63	66	63	60
August																																
Maximum	76	77	79	77	77	77	76	77	75	76	74	75	74	72	75	74	76	75	73	72	72	71	70	69	69	67	68	68	66	59	63	73
Minimum	65	67	67	63	62	63	61	63	62	62	62	62	60	60	60	62	63	63	61	58	60	58	56	57	58	56	55	56	56	54	51	60
September																																
Maximum	64	65	67	67	67	66	67	63	62	62	60	58	55	55	58	59	60	59	59	62	62	62	61	60	58	60	58	58	58	58	--	61
Minimum	53	53	55	55	57	58	57	54	52	53	52	50	50	48	50	50	50	56	55	55	54	54	53	53	50	53	52	51	50	51	--	53

SACRAMENTO RIVER BASIN--Continued

11-3945. MIDDLE FORK FEATHER RIVER NEAR MERRIMAC, CALIF.

LOCATION.--Lat 39°42'30", long 121°16'10", at gaging station 400 feet downstream from bridge on Milsap Bar Road, 500 feet downstream from Little North Fork, 4.5 miles southeast of Merrimac, Butte County, and 20 miles northeast of Oroville.
DRAINAGE AREA.--1,062 square miles.
RECORDS AVAILABLE.--Chemical analyses: July 1963 to June 1966 (discontinued).
Water temperatures: October 1962 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 75°F Aug. 3; minimum, 33°F Jan. 26, 27.
EXTREMES, 1962-66.--Water temperatures: Maximum (1964-66), 75°F Aug. 3, 1966; minimum (1962-64, 1965-66), 33°F Jan. 26, 27, 1966.
REMARKS.--Clock stopped Sept. 25-30; temperature range, 48°F to 61°F.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 1, 1965.....	215					7.4		82	1		2.3			0.0				65	0	0.4	156	8.3
Nov. 8.....	256					6.7		71	0		1.6			.0				63	5	.4	151	8.2
Dec. 7.....	427					5.6		62	0		2.1			.0				58	7	.3	139	7.2
Jan. 14, 1966....	597					3.8		46	0		.9			.0				38	0	.3	92	7.6
Mar. 3.....	608					5.3		65	0		1.7			.1				50	0	.3	122	8.0
Apr. 14.....	2680					3.3		42	0		.5			.0				33	0	.2	78	7.9
May 11.....	2520	11		8.4	1.7	2.9	0.7	36	0	3.0	.8		0.5	.0	50	0.07		28	0	.2	68	7.5
June 2.....	678					3.5		51	0		.6			.0				40	0	.2	91	8.1

11-3945. MIDDLE FORK FEATHER RIVER NEAR MERRIMAC, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	56	57	57	57	56	57	58	58	59	57	57	57	56	56	55	53	51	51	52	52	51	51	51	51	51	51	49	49	49	49	48	54
Minimum	55	55	55	55	55	55	57	57	57	56	56	55	55	55	53	51	50	50	50	51	50	50	50	50	50	49	48	48	48	48	47	52
November																																
Maximum	48	47	47	48	49	48	47	48	48	48	47	47	48	47	48	48	48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	47	46	46	47	48	47	47	47	48	47	47	47	47	47	47	47	47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
December																																
Maximum	--	39	40	40	40	40	40	39	39	39	40	41	41	39	36	35	34	34	35	35	35	36	36	36	37	37	37	38	37	37	37	38
Minimum	--	38	39	39	40	40	39	38	38	38	39	40	39	36	35	34	34	34	34	34	34	35	34	34	36	36	36	37	36	37	37	37
January																																
Maximum	37	37	36	39	40	40	40	40	40	39	39	39	39	39	39	39	38	37	37	36	35	35	35	36	36	36	35	36	36	--	--	38
Minimum	36	36	35	36	39	39	39	39	39	39	39	38	38	38	38	38	37	36	36	35	35	35	34	35	35	33	33	35	35	--	--	37
February																																
Maximum	--	--	37	38	39	40	40	39	38	39	37	38	36	36	36	36	37	38	39	40	41	42	43	43	41	40	40	40	--	--	--	39
Minimum	--	--	37	37	38	39	39	38	37	37	36	36	35	35	35	35	36	37	38	38	40	41	42	41	39	38	39	40	--	--	--	38
March																																
Maximum	40	39	37	37	39	43	45	45	45	43	42	42	43	44	45	44	42	44	45	45	46	46	45	46	47	48	48	48	48	48	48	44
Minimum	39	37	36	36	37	39	43	45	43	42	40	40	42	43	44	42	41	42	44	44	45	44	44	44	45	46	47	47	47	47	47	43
April																																
Maximum	50	50	50	50	51	51	51	51	50	48	47	47	49	50	50	51	51	50	48	47	49	49	50	50	51	50	48	48	48	49	--	49
Minimum	47	48	47	48	49	49	50	50	48	46	46	46	46	48	49	50	50	48	45	45	47	48	47	48	49	48	46	46	46	47	--	48
May																																
Maximum	50	50	50	51	51	51	52	52	52	52	53	52	52	53	53	53	54	56	57	58	58	58	58	59	60	60	60	60	60	60	58	55
Minimum	48	48	48	49	50	49	49	50	50	50	52	51	51	52	51	51	52	54	55	56	56	56	55	56	58	58	58	59	58	57	56	53
June																																
Maximum	56	55	56	57	57	57	57	58	61	62	62	62	63	65	67	67	67	67	67	66	64	62	62	62	63	64	65	67	67	68	--	62
Minimum	54	53	53	55	56	57	56	56	57	59	60	59	60	62	64	65	65	65	65	64	62	59	60	60	59	61	62	64	65	65	--	60
July																																
Maximum	67	67	66	67	68	68	68	67	67	68	68	67	67	67	67	67	68	69	70	70	71	72	72	72	72	71	70	70	70	69	70	69
Minimum	65	64	63	63	64	64	64	64	65	64	64	64	64	63	63	63	64	64	65	67	68	68	69	68	68	66	66	66	66	67	65	65
August																																
Maximum	72	73	75	74	74	74	73	73	73	72	71	71	71	71	71	71	72	72	72	70	70	69	69	68	67	66	66	67	66	63	63	70
Minimum	67	69	70	70	69	69	69	69	69	68	68	68	68	68	68	68	68	69	69	67	67	67	66	65	64	64	63	64	63	61	61	67
September																																
Maximum	64	65	65	66	67	67	67	67	66	65	64	62	60	59	64	63	62	62	62	63	63	62	62	61	--	--	--	--	--	--	--	64
Minimum	61	61	62	63	64	64	65	64	63	63	62	60	59	57	57	60	60	60	59	60	60	60	60	60	--	--	--	--	--	--	--	61

11-3963.5. SOUTH FORK FEATHER RIVER BELOW PONDEROSA DAM, CALIF.

LOCATION.--Lat 39°33'05", long 121°18'30", at gaging station 1,000 feet upstream from Sucker Run, 1,800 feet downstream from Ponderosa Dam, Butte County, and 2.8 miles northwest of Forbestown.
DRAINAGE AREA.--108 square miles.
RECORDS AVAILABLE.--Chemical analyses: July 1963 to June 1966 (discontinued).
Water temperatures: October 1962 to September 1966.
EXTREMES, 1963-65.--Water temperatures: Maximum, 87°F July 5, 16, 1965; minimum, 36°F Jan. 1, 2, 1965.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 1, 1965.....	140					3.5		20	0		0.9			0.0				16	0	0.4	42	7.7
Nov. 8.....	.3					2.6		28	0		.9			.0				19	0	.3	48	7.7
Dec. 7.....	175					2.0		22	0		.5			.0				18	0	.2	44	7.4
Jan. 14, 1966....	121					2.0		27	0		.5			.0				22	0	.2	53	7.4
Feb. 4.....	.3					2.6		27	0		.7			.0				20	0	.2	55	7.9
Mar. 3.....	.3					3.2		34	0		1.2			.2				28	0	.3	70	7.4
Apr. 14.....	304					2.0		24	0		.4			.0				19	0	.2	48	7.7
May 11.....	363	12		5.0	0.6	1.8	0.4	20	0	1.0	.6		0.4	.0	32	0.04		15	0	.2	39	7.3
June 2.....	.3					2.3		23	0		.5			.0				17	0	.2	46	7.7

11-3963.5. SOUTH FORK FEATHER RIVER BELOW PONDEROSA DAM, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	63	61	62	62	63	61	62	62	61	61	62	62	62	58	58	59	61	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	53	53	53	53	55	53	52	54	53	54	53	53	54	55	52	50	53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	58	58	55	54	55	56	55	55	54	54	56	56	52	50	50	48	49	54	53	53	54	--	--
Minimum	--	--	--	--	--	--	--	--	--	48	53	54	53	53	53	52	53	53	51	50	49	48	50	48	47	47	48	46	47	48	--	--
December																																
Maximum	54	53	53	52	54	53	52	51	49	52	50	50	50	50	49	49	48	48	48	48	45	47	45	43	44	44	43	44	43	42	43	48
Minimum	48	49	48	48	48	48	48	47	48	47	48	48	45	44	44	43	42	42	42	41	41	42	40	42	42	40	41	41	41	41	40	44
January																																
Maximum	42	41	42	42	44	48	47	47	47	45	47	46	46	51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	39	39	40	41	42	44	43	44	43	43	42	41	41	41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
February																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
March																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
April																																
Maximum	--	--	--	--	--	49	45	45	44	43	43	44	45	46	48	48	47	44	45	46	47	51	49	50	49	49	51	49	49	48	--	47
Minimum	--	--	--	--	--	42	40	39	40	40	39	38	37	38	39	40	42	39	38	38	40	40	41	41	43	42	42	41	41	40	--	40
May																																
Maximum	49	50	50	48	48	50	51	52	50	51	53	55	54	54	55	55	57	59	60	59	56	57	61	--	--	--	--	--	--	--	--	--
Minimum	40	40	42	43	43	44	44	45	47	47	47	47	48	47	48	48	49	49	51	53	51	50	49	--	--	--	--	--	--	--	--	--
June																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
July																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
August																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
September																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

11-4011.8. LITTLE GRIZZLY CREEK NEAR GENESEE, CALIF.

LOCATION.--Lat 40°00'55", long 120°45'10", temperature recorder at gaging station on right bank, 2.5 miles upstream from Indian Creek, and 2 miles south of Genesee, Plumas County.
DRAINAGE AREA.--29.6 square miles.
RECORDS AVAILABLE.--Water temperatures: August 1964 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 67°F Aug. 2, 3; minimum, 33°F on several days during winter months.
EXTREMES, 1964-66.--Water temperatures: Maximum, 67°F Aug. 2, 3, 1966; minimum, 33°F on several days during winter months.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	48	48	47	47	50	50	49	49	49	49	48	48	48	48	47	43	44	46	46	46	45	45	45	45	44	44	43	44	44	42	42	46
Minimum	44	44	44	44	46	47	46	46	46	46	45	45	45	45	43	40	40	42	43	43	43	42	43	42	42	41	41	41	41	40	39	43
November																																
Maximum	42	43	43	45	43	42	43	45	43	41	44	44	45	46	46	46	47	43	42	42	41	40	40	39	37	37	37	36	36	36	--	42
Minimum	39	41	41	42	41	40	40	43	41	39	41	43	44	44	45	45	43	41	41	41	39	38	38	35	36	36	36	35	35	35	--	40
December																																
Maximum	36	36	37	38	38	37	36	37	38	38	39	39	39	36	35	35	36	35	35	36	36	36	36	35	35	35	35	34	34	34	34	36
Minimum	35	35	35	36	37	36	36	36	36	37	38	38	36	35	34	34	34	34	35	35	35	35	35	34	34	34	34	33	33	34	34	35
January																																
Maximum	34	34	35	36	37	38	38	38	38	38	38	36	37	37	38	37	35	35	35	35	36	36	37	37	36	36	35	34	35	36	36	36
Minimum	34	34	34	35	36	37	38	38	38	37	36	35	36	36	37	35	34	34	34	34	35	35	35	36	35	35	34	33	33	34	35	35
February																																
Maximum	36	35	36	37	37	36	35	35	36	35	35	35	35	34	34	35	34	35	37	38	38	38	38	38	37	37	36	37	--	--	--	36
Minimum	35	33	35	36	36	35	34	34	35	34	34	34	33	33	33	33	34	34	35	36	36	38	38	36	36	36	35	35	--	--	--	35
March																																
Maximum	37	35	34	35	38	39	39	40	40	40	40	41	40	41	39	38	38	41	40	40	41	40	41	41	42	42	42	42	42	41	41	40
Minimum	35	34	33	33	35	37	38	38	38	38	39	39	38	38	36	36	35	37	37	36	38	37	37	37	38	37	38	38	38	38	38	37
April																																
Maximum	41	42	42	42	43	43	44	44	43	42	43	43	46	47	48	48	47	45	44	46	46	47	48	49	50	47	47	47	48	49	--	45
Minimum	38	38	37	37	38	38	38	38	39	39	39	39	38	40	40	41	42	40	38	38	40	40	41	41	42	42	39	39	40	41	--	39
May																																
Maximum	49	50	49	49	50	49	51	52	49	52	50	51	52	51	51	52	53	53	55	56	54	55	57	57	58	59	61	61	62	60	60	54
Minimum	41	41	43	44	45	43	43	45	46	47	44	43	44	44	43	43	44	45	46	48	49	49	51	50	50	52	53	54	56	53	53	47
June																																
Maximum	59	59	60	61	61	60	62	62	61	61	60	60	62	63	64	63	63	64	64	62	58	57	56	58	60	59	58	59	57	55	--	60
Minimum	54	52	53	54	54	54	56	58	55	55	55	53	54	56	58	58	57	56	58	58	55	51	49	50	52	52	53	53	53	52	--	54
July																																
Maximum	53	54	54	55	55	55	54	54	56	59	60	60	60	60	60	61	62	62	64	64	65	65	65	64	63	62	63	62	64	63	65	60
Minimum	49	49	47	48	48	50	53	52	51	54	54	53	53	54	53	54	55	55	57	57	58	59	59	58	57	55	56	55	57	60	60	54
August																																
Maximum	65	67	67	66	65	65	65	65	65	64	64	63	63	63	64	64	65	65	63	62	62	61	60	58	58	58	58	58	57	54	55	62
Minimum	60	61	61	60	59	59	59	59	59	58	58	57	58	57	58	59	60	60	58	56	56	56	55	53	53	53	53	54	53	52	49	57
September																																
Maximum	55	56	57	58	59	59	58	54	54	53	53	52	50	50	52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	51	50	51	53	53	55	54	51	50	49	49	48	48	46	47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

11-4015. INDIAN CREEK NEAR CRESCENT MILLS, CALIF.

LOCATION.--Lat 40°04'20", long 120°55'35", temperature recorder at gaging station on left bank 0.8 mile upstream from Dixie Creek, and 1.5 miles south of town of Crescent Mills, Plumas County.
DRAINAGE AREA.--739 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1963.
Water temperatures: October 1962 to September 1966.
EXTREMES, 1962-65.--Water temperatures: Maximum, 82°F July 26-28, 1963; minimum (1962-64), freezing point on several days during December and January 1963, Jan. 22, 1964.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Nov. 17, 1965....	370					7.8		78	0		2.9			0.1				57	0	0.5	148	7.9
Jan. 12, 1966....	292					7.2		76	0		3.2			.0				56	0	.4	147	7.6
Mar. 23.....	716					4.9		53	0		1.1			.0				40	0	.3	99	8.0
May 11.....	680	19		14	0.4	4.4	1.3	50	0	3.0	.7		0.6	.0	78	0.11		36	0	.3	92	7.4

11-4015. INDIAN CREEK NEAR CRESCENT MILLS, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
December																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
January																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
February																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
March																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
April																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
May																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
June																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
July																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
August																																
Maximum	--	78	77	75	75	73	75	72	77	73	71	73	71	73	72	72	71	70	69	70	70	69	67	65	63	64	66	65	63	62	64	70
Minimum	--	66	66	65	64	64	64	64	64	64	63	63	63	63	64	64	64	63	62	61	62	61	61	60	58	58	59	60	59	58	57	62
September																																
Maximum	64	65	64	65	65	65	63	62	62	61	59	59	57	58	61	61	60	59	60	62	62	60	60	60	59	60	60	60	61	60	59	61
Minimum	57	58	58	59	58	59	59	56	55	55	55	54	54	53	54	55	55	56	57	57	57	57	56	56	55	56	55	55	55	56	55	56

11-4015. INDIAN CREEK NEAR CRESCENT MILLS, CALIF.--Continued

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Oct. 9, 1965.....	1710	62		56	30	4.5						--	--	--	--			
Nov. 20.....	1010	41		290	28	22						77	94	100	--			V
Dec. 2.....	1700	40		164	9	4.0						--	--	--	--			
Jan. 3, 1966.....	1415	36		156	12	5.1						--	--	--	--			
Feb. 9.....	1010	36		220	19	11						--	--	--	--			
Mar. 16.....	1230	36		1160	238	745						53	66	98	100			V
Apr. 14.....	1100	44		900	64	156						36	46	88	100			V
Apr. 26.....	1155	47		668	27	49						--	--	--	--			
May 13.....	1140	54		410	122	135						91	94	98	100			V
June 14.....	0630	61		66	22	3.9												
Aug. 1.....	1230	70		17	4	.2						--	--	--	--			
Sept. 7.....	1640	63		16	4	.2						--	--	--	--			

11-4045. NORTH FORK FEATHER RIVER AT PULGA, CALIF.

LOCATION.--Lat 39°47'40", long 121°27'00", at gaging station between railroad and highway bridges, 0.5 mile downstream from Flea Valley Creek and Pulga, Butte County, 1 mile downstream from Big Bar, and 1.5 miles downstream from Poe Dam.
DRAINAGE AREA.--1,953 square miles.
RECORDS AVAILABLE.--Chemical analyses: July 1963 to June 1966 (discontinued).
Water temperatures: October 1962 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 72°F Aug. 17-19.
EXTREMES, 1963-66.--Water temperatures: Maximum (1963-64, 1965-66), 73°F July 28-30, 1963; minimum (1963-65), 34°F Jan. 12, 13, 1963.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 15, 1965....	57					4.0		62	0		0.7			0.1				44	0	0.3	104	8.0
Nov. 17.....	387					3.8		53	0		.7			.0				42	0	.3	99	8.0
Dec. 3.....	61					3.9		60	0		1.0			.0				45	0	.3	106	8.0
Jan. 12, 1966....	75					3.4		72	0		1.0			.0				49	0	.2	112	8.1
Feb. 4.....	96					4.0		62	0		1.2			.0				48	0	.2	109	8.1
Mar. 23.....	77					3.1		52	0		.8			.0				42	0	.2	94	8.1
Apr. 7.....	2040					2.6		40	0		.6			.1				31	0	.2	72	7.7
May 11.....	61	12		7.2	3.0	2.3	0.7	39	0	3.0	.6		0.6	.0	51	0.07		30	0	.2	70	7.4
June 9.....	59					3.8		60	0		.6			.0				45	0	.3	101	8.2

11-4045. NORTH FORK FEATHER RIVER AT PULGA, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
December																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
January																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
February																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
March																																
Maximum	--	--	--	--	43	45	46	46	45	47	45	44	44	44	44	43	42	43	46	47	47	47	48	49	49	46	47	47	46	46	46	46
Minimum	--	--	--	--	41	42	43	44	44	45	43	44	42	44	43	41	40	41	43	42	44	42	42	43	44	45	46	46	46	46	46	43
April																																
Maximum	47	48	47	47	47	48	48	49	48	47	45	46	46	47	52	54	54	52	50	50	52	52	54	55	56	55	54	54	54	54	--	50
Minimum	46	47	46	46	46	47	47	48	47	45	45	45	45	46	47	48	49	48	45	44	45	46	47	48	49	49	46	48	47	48	--	47
May																																
Maximum	55	56	55	57	56	57	57	57	55	55	58	58	58	58	58	59	59	59	60	61	61	62	61	62	62	62	63	63	63	60	61	59
Minimum	48	48	50	52	52	51	50	52	53	53	52	51	52	52	52	52	52	52	53	54	55	55	53	55	56	56	57	57	57	57	56	53
June																																
Maximum	--	--	60	60	58	56	59	61	63	64	64	64	66	66	67	67	68	68	69	66	64	66	66	65	65	66	67	68	68	68	--	65
Minimum	--	--	52	52	53	54	54	55	56	56	56	56	57	59	60	61	60	61	61	62	60	59	59	58	57	58	59	60	61	60	--	58
July																																
Maximum	69	67	67	67	68	68	68	67	67	68	68	67	67	67	67	67	67	68	68	69	69	70	70	70	70	69	69	68	68	66	69	68
Minimum	61	60	59	60	60	60	60	60	61	60	60	60	60	60	59	59	60	60	61	61	62	63	63	62	63	62	62	61	62	64	63	61
August																																
Maximum	69	70	71	71	71	70	70	70	70	70	70	70	70	70	70	71	72	72	72	71	71	71	70	70	69	69	68	69	68	65	67	70
Minimum	63	64	65	65	65	65	64	65	65	65	64	65	65	65	65	66	66	67	66	65	65	65	65	64	64	64	63	63	63	63	62	65
September																																
Maximum	67	66	67	67	67	68	68	67	67	66	65	65	64	63	63	63	64	63	65	66	66	66	66	65	65	65	65	65	64	64	--	65
Minimum	61	61	61	62	62	63	63	62	62	61	61	60	59	58	59	59	59	61	61	61	61	61	61	61	61	61	60	60	60	59	--	61

11-4053. WEST BRANCH FEATHER RIVER NEAR PARADISE, CALIF.

LOCATION.--Lat 39°47'15", long 121°33'40", temperature recorder at gaging station on left bank 0.6 mile upstream from Griffin Gulch, and 4.0 miles northeast of Paradise, Butte County.
DRAINAGE AREA.--113 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1962 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 83°F July 16, Aug. 5; minimum, 38°F Dec. 14, 17, 29-31.
EXTREMES, 1962-66.--Water temperatures: Maximum (1962-63, 1964-66), 83°F July 15, Aug. 5, 1965, July 16, Aug. 5, 1966; minimum, 35°F Jan. 12-14, 1963.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	70	72	71	71	71	74	68	71	70	71	70	68	67	69	67	69	67	69	69	67	68	68	64	62	60	60	56	57	57	56	55	66
Minimum	58	57	57	59	60	62	62	59	58	59	59	59	58	57	57	58	55	57	56	55	55	56	54	54	54	54	56	56	56	54	54	57
November																																
Maximum	55	53	52	53	57	55	53	52	52	49	46	46	46	45	43	42	41	41	41	42	41	42	43	43	43	43	43	43	43	43	--	46
Minimum	53	52	51	49	51	50	49	51	49	46	46	46	45	43	41	41	41	41	41	41	40	41	42	42	42	43	43	43	43	43	--	45
December																																
Maximum	43	43	43	42	42	42	42	43	43	44	43	42	40	39	40	40	40	40	41	42	44	43	42	42	43	43	43	42	41	38	39	42
Minimum	43	43	42	42	42	42	42	42	43	43	42	40	39	38	39	39	38	39	40	41	42	42	42	42	42	43	41	41	38	38	38	41
January																																
Maximum	39	39	39	40	41	42	43	42	43	44	44	44	43	43	43	43	44	44	44	44	44	44	46	45	44	44	44	44	45	45	45	43
Minimum	39	39	39	39	40	41	42	41	41	43	44	43	43	43	43	43	43	44	44	43	43	43	44	44	44	44	44	44	44	45	45	43
February																																
Maximum	45	45	45	45	45	45	44	44	44	44	43	43	43	44	44	44	44	44	45	45	45	45	45	44	44	44	45	45	--	--	--	44
Minimum	44	44	44	45	45	44	43	44	44	43	43	43	43	43	43	43	43	44	44	44	45	45	44	44	44	44	44	44	--	--	--	44
March																																
Maximum	44	45	45	45	46	46	45	45	44	44	45	45	45	45	47	46	47	46	47	47	48	48	48	47	47	47	46	44	45	46	46	46
Minimum	44	44	44	44	45	45	45	44	44	44	44	45	45	45	45	46	46	46	46	46	47	48	47	47	46	46	44	43	44	45	46	45
April																																
Maximum	46	46	45	47	47	46	45	45	45	44	45	48	48	48	47	47	47	48	48	48	48	48	51	52	52	53	53	54	54	53	--	48
Minimum	45	45	44	45	46	45	44	44	44	43	44	45	47	47	47	46	46	47	48	47	46	46	47	48	48	49	49	50	49	49	--	46
May																																
Maximum	53	51	50	50	49	46	47	50	50	51	52	53	53	54	54	55	56	55	55	54	54	52	53	53	55	56	57	58	58	59	59	53
Minimum	49	48	47	47	46	44	44	46	48	48	49	50	51	50	51	53	53	53	54	53	51	51	51	51	51	53	55	56	56	56	57	51
June																																
Maximum	58	59	61	62	62	62	61	58	60	63	65	65	63	58	58	58	58	61	65	70	70	70	71	71	70	67	67	69	71	72	--	64
Minimum	55	56	58	60	60	58	58	57	56	59	62	62	58	56	54	55	54	55	59	62	66	67	67	67	66	63	62	64	66	67	--	60
July																																
Maximum	73	74	74	75	76	76	78	78	77	76	76	77	79	80	82	83	82	82	82	78	81	81	81	81	79	76	78	77	79	74	77	78
Minimum	67	69	69	69	69	69	69	70	70	69	69	68	70	70	72	74	75	74	74	71	71	71	71	71	72	70	68	67	67	71	72	70
August																																
Maximum	79	79	79	80	83	82	81	78	79	76	75	68	74	78	80	80	77	80	80	78	79	78	77	77	78	75	78	78	79	78	77	78
Minimum	70	70	70	71	74	74	73	70	70	73	61	64	66	70	72	73	74	74	74	72	72	71	70	71	71	71	69	71	71	71	72	71
September																																
Maximum	77	76	75	74	72	69	68	70	70	70	69	70	69	70	71	69	65	65	65	65	65	66	67	68	66	66	64	63	63	64	--	68
Minimum	73	72	70	68	66	66	63	64	64	64	64	63	63	64	65	64	59	59	58	58	60	60	62	62	62	62	61	58	58	59	--	63

11-4065. WEST BRANCH FEATHER RIVER NEAR YANKEE HILL, CALIF.

LOCATION.--Lat 39°41'55", long 121°33'38", at site of former gaging station 800 feet upstream from highway bridge, 1.7 miles downstream from Concow Creek, 2.1 miles west of Yankee Hill, Butte County, and 4.9 miles southeast of Paradise.
DRAINAGE AREA.--149 square miles.
RECORDS AVAILABLE.--Chemical analyses: November 1964 to June 1966 (discontinued).
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 15, 1965....						4.0		94	0		1.5			0.0				76	0	0.2	155	8.2
Nov. 16.....						2.9		40	0		.5			.0				32	0	.2	75	7.9
Dec. 3.....						2.9		46	0		1.0			.0				41	3	.2	92	7.8
Jan. 12, 1966....						2.3		44	0		.7			.0				34	0	.2	78	7.6
Feb. 4.....						2.7		48	0		.8			.0				38	0	.2	86	7.9
Mar. 10.....						2.3		32	0		.5			.2				25	0	.2	60	7.6
Apr. 7.....						1.6		18	0		.5			.2				14	0	.2	34	7.4
May 11.....		9.7		5.6	0.6	1.6	0.4	22	0	1.0	.2		0.7	.0	32	0.04		16	0	.2	39	7.2
June 9.....						2.8		41	0		.5			.0				31	0	.2	73	8.0

11-4070. FEATHER RIVER AT OROVILLE, CALIF.

LOCATION (revised).--Lat 39°31'13", long 121°32'48", at gaging station 300 feet upstream from fish barrier dam on Feather River, and 0.6 mile northeast of Oroville, Butte County, business district.
DRAINAGE AREA (revised).--3,624 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
Water temperatures: October 1953 to September 1954, November 1956 to September 1966.
Sediment records: November 1956 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 71°F on several days during August; minimum, 39°F on several days during January.
Sediment concentrations: Maximum daily, 123 ppm Nov. 18; minimum daily, 3 ppm Oct. 19, Apr. 24, Aug. 29.
Sediment loads: Maximum daily, 3,850 tons Jan. 5; minimum daily, 14 tons Aug. 29.
EXTREMES, 1953-54, 1956-66.--Water temperatures: Maximum, 81°F Sept. 10, 12, 1959; minimum, 35°F Dec. 27, 1959, Jan. 23-25, 1962.
Sediment concentrations (1956-66): Maximum daily, 4,100 ppm Feb. 1, 1963; minimum daily, 1 ppm on several days in 1961-62, 1964.
Sediment loads (1956-66): Maximum daily, 1,500,000 tons Feb. 1, 1963; minimum daily, 3 tons Jan. 16, 17, 1962.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 8, 1965.....	3190					3.9		59	0		0.9			0.0				42	0	0.3	101	8.1
Nov. 5.....	3320					4.3		63	0		1.0			.0				46	0	.3	109	8.1
Dec. 3.....	3470					4.2		54	0		1.5			.0				42	0	.3	102	7.6
Jan. 7, 1966.....	7270					3.6		45	0		1.1			.0				36	0	.3	87	7.9
Feb. 11.....	3120					4.8		65	0		---			.0				48	0	.3	118	8.1
Mar. 10.....	4710					4.6		59	0		1.1			.0				44	0	.3	107	8.0
Apr. 7.....	9320					2.5		36	0		.8			.0				28	0	.2	67	7.9
May 5.....	6530	10		6.4	2.3	2.2	0.7	33	0	3.0	.6		0.1	.0	45	0.06		26	0	.2	61	7.5
June 9.....	2210					3.8		55	0		.7			.0				41	0	.3	96	8.1

11-4070. FEATHER RIVER AT OROVILLE, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	62	62	62	62	63	64	65	65	64	64	63	63	62	62	62	61	60	59	59	58	58	58	57	57	57	57	56	55	55	55	54	60
Minimum	61	62	61	61	62	63	64	64	64	63	63	62	62	62	61	60	59	59	58	58	58	57	57	57	57	56	55	55	55	54	54	59
November																																
Maximum	54	54	54	54	55	55	55	55	55	55	55	55	55	54	55	55	55	54	53	52	51	51	51	51	51	49	49	49	48	48	--	53
Minimum	54	54	54	54	54	55	55	55	55	55	55	55	54	54	54	55	54	53	51	51	51	51	51	51	49	48	49	48	48	48	--	52
December																																
Maximum	48	48	48	48	47	47	47	47	47	45	45	45	45	45	44	43	42	41	41	41	41	41	41	41	42	42	42	42	43	43	43	44
Minimum	48	48	48	47	47	47	47	47	45	45	45	45	45	44	43	42	41	41	41	41	41	41	41	41	41	42	42	42	42	43	43	44
January																																
Maximum	43	43	43	45	46	46	46	46	45	45	45	44	44	43	42	41	41	41	40	40	39	39	39	39	39	40	40	40	40	42	42	42
Minimum	43	43	43	43	45	46	46	45	45	45	44	44	43	42	41	41	40	40	40	39	39	39	39	39	39	39	40	40	40	40	42	42
February																																
Maximum	43	43	43	43	43	43	43	43	43	43	42	41	41	41	41	40	40	40	40	41	41	41	42	43	43	43	43	43	--	--	--	42
Minimum	42	43	43	43	43	43	43	43	43	42	41	41	41	41	40	40	40	40	40	40	41	41	41	42	43	43	43	43	--	--	--	42
March																																
Maximum	43	43	43	42	42	42	43	44	45	45	45	45	46	46	46	46	46	45	46	46	47	47	47	48	49	50	51	51	52	53	53	46
Minimum	43	43	42	42	42	42	42	43	44	45	45	45	45	46	46	46	45	44	45	46	46	47	47	47	48	49	50	51	51	52	53	46
April																																
Maximum	53	53	53	53	54	54	54	54	54	54	53	53	53	53	54	55	56	56	56	54	52	52	53	53	54	55	55	55	54	54	--	54
Minimum	53	53	53	53	53	54	53	54	54	53	51	52	53	53	53	54	55	55	54	52	52	52	52	53	53	54	55	54	54	54	--	53
May																																
Maximum	54	54	54	55	55	55	55	55	55	55	55	55	56	56	56	57	58	59	60	60	60	60	60	60	61	62	62	62	62	62	61	58
Minimum	54	54	54	54	55	55	55	55	55	55	55	55	55	56	56	56	57	58	59	60	59	59	59	59	60	61	62	62	61	61	60	57
June																																
Maximum	60	60	60	60	59	60	60	61	62	63	64	64	66	67	68	70	70	70	70	70	70	69	68	68	67	68	69	70	70	70	--	66
Minimum	60	60	60	59	59	59	60	60	61	62	63	64	64	66	67	68	69	70	70	70	69	68	68	67	66	67	68	69	70	70	--	65
July																																
Maximum	70	70	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	69	70	70	70	70	70	70	69	68	68	68	69
Minimum	70	69	68	68	69	69	69	69	69	69	69	69	69	68	68	68	68	67	67	67	68	69	70	70	70	70	69	68	68	68	68	69
August																																
Maximum	69	70	71	71	71	71	71	70	70	70	70	70	70	70	70	70	70	70	70	70	70	71	71	71	70	69	69	68	68	68	68	70
Minimum	68	69	70	70	71	71	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	71	70	69	69	68	68	68	68	67	70
September																																
Maximum	67	67	67	68	68	68	68	68	68	68	68	67	67	66	64	65	66	65	66	66	66	66	66	66	66	67	67	67	67	67	--	67
Minimum	67	67	67	67	68	68	68	68	68	68	67	66	66	64	64	64	65	65	65	66	66	65	65	65	65	66	66	67	67	66	--	66

11-4070. FEATHER RIVER AT OROVILLE, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	3520	10	95	3470	6	56	3540	14	134
2	3280	10	89	3580	7	68	3500	11	104
3	3080	9	75	3610	6	58	3470	12	112
4	3060	8	66	3430	6	56	3470	13	122
5	3250	7	61	3320	8	72	3470	10	94
6	3280	6	53	3430	6	56	3470	10	94
7	3140	7	59	3430	10	93	3450	11	102
8	3190	5	43	3390	9	82	3430	11	102
9	3170	4	34	3080	8	67	3430	11	102
10	3100	4	33	3100	8	67	3430	12	111
11	2950	4	32	3140	6	51	3430	14	130
12	2690	7	51	3190	6	52	3520	13	124
13	2690	11	80	3320	7	63	3500	10	95
14	2690	10	73	4210	21	239	3470	13	122
15	3280	7	62	4590	24	297	3410	14	129
16	3540	6	57	4060	16	175	3300	12	107
17	3650	6	59	3970	54	579	3360	10	91
18	3630	6	59	9330	123 S	3130	3320	9	81
19	3720	3	30	7600	33	677	3250	13	114
20	3830	6	62	6670	25	450	3250	8	70
21	3740	13	131	5780	17	265	3230	10	87
22	3630	11	108	4960	10	134	3280	10	89
23	3450	7	65	4520	12	146	3320	8	72
24	3580	7	68	5120	70 S	1000	3410	16 S	153
25	3520	7	67	5830	25	394	4610	55	685
26	3630	7	69	5580	13	196	3920	16	169
27	3560	7	67	5060	15	205	3610	8	78
28	3610	8	78	4710	13	165	3740	21 S	225
29	3670	7	69	4350	11	129	5040	47	640
30	3630	7	69	3760	16	162	4660	19	239
31	3610	6	58	---	---	---	4400	17	202
Total	104370	---	2022	133590	---	9184	111690	---	4779

Day	JANUARY			FEBRUARY			MARCH		
1	4060	15	164	3430	12	111	3250	7	61
2	3780	11	112	3540	11	105	3210	7	61
3	3690	8	80	3230	10	87	3100	8	67
4	4670	31 S	450	3300	10	89	3010	6	49
5	13000	106 S	3850	3890	10	105	2990	6	48
6	9970	39 S	1080	4040	11	120	2990	7	57
7	7270	23	451	3870	11	115	3060	8	66
8	6450	18	313	3540	10	96	3250	10	88
9	5810	16	251	3360	8	73	3470	11	103
10	5140	15	208	3250	6	53	4710	19	242
11	4660	14	176	3120	6	51	5890	26	413
12	4330	13	152	3010	7	57	6370	29	499
13	4160	11	124	2990	8	65	8340	29	653
14	4010	10	108	2930	10	79	10340	30	834
15	3780	10	102	2890	11	86	9380	32	810
16	3720	10	100	2850	10	77	8710	34	800
17	3670	11	109	2830	9	69	7120	23	442
18	3630	14	137	2790	10	75	6310	15	256
19	3630	15	147	2950	20	159	5690	14	215
20	3650	16	158	3190	13	112	5380	11	160
21	3610	16	156	3030	6	49	5090	10	137
22	3520	15	143	3030	6	49	4780	14	181
23	3520	14	133	3170	8	68	4590	14	174
24	3470	12	112	3390	11	101	4400	15	178
25	3450	10	93	3500	11	104	4540	16	196
26	3410	9	83	3650	13	128	4830	11	143
27	3300	12	107	3520	9	86	5400	10	146
28	2710	22	161	3340	8	72	6090	12	197
29	2710	23	168	---	---	---	6880	12	223
30	3780	95	970	---	---	---	8110	15	328
31	3470	26	244	---	---	---	8680	22	516
Total	140030	---	10642	91630	---	2441	169960	---	8343

S Computed by subdividing day.

11-4070. FEATHER RIVER AT OROVILLE, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	9190	17	422	6090	6	99	2530	11	75
2	10400	19	534	6000	10	162	2470	10	67
3	10000	18	486	6030	6	98	2250	11	67
4	9320	15	377	6140	5	83	2350	11	70
5	8930	14	338	6530	9	159	2310	10	62
6	9220	12	299	6670	9	162	2310	11	69
7	9320	11	277	6650	6	108	2450	15	99
8	9250	10	250	6560	6	106	2390	20	129
9	9090	11	270	6530	6	106	2210	18	107
10	13400	49 S	1840	6620	7	125	2210	12	72
11	13400	49	1770	7450	8	161	2230	10	60
12	12300	24	797	6910	8	149	2190	10	59
13	10500	14	397	6420	8	139	2350	11	70
14	9350	11	278	6030	8	130	2630	11	78
15	9290	9	226	5690	8	123	2410	10	65
16	9130	8	197	5010	7	95	2250	10	61
17	9540	8	206	4860	8	105	2330	10	63
18	9640	8	208	4570	8	99	2390	10	65
19	8810	10	238	4350	7	82	2370	9	58
20	7660	8	165	4330	7	82	2350	8	51
21	6850	8	148	4110	8	89	2330	10	63
22	6560	7	124	3850	8	83	2310	13	81
23	6390	7	121	3540	9	86	2290	13	80
24	6390	3	52	3280	12	106	2270	12	74
25	6620	5	89	2950	14	112	2250	11	67
26	7210	5	97	2810	17	129	2230	10	60
27	6880	6	111	3010	19	154	2150	10	58
28	6670	7	126	2830	18	138	2150	14	81
29	6530	6	106	2510	17	115	2250	20	122
30	6230	7	118	2310	15	94	2450	21	139
31	--	--	--	2410	13	85	--	--	--
Total	264070	--	10667	153050	--	3564	69660	--	2272
	JULY			AUGUST			SEPTEMBER		
1	2610	20	141	2670	6	43	1580	9	38
2	2630	16	114	2630	7	50	1720	8	37
3	2610	11	78	2530	8	55	1560	8	34
4	2610	8	56	2470	7	47	1470	7	28
5	2770	8	60	2550	6	41	1470	7	28
6	2830	10	76	2470	5	33	1420	9	35
7	2770	11	82	2470	5	33	1390	11	41
8	2770	12	90	2510	5	34	1360	12	44
9	2770	12	90	2550	6	41	1230	12	40
10	2790	11	83	2590	7	49	1230	11	37
11	2770	10	75	2590	6	42	1230	8	27
12	2770	10	75	2590	7	49	1200	8	26
13	2790	10	75	2610	7	49	1170	8	25
14	2770	10	75	2610	7	49	1230	8	27
15	2770	10	75	2610	7	49	1340	8	29
16	2770	10	75	2410	9	59	1360	8	29
17	2750	9	67	2190	13	77	1390	7	26
18	2730	9	66	2120	14	80	1390	7	26
19	2730	8	59	2010	14	76	1360	7	26
20	2710	7	51	1990	15	81	1310	9	32
21	2710	8	59	1960	16	85	1310	10	35
22	2690	9	65	1920	18	93	1310	9	32
23	2690	9	65	1870	18	91	1280	8	28
24	2690	9	65	1870	17	86	1230	9	30
25	2690	9	65	1870	15	76	1230	10	33
26	2650	10	72	1850	12	60	1200	11	36
27	2650	11	79	1830	9	44	1170	10	32
28	2670	10	72	1830	6	30	1150	8	25
29	2670	9	65	1790	3	14	1210	9	29
30	2690	8	58	1690	4	18	1140	14	43
31	2670	7	50	1650	10	45	--	--	--
Total	84190	--	2278	69300	--	1679	39640	--	958

Total discharge for year (cfs-days)..... 1431180
Total load for year (tons)..... 58829

S Computed by subdividing day.

11-4070. FEATHER RIVER AT OROVILLE, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 15, 1965.....	1555	52		4540	22							96	100	--				S
Nov. 18.....	0925	52		11600	176							80	96	100				V
Nov. 24.....	1330	49		5350	125							100	--	--				V
Jan. 5, 1966.....	0940	46		15300	150							96	98	100				V

11-4071.5. FEATHER RIVER NEAR GRIDLEY, CALIF.

LOCATION (revised).--Lat 39°22'01", long 121°38'43", 300 feet upstream from new highway bridge, 2.7 miles east of Gridley, Butte County.
DRAINAGE AREA.--3,676 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1964 to September 1966.
Sediment records: October 1964 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Minimum, 39°F Dec. 21.
Sediment concentrations: Maximum daily, 510 ppm Jan. 5; minimum daily, 3 ppm Dec. 19, 20.
Sediment loads: Maximum daily, 16,900 tons Jan. 5; minimum daily, 1.8 tons June 4.
EXTREMES, 1964-66.--Water temperatures: Minimum, 39°F Jan. 1, 2, 1965, Dec. 21, 1966.
Sediment concentrations: Maximum daily, 1,340 ppm Dec. 25, 1964; minimum daily, 3 ppm Oct. 6, Dec. 17, 18, 1964, Dec. 19, 20, 1965.
Sediment loads: Maximum daily, 527,000 tons Dec. 23, 1964; minimum daily, 1.8 tons June 4, 1966.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	--	61	--	61	--	61	62	62	--	62	--	61	--	61	--	59	--	59	--	59	--	60	--	61	--	56	--	55	--	54	--	--
November	51	--	53	--	56	--	55	--	56	--	55	--	54	--	54	53	53	--	52	49	48	45	46	48	48	48	48	47	47	48	--	--
December	46	45	45	45	45	44	43	43	43	43	44	45	45	44	44	43	43	42	42	40	39	41	40	40	42	41	40	42	42	42	43	43
January	42	41	41	41	46	42	40	46	45	45	44	44	44	44	46	45	44	43	44	43	41	41	41	43	42	44	45	44	42	43	43	43
February	43	44	43	45	46	42	46	--	45	45	44	45	45	45	45	45	46	45	46	48	47	47	49	48	41	46	49	47	--	--	--	45
March	47	46	44	45	47	49	49	47	49	50	50	49	49	50	49	49	48	47	47	48	47	52	51	52	55	55	55	57	58	58	58	50
April	56	56	56	56	58	56	56	55	54	48	54	50	51	52	56	58	55	56	54	55	57	58	60	60	61	--	60	61	61	61	--	56
May	62	62	62	59	61	60	60	60	60	60	60	63	62	64	64	64	64	66	66	66	65	65	67	69	70	70	68	68	63	63	68	64
June	--	68	--	67	--	66	--	73	--	--	71	--	76	--	77	--	78	--	78	--	72	--	74	--	76	--	78	--	68	--	--	--
July	78	--	78	--	78	--	76	--	73	--	74	--	75	74	--	--	76	--	78	--	78	--	78	--	78	76	78	--	78	--	78	--
August	--	80	--	79	--	80	--	80	--	79	--	78	--	79	--	77	--	79	--	78	--	78	--	77	--	76	--	72	--	73	--	--
September	70	--	73	--	74	--	73	--	73	--	68	--	--	--	68	67	68	--	72	--	72	--	71	--	68	--	71	--	72	--	--	--

11-4071.5. FEATHER RIVER NEAR GRIDLEY, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	2960	12	96	3240	13	114	3580	13	126
2	2870	12	93	3200	12	104	3500	12	113
3	2600	11	77	3340	11	99	3480	11	103
4	2520	11	75	3310	11	98	3440	10	93
5	2580	11	77	3100	10	84	3440	9	84
6	2690	11	80	3020	10	82	3440	10	93
7	2540	11	75	3010	10	81	3400	10	92
8	2490	8	54	3040	10	82	3390	12	110
9	2560	7	48	2810	9	68	3370	13	118
10	2480	8	54	2760	8	60	3370	12	109
11	2390	9	58	2830	7	53	3400	11	101
12	2050	9	50	2910	7	55	3500	14	132
13	2000	10	54	3140	6	51	3520	12	114
14	2010	9	49	3830	8	83	3450	12	112
15	2280	10	62	4620	64	798	3380	12	110
16	2730	10	74	4140	50	559	3280	10	89
17	2870	10	77	3950	28	299	3330	4	36
18	2910	11	86	8760	280 S	7520	3290	4	36
19	2910	11	86	7910	153	3270	3210	3	26
20	3090	13	108	6820	49	902	3190	3	26
21	3050	12	99	5990	31	501	3220	5	43
22	2990	11	89	5140	24	333	3200	8	69
23	2780	10	75	4680	21	265	3260	5	44
24	2880	11	86	4960	50	670	3290	10	89
25	2800	11	83	5900	53	844	4370	190 S	2290
26	2900	10	78	5700	30	462	3940	30	319
27	2930	10	79	5210	22	309	3550	9	86
28	2900	10	78	4830	19	248	3530	20 S	206
29	2970	10	80	4490	15	182	4750	250 S	3190
30	2950	11	88	3930	14	149	4680	48	607
31	3000	11	89	--	--	--	4370	22	260
Total	83680	--	2357	130570	--	18425	110120	--	9026

Day	JANUARY			FEBRUARY			MARCH		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	4030	11	120	3430	18	167	3410	7	64
2	3740	6	61	3650	21	207	3360	5	45
3	3580	4	39	3420	16	148	3300	5	45
4	4100	15 S	205	3350	17	154	3200	5	43
5	11600	510 S	16900	3840	21	218	3170	6	51
6	10200	200 S	5860	4080	20	220	3180	4	34
7	7400	43	859	3980	19	204	3240	4	35
8	6510	31	545	3660	16	158	3380	7	64
9	5900	25	398	3500	14	132	3590	9	87
10	5300	10	143	3390	16	146	4500	22	267
11	4830	8	104	3250	10	88	5780	41	640
12	4450	6	72	3110	9	76	6320	58	990
13	4290	6	69	3120	8	67	7810	70 S	1720
14	4120	8	89	3040	5	41	10700	106	3060
15	3870	7	73	3020	13	106	9300	75	1880
16	3780	6	61	2960	16	128	8720	57	1340
17	3800	5	51	2940	9	71	7260	43	843
18	3760	8	81	2920	8	63	6310	39	664
19	3760	11	112	3010	9	73	5750	30	466
20	3780	9	92	3300	17	151	5410	19	278
21	3710	7	70	3150	9	77	5150	17	236
22	3620	10	98	3170	8	68	4810	13	169
23	3600	9	87	3210	7	61	4540	14	172
24	3540	7	67	3420	13	120	4260	14	161
25	3500	10	95	3620	29	283	4280	14	162
26	3430	10	93	3710	16	160	4570	14	173
27	3350	8	72	3670	11	109	5110	14	193
28	2840	16	123	3500	8	76	5660	23	351
29	2790	13	98	--	--	--	6350	24	411
30	3640	100 S	0	--	--	--	7560	30	612
31	3590	31	300	--	--	--	8130	39	856
Total	140410	--	27037	94420	--	3572	168110	--	16112

S Computed by subdividing day.

11-4071.5. FEATHER RIVER NEAR GRIDLEY, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	8530	39	898	3440	8	74	270	7	5.1
2	9470	55	1410	3340	6	54	290	7	5.5
3	9470	48	1230	3310	7	63	193	6	3.1
4	8770	38	900	3430	7	65	164	4	1.8
5	8280	34	760	3800	8	82	165	6	2.7
6	8250	25	557	4060	11	121	162	7	3.1
7	8200	20	443	4150	7	78	172	6	2.8
8	8100	20	437	4100	8	89	237	5	3.2
9	7880	28	596	4070	7	77	176	7	3.3
10	10600	164 S	4920	4090	9	99	145	9	3.5
11	11100	110	3300	4760	10	129	135	11	4.0
12	10300	48	1330	4500	15	182	131	8	2.8
13	8870	35	838	4180	14	158	122	6	2.0
14	7760	18	377	3740	10	101	376	6	6.1
15	7350	15	298	3460	10	93	239	7	4.5
16	7010	16	303	2840	8	61	150	7	2.8
17	7170	15	290	2610	8	56	136	6	2.2
18	7190	14	272	2400	8	52	142	6	2.3
19	6640	12	215	2020	8	44	146	5	2.0
20	5640	11	168	2090	8	45	145	5	2.0
21	4550	9	111	1840	9	45	160	5	2.2
22	4260	10	115	1640	7	31	159	6	2.6
23	3960	8	86	1310	7	25	150	6	2.4
24	3930	6	64	1080	6	17	128	6	2.1
25	4000	7	76	820	6	13	123	7	2.3
26	4360	14	165	499	6	8.1	118	8	2.5
27	4240	11	126	570	7	11	117	8	2.5
28	4070	14	154	656	6	11	158	8	3.4
29	3850	10	104	374	8	8.1	191	9	4.6
30	3650	10	99	263	8	5.7	268	10	7.2
31	--	--	--	232	7	4.4	--	--	--
Total	207450	--	20642	79674	--	1902.3	5268	--	96.6

	JULY			AUGUST			SEPTEMBER		
1	463	10	13	771	6	12	425	5	5.7
2	496	10	13	779	8	17	413	6	6.7
3	491	11	15	653	8	14	647	7	12
4	527	10	14	605	8	13	468	8	10
5	614	9	15	612	8	13	452	8	9.8
6	711	10	19	604	7	11	582	8	13
7	659	11	20	572	8	12	511	8	11
8	640	11	19	597	8	13	589	8	13
9	643	11	19	654	10	18	526	7	9.9
10	645	11	19	693	11	21	550	6	8.9
11	668	11	20	702	8	15	550	6	8.9
12	686	12	22	713	6	12	549	6	8.9
13	670	13	24	727	6	12	511	6	8.3
14	679	13	24	727	6	12	569	6	9.2
15	666	12	22	770	6	12	719	6	12
16	683	12	22	703	7	13	766	6	12
17	690	11	20	473	5	6.4	821	6	13
18	690	11	20	329	4	3.6	817	6	13
19	690	9	17	295	4	3.2	836	6	14
20	690	10	19	261	5	3.5	851	6	14
21	680	10	18	236	6	3.8	857	7	16
22	678	8	15	238	6	3.9	891	6	14
23	645	7	12	206	6	3.3	927	5	13
24	636	7	12	218	7	4.1	909	6	15
25	659	7	12	278	8	6.0	917	8	20
26	658	9	16	278	9	6.8	896	6	15
27	653	9	16	294	8	6.4	829	5	11
28	657	8	14	323	6	5.2	820	6	13
29	680	6	11	379	6	6.1	756	7	14
30	689	6	11	381	5	5.1	821	7	16
31	718	5	9.7	528	5	7.1	--	--	--
Total	20054	--	522.7	15599	--	294.5	20775	--	360.3

Total discharge for year (cfs-days)..... 1076130
Total load for year (tons)..... 100347.4

S Computed by subdividing day.

11-4071.5. FEATHER RIVER NEAR GRIDLEY, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment											Method of analysis
							Percent finer than size indicated, in millimeters											
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 18, 1965.....	1750			13000	366							52	82	99	100			V
Jan. 6, 1966.....	0930	40		12900	217							14	20	57	98	100		V

11-4077. FEATHER RIVER AT YUBA CITY, CALIF.

LOCATION.--Lat 39°08'20", long 121°36'17", at gaging station on left bank at Sacramento Northern railroad bridge in Yuba City, Sutter County, and 0.7 mile upstream from confluence with Yuba River.
DRAINAGE AREA.--3,974 square miles.
RECORDS AVAILABLE.--Water temperatures: July 1964 to September 1966.
Sediment records: October 1964 to September 1966.
EXTREMES, July 1964 to September 1965.--Water temperatures: Maximum, 89°F July 29, 1964; minimum, 38°F on several days during January.
Sediment concentrations: Maximum daily, 786 ppm Dec. 24; minimum daily, 16 ppm Nov. 8.
Sediment loads: Maximum daily, 334,000 tons Dec. 24; minimum daily, 61 tons Aug. 31, 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 83°F Aug. 6, 7.
Sediment concentrations: Maximum daily, 480 ppm Nov. 19; minimum daily, 14 ppm Aug. 13.
Sediment loads: Maximum daily, 15,400 tons Jan. 6; minimum daily, 13 tons June 17.
EXTREMES, 1964-66.--Water temperatures: Maximum, 89°F July 29, 1964; minimum (1964-65), 38°F on several days during January 1965.
Sediment concentrations: Maximum daily, 786 ppm Dec. 24, 1964; minimum daily, 14 ppm Aug. 13, 1966.
Sediment loads: Maximum daily, 334,000 tons Dec. 24, 1964; minimum daily, 13 tons June 17, 1966.
REMARKS.--Records of water temperatures furnished by California Department of Water Resources.

Temperature (°F) of water, July to September 1964

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
July																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	81	85	86	86	84	84	89	76	80	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	77	79	81	79	79	78	80	83	74	--
August																																
Maximum	78	77	78	77	78	80	78	79	77	79	76	75	78	77	74	75	76	76	74	75	77	76	77	76	76	74	73	73	72	72	68	76
Minimum	73	72	72	71	74	76	76	75	74	74	74	74	73	72	70	71	72	71	72	72	73	73	71	71	71	71	70	69	68	68	64	72
September																																
Maximum	69	70	72	72	72	72	70	70	69	70	71	72	70	70	71	72	71	69	68	69	68	66	69	69	69	67	66	65	65	66	--	69
Minimum	66	68	69	70	69	69	68	68	67	68	69	70	69	69	60	70	69	68	66	67	65	64	66	67	66	65	64	64	64	64	--	67

11-4077. FEATHER RIVER AT YUBA CITY, CALIF.--Continued

Temperature (°F) of water, water year October 1964 to September 1965

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	66	66	67	67	67	67	67	66	65	65	65	64	64	63	63	63	63	62	62	62	61	60	60	60	59	58	58	58	58	58	58	63
Minimum	64	64	65	65	65	66	66	64	63	64	63	63	63	61	61	62	61	60	60	60	59	59	58	59	58	58	58	58	58	58	58	61
November																																
Maximum	58	57	56	55	55	55	54	54	55	54	51	49	49	47	46	45	44	44	44	45	44	45	45	46	46	46	46	46	47	47	—	49
Minimum	57	56	55	55	55	54	54	54	54	51	49	49	47	46	45	44	44	44	44	44	44	44	45	45	46	46	46	46	46	47	—	24
December																																
Maximum	47	47	47	46	46	45	45	45	46	47	48	47	45	43	43	43	42	42	43	44	47	47	48	48	—	—	—	—	—	—	41	45
Minimum	47	47	46	46	45	45	45	45	45	46	47	45	43	43	43	42	42	42	42	43	44	47	47	47	—	—	—	—	—	—	39	45
January																																
Maximum	39	38	38	40	43	44	44	43	40	40	41	41	41	41	41	41	41	41	41	41	42	42	42	42	42	39	38	39	39	41	41	41
Minimum	38	38	38	38	40	43	42	40	40	40	40	41	41	41	41	41	41	41	41	41	41	42	42	42	39	38	38	38	39	39	41	40
February																																
Maximum	41	42	42	42	42	43	43	43	44	43	43	43	43	43	44	44	44	44	44	44	44	45	45	45	45	45	46	46	46	—	—	44
Minimum	41	41	42	42	42	42	43	43	43	43	43	43	43	43	43	44	44	44	44	44	44	44	45	45	45	45	45	46	46	—	—	44
March																																
Maximum	47	47	47	47	48	48	48	49	49	49	49	50	50	49	50	50	50	50	50	50	50	50	50	50	50	50	50	49	49	50	50	49
Minimum	46	47	47	47	47	48	48	48	49	49	49	49	49	49	49	50	50	50	50	50	50	50	50	50	50	50	49	48	49	49	50	49
April																																
Maximum	50	50	50	50	50	50	50	50	50	49	48	49	50	50	50	51	50	50	51	52	52	53	54	55	58	58	58	59	59	58	—	52
Minimum	50	50	50	50	50	50	50	50	49	48	48	48	49	50	50	50	50	50	50	51	52	52	53	54	55	57	57	58	58	57	—	52
May																																
Maximum	57	57	55	53	53	53	53	54	54	55	57	58	58	58	58	59	60	60	59	58	58	58	57	56	58	60	61	63	63	63	63	58
Minimum	56	55	52	52	52	52	51	51	53	54	55	56	57	57	57	58	58	58	58	57	57	56	55	54	56	57	59	60	62	62	61	56
June																																
Maximum	62	62	63	64	65	65	64	63	64	65	66	67	67	67	66	65	64	64	66	69	69	69	69	69	69	68	69	71	71	71	—	66
Minimum	61	61	62	63	64	64	63	62	62	64	65	66	67	66	64	64	62	62	64	66	67	67	68	68	67	66	67	68	69	68	—	65
July																																
Maximum	72	76	76	76	76	77	76	76	75	73	73	74	75	75	77	78	78	77	76	75	73	75	76	76	76	74	73	75	75	76	75	75
Minimum	70	72	74	74	75	75	74	74	73	71	71	72	73	73	75	76	76	75	74	71	70	72	74	74	74	68	70	73	72	74	75	73
August																																
Maximum	77	77	76	76	77	77	77	76	75	75	75	74	72	73	73	73	73	74	74	74	74	74	74	73	73	73	73	73	74	73	72	74
Minimum	75	75	75	75	76	76	76	75	75	75	74	72	72	72	73	73	73	73	74	74	74	73	73	73	73	73	73	73	73	72	71	74
September																																
Maximum	72	70	70	70	69	68	66	66	66	66	66	66	67	67	68	68	67	64	62	62	62	62	62	63	63	65	64	64	64	63	—	66
Minimum	71	70	70	70	68	66	65	65	65	66	66	65	66	66	67	67	64	62	62	61	61	62	62	62	63	64	64	63	63	63	—	65

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	62	62	62	62	62	62	63	63	64	63	63	63	63	63	63	62	60	59	59	59	59	59	59	59	59	59	59	59	59	59	58	61
Minimum	62	62	62	62	62	62	62	63	63	63	63	63	63	63	62	60	59	58	58	59	59	59	59	59	59	59	59	59	59	58	58	61
November	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	55	53	52	---	50	50	50	---	42	47	---	45	41	---	---
Maximum	58	58	57	56	57	57	57	56	56	56	56	56	56	56	55	55	55	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	58	57	56	56	56	56	56	56	56	56	56	56	56	55	55	55	54	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
December	46	45	45	45	---	44	44	43	---	44	44	---	---	43	43	41	42	41	41	39	39	41	39	---	---	---	41	---	42	43	43	48
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
January	---	---	40	---	46	46	45	47	---	44	43	43	42	42	46	---	44	41	42	40	41	40	---	40	40	41	42	41	---	---	48	---
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
February	47	44	43	44	46	---	44	45	43	45	44	43	---	45	46	44	46	46	45	---	---	46	48	48	46	48	---	48	---	---	---	45
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
March	47	46	45	44	43	---	48	47	48	50	49	48	---	48	48	49	48	46	48	---	48	50	50	50	52	54	---	52	53	54	55	49
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
April	55	58	---	53	54	54	54	53	52	---	51	51	51	51	---	51	---	55	53	53	54	---	57	---	61	---	56	60	60	56	---	---
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
May	---	58	61	---	58	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	---	---	---	---	---	60	60	59	60	59	60	61	61	61	62	63	65	66	67	69	67	67	69	72	72	72	72	72	69	66	67	65
Minimum	---	---	---	---	---	59	58	58	59	58	58	58	59	59	60	60	61	62	64	65	64	63	64	67	68	69	69	68	66	64	66	63
June	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	66	68	69	71	73	72	71	73	75	75	74	73	75	80	83	81	79	80	81	79	75	71	72	73	75	78	81	82	77	78	---	75
Minimum	65	66	67	68	70	68	67	71	73	73	72	72	72	75	79	79	77	77	77	75	69	67	69	70	70	74	76	77	74	71	---	72
July	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	75	76	76	78	78	78	74	73	73	76	75	74	74	73	75	75	75	77	78	79	79	81	81	79	78	79	78	78	77	77	76	77
Minimum	73	74	74	75	76	74	70	68	70	71	72	70	71	70	71	72	70	72	74	74	75	77	77	75	75	75	75	74	74	70	69	73
August	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	80	81	80	82	81	83	83	82	81	81	79	78	77	77	79	79	82	80	79	77	78	76	77	75	72	72	74	76	72	69	70	78
Minimum	75	77	77	78	78	79	79	79	78	77	75	74	75	74	75	76	77	77	75	73	73	72	73	72	70	68	69	72	68	67	66	74
September	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	*
Maximum	72	74	77	77	78	77	74	72	73	73	72	70	69	69	69	71	71	71	71	71	71	71	71	71	69	71	70	71	72	71	---	72
Minimum	70	71	73	73	74	73	70	68	69	70	68	68	65	65	65	67	69	69	68	69	68	69	68	68	67	67	67	67	68	69	---	69

11-4077. FEATHER RIVER AT YUBA CITY, CALIF.--Continued

Suspended sediment, water year October 1964 to September 1965

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	2190	-- E	190	2300	27 B	168	3750	36	365
2	2200	-- E	200	2650	32	229	4560	130 K	1660
3	2210	-- E	200	3380	54 B	493	5290	128	1830
4	2250	-- E	210	2730	37	273	4490	66	800
5	2260	36	220	2470	30 B	200	4020	35	380
6	2240	42	254	2140	19	110	3800	26	267
7	2240	45	272	2020	17 B	93	3660	25	247
8	2250	40 B	243	1640	16 B	71	3590	25	242
9	2260	36 B	220	1710	25	115	3530	28	267
10	2260	34	207	4220	77 K	922	3520	31	295
11	2250	33	200	4830	84 B	1100	3870	103 K	1230
12	2250	32	194	4610	51	635	6060	192 S	3210
13	2220	32	192	4830	45	587	4700	52	660
14	2210	32	191	4120	35	389	4200	40	454
15	2220	32 B	192	3700	31	310	4210	32	364
16	2280	34 B	209	3540	33	315	4040	22	240
17	2230	32 B	193	3400	32	294	3860	24	250
18	2220	31 B	186	3340	32	289	3750	29	294
19	2200	31 B	184	3230	30	262	4000	150 B	1620
20	2170	30 B	176	3070	31	257	5910	510 B	8140
21	2170	29	170	3020	33 B	269	14800	460 B	18400
22	2210	28	167	3050	33 B	272	56900	445	68400
23	2190	21	124	3050	31	255	156000	773 S	333000
24	2190	21 B	124	3060	29	240	157000	786 S	334000
25	2190	21 B	124	3130	29	245	135000	680	248000
26	2200	21	125	3230	30	262	80000	510	110000
27	2190	21	124	3410	32	295	71000	320	61300
28	2210	23	137	3500	35	331	61800	260	43400
29	2420	25	163	3820	33	340	36000	300	29200
30	2590	31	217	3840	40	415	30000	322	26100
31	2600	37 B	260	--	--	--	23800	355	22800
Total	69770	--	5868	97040	--	10036	907110	--	1317415
	JANUARY			FEBRUARY			MARCH		
1	19100	363	18700	11400	207	6370	8550	209	4820
2	16000	370	16000	11300	300	9150	7730	170	3550
3	16200	438 K	19500	11000	295	8760	7620	135	2780
4	26400	349 S	24200	10600	290	8300	7080	117	2240
5	34100	270	24900	10700	227	6560	6690	112	2020
6	60500	483 S	81900	12700	300	10300	6630	147	2630
7	59300	230	36800	12600	334	11400	6830	130	2400
8	37200	180	18100	11500	320	9940	6580	100	1780
9	27600	225	16800	10600	281	8040	6670	128	2310
10	22400	238	14400	9990	240	6470	6670	131	2360
11	18900	267	13600	9360	233	5890	6580	148	2630
12	17900	310	15000	8930	214	5160	6720	137	2490
13	16400	285	12600	8640	233	5440	7170	140	2710
14	14900	270	10900	8370	244	5510	7110	139	2670
15	14200	248	9510	8190	219	4840	6840	108	1990
16	13700	242	8950	7940	193	4140	6840	123	2270
17	12900	262	9130	7660	195	4030	6680	133	2400
18	12200	223	7350	7690	205	4260	6740	134	2440
19	12000	222	7190	7490	208	4210	6670	132	2380
20	11800	210	6690	7170	219 B	4240	6470	92	1610
21	11500	220	6830	7320	209 B	4130	6670	70	1260
22	11000	220	6530	7490	198 B	4000	6690	81	1460
23	10800	230	6710	7520	187 B	3800	6890	110	2050
24	19900	543 K	29200	7520	169	3430	7240	141	2760
25	24400	280	18400	7280	148	2910	7700	144	2990
26	19900	311	16700	6810	150	2760	7520	132	2680
27	16800	277	12600	6970	163	3070	7290	208	4090
28	14500	281	11000	8140	184	4040	8990	245	5950
29	12900	235	8190	--	--	--	8270	200	4470
30	11900	200 B	6430	--	--	--	7910	189	4040
31	11300	190 B	5800	--	--	--	7840	170	3600
Total	628600	--	500610	252880	--	161150	221880	--	85830

E Estimated.
S Computed by subdividing day.
B Computed from estimated-concentration graph.
K Computed from estimated-concentration graph and subdividing day.

11-4077. FEATHER RIVER AT YUBA CITY, CALIF.--Continued

Suspended sediment, water year October 1964 to September 1965--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	7810	150	3160	17200	189 B	8780	4790	59	763
2	8010	138	2980	15000	154 B	6240	5230	60	847
3	8030	141	3060	13300	285	10200	5080	64	878
4	7890	146	3110	11700	480	15200	4900	65 B	860
5	7790	142	2990	10600	480	13700	5180	66 B	923
6	7660	128	2650	10000	410 B	11100	5130	67 B	928
7	7550	120	2450	9130	330 B	8130	5150	67	932
8	7440	137	2750	8420	240 B	5460	4930	68	905
9	8110	205	4490	7730	150	3130	4810	69	896
10	11300	275 B	8390	7500	130 B	2630	4300	71	824
11	9990	164 B	4420	7360	110 B	2190	4390	73	865
12	8920	146 B	3520	7170	100 B	1940	4110	73	810
13	8700	139	3270	7470	90 B	1820	3150	68	578
14	8780	135	3200	7460	80	1610	2870	62	480
15	8740	147	3470	7280	90 B	1770	3610	135 B	1320
16	8300	455 B	10200	7280	90 B	1770	3580	127	1230
17	21600	400 B	23300	7150	83	1600	3280	91	806
18	19900	242 B	13000	7510	75	1520	3480	77	723
19	17600	205 B	9740	7330	74	1460	3600	68	661
20	20000	293	15800	7270	72	1410	2910	62	487
21	20200	500 B	27300	7370	75	1490	2550	58	399
22	23600	285	18200	7160	90 B	1740	2820	60	457
23	23100	278	17300	6630	111 B	1990	2970	60	481
24	20500	333	18400	6390	123	2120	2990	59	476
25	18900	351	17900	6070	120	1970	2810	58	440
26	18300	400	19800	5980	110	1780	2690	53 B	385
27	18000	382 B	18600	5850	102	1610	2030	42 B	230
28	17500	250	11800	5750	97	1510	1810	40	195
29	17200	238 B	11100	5810	84	1320	1940	43	225
30	17300	230 B	10700	5250	67	950	2150	47	273
31	--	--	--	4810	59	766	--	--	--
Total	408720	--	297050	250930	--	118906	109240	--	20277

Day	JULY			AUGUST			SEPTEMBER		
1	2120	46	263	1210	25	82	1270	18	62
2	1880	40	203	1170	24	76	1280	21	73
3	2100	38	215	1160	24	75	1280	22	76
4	2050	37	205	1150	24	75	1340	22 B	80
5	1890	33	168	1120	23	70	1360	22 B	81
6	1750	28	132	1070	23	66	1400	22	83
7	1720	23	107	1200	24	78	1500	23	93
8	1690	22	100	1310	24	85	1600	28	121
9	1580	22	94	1280	23	79	1840	29 B	144
10	1520	24	98	1260	22	75	1780	26	125
11	1500	25	101	1350	26	95	1750	26 B	123
12	1490	24	97	1760	38 B	181	1830	27 B	133
13	1410	22	84	2240	58 B	351	1850	28	140
14	1390	20	75	2080	42	236	1680	31	141
15	1560	21	88	1760	32	152	1620	32	140
16	1450	23	90	1550	26	109	1640	30	133
17	1340	24 B	87	1490	26	105	1690	30	137
18	1320	23 B	82	1430	28	108	2090	39 B	220
19	1300	22	77	1450	28	110	2400	53 B	343
20	1300	23	81	1490	28	113	2450	52	344
21	1420	25	96	1440	26	101	2250	40	292
22	1340	24	87	1420	24	92	2180	44	259
23	1320	21	75	1370	22	81	2230	44 B	265
24	1330	21	75	1360	22	81	2200	45 B	267
25	1340	23	83	1360	21	77	2260	45 B	275
26	1130	23	70	1340	21	76	2230	39 B	235
27	1100	21	62	1340	21	76	1980	30	160
28	1130	22	67	1330	21	75	1910	31 B	160
29	1120	24	73	1290	20	70	2080	55 B	309
30	1120	26	79	1250	20	68	2510	65	441
31	1170	26	82	1250	18	61	--	--	--
Total	45880	--	3296	43280	--	3179	55480	--	5455

Total discharge for year (cfs-days)..... 3090810
Total load for year (tons)..... 2529072

B Computed from estimated-concentration graph.

11-4077. FEATHER RIVER AT YUBA CITY, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966

Day	OCTOBER				NOVEMBER				DECEMBER			
	Mean discharge (cfs)	Suspended sediment			Mean discharge (cfs)	Suspended sediment			Mean discharge (cfs)	Suspended sediment		
		Mean concentration (ppm)		Tons per day		Mean concentration (ppm)		Tons per day		Mean concentration (ppm)		Tons per day
1	2710	111		812	2970	48		385	3270	44		388
2	2700	116		846	2840	50	B	383	3180	42		361
3	2470	92		614	3010	56		455	3150	41		349
4	2430	69		453	3020	49		400	3120	48		404
5	2370	57		365	2870	44		341	3090	45		375
6	2560	69		477	2760	41	B	306	3090	38		317
7	2510	65		441	2740	40	B	296	3060	35		289
8	2480	58		388	2820	39	B	297	3040	36		295
9	2550	53		365	2740	39	B	289	3040	40		328
10	2480	49	B	328	2540	40		274	3040	40		328
11	2480	45	B	301	2570	42		291	3050	38		313
12	2220	42	B	252	2600	44		309	3190	54	B	465
13	2070	38		212	2770	48	B	359	3260	65		572
14	2070	35		196	3130	52	B	439	3180	51		438
15	2130	34		196	4130	150		1670	3090	50		417
16	2570	52	B	361	3920	125		1320	3010	48		390
17	2780	59		443	3600	59		573	2970	45		361
18	2880	61	B	474	5240	248	S	4380	2960	50		400
19	2810	61	B	463	7350	480		9530	2910	45		354
20	2910	60	B	471	5980	278		4490	2870	43		333
21	2910	56		440	5300	187		2680	2860	42		324
22	2820	53		404	4650	129		1620	2820	42		320
23	2700	49		357	4250	94		1080	2860	34		263
24	2670	43		310	4200	97		1100	2950	28	B	223
25	2690	41		298	4980	166		2230	3660	42	B	415
26	2690	41		298	4940	132		1760	3930	51	B	541
27	2800	44		333	4600	100		1240	3380	46		420
28	2740	43		318	4250	86		987	3290	43		382
29	2800	41		310	3970	75		804	5260	150	S	2230
30	2790	38	B	286	3640	52		511	5300	140		2000
31	2770	38	B	284	--	--		--	4830	83		1080
Total	80560	--		12096	114380	--		40799	102710	--		15675
	JANUARY				FEBRUARY				MARCH			
1	4210	60	B	682	3660	61		603	3060	21		174
2	3750	44	B	446	4530	120		1470	2960	19		152
3	3470	34		319	3780	60		612	2830	16		122
4	3540	34	B	325	3240	40		350	2690	16		116
5	9720	374	S	11600	3640	50	B	491	2600	18		126
6	12100	470		15400	4490	56	B	679	2580	18		125
7	8590	251		5820	4530	38		465	2610	17		120
8	6820	148		2730	3870	32		334	2820	17		129
9	6060	110		1800	3420	31		286	3040	28		230
10	5390	99		1440	3130	28		237	3730	36		363
11	4780	89		1150	2920	26		205	5360	78		1130
12	4270	70		807	2740	33		244	5650	125		1910
13	3930	60		637	2620	28		198	6050	167	B	2730
14	3730	54		544	2560	21		145	8690	297		6970
15	3530	51		486	2460	22		146	8350	206		4640
16	3340	47		424	2420	27		176	7810	183		3860
17	3290	39		346	2370	25		160	6840	162		2990
18	3210	44		381	2340	20		126	5920	138		2210
19	3120	44		371	2400	23		149	5400	95		1390
20	3070	40		332	2720	34	B	250	5060	80		1090
21	3040	39		320	2760	30	B	224	4730	77		983
22	2980	47		378	2680	26		188	4370	64		755
23	2900	44		345	2680	22		159	4080	56		617
24	2870	37		287	2970	24		192	3870	48		502
25	2830	37		283	3410	33		304	3830	46		476
26	2780	34		255	3590	42		407	4040	45		491
27	2740	33		244	3610	39		380	4410	53		631
28	2480	24		161	3260	32		282	4970	67		899
29	2230	18	B	108	--	--		--	5530	78		1160
30	3800	173	S	2000	--	--		--	6350	110		1890
31	4450	153		1840	--	--		--	7050	126		2400
Total	133020	--		52261	88800	--		9462	147280	--		41381

S Computed by subdividing day.
B Computed from estimated-concentration graph.

11-4077. FEATHER RIVER AT YUBA CITY, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment: Mean concentration (ppm)	Suspended sediment: Tons per day	Mean discharge (cfs)	Suspended sediment: Mean concentration (ppm)	Suspended sediment: Tons per day	Mean discharge (cfs)	Suspended sediment: Mean concentration (ppm)	Suspended sediment: Tons per day
1	7490	130	2630	3470	35	328	430	19	22
2	8110	158	3460	3380	33	301	470	19	24
3	8440	180	4100	3360	30	272	510	17	23
4	8020	188	4070	3470	36	337	440	17 B	20
5	7380	183	3650	3760	39	396	400	17 B	18
6	7340	160	3170	4120	49	545	450	17	21
7	7320	141	2790	4180	52	587	420	20	23
8	7280	127	2500	4170	50	563	420	22	25
9	7110	110	2110	4200	46	522	440	22 B	26
10	8900	131 B	3150	4370	43	507	410	22 B	24
11	11200	110	3330	4980	55	740	350	21	20
12	10400	75	2110	4940	82 B	1090	340	21	19
13	9180	76	1880	4460	68	819	350	22	21
14	7690	76	1580	4020	54 B	586	290	21 B	16
15	7000	74	1400	3760	42 B	426	460	20 B	25
16	6660	70	1260	3320	36	323	310	20	17
17	6690	60	1080	2900	43	337	244	20	13
18	6910	51	952	2740	39	289	234	22	14
19	6420	57	988	2460	32	213	244	25	16
20	5640	73	1110	2270	29	178	262	29	21
21	4560	46	566	2200	29 B	172	238	31	20
22	4060	47	515	2010	28 B	152	241	31	20
23	3730	50	504	1750	26	123	220	31 B	18
24	3730	45	453	1460	23	91	184	32 B	16
25	3890	40	420	1200	19	62	181	32	16
26	4170	41	462	890	18	43	184	32	16
27	4260	44	506	750	18	36	190	32	16
28	4060	52	570	850	17	39	172	33 B	15
29	3750	43	435	770	17 B	35	169	33 B	15
30	3620	36	352	560	18 B	27	166	34	15
31	--	--	--	460	18 B	22	--	--	--
Total	195010	--	52103	87230	--	10161	9419	--	575

Day	JULY			AUGUST			SEPTEMBER		
	Mean discharge (cfs)	Suspended sediment: Mean concentration (ppm)	Suspended sediment: Tons per day	Mean discharge (cfs)	Suspended sediment: Mean concentration (ppm)	Suspended sediment: Tons per day	Mean discharge (cfs)	Suspended sediment: Mean concentration (ppm)	Suspended sediment: Tons per day
1	211	35	20	804	28	61	515	21 B	29
2	290	36	28	828	26	58	485	21 B	28
3	358	37 B	36	717	23	45	526	25 B	36
4	410	38 B	42	616	20	33	610	35 B	58
5	440	39	46	586	20	32	538	31	45
6	568	43	66	580	21 B	33	562	29 B	44
7	622	44	74	526	24 B	34	780	34 B	72
8	574	41	64	532	26	37	724	31 B	61
9	580	36	56	574	30	46	820	29 B	64
10	634	37	63	598	31	50	752	27	55
11	717	38	74	647	25	44	773	25	52
12	710	37	71	647	16	28	759	24	49
13	724	35	68	682	14	26	689	23 B	43
14	717	33	64	717	17	33	654	23 B	41
15	710	31	59	731	27	53	773	23	48
16	724	32 B	63	745	24	48	938	25	63
17	738	33 B	66	574	22	34	1010	28	76
18	759	33	68	460	21	26	1060	31	89
19	724	28	55	366	20	20	1060	32	92
20	717	29	56	334	20	18	1030	31 B	86
21	696	30	56	318	20 B	17	1050	28 B	79
22	689	26	48	306	20 B	17	1060	26	74
23	654	21	37	283	20 B	15	1140	32	98
24	610	20	33	262	20 B	14	1200	37	120
25	610	21	35	266	20 B	14	1160	35 B	110
26	647	22	38	280	20 B	15	1160	32 B	100
27	610	24	40	298	21 B	17	1060	30	86
28	598	23	37	334	21 B	19	1000	26 B	70
29	640	23	40	370	21 B	21	954	23 B	59
30	654	25 B	44	375	21 B	21	970	21 B	55
31	752	27 B	55	435	21	25	--	--	--
Total	19087	--	1602	15791	--	954	25812	--	1982

Total discharge for year (cfs-days)..... 1019099
Total load for year (tons)..... 239051

B Computed from estimated-concentration graph.

11-4077. FEATHER RIVER AT YUBA CITY, CALIF.--Continued

Particle-size analyses of suspended sediment, October 1964 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 4, 1964	1345	58		2650	35							88	100	---	---	---		S
Dec. 23	0915	50		177000	665							100	---	---	---	---		S
Dec. 24	0950	51		157000	787							100	---	---	---	---		S
Dec. 26	1050	50		D 80000	631							95	96	98	100	---		S
Dec. 27	1420	51		D 80000	416							99	100	---	---	---		S
Dec. 27	1605	49		D 71000	320							99	100	---	---	---		S
Jan. 6, 1965	0940	48		63200	377							97	99	100	---	---		S
Jan. 6	1415	48		68000	491							98	100	---	---	---		S
Jan. 21	1055	45		11600	245							38	66	98	100	---		V
Jan. 25	1430	44		23400	251							56	68	87	99	100		S
Feb. 26	1130	46		6790	704							9	13	24	90	100		V
May 4	0915	52		D 11700	492							14	22	49	100	---		V
Nov. 15	1030	55		4300	260							33	45	54	78	98	100	V
Nov. 19	0950	53		7660	503							30	46	87	100	---		V
Dec. 14	1015	43		3180	44							59	75	90	100	---		V
Jan. 8, 1966	0250	41		6660	108							34	54	90	100	---		V
Jan. 18	1020	41		3210	31							36	52	88	100	---		V
Mar. 8	0945	47		2820	29							55	89	99	100	---		V
Apr. 8	1030	53		7180	78							28	47	90	100	---		V
May 13	1025	60		4460	35							55	71	99	100	---		V

D Daily mean discharge.

11-4090. MIDDLE YUBA RIVER ABOVE OREGON CREEK, NEAR NORTH SAN JUAN, CALIF.

LOCATION.--Lat 39°23'35", long 121°04'50", temperature recorder at gaging station on left bank 1,000 feet upstream from Oregon Creek, and 2 miles northeast of North San Juan, Nevada County.
DRAINAGE AREA.--162 square miles.
RECORDS AVAILABLE.--Water temperatures: February 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 78°F June 17; minimum, freezing point Dec. 17, 18.
EXTREMES, February 1965 to September 1966.--Water temperatures: Maximum, 79°F July 16, 18, Aug. 5, 6, 1965; minimum, freezing point Dec. 17, 18, 1966.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	54	54	54	54	52	52	52	52	50	50	—
Minimum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	52	51	51	50	50	49	49	49	48	47	—
November																																
Maximum	49	49	50	50	50	49	49	51	50	48	49	49	49	49	50	50	51	50	48	48	45	44	45	45	44	43	43	41	40	40	—	47
Minimum	47	47	46	48	48	46	46	49	48	46	47	49	49	49	49	49	49	47	46	45	44	42	44	44	42	41	41	39	38	39	—	45
December																																
Maximum	40	40	40	41	40	40	39	39	41	40	42	42	42	38	35	34	35	35	36	36	36	35	36	36	37	37	38	39	38	38	39	38
Minimum	38	38	38	39	39	38	38	38	39	39	39	41	38	35	34	33	32	32	33	36	35	34	34	34	36	36	36	36	36	38	37	36
January																																
Maximum	37	36	38	40	43	43	43	44	42	41	41	38	39	39	39	38	37	37	37	36	36	37	39	39	39	39	38	37	39	38	40	39
Minimum	36	35	36	38	40	42	41	42	41	40	38	37	37	38	38	36	36	36	36	35	35	36	37	37	37	37	36	36	36	34	38	37
February																																
Maximum	40	41	43	44	45	45	43	42	42	42	39	40	38	39	39	39	40	42	43	44	43	45	46	44	41	42	42	42	—	—	—	42
Minimum	39	38	40	43	44	43	41	40	40	40	36	37	36	36	36	36	36	38	41	41	41	42	44	41	40	39	39	39	—	—	—	40
March																																
Maximum	42	40	39	39	43	47	46	45	45	45	45	45	45	46	44	43	43	45	47	46	47	48	49	49	50	50	51	51	51	51	51	46
Minimum	39	37	35	36	39	42	45	44	44	43	44	43	44	43	43	40	39	41	44	42	43	43	44	45	45	46	46	46	46	46	46	43
April																																
Maximum	51	51	52	52	53	53	54	53	51	49	47	49	51	52	54	55	55	52	50	51	53	54	56	57	57	56	55	55	56	56	—	53
Minimum	46	46	46	47	48	48	49	48	49	46	43	46	45	46	48	49	50	48	47	44	46	48	49	50	51	51	48	48	49	50	—	48
May																																
Maximum	56	58	56	58	56	58	59	58	56	54	58	58	60	59	60	60	62	63	65	66	65	65	65	66	67	68	68	67	66	63	63	61
Minimum	50	50	52	52	53	51	52	54	53	51	52	51	52	53	53	53	54	55	57	58	58	58	58	59	60	60	60	60	61	59	57	55
June																																
Maximum	62	64	64	65	64	62	63	67	70	71	71	72	73	75	76	77	78	77	77	75	71	72	72	72	72	72	74	74	74	74	—	71
Minimum	57	56	57	57	59	60	60	59	62	63	64	63	65	67	68	70	71	71	71	70	67	65	67	66	68	68	70	70	71	70	—	65
July																																
Maximum	74	74	73	73	74	74	73	72	72	71	72	73	73	71	71	73	73	73	73	74	75	74	73	73	73	72	73	71	72	71	72	73
Minimum	69	70	68	68	69	70	69	69	70	68	68	68	67	67	67	67	68	68	68	69	69	70	70	70	70	68	68	67	68	68	67	68
August																																
Maximum	73	74	74	74	73	72	72	72	72	71	71	71	71	71	70	70	71	72	71	71	70	70	70	69	68	68	67	67	66	64	64	70
Minimum	69	70	70	70	70	69	69	69	69	68	68	68	68	68	67	69	68	69	69	68	68	68	67	66	65	65	64	64	64	62	61	67
September																																
Maximum	64	64	65	65	65	65	64	64	65	63	62	61	60	59	59	59	60	59	59	60	60	60	60	60	59	59	59	59	59	58	—	61
Minimum	62	63	62	63	63	64	63	62	62	61	60	59	58	56	56	57	57	57	58	58	59	59	58	58	58	58	57	57	57	56	—	59

11-4095. OREGON CREEK NEAR NORTH SAN JUAN, CALIF.

LOCATION.--Lat 39°24'10", long 121°04'35", temperature recorder at gaging station on right bank 0.7 mile upstream from mouth, and 2.7 miles northeast of North San Juan, Nevada County.
DRAINAGE AREA.--34.4 square miles.
RECORDS AVAILABLE.--Water temperatures: February 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 80°F Aug. 17, 18; minimum, 33°F Dec. 16-18.
EXTREMES, February 1965 to September 1966.--Water temperatures: Maximum, 80°F Aug. 17, 18, 1966; minimum, 33°F Dec. 16-18.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	61	60	60	60	63	63	63	62	62	61	60	60	60	59	56	54	55	56	58	57	57	57	57	57	55	54	53	53	53	52	52	58
Minimum	54	54	54	53	55	56	56	56	55	56	54	54	54	54	52	48	48	50	52	50	51	51	50	50	50	48	48	48	48	47	46	52
November																																
Maximum	51	51	51	51	51	50	50	52	50	49	50	49	49	48	50	49	50	48	48	48	46	44	44	44	42	41	43	41	41	42	---	47
Minimum	46	46	47	46	46	45	44	49	46	44	46	48	48	47	48	48	48	46	46	44	42	40	44	42	40	39	38	37	37	39	---	44
December																																
Maximum	42	43	43	43	43	43	43	43	43	43	43	44	42	40	39	38	37	37	38	38	38	39	39	40	41	40	40	41	39	39	39	41
Minimum	38	38	38	39	39	38	39	39	40	40	40	42	38	36	34	33	33	33	34	34	35	36	35	36	39	37	39	36	36	37	37	37
January																																
Maximum	39	38	39	41	41	42	43	44	42	41	41	40	42	41	42	40	40	39	39	39	38	39	40	40	40	40	40	39	39	37	40	40
Minimum	36	35	37	39	40	41	40	42	41	40	39	37	39	39	39	37	37	37	36	36	35	36	36	37	36	36	36	35	35	34	37	37
February																																
Maximum	39	40	41	42	44	44	41	41	42	41	40	41	40	40	40	41	41	43	43	44	43	45	46	45	42	42	43	43	---	---	---	42
Minimum	38	36	38	41	42	40	38	38	39	38	36	37	36	36	36	36	37	39	42	40	41	42	44	41	40	38	39	40	---	---	---	39
March																																
Maximum	43	40	39	40	44	48	46	46	45	46	46	47	47	47	44	44	44	46	46	45	46	46	48	48	49	50	50	51	50	51	51	46
Minimum	39	37	35	36	40	43	44	44	44	43	42	42	43	43	42	42	39	41	44	41	41	41	42	43	44	44	44	44	44	44	44	42
April																																
Maximum	51	50	50	51	51	51	51	51	50	48	46	48	51	52	53	54	54	51	48	50	53	54	56	57	58	57	56	56	57	57	---	52
Minimum	45	44	44	45	46	46	46	46	47	45	44	44	43	45	46	48	50	47	43	44	46	48	49	50	52	52	49	49	50	50	---	47
May																																
Maximum	58	59	59	63	62	63	64	63	62	59	65	64	64	65	65	65	64	69	70	71	70	70	69	71	72	72	72	70	70	69	65	66
Minimum	50	51	54	57	57	55	55	57	58	57	56	55	55	54	54	54	55	57	59	61	60	60	59	60	62	62	62	62	62	60	57	57
June																																
Maximum	64	65	66	67	66	62	65	70	72	73	72	72	75	77	78	77	77	76	76	73	67	70	71	72	73	74	76	76	75	74	---	72
Minimum	57	55	55	56	58	61	59	59	62	62	62	61	62	65	67	67	67	66	66	66	63	60	62	61	62	63	64	65	66	63	---	62
July																																
Maximum	72	73	72	74	74	74	73	73	74	74	74	73	72	73	72	73	73	74	76	76	76	77	77	76	74	74	74	74	76	72	74	74
Minimum	62	64	61	62	63	64	62	63	65	63	63	63	62	62	62	62	63	63	65	66	66	67	67	66	65	63	63	63	65	64	64	64
August																																
Maximum	76	78	78	77	76	76	76	76	76	76	75	76	75	75	74	77	80	80	78	76	76	76	75	74	73	73	73	74	72	69	70	75
Minimum	68	68	69	67	67	66	66	67	67	66	66	66	66	66	65	68	70	71	69	67	67	67	66	65	65	65	64	65	66	63	63	66
September																																
Maximum	70	70	72	73	73	73	72	71	70	70	69	67	64	65	64	66	66	64	68	68	69	68	68	67	66	67	67	67	67	65	---	68
Minimum	62	62	63	64	65	66	65	63	64	62	62	60	60	57	57	58	59	62	61	62	62	62	61	61	60	61	60	61	60	60	---	61

11-4175. SOUTH YUBA RIVER AT JONES BAR, NEAR GRASS VALLEY, CALIF.

LOCATION.--Lat 39°17'32", long 121°06'13", temperature recorder at gaging station on left bank at Jones Bar, 100 feet upstream from Rush Creek, 0.9 mile downstream from bridge on State Highway 49, and 5 miles northwest of Grass Valley, Nevada County.
DRAINAGE AREA (revised).--308 square miles.
RECORDS AVAILABLE.--Water temperatures: February 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 80°F Aug. 2-4; minimum, freezing point on several days during December.
EXTREMES, February 1965 to September 1966.--Water temperatures: Maximum, 80°F Aug. 2-4, 1966; minimum, freezing point on several days during December 1965.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	60	60	60	59	60	62	62	62	62	62	61	60	60	59	58	55	54	55	57	57	56	57	56	56	56	55	54	54	55	55	53	58
Minimum	55	56	56	56	57	58	58	59	59	59	58	57	57	57	55	52	51	52	54	54	54	54	54	54	53	52	51	52	53	52	51	55
November																																
Maximum	53	50	51	50	50	49	49	51	50	51	49	50	51	52	53	54	53	56	55	53	53	53	51	51	51	51	50	49	50	50	---	51
Minimum	50	52	50	49	49	48	46	49	48	48	48	49	50	51	51	53	53	53	53	52	52	50	48	49	51	51	49	48	49	46	---	50
December																																
Maximum	47	46	46	44	44	44	41	40	41	40	42	42	42	40	37	35	34	33	33	34	34	34	34	36	39	37	38	40	41	40	40	39
Minimum	45	45	44	42	42	41	40	39	40	40	40	42	40	37	35	34	32	32	32	32	32	33	32	33	36	36	37	38	38	39	38	38
January																																
Maximum	38	38	40	41	43	43	43	44	43	42	42	40	40	40	40	40	38	37	37	36	35	37	38	38	38	38	37	37	39	40	41	39
Minimum	37	36	38	40	41	43	42	43	42	41	40	38	38	39	40	38	37	36	36	35	34	35	37	37	36	37	36	35	37	37	40	38
February																																
Maximum	41	41	41	44	44	44	43	40	41	40	39	40	38	39	39	39	40	42	44	43	43	44	46	45	43	43	43	41	---	---	---	42
Minimum	40	38	40	41	44	43	40	39	39	39	37	38	36	36	36	36	37	38	42	41	41	42	44	43	41	39	39	39	---	---	---	40
March																																
Maximum	41	40	38	38	42	46	46	47	46	46	46	47	47	48	47	45	43	45	48	46	47	47	49	50	51	52	52	53	53	53	53	47
Minimum	40	38	35	35	38	42	45	45	45	46	44	45	46	46	45	43	41	42	45	44	43	44	44	46	47	48	48	49	49	49	50	44
April																																
Maximum	53	53	52	54	54	55	56	55	54	51	49	50	51	52	56	58	58	56	53	52	54	56	58	59	60	60	58	58	58	60	---	55
Minimum	50	50	49	50	51	51	52	51	51	49	47	47	46	49	51	52	54	52	49	47	49	50	51	53	55	55	53	53	53	53	---	51
May																																
Maximum	60	61	61	63	63	63	64	63	62	60	63	62	64	64	65	66	66	68	70	71	69	70	69	71	72	72	72	70	69	67	65	66
Minimum	54	54	57	58	60	57	58	60	60	58	58	57	58	59	59	59	60	61	63	65	64	64	63	64	65	66	66	66	65	63	60	61
June																																
Maximum	64	64	65	66	66	64	65	67	71	72	72	72	75	77	78	78	78	78	78	74	70	70	72	72	72	74	76	77	76	75	---	72
Minimum	60	59	59	60	61	62	61	61	64	65	66	64	66	69	74	73	72	70	72	70	66	63	66	64	65	66	68	69	70	68	---	66
July																																
Maximum	73	74	73	74	74	74	73	73	74	74	74	73	73	73	73	73	74	75	76	77	78	78	78	77	76	76	76	76	76	73	76	75
Minimum	67	67	65	66	66	68	66	66	68	66	67	66	66	66	66	69	69	68	68	73	70	71	71	70	69	68	68	68	68	70	69	68
August																																
Maximum	78	80	80	80	79	78	78	78	78	78	77	78	78	77	77	77	78	78	77	75	74	74	73	71	71	71	71	72	70	67	68	76
Minimum	70	73	74	72	72	71	71	71	71	71	71	70	71	70	70	73	71	72	70	69	68	68	67	66	65	65	64	65	65	62	62	69
September																																
Maximum	69	69	69	71	72	72	72	70	70	69	68	66	63	62	62	64	65	62	66	66	68	67	67	66	65	65	65	66	66	65	---	67
Minimum	62	62	63	64	65	66	66	64	64	63	63	61	60	57	57	58	59	61	61	61	62	62	61	62	61	61	61	60	61	62	---	62

11-4215. YUBA RIVER AT MARYSVILLE, CALIF.
(Formerly reported as 11-4210. Yuba River near Marysville, Calif.)

LOCATION (revised).--Lat 39°08'40", long 121°34'35", temperature recorder at Simpson Lane Bridge in Marysville, Yuba County, 4.2 miles downstream from gaging station near Marysville, and approximately 2 miles upstream from mouth.
DRAINAGE AREA.--1,340 square miles, upstream from gaging station.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1963.
Water temperatures: October 1963 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 85°F Aug. 3, 4, 6, 17; minimum, 40°F Feb. 17.
EXTREMES, 1963-66.--Water temperatures: Maximum, 85°F July 24, 25, 1964, Aug. 3, 4, 6, 17, 1966; minimum, 40°F Feb. 17, 1966.
REMARKS.--Discharge data from 11-4210. Yuba River near Marysville used for miscellaneous chemical quality samples.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Nov. 5, 1965.....	289					3.3		62	0		1.2			0.0				56	5	0.2	119	8.0
Jan. 7, 1966.....	3970					3.3		50	0		1.2			.0				44	3	.2	100	7.7
Mar. 10.....	2840					3.1		47	0		.9			.0				42	3	.2	98	8.0
May 5.....	2570	11		7.4	2.6	1.9	0.6	34	0	3.0	.9		0.3	.0	52	0.07		29	1	.1	66	7.5

11-4215. YUBA RIVER AT MARYSVILLE, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	70	70	69	69	69	70	71	71	71	69	69	69	69	69	65	65	65	66	66	66	67	67	67	66	66	66	66	66	65	64	64	67
Minimum	67	67	67	66	66	67	68	68	67	65	65	65	65	64	63	64	62	62	63	63	63	64	64	64	64	64	64	64	63	62	62	65
November																																
Maximum	63	62	62	62	62	62	61	62	62	60	60	60	59	58	58	57	57	57	58	57	56	56	55	55	53	52	53	53	52	52	--	58
Minimum	61	60	61	60	61	60	60	60	60	57	58	59	58	57	57	56	56	56	56	55	54	54	54	53	52	51	52	50	50	50	--	56
December																																
Maximum	52	51	51	50	50	50	50	49	49	49	49	50	49	49	47	47	47	47	47	47	47	47	47	46	47	46	46	46	46	46	46	48
Minimum	51	51	50	50	50	50	49	49	49	49	49	49	48	47	46	46	46	46	46	46	46	46	45	46	46	45	45	46	45	45	45	47
January																																
Maximum	45	45	45	45	46	46	46	47	47	46	46	45	46	46	47	46	46	45	45	45	45	45	46	45	44	45	45	45	44	44	44	45
Minimum	44	44	44	45	45	46	46	45	45	45	45	43	43	43	43	43	42	43	43	43	43	44	44	43	43	43	43	43	44	44	43	44
February																																
Maximum	44	44	44	45	45	46	45	44	44	44	44	44	44	44	44	45	45	45	45	47	46	45	48	47	45	44	44	44	--	--	--	45
Minimum	43	43	43	44	45	45	44	43	43	43	42	42	41	42	41	41	40	41	43	42	42	43	44	43	43	43	43	43	--	--	--	43
March																																
Maximum	44	--	44	44	45	46	46	46	46	45	46	46	48	47	47	47	48	48	50	50	51	51	51	52	52	53	53	53	54	54	54	49
Minimum	43	--	42	42	44	44	45	45	45	45	45	44	45	45	45	44	43	44	45	44	45	44	45	46	46	46	47	47	48	48	49	45
April																																
Maximum	55	55	54	55	56	56	55	56	53	53	53	52	56	57	57	58	57	56	57	58	58	59	59	60	60	59	59	61	61	62	--	57
Minimum	49	49	49	49	50	51	50	50	51	51	50	50	51	51	51	52	52	51	51	51	52	52	53	53	53	53	53	54	54	54	--	51
May																																
Maximum	62	63	62	61	62	63	64	63	62	60	63	64	64	64	65	65	66	67	67	67	66	66	67	68	69	68	68	66	65	65	66	65
Minimum	54	55	55	56	55	56	56	57	57	57	57	56	56	56	57	57	58	58	58	59	58	58	59	59	60	60	59	59	59	59	58	57
June																																
Maximum	65	66	66	67	66	65	68	69	69	69	69	69	72	74	74	73	73	74	74	73	70	70	70	72	74	76	78	81	80	80	--	72
Minimum	58	57	58	59	60	60	60	61	62	62	63	63	64	67	68	68	68	68	69	68	64	63	65	67	67	70	71	72	70	70	--	65
July																																
Maximum	77	75	76	77	78	78	75	76	75	76	77	76	76	76	78	78	77	79	81	83	83	83	83	81	81	82	82	81	81	76	78	79
Minimum	68	67	68	70	70	68	66	66	67	68	69	68	68	68	68	69	69	71	73	73	74	75	75	73	72	73	73	73	72	72	69	70
August																																
Maximum	83	84	85	85	84	85	84	84	83	84	81	84	82	82	83	83	85	82	81	81	80	80	80	80	78	78	80	79	76	70	75	81
Minimum	76	77	76	77	76	76	77	77	76	77	76	75	75	75	76	76	78	77	74	73	74	73	73	72	71	71	71	73	69	68	66	74
September																																
Maximum	78	80	81	82	83	80	76	76	77	77	76	74	71	71	70	73	74	73	73	73	74	74	73	73	72	73	71	71	73	--	--	75
Minimum	70	72	73	74	75	72	70	69	69	70	69	67	67	66	68	69	71	70	69	71	70	71	70	70	69	70	69	68	69	--	--	70

11-4217. FEATHER RIVER BELOW SHANGHAI BEND, NEAR YUBA CITY, CALIF.

LOCATION.--Lat 39°04'45", long 121°36'09", at gaging station north of Barry Road, approximately 3 miles west of Olivehurst, and 5 miles south of Yuba City, Sutter County.
DRAINAGE AREA.--5,337 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966.
REMARKS.--Records of discharge furnished by California State Department of Water Resources.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 8, 1965.....	3190					4.4		63	0		1.2			0.0				46	0	0.3	110	8.2
Nov. 5.....	3700					4.8		66	0		.8			.0				49	0	.3	115	8.1
Dec. 3.....	4290					4.1		59	0		1.6			.0				45	0	.3	108	8.0
Jan. 7, 1966.....	13900					3.7		40	0		1.2			.0				34	1	.3	83	7.5
Feb. 11.....	5240					4.6		60	0		2.2			.0				47	0	.3	114	8.0
Mar. 10.....	6020					4.4		59	0		1.2			.0				47	0	.3	111	8.1
Apr. 7.....	12100					2.7		36	0		.8			.1				30	0	.2	69	7.8
May 5.....	6300	12		9.2	1.7	2.6	0.6	36	0	3.0	.8		0.5	.1	48	0.07		30	0	.2	69	7.7
June 9.....	896					3.8		59	0		1.1			.0				48	0	.2	113	8.1

11-4240. BEAR RIVER NEAR WHEATLAND, CALIF.

LOCATION.--Lat 39°00'00", long 121°24'20", near gaging station at bridge on U.S. Highway 99E, 1 mile southeast of Wheatland, Yuba County, and 6.5 miles downstream from Rock Creek.
DRAINAGE AREA.--292 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 8, 1965.....	14					5.9		104	2		4.8			0.0				108	19	0.3	235	8.3
Nov. 5.....	7.2					5.9		100	1		3.8			.0				98	14	.3	212	8.3
Dec. 3.....	11					5.6		91	0		5.2			.0				90	15	.3	201	8.0
Jan. 7, 1966.....	344					3.7		44	2		2.7			.0				45	6	.2	109	8.4
Feb. 11.....	460					3.6		44	0		3.0			.1				43	7	.2	103	7.9
Mar. 10.....	678					3.7		42	0		2.9			.0				42	8	.2	101	7.8
Apr. 7.....	430					3.4		41	0		2.8			.1				40	6	.2	99	7.5
May 5.....	26	11		15	7.9	4.5	0.7	70	0	15	3.5		0.4	.0	97	0.13		70	13	.2	157	7.9
June 9.....	24					4.4		57	0		3.7			.0				64	17	.2	145	7.0

11-4250. FEATHER RIVER AT NICOLAUS, CALIF.

LOCATION.--Lat 38°54'00", long 121°35'00", at gaging station at Nicolaus, Sutter County, at highway bridge, and 2.9 miles downstream from Bear River.
DRAINAGE AREA (revised).--5,921 square miles.
RECORDS AVAILABLE.--Chemical analyses: March 1951 to June 1966 (discontinued).
Water temperatures: March 1951 to September 1958, November 1959 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 87°F Aug. 4, 6, 7; minimum, 38°F Dec. 23.
EXTREMES, 1951-58, 1959-66.--Water temperatures: Maximum, 94°F July 21, 1961; minimum, freezing point Jan. 3-6, 1961.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 8, 1965.....	3110					4.0		63	0		1.1			0.0				46	0	0.3	110	8.1
Nov. 5.....	3950					4.3		64	0		1.2			.1				48	0	.3	113	7.7
Dec. 3.....	4600					4.1		61	0		1.5			.0				47	0	.3	105	8.0
Jan. 7, 1966.....	15900					3.7		40	0		2.4			.0				34	1	.3	90	7.5
Feb. 11.....	5910					4.8		58	0		2.5			.0				47	0	.3	115	8.1
Mar. 10.....	6220					4.3		58	0		1.8			.0				47	0	.3	110	7.8
Apr. 7.....	12200					2.8		38	0		1.1			.0				31	0	.2	74	7.9
May 5.....	5980	11		7.4	2.6	2.5	0.7	36	0	3.0	.6		0.4	.0	54	0.07		29	0	.2	70	7.6
June 9.....	840					3.8		58	0		1.2			.0				48	0	.2	110	8.1

11-4250. FEATHER RIVER AT NICOLAUS, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	65	65	64	64	64	65	66	66	66	66	65	65	65	65	62	61	58	60	60	61	61	61	62	62	62	61	61	60	60	60	59	63
Minimum	63	62	62	62	62	63	64	64	64	64	63	63	64	62	60	58	57	58	58	59	59	60	60	60	60	59	59	58	58	58	58	61
November																																
Maximum	58	58	57	58	58	58	58	57	57	56	56	56	56	55	56	56	55	55	54	53	52	51	51	51	50	49	48	48	47	47	--	54
Minimum	57	56	56	56	56	56	56	56	56	56	56	56	55	54	54	55	54	54	53	52	50	50	50	50	49	47	47	46	45	45	--	53
December																																
Maximum	47	46	46	45	45	45	45	45	44	44	44	45	45	45	44	43	42	41	41	41	40	40	40	40	42	42	41	42	44	44	44	43
Minimum	45	45	45	45	45	45	45	44	44	43	43	44	44	43	42	41	40	40	39	39	39	39	38	39	40	41	40	41	42	43	43	42
January																																
Maximum	43	42	42	42	45	47	47	47	46	45	44	44	43	44	44	44	44	43	43	42	41	42	42	43	43	43	43	43	43	43	43	44
Minimum	42	40	40	41	42	45	46	46	45	44	44	43	42	42	42	42	42	42	41	40	40	40	41	41	41	41	41	41	42	42	42	42
February																																
Maximum	44	43	43	45	46	47	47	45	45	45	45	45	44	44	45	45	45	45	46	48	48	48	49	49	49	48	48	47	--	--	--	46
Minimum	43	42	43	43	45	46	45	44	44	44	43	43	42	42	42	42	43	43	45	45	46	47	47	48	47	46	46	46	--	--	--	44
March																																
Maximum	47	47	46	45	46	48	50	49	49	49	49	49	49	49	49	48	47	48	49	49	50	50	52	53	53	53	53	54	54	55	55	50
Minimum	46	45	43	43	44	45	47	47	48	48	48	48	47	48	48	47	46	46	46	46	47	48	48	49	50	50	51	51	52	53	53	48
April																																
Maximum	56	56	56	56	56	56	56	56	55	54	53	52	53	54	56	57	57	57	57	57	57	57	59	60	60	60	58	60	60	60	--	57
Minimum	53	54	54	54	54	54	54	54	54	53	52	51	51	52	53	54	55	55	55	53	53	54	55	57	58	58	56	56	57	57	--	54
May																																
Maximum	62	62	63	62	62	62	63	62	61	60	61	62	63	63	64	65	66	68	70	71	70	69	71	73	74	74	72	70	68	67	68	66
Minimum	58	58	60	59	59	59	60	60	60	59	58	60	60	60	60	61	62	64	65	67	65	64	65	67	69	69	70	68	66	65	66	63
June																																
Maximum	68	68	69	71	72	70	70	74	75	76	76	77	80	83	85	83	83	85	85	83	79	76	77	78	77	80	82	84	82	81	--	78
Minimum	65	64	66	68	69	68	67	68	70	72	73	72	75	78	80	80	77	76	78	76	70	68	68	70	69	71	73	75	71	70	--	72
July																																
Maximum	79	78	80	80	80	78	76	74	75	76	76	75	75	75	76	77	78	80	82	81	82	84	83	82	82	82	82	82	81	77	79	79
Minimum	68	68	69	71	73	71	70	69	70	71	72	70	70	70	70	71	72	74	76	75	75	77	78	76	74	75	75	75	74	75	73	72
August																																
Maximum	84	84	84	87	85	87	87	86	86	85	82	82	82	81	83	84	86	85	84	83	83	82	82	80	80	79	80	80	77	73	74	82
Minimum	77	79	79	79	79	81	79	80	79	79	77	76	75	75	76	78	80	79	76	73	73	72	72	71	70	70	70	72	70	69	67	75
September																																
Maximum	75	77	79	80	81	--	--	76	76	77	--	--	72	72	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	70	73	74	76	77	--	--	72	72	72	--	--	69	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

11-4270. NORTH FORK AMERICAN RIVER AT NORTH FORK DAM, CALIF.

LOCATION.--Lat 38°56'15", long 121°01'25", temperature recorder at gaging station on left bank 50 feet upstream from spillway of North Fork Dam, Placer County, 2 miles upstream from Middle Fork, and 4 miles northeast of Auburn.
DRAINAGE AREA.--342 square miles.
RECORDS AVAILABLE.--Water temperatures: November 1959 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 80°F on several days during August; minimum, 43°F on many days during December to February.
EXTREMES, 1959-66.--Water temperatures: Maximum, 80°F on several days during August 1961, July 1964 and August 1966; minimum, 43°F on many days during January 1961, January and February 1964, and December 1965 to February 1966.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	66	66	65	65	64	64	65	65	65	64	64	64	64	64	63	63	63	63	63	63	63	63	63	62	62	62	62	61	61	61	61	63
Minimum	65	65	65	64	64	64	64	64	64	64	64	64	64	63	63	63	63	63	62	62	62	62	62	62	62	62	61	61	61	61	61	63
November																																
Maximum	61	60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	56	54	54	53	53	52	51	50	50	49	49	--	--
Minimum	60	60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	54	54	53	53	52	51	50	50	49	49	49	--	--
December																																
Maximum	49	49	49	49	48	48	48	48	47	47	47	47	47	47	46	46	46	46	45	45	45	44	44	44	43	43	43	43	43	43	43	46
Minimum	49	49	49	48	48	48	48	47	47	47	47	47	47	46	46	46	46	45	45	45	44	44	44	43	43	43	43	43	43	43	43	46
January																																
Maximum	43	43	43	43	43	44	45	45	45	46	46	46	46	45	45	45	45	44	44	44	43	43	43	43	43	43	43	43	43	43	43	44
Minimum	43	43	43	43	43	43	44	45	45	45	46	46	45	45	45	45	44	44	44	43	43	43	43	43	43	43	43	43	43	43	43	44
February																																
Maximum	43	43	43	43	44	45	45	45	45	45	45	44	44	44	44	44	44	45	44	44	45	46	48	47	47	47	47	47	--	--	--	45
Minimum	43	43	43	43	43	44	45	45	45	45	44	44	44	44	43	43	43	44	44	44	44	45	46	46	47	47	47	47	--	--	--	44
March																																
Maximum	47	46	46	46	48	48	48	50	50	50	49	49	50	51	52	51	50	50	51	50	51	52	53	53	54	55	55	55	57	57	57	51
Minimum	46	46	45	45	46	46	47	48	49	49	49	49	49	50	51	50	50	50	49	49	50	51	52	53	53	54	55	55	55	56	56	50
April																																
Maximum	58	57	56	56	57	57	57	57	57	57	56	55	55	56	57	59	60	58	58	57	57	59	59	59	60	60	60	60	59	59	--	58
Minimum	55	55	55	55	55	56	56	56	56	55	54	54	54	55	55	57	58	57	56	56	55	56	57	58	58	59	58	58	57	58	--	56
May																																
Maximum	60	60	61	60	61	61	61	61	62	61	60	60	61	62	63	62	64	65	66	67	67	66	67	67	68	69	70	70	69	68	68	64
Minimum	58	59	59	58	59	59	59	59	60	60	57	58	59	60	61	62	62	63	64	65	64	65	66	67	67	68	68	68	66	66	66	62
June																																
Maximum	66	66	66	66	67	67	67	68	--	--	--	--	--	--	73	74	75	76	76	76	76	74	73	75	73	74	74	75	76	75	--	72
Minimum	64	64	64	65	65	66	67	66	--	--	--	--	--	--	71	72	73	74	74	74	74	73	72	72	71	73	73	74	74	--	--	70
July																																
Maximum	76	75	75	74	74	75	74	74	74	74	74	74	74	74	75	75	75	76	76	76	77	77	78	78	78	78	78	78	78	77	77	76
Minimum	74	73	73	73	73	73	73	73	73	73	73	73	73	73	73	74	74	75	75	75	76	76	76	77	77	77	77	77	77	77	76	75
August																																
Maximum	78	79	80	80	80	80	80	80	80	80	79	79	79	79	79	79	79	79	79	79	78	78	78	78	77	77	77	76	76	75	75	78
Minimum	77	78	78	79	79	79	79	79	79	79	79	79	79	79	79	79	79	78	78	78	78	78	77	77	77	76	76	76	75	74	74	78
September																																
Maximum	74	74	74	74	74	74	74	74	73	73	73	73	72	72	71	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	--	72
Minimum	74	74	74	74	74	74	73	73	73	73	73	72	72	71	70	70	70	70	70	70	70	70	70	70	70	69	69	69	70	70	--	71

SACRAMENTO RIVER BASIN--Continued

11-4334. CANYON CREEK NEAR GEORGETOWN, CALIF.

LOCATION.--Lat 38°56'03", long 120°52'21", temperature recorder at gaging station on right bank 0.7 mile downstream from West Canyon, and 2.6 miles northwest of Georgetown, El Dorado County.
DRAINAGE AREA.--12.5 square miles.
RECORDS AVAILABLE.--Water temperatures: July to September 1966.

Temperature (°F) of water, July to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
July																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	74	73	72	73	71	71	71	71	66	72	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	65	63	62	60	61	61	60	62	65	64	--
August																																
Maximum	72	73	73	72	72	72	72	72	72	72	71	72	71	71	71	71	72	71	70	69	69	68	68	67	66	67	66	67	65	64	65	70
Minimum	64	65	65	63	63	62	63	63	63	63	63	63	63	62	63	63	64	65	62	60	60	61	60	59	60	61	58	60	60	58	58	62
September																																
Maximum	65	65	65	66	66	66	64	63	63	63	62	60	60	59	60	60	60	60	61	61	62	60	61	60	59	59	59	60	60	61	--	62
Minimum	58	58	58	59	59	60	60	57	56	56	56	55	55	53	53	54	54	58	58	56	57	56	55	55	55	55	55	56	56	55	--	56

11-4395. SOUTH FORK AMERICAN RIVER NEAR KYBURZ, CALIF.

LOCATION.--Lat 38°45'49", long 120°19'39", temperature recorder at gaging station on right bank beside U.S. Highway 50, 0.8 mile downstream from Silver Fork of South Fork, and 1.9 miles southwest of Kyburz, El Dorado County.
DRAINAGE AREA.--193 square miles.
RECORDS AVAILABLE.--Water temperatures: August to September 1966.

Temperature (°F) of water, August to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
December																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
January																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
February																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
March																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
April																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
May																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
June																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
July																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
August																																
Maximum	--	--	--	74	74	72	72	71	71	72	72	72	72	71	72	72	73	73	71	70	69	69	68	68	68	67	67	67	66	63	--	70
Minimum	--	--	--	64	64	62	62	62	62	63	63	63	63	63	63	63	64	64	64	61	61	61	60	60	61	59	59	60	60	59	--	62
September																																
Maximum	--	66	66	67	66	65	66	65	64	64	63	61	58	59	59	60	60	59	61	62	63	63	63	63	62	61	60	60	61	61	--	62
Minimum	--	58	58	59	60	61	60	58	59	58	58	56	55	52	52	54	55	57	57	57	59	58	58	59	58	58	57	58	58	58	--	57

11-4455. SOUTH FORK AMERICAN RIVER NEAR LOTUS, CALIF.

LOCATION.--Lat 38°49'05", long 120°56'45", temperature recorder at gaging station on left bank 0.4 mile downstream from Greenwood Creek, 2.4 miles northwest of Lotus, El Dorado County, and 3.3 miles northwest of Coloma.
DRAINAGE AREA.--673 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1963.
Water temperatures: December 1959 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 71°F Aug. 8; minimum, 38°F Jan. 26-30.
EXTREMES, 1959-66.--Water temperatures: Maximum, 85°F July 20, 1960; minimum, 34°F Jan. 2-6, 1960, Dec. 28-31, 1962.

Chemical analyses, in parts per million, October 1965 to May 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Nov. 2, 1965.....	119					3.7		48	0		2.9			0.0				40	1	0.3	99	7.8
Jan. 5, 1966.....	2150					2.7		25	0		1.5			.0				23	3	.3	59	7.6
Mar. 24.....	1260					3.1		27	0		2.1			.1				23	1	.3	60	7.8
May 12.....	1700	9.2		3.4	0.4	1.8	0.6	13	0	1.0	1.4		0.1	.0	31	0.04		10	0	.3	31	6.9

11-4455. SOUTH FORK AMERICAN RIVER NEAR LOTUS, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	58	58	57	58	57	57	57	58	58	58	58	57	57	56	56	55	54	54	55	55	55	56	56	56	55	56	56	55	54	53	53	56
Minimum	54	54	54	54	54	54	54	55	55	55	55	55	55	55	55	54	52	52	52	53	53	53	53	54	54	53	53	53	52	52	51	54
November																																
Maximum	52	52	54	52	52	51	51	52	52	48	49	49	50	51	52	52	53	53	53	52	51	50	50	50	50	49	48	47	46	46	--	51
Minimum	51	51	47	51	51	50	50	50	48	48	48	49	49	50	51	52	52	53	52	51	50	50	50	50	49	48	47	46	45	44	--	49
December																																
Maximum	45	45	45	46	46	45	45	45	45	45	45	46	46	46	44	44	43	43	43	43	43	43	43	43	42	42	42	42	43	43	43	44
Minimum	44	45	45	45	45	45	45	45	45	45	45	45	46	44	44	43	43	43	43	43	43	43	43	42	42	42	42	42	42	43	42	44
January																																
Maximum	42	42	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	40	40	40	39	39	39	39	39	39	38	38	38	39	39	40
Minimum	42	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41	40	40	40	39	39	39	39	39	39	38	38	38	38	38	39	40
February																																
Maximum	40	40	40	40	40	41	41	42	41	41	41	41	41	41	41	41	41	41	41	42	42	42	42	42	42	43	43	42	--	--	--	41
Minimum	39	39	40	39	39	40	40	40	40	40	40	40	39	40	39	39	39	40	40	40	41	41	42	42	42	41	41	42	--	--	--	40
March																																
Maximum	43	43	43	43	43	44	44	44	44	46	46	46	48	48	47	47	47	47	48	48	48	49	49	49	50	51	51	51	54	53	53	47
Minimum	42	42	42	41	42	42	44	44	44	44	45	45	45	45	46	46	45	45	45	46	46	46	46	46	47	47	48	48	50	50	51	45
April																																
Maximum	53	53	54	54	54	54	56	56	54	54	54	55	56	56	58	59	58	59	56	55	55	54	56	58	57	57	56	55	55	56	--	56
Minimum	51	51	51	51	52	52	52	54	53	53	53	53	53	53	54	55	56	56	54	53	51	51	52	52	54	54	54	53	53	53	--	53
May																																
Maximum	57	57	57	57	57	58	58	58	57	57	56	59	59	58	59	60	60	60	61	61	61	61	61	61	62	62	62	62	62	61	64	60
Minimum	53	53	55	56	56	56	56	56	56	55	55	55	55	55	55	55	56	56	56	57	57	57	56	58	57	58	58	58	58	59	58	56
June																																
Maximum	64	64	63	64	63	64	65	66	66	66	67	68	68	70	70	67	66	66	67	67	64	65	64	64	64	65	65	67	67	66	--	66
Minimum	58	58	58	57	57	59	60	59	59	60	60	61	64	64	63	62	60	60	60	64	61	60	58	57	57	57	62	60	60	59	--	60
July																																
Maximum	66	65	65	64	65	67	66	65	63	65	64	65	64	64	64	64	64	64	67	67	66	66	66	66	66	67	67	67	67	67	67	65
Minimum	58	58	57	60	61	62	59	58	58	57	61	59	58	56	56	56	56	60	60	59	59	59	59	58	62	60	60	60	60	60	60	59
August																																
Maximum	67	68	65	66	65	64	68	71	70	66	66	66	66	66	66	67	67	67	66	66	66	66	66	66	65	65	65	65	65	63	63	66
Minimum	63	62	62	61	60	60	60	64	64	60	59	60	59	59	62	62	61	60	60	59	59	62	62	60	60	60	59	59	60	60	58	61
September																																
Maximum	64	64	64	65	65	65	65	65	66	65	65	64	64	63	62	63	63	63	64	64	65	65	65	65	66	65	65	67	68	67	--	65
Minimum	58	58	58	59	62	63	61	60	60	60	60	61	60	59	58	58	58	60	61	61	61	61	61	61	63	62	62	64	64	64	--	61

11-4464. AMERICAN RIVER AT NIMBUS DAM, NEAR FAIR OAKS, CALIF.

LOCATION.--Lat 38°38'12", long 121°13'10", at dam, approximately 1.5 miles east of Fair Oaks, Sacramento County.
RECORDS AVAILABLE.--Chemical analyses: November 1958 to September 1966.
REMARKS.--Records of discharge given for American River at Fair Oaks.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 4, 1965.....	2530					1.7		25	0		1.1			0.0				20	0	0.2	52	7.6
Nov. 2.....	1740					2.1		18	0		.9			.0				18	3	.2	48	7.6
Nov. 30.....	3390					2.7		28	0		1.4			.0				24	1	.2	60	7.7
Jan. 5, 1966.....	1750					2.7		28	0		1.9			.0				24	1	.2	63	7.6
Feb. 7.....	1780					2.9		32	0		1.5			.0				28	2	.2	72	7.9
Mar. 8.....	1760					2.9		34	0		2.3			.1				30	2	.2	76	7.8
Apr. 6.....	2440					2.5		32	0		2.2			.0				28	2	.2	71	7.9
May 3.....	960	9.5		7.2	2.3	2.8	0.8	32	0	4.0	1.6		0.3	.0	45	0.06		28	2	.2	67	7.1
June 10.....	954					2.8		30	0		1.4			.0				26	1	.2	67	7.8

11-4465. AMERICAN RIVER AT FAIR OAKS, CALIF.

LOCATION.--Lat 38°38'08", long 121°13'36", temperature recorder at gaging station on right bank 2,100 feet downstream from Nimbus Dam, 2.4 miles east of Fair Oaks, Sacramento County, 8.1 miles downstream from South Fork, and at mile 22.2 (revised).
DRAINAGE AREA.--1,888 square miles.
RECORDS AVAILABLE.--Chemical analyses: January to December 1906, March 1951 to September 1958, November 1959 to September 1962. Water temperatures: March 1951 to September 1958, November 1959 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 69°F Sept. 30; minimum, 46°F on several days during February and March.
EXTREMES, 1951-58, 1959-66.--Water temperatures: Maximum (1951-58, 1959-64, 1965-66), 81°F July 27, Aug. 3, 1954; minimum, freezing point Nov. 25, 26, 1957, Nov. 25-29, 1958.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																														Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	64	64	64	63	63	64	64	64	64	63	62	62	63	62	62	61	60	61	61	61	58	57	57	57	57	57	57	57	57	57	57	61
Minimum	63	63	63	62	62	63	63	63	63	62	61	62	62	62	61	60	59	60	60	58	57	57	56	56	56	56	56	56	56	56	56	60
November																																
Maximum	57	56	56	56	56	56	56	56	57	57	56	57	57	56	56	57	58	58	58	58	58	57	57	57	57	56	56	56	55	55	--	57
Minimum	56	55	55	55	56	56	56	56	56	56	56	56	56	56	56	57	57	58	57	57	57	57	57	57	56	55	55	55	55	55	--	56
December																																
Maximum	55	55	55	55	55	54	54	54	54	54	54	54	53	53	52	52	52	52	52	52	52	52	51	50	50	50	50	49	49	49	49	52
Minimum	55	55	55	55	54	54	54	54	54	54	54	53	53	52	52	52	52	51	51	52	51	51	50	50	50	50	49	49	49	49	49	52
January																																
Maximum	49	49	48	48	49	49	50	50	50	49	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Minimum	49	48	48	48	48	49	49	50	49	48	48	48	48	48	47	48	47	48	48	48	48	48	48	48	48	48	47	47	47	47	47	48
February																																
Maximum	47	48	48	47	48	48	48	49	48	48	48	48	48	48	48	47	47	47	47	47	48	48	48	48	48	47	47	47	--	--	--	48
Minimum	47	47	47	47	47	48	48	48	47	47	47	47	47	47	47	46	46	46	46	47	47	47	47	47	47	46	46	46	--	--	--	47
March																																
Maximum	48	48	48	48	48	48	49	50	50	49	49	49	50	49	50	50	49	49	49	49	49	50	51	53	53	53	53	53	54	55	55	50
Minimum	46	46	46	46	47	47	48	48	49	49	49	48	48	49	49	49	49	48	49	49	49	49	49	51	53	52	52	52	53	54	54	49
April																																
Maximum	55	55	55	55	55	55	56	55	55	56	56	56	56	57	57	57	56	59	57	57	58	58	59	59	59	59	60	59	59	59	--	57
Minimum	54	54	54	54	54	54	54	54	54	54	54	54	54	55	55	56	55	56	56	55	55	56	57	56	56	56	58	56	57	56	--	55
May																																
Maximum	59	58	58	59	59	60	60	59	60	59	59	60	59	60	60	60	60	60	60	60	60	62	61	60	60	60	61	60	60	61	61	60
Minimum	56	57	56	56	57	57	58	57	57	58	58	58	57	57	57	57	59	58	58	58	58	58	59	59	59	58	59	59	58	59	58	58
June																																
Maximum	61	61	61	60	60	58	60	59	60	61	61	62	60	60	60	63	62	60	59	59	58	59	59	60	59	59	59	59	60	60	--	60
Minimum	58	58	58	58	57	57	57	57	57	58	58	59	58	58	58	59	59	58	56	57	57	57	57	58	58	58	58	58	59	58	--	58
July																																
Maximum	59	60	60	60	60	60	61	61	60	62	62	62	62	61	62	62	61	62	62	62	62	62	61	63	63	63	63	63	62	61	61	61
Minimum	58	59	59	58	58	59	59	59	59	60	59	60	60	60	60	59	60	60	60	60	60	60	59	60	60	61	60	61	61	60	60	60
August																																
Maximum	61	62	63	64	63	64	64	64	64	64	63	63	63	63	64	64	64	64	65	65	65	66	66	66	67	68	68	67	66	67	66	65
Minimum	60	60	61	62	62	62	62	62	62	62	63	62	63	63	63	63	64	64	64	64	64	64	64	64	64	64	65	64	64	64	64	63
September																																
Maximum	66	66	66	66	66	66	67	67	66	66	66	66	66	65	65	65	65	65	65	66	66	67	67	67	67	67	68	68	68	69	--	66
Minimum	64	64	64	64	64	64	64	65	65	64	64	63	63	63	63	63	63	63	63	64	65	64	65	64	64	65	65	66	66	66	--	64

11-4470. AMERICAN RIVER AT SACRAMENTO, CALIF.

LOCATION.--Lat 38°34'05", long 121°25'20", at site of former gaging station at H Street Bridge, east of Sacramento, Sacramento County, and 6.5 miles upstream from mouth.
DRAINAGE AREA.--1,889 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to June 1966 (discontinued).
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 8, 1965.....						1.9		26	0		1.3			0.0				21	0	0.2	56	7.8
Nov. 2.....						2.6		24	0		1.4			.0				20	0	.2	51	7.8
Nov. 30.....						2.4		28	0		1.8			.0				24	1	.2	62	7.7
Jan. 5, 1966.....						2.7		28	0		1.9			.0				24	1	.2	66	7.7
Feb. 7.....						3.4		32	0		2.3			.0				28	2	.3	75	7.8
Mar. 8.....						3.3		34	0		2.7			.0				30	2	.3	80	7.5
Apr. 8.....						2.8		32	0		2.4			.1				30	4	.2	75	7.7
May 3.....		9.3		7.8	2.1	3.6	0.8	31	0	5.0	2.1		1.8	.0	48	0.07		28	3	.3	75	7.2
June 10.....						3.2		30	0		1.9			.0				26	1	.3	71	7.8

11-4475. SACRAMENTO RIVER AT SACRAMENTO, CALIF.

LOCATION (revised).--Lat 38°35'20", long 121°30'15", at gaging station 1,000 feet upstream from I Street Bridge, in city of Sacramento, Sacramento County, and 0.5 mile downstream from American River.
DRAINAGE AREA.--23,530 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1952 to May 1960.
Water temperatures: May 1955 to September 1966.
Sediment records: October 1956 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 78°F June 15; minimum, 44°F Dec. 21, 23, Jan. 4.
Sediment concentrations: Maximum daily, 1,120 ppm Jan. 7; minimum daily, 21 ppm June 23.
Sediment loads: Maximum daily, 132,000 tons Jan. 7; minimum daily, 555 tons June 23.
EXTREMES, 1955-66.--Water temperatures: Maximum (1955-62, 1963-66), 80°F June 15, 16, 1961; minimum, 39°F Jan. 30, 31, Feb. 1, 1957.
Sediment concentrations (1956-66): Maximum daily, 1,960 ppm Dec. 24, 1964; minimum daily, (estimated) 11 ppm Nov. 30, 1959.
Sediment loads (1956-66): Maximum daily, 525,000 tons Dec. 24, 1964; minimum daily, (estimated) 200 tons Dec. 14, 1959.
REVISIONS.--Incorrect temperature table published in 1964 report; correct table is given herewith:

Temperature (°F) of water, water year October 1963 to September 1964

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	--	--	--	--	--	--	--	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November	--	--	--	--	--	55	55	55	56	56	56	55	56	57	55	54	54	51	51	51	51	50	49	49	50	51	49	49	--	49	--	53
December	49	48	49	47	47	47	48	42	43	47	46	45	47	44	44	44	48	44	--	47	46	47	47	49	47	46	50	48	47	48	48	47
January	47	49	51	49	47	46	48	47	47	48	47	48	47	48	49	48	47	48	49	49	46	45	46	45	45	47	47	47	47	48	49	47
February	48	50	49	50	48	48	49	49	49	50	48	49	48	47	48	47	48	50	52	51	--	53	52	52	51	51	51	49	51	--	--	50
March	50	49	50	52	52	50	50	52	52	52	51	50	52	53	55	56	56	--	57	55	53	50	50	51	53	54	--	53	51	60	56	53
April	56	--	57	57	--	56	58	58	--	60	61	62	62	64	62	61	60	--	58	60	61	--	--	59	58	60	63	62	63	62	--	60
May	60	--	59	59	57	58	59	61	65	63	--	68	66	67	68	63	65	65	64	67	68	68	--	68	70	67	66	66	70	70	69	65
June	69	69	69	70	68	68	68	61	61	64	67	68	71	73	--	68	--	68	71	--	--	76	76	79	71	71	73	71	--	69	--	70
July	69	69	68	--	--	71	72	71	72	75	--	76	74	74	72	74	73	72	72	72	72	72	74	74	73	72	74	72	72	70	70	72
August	--	69	69	70	72	72	72	74	71	72	72	70	--	70	71	--	72	71	74	72	72	71	74	73	69	70	69	78	72	--	69	71
September	66	66	63	--	68	69	67	67	67	66	68	67	68	68	71	69	68	68	71	71	68	67	71	70	70	67	65	64	67	67	--	68

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	64	--	--	63	63	--	--	--	--	--	--	64	--	62	60	61	--	59	59	59	61	61	--	--	60	61	60	--	60	--	--	--
November	59	57	57	58	58	--	--	58	57	57	57	56	--	55	58	56	56	56	54	--	55	54	54	54	52	51	--	51	51	51	--	55
December	49	48	48	48	49	48	47	47	47	48	47	49	49	49	47	48	47	--	46	45	44	45	44	--	--	45	45	46	47	46	47	47
January	--	46	45	44	--	47	48	48	--	47	48	47	47	47	48	48	47	46	46	45	45	45	45	46	46	46	47	47	--	48	47	47
February	47	46	46	47	48	49	47	47	47	47	49	47	48	47	47	--	--	48	49	50	51	51	51	50	--	51	50	49	--	--	--	48
March	48	48	48	48	--	--	52	52	52	53	55	53	54	54	53	53	52	52	52	51	51	52	54	55	55	56	56	56	58	56	56	53
April	60	61	61	--	60	60	59	58	59	58	57	56	56	57	61	--	59	60	58	60	60	61	63	64	63	61	--	62	61	64	--	60
May	67	66	66	67	64	--	67	65	65	--	66	--	--	67	68	67	69	71	71	--	66	67	71	71	72	--	71	69	65	66	66	68
June	67	67	66	66	70	65	65	70	70	72	71	74	76	76	78	74	74	75	76	71	67	71	69	70	69	--	73	74	74	70	--	71
July	71	71	70	70	71	69	68	69	--	71	67	66	66	67	71	69	69	71	71	70	71	73	74	73	71	71	72	73	--	67	71	70
August	72	74	71	73	76	76	76	74	72	71	70	69	70	70	70	71	71	71	71	69	69	68	68	71	68	68	71	68	67	67	68	71
September	68	69	73	--	73	70	69	68	69	--	--	68	67	68	69	68	70	69	68	69	68	69	68	--	--	--	68	69	69	68	--	69

11-4475. SACRAMENTO RIVER AT SACRAMENTO, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	15400	38	1580	14100	40	1520	23300	60	3770
2	15200	36 B	1480	14400	48	1870	20900	59	3330
3	14200	36	1380	14600	37	1460	19500	62	3260
4	14000	36	1360	14400	34	1320	19100	59	3040
5	14200	41	1570	14300	36	1390	20600	77	4280
6	13700	42 B	1550	14000	36 B	1360	21700	76	4450
7	12800	42 B	1450	13800	33 B	1230	22100	67	4000
8	13700	42 B	1550	13800	31	1160	22200	71	4260
9	13700	41 B	1520	14000	34	1290	22200	62	3720
10	13900	39 B	1460	14000	32	1210	22600	66	4030
11	13500	37 B	1350	14000	34	1290	22900	47	2910
12	13200	35	1250	14100	32	1220	23000	52	3230
13	13100	36 B	1270	14600	33 B	1300	23300	53	3330
14	13000	40	1400	15300	42	1740	23500	63	4000
15	12900	32	1110	17100	53	2450	23600	80	5100
16	13300	36	1290	20800	112	6290	23200	79	4950
17	13700	37 B	1370	26100	402	28300	23100	63	3930
18	13900	39	1460	25400	697	47800	22800	58 B	3570
19	14300	56	2160	28600	354	27300	22600	56	3420
20	14400	36	1400	31300	270 B	22800	22600	53	3230
21	14600	43	1700	28900	237	18500	21700	59	3460
22	14700	40	1590	26100	146	10300	21000	54	3060
23	14400	39 B	1520	24400	108	7120	20600	57	3170
24	14200	38 B	1460	23400	112	7080	20400	62 B	3410
25	13900	38	1430	23800	82	5270	20600	68 B	3780
26	13800	34	1270	25500	82	5650	22200	75	4500
27	13900	32	1200	26800	88 B	6370	22400	94	5690
28	14000	32 B	1210	26300	90	6390	22100	87	5190
29	14200	32	1230	26000	95	6670	24200	91	5950
30	14200	34 B	1300	25400	83	5690	29700	119	9540
31	14200	37 B	1420	--	--	--	31200	216	18200
Total	432200	--	44290	605300	--	233340	700900	--	141760
	JANUARY			FEBRUARY			MARCH		
1	31000	200 B	16700	31200	133	11200	23300	116	7300
2	29300	153	12100	30800	130	10800	22000	80	4750
3	28000	123	9300	31600	104	8870	20800	62	3480
4	26800	118	8540	32800	150	13300	18700	60	3030
5	27600	230 B	17100	32900	150	13300	17600	55	2610
6	37200	467	46900	35900	384	37200	16700	53	2390
7	43600	1120	132000	38600	411	42800	16400	52	2300
8	47100	714	90800	39900	313	33700	16600	52	2330
9	51300	420 B	58200	39700	270	28900	16900	43	1960
10	53600	388	56200	36700	198	19600	17800	49	2350
11	52700	336	47800	32700	176	15500	19700	63	3350
12	49600	265	35500	29400	161	12800	23100	81	5050
13	45200	242	29500	27000	172	12500	25100	137	9280
14	40900	199	22000	24500	118	7810	25600	146	10100
15	37200	169	17000	22600	97	5920	27800	136	10200
16	34800	182	17100	21600	93 B	5420	28300	115	8790
17	33500	161	14600	20600	92 B	5120	28900	99	7720
18	32500	162	14200	19800	91	4860	27900	94	7080
19	31600	157	13400	19300	109	5680	26700	85	6130
20	30600	145	12000	18700	83	4190	26600	74	5310
21	29600	108	8630	19700	80	4260	26400	65	4630
22	29000	93	7280	20400	83	4570	27500	65	4830
23	28500	120	9230	19800	88	4700	27600	68	5070
24	28100	112	8500	19000	70	3590	26800	67	4850
25	27600	97	7230	19900	74 B	3980	25900	66	4620
26	27500	118	8760	21800	89	5240	25800	50	3480
27	27500	120	8910	24100	95	6180	25600	48	3320
28	26800	100	7240	25200	95	6460	25000	53	3580
29	26100	97 B	6840	--	--	--	24900	58	3900
30	26700	105	7570	--	--	--	25500	61	4200
31	29100	113	8880	--	--	--	26500	80	5720
Total	1070600	--	760010	756200	--	338450	734000	--	153710

B Computed from estimated-concentration graph.

11-4475. SACRAMENTO RIVER AT SACRAMENTO, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	26500	95	6800	12600	69	2350	9610	58	1500
2	27700	110	8230	12200	60	1980	9290	55	1380
3	28500	114	8770	12000	61	1980	9140	51	1260
4	28500	110 B	8460	12600	60	2040	9050	38	929
5	27600	109	8120	13200	55	1960	9140	69	1700
6	26300	92	6530	14300	58 B	2240	9390	65	1650
7	25400	76	5210	15100	67	2730	9610	46	1190
8	24200	79	5160	15500	75	3140	9750	40	1050
9	23200	76	4760	15900	71	3050	10000	42	1130
10	22500	69	4190	15400	68 B	2830	10000	42	1130
11	25900	86	6010	17600	74	3520	9990	54	1460
12	28900	108	8430	19500	80 B	4210	9610	65	1690
13	29900	94	7590	20300	91 B	4990	9120	63	1550
14	28600	81	6250	19400	99	5190	8480	50	1140
15	24100	78	5080	18900	80	4080	8120	42	921
16	21700	84 B	4920	18300	77	3800	8470	31	709
17	20100	88	4780	17300	73	3410	8670	28	655
18	19900	71	3810	16100	65	2830	9360	27	682
19	20700	59	3300	15200	61	2500	9720	30	787
20	20200	61	3330	14600	61	2400	9860	33	879
21	18600	67	3360	13700	60	2220	9990	27	728
22	16400	73	3230	13200	54	1920	9650	24	625
23	15200	92	3780	12500	53	1790	9780	21	555
24	14700	113	4480	12000	48	1560	10100	26	709
25	14000	71	2680	11600	43	1350	10200	37	1020
26	13700	48	1780	10800	34 B	991	10500	47 B	1330
27	15000	55 B	2230	10400	30	842	10400	44	1240
28	15900	73	3130	10400	36	1010	10200	37	1020
29	14400	72	2800	10300	46	1280	10200	35	964
30	13200	53	1890	9810	62	1640	10100	24	654
31	--	--	--	9640	62	1610	--	--	--
Total	651500	--	149090	440350	--	77443	287500	--	32237

Day	JULY			AUGUST			SEPTEMBER		
1	10300	27	751	12200	50	1650	12600	82	2790
2	10000	34	918	12500	48	1620	12700	89	3050
3	10300	42	1170	12500	32	1080	12300	77	2560
4	10500	36	1020	12200	28	922	12200	79 B	2600
5	10800	28	816	11600	35 B	1100	11700	87	2750
6	10700	31	896	11600	43	1350	11600	83	2600
7	10600	34	973	11500	42	1300	11700	74	2340
8	10400	34	955	12200	37	1220	11800	78	2490
9	10600	42 B	1200	12200	30	988	11800	68	2170
10	10700	57	1650	12700	30	1030	11500	66 B	2050
11	11100	51	1530	12900	30	1040	11800	66 B	2100
12	11200	58	1750	13200	34	1210	11300	65	1980
13	11000	52	1540	13300	26	934	11300	58	1770
14	11500	43	1340	13700	26	962	10900	67	1970
15	12000	50	1620	13700	30	1110	10900	54	1590
16	13000	44	1540	14000	30	1130	10700	42	1210
17	13000	43	1510	14000	26	983	10700	40	1160
18	13200	43	1530	13300	26	934	10300	41	1140
19	13400	37	1340	12400	36	1210	10700	35	1010
20	13200	38	1350	12000	26	842	10500	35	992
21	12800	48	1660	11800	34	1080	10300	40	1110
22	12100	47	1540	11900	34	1090	10200	42	1160
23	12000	57	1850	11500	36	1120	10100	44	1200
24	12200	66	2170	11200	51	1540	10000	45 B	1220
25	12100	55	1800	11200	62	1870	9950	45 B	1210
26	11400	54	1660	11000	54	1600	9890	46 B	1230
27	11500	38	1180	11300	47	1430	9910	44	1180
28	11500	32	994	11500	43	1340	9750	36	948
29	11800	33 B	1050	11800	95	3030	9680	23	601
30	11900	40	1290	11800	68	2170	9680	23	601
31	12300	54	1790	12300	69	2290	--	--	--
Total	359100	--	42383	381000	--	41175	328460	--	50782

Total discharge for year (cfs-days)..... 6747110
Total load for year (tons)..... 2064670

B Computed from estimated-concentration graph.

11-4475. SACRAMENTO RIVER AT SACRAMENTO, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Jan. 7, 1966.....	1330	48		43700	1210							59	65	74	100			V
Jan. 21.....	1400	45		29800	92							75	89	97	100			V
Feb. 18.....	1330	48		D 19800	63							84	94	99	100			V
Feb. 24.....	1010	50		D 19000	62							86	94	100	--			S
Apr. 5.....	1040	60		D 27600	112							72	84	99	100			V
June 7.....	0855	64		D 9610	40							91	95	100	--			V
Aug. 23.....	1817	68		D 11500	40							96	100	--	--			V
Aug. 23.....	1952	68		D 11500	41							96	100	--	--			V
Aug. 24.....	0140	--		D 11200	26							94	100	--	--			V
Sept. 7.....	1000	68		D 11700	75		28	35	48	60	75	90	100	--	--			VPWC

Particle-size analyses of bed material, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Bed material: Percent finer than size indicated, in millimeters										Method of analysis
							0.062	0.125	0.25	0.50	1.0	2.0	4.0	8.0	16.0	32.0	
Sept. 7, 1966.....	1205	69		D 11700			18	40	75	96	100						S

D Daily mean discharge.

11-4476.5. SACRAMENTO RIVER AT FREEPORT, CALIF.

LOCATION.--Lat 38°30'15", long 121°30'25", at drawbridge at Freeport, Sacramento County, approximately 11 miles south of Sacramento.
RECORDS AVAILABLE.--Chemical analyses: June 1960 to September 1966.
Water temperatures: June 1960 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 71°F on several days during June; minimum, 42°F Dec. 23-26.
EXTREMES, 1960-66.--Water temperatures: Maximum, 76°F June 16, 17, 1961; minimum, 41°F Jan. 24-27, 1962.
REMARKS.--Records of discharge data given for Sacramento River at Sacramento. No appreciable inflow between sampling point and gaging station.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	13700	--	--	--	--	10	--	73	0	--	5.9	--	--	0.0	--	--		56	0	0.6	152	8.2
Nov. 1.....	14100	--	--	--	--	7.5	--	68	0	--	4.0	--	--	.0	--	--		52	0	.5	136	8.1
Nov. 29.....	26000	--	--	--	--	7.0	--	62	0	--	4.1	--	--	.0	--	--		51	0	.4	132	7.9
Jan. 3, 1966.....	28000	--	--	--	--	9.0	--	71	0	--	4.3	--	--	.0	--	--		56	0	.5	155	8.2
Feb. 9.....	39700	--	--	--	--	7.1	--	60	0	--	4.8	--	--	.1	--	--		52	3	.4	136	8.1
Mar. 8.....	16600	--	--	--	--	9.7	--	80	0	--	6.0	--	--	.0	--	--		65	0	.5	175	8.2
Apr. 6.....	26300	15	0.01	10	3.6	4.4	0.8	50	0	6.0	2.0	0.1	0.9	.0	68	0.09		40	0	.3	103	7.3
May 3.....	12000	16	.01	12	5.4	9.4	1.1	63	0	10	5.7	.1	1.3	.0	92	.13		52	0	.6	143	8.1
June 8.....	9750	18	.00	17	7.2	15	1.0	89	2	15	10	.2	1.9	.0	131	.18		72	0	.8	208	8.3
July 26.....	11400	18	.01	14	5.6	11	1.0	79	0	10	6.6	.1	1.6	.0	107	.15		58	0	.6	169	7.5
Aug. 19.....	12400	16	.02	13	6.7	12	1.1	80	0	10	6.7	.1	1.4	.0	106	.14		60	0	.7	172	8.0
Sept. 12.....	11300	19	.00	16	11	19	1.2	118	0	13	14	.2	1.5	.1	153	.21		85	0	.9	258	7.8

11-4476.5. SACRAMENTO RIVER AT FREEPORT, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	63	63	63	63	63	63	63	63	63	63	63	63	63	62	62	62	61	60	60	60	60	59	59	59	59	59	59	59	59	59	59	61
Minimum	62	63	63	63	63	63	63	63	63	63	63	63	62	62	62	61	60	60	60	60	59	59	59	59	59	59	59	59	59	59	58	61
November																																
Maximum	58	58	58	57	57	57	57	57	57	56	56	56	56	56	56	55	55	55	55	55	55	55	54	54	53	52	51	51	50	49	--	55
Minimum	58	58	57	57	57	57	57	57	56	56	56	56	56	56	55	55	55	55	55	55	55	54	54	53	52	51	51	50	49	49	--	55
December																																
Maximum	49	49	49	49	49	48	48	48	48	48	48	48	47	47	47	47	46	45	45	44	44	44	43	42	42	43	43	43	43	43	43	46
Minimum	49	49	49	49	48	48	48	48	48	48	48	47	47	47	47	46	45	45	44	44	44	43	42	42	42	42	43	43	43	43	43	46
January																																
Maximum	44	44	44	45	45	46	46	47	47	47	47	47	47	47	47	47	47	47	46	46	46	46	46	46	46	46	46	46	46	45	45	46
Minimum	43	44	44	44	45	45	46	46	47	47	47	47	47	47	47	47	47	46	46	46	46	46	46	46	46	46	46	46	45	45	45	46
February																																
Maximum	45	45	45	45	45	46	47	47	47	47	47	47	47	47	47	47	47	47	47	48	48	49	49	50	50	50	50	50	--	--	--	47
Minimum	45	45	45	45	45	45	46	47	47	47	47	47	47	47	47	47	47	47	47	47	48	48	49	49	50	50	50	50	--	--	--	47
March																																
Maximum	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	51	52	52	53	53	54	55	51
Minimum	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	51	52	52	53	53	54	50
April																																
Maximum	55	55	55	55	55	55	56	56	56	56	56	56	55	55	55	56	57	57	58	58	58	59	60	61	62	63	63	63	63	63	--	58
Minimum	55	55	55	55	55	55	55	56	56	56	56	55	55	55	55	55	56	57	57	58	58	58	59	60	61	62	63	63	63	63	--	57
May																																
Maximum	63	64	64	64	64	64	64	64	64	64	64	64	64	64	65	65	66	66	67	68	68	68	69	69	69	69	69	69	69	68	68	66
Minimum	63	63	64	64	64	64	64	64	64	64	64	64	64	64	64	65	65	66	66	67	68	68	68	69	69	69	69	69	68	68	68	66
June																																
Maximum	68	68	67	67	67	67	67	67	67	67	68	68	69	70	71	71	71	71	71	71	71	70	68	67	67	66	66	66	66	67	--	68
Minimum	68	67	67	67	67	67	67	67	67	67	67	68	68	69	70	71	71	71	71	71	70	68	67	67	66	66	66	66	66	66	--	68
July																																
Maximum	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	67
Minimum	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	67
August																																
Maximum	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
Minimum	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
September																																
Maximum	68	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	66	66	66	66	66	66	65	65	65	65	65	64	64	--	66
Minimum	67	67	67	67	67	67	67	67	67	67	67	67	67	67	66	66	66	66	66	66	66	66	65	65	65	65	65	64	64	63	--	66

11-4490.1. HIGHLAND CREEK BELOW HIGHLAND CREEK DAM, NEAR KELSEYVILLE, CALIF.

LOCATION.--Lat 38°56'54", long 122°54'03", at outlet of Highland Creek Dam, 600 feet upstream from gaging station, and 4.0 miles southwest of Kelseyville, Lake County.
DRAINAGE AREA.--14.2 square miles.
RECORDS AVAILABLE.--Sediment records: December 1965 to September 1966.
EXTREMES, December 1965 to September 1966.--Sediment concentrations: Maximum daily, 182 ppm Jan. 5; minimum daily, no flow on many days.
Sediment loads: Maximum daily, 270 tons Jan. 5; minimum daily, 0 ton on many days.
REMARKS.--No flow Apr. 23, 24, June 16-21, June 29 to July 19, July 21 to Aug. 30, Sept. 17-30.

Suspended sediment, December 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
		Suspended sediment			Suspended sediment			Suspended sediment	
	Mean discharge (cfs)	Mean concentration (ppm)	Tons per day	Mean discharge (cfs)	Mean concentration (ppm)	Tons per day	Mean discharge (cfs)	Mean concentration (ppm)	Tons per day
1							3.8	--	0.2
2							3.7	--	.1
3							3.6	--	.1
4							3.4	--	.1
5							3.2	--	.1
6							2.7	--	.1
7							2.7	--	.1
8							2.5	--	.1
9							2.5	--	T
10									
11							2.5	--	T
12							5.6	--	.1
13							5.6	--	T
14							3.8	--	T
15							3.0	--	T
16							2.3	--	T
17							1.6	--	T
18							1.2	--	T
19							1.9	--	T
20							2.5	--	T
21							2.5	--	T
22							2.5	--	T
23							2.3	--	T
24							95	--	1.3
25							94	55 K	12
26							37	--	5.0
27							25	--	2.4
28							323	26 K	24
29							294	149 S	120
30							96	--	18
31							110	--	16
Total							2.5	--	T

S Computed by subdividing day.
T Less than 0.05 ton.
K Computed from estimated-concentration graph and subdividing day.

11-4490.1. HIGHLAND CREEK BELOW HIGHLAND CREEK DAM, NEAR KELSEYVILLE, CALIF.--Continued

Suspended sediment, December 1965 to September 1966--Continued

Day	JANUARY			FEBRUARY			MARCH		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	57	--	7.7	123	94	31	18	--	1.7
2	38	--	4.8	70	82	15	17	--	1.4
3	38	--	4.3	84	--	12	15	--	1.2
4	398	63 K	77	269	73 K	52	13	--	.9
5	550	182	270	130	--	30	12	--	.8
6	490	110	146	77	--	14	11	--	.6
7	131	90	32	48	52	6.7	11	--	.6
8	47	--	11	36	68	6.6	11	--	.4
9	36	--	7.6	29	--	5.1	14	--	.8
10	28	72	5.4	24	--	3.9	19	--	1.3
11	23	--	4.3	20	--	3.2	15	--	.8
12	18	--	3.2	18	--	2.7	14	--	.8
13	16	--	2.7	16	--	2.4	14	--	.6
14	14	57	2.2	14	--	1.9	12	--	.5
15	13	--	1.8	14	--	1.9	13	--	.5
16	11	--	1.3	12	--	1.6	14	--	.5
17	9.0	--	1.0	12	48	1.6	12	--	.3
18	8.5	--	.8	12	--	1.5	12	--	.3
19	7.5	--	.6	29	--	4.3	12	--	.3
20	6.3	--	.4	22	--	3.0	11	--	.2
21	5.9	--	.3	17	--	2.1	11	--	.1
22	5.6	--	.2	16	--	1.7	11	--	.1
23	5.6	--	.2	18	--	1.9	11	--	.1
24	4.8	--	.1	21	--	2.0	10	2	.1
25	4.1	--	.1	24	--	2.3	8.0	--	T
26	4.1	--	T	28	--	3.0	4.5	--	T
27	3.8	--	T	22	--	2.4	3.0	--	T
28	3.0	--	T	20	--	1.9	1.9	--	T
29	104	--	.8	--	--	--	2.5	--	T
30	245	104 K	64	--	--	--	2.3	--	T
31	72	97	19	--	--	--	2.1	--	T
Total	2397.2	--	668.9	1225	--	217.7	337.3	--	15.0

	APRIL			MAY			JUNE		
1	3.8	--	T	1.4	--		0.2	--	T
2	4.1	--	T	1.2	--		.2	--	T
3	4.5	--	T	1.1	--		.2	--	T
4	3.8	--	T	1.0	--		.2	--	T
5	2.3	--	T	.8	--		.2	--	T
6	1.6	--	T	.8	--		.2	--	T
7	1.4	--	T	.7	--		.3	--	T
8	1.9	--	T	.5	--		.3	--	T
9	3.0	--	T	.4	--		.3	--	T
10	5.2	--	T	.5	--		.2	--	T
11	4.5	--	T	.4	--		.2	--	T
12	5.6	--	T	.4	--		.1	--	T
13	4.1	--	T	.4	--		.1	--	T
14	3.2	--	T	.4	--		.1	--	T
15	2.3	--	T	.4	--		.1	--	T
16	1.6	--	T	.5	--		0	--	0
17	2.3	--	T	.5	--		0	--	0
18	3.4	--	T	.6	--		0	--	0
19	3.8	--	T	.5	--		0	--	0
20	3.4	--	T	.5	--		0	--	0
21	3.4	--	T	.4	--		0	--	0
22	5.2	--	T	.3	--		.1	--	T
23	0	--	0	.4	--		.4	--	T
24	0	--	0	.3	--		.4	--	T
25	.2	--	T	.3	--		.3	--	T
26	.7	--	T	.2	--		.3	--	T
27	1.6	2	T	.2	--		.3	--	T
28	2.1	--	T	.2	--		.2	--	T
29	1.9	--	T	.2	--		0	--	0
30	1.9	--	T	.2	--		0	--	0
31	--	--	--	.2	--		--	--	--
Total	82.8	--	0.4	15.9	--	0.1	4.9	--	0.0

T Less than 0.05 ton.
K Computed from estimated-concentration graph and subdividing day.

11-4490.1. HIGHLAND CREEK BELOW HIGHLAND CREEK DAM, NEAR KELSEYVILLE, CALIF.--Continued

Suspended sediment, December 1965 to September 1966--Continued

Day	JULY			AUGUST			SEPTEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	0	--	0	0	--	0	0.3	--	T
2	0	--	0	0	--	0	.4	--	T
3	0	--	0	0	--	0	.5	--	T
4	0	--	0	0	--	0	.5	--	T
5	0	--	0	0	--	0	.1	--	T
6	0	--	0	0	--	0	.1	--	T
7	0	--	0	0	--	0	.1	--	T
8	0	--	0	0	--	0	.1	--	T
9	0	--	0	0	--	0	.1	--	T
10	0	--	0	0	--	0	.2	--	T
11	0	--	0	0	--	0	.1	--	T
12	0	--	0	0	--	0	.2	--	T
13	0	--	0	0	--	0	.2	--	T
14	0	--	0	0	--	0	.3	--	T
15	0	--	0	0	--	0	.5	--	T
16	0	--	0	0	--	0	.1	--	T
17	0	--	0	0	--	0	0	--	0
18	0	--	0	0	--	0	0	--	0
19	0	--	0	0	--	0	0	--	0
20	.1	--	T	0	--	0	0	--	0
21	0	--	0	0	--	0	0	--	0
22	0	--	0	0	--	0	0	--	0
23	0	--	0	0	--	0	0	--	0
24	0	--	0	0	--	0	0	--	0
25	0	--	0	0	--	0	0	--	0
26	0	--	0	0	--	0	0	--	0
27	0	--	0	0	--	0	0	--	0
28	0	--	0	0	--	0	0	--	0
29	0	--	0	0	--	0	0	--	0
30	0	--	0	0	--	0	0	--	0
31	0	--	0	.2	--	T	--	--	--
Total	0.1	--	0.0	0.2	--	0.0	3.8	--	0.0

Total discharge for period Dec. 1 to Sept. 30 (cfs-days)..... 5209.1
Total load for period Dec. 1 to Sept. 30 (tons)..... 1102.1

T Less than 0.05 ton.

SACRAMENTO RIVER BASIN--Continued

11-4490.1. HIGHLAND CREEK BELOW HIGHLAND CREEK DAM, NEAR KELSEYVILLE, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966

(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment										Method of analysis
							Percent finer than size indicated, in millimeters										
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Jan. 6, 1966.....	1300	48		495	116							99	99	100				S
Jan. 6.....	1530	48		485	108							96	100					S
Jan. 31.....	0800	47		86	99							98	100					S

11-4500. CLEAR LAKE AT LAKEPORT, CALIF.

LOCATION.--Lat 39°02'40", long 122°54'45", on private pier at foot of Fourth Street in Lakeport, Lake County.
DRAINAGE AREA.--528 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966 (discontinued).

Chemical analyses in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 5, 1965.....		--		--	--	10	--	148	3	--	5.3		--	0.7	--	--		120	0	0.4	269	8.4
Nov. 3.....		--		--	--	11	--	160	0	--	5.2		--	.8	--	--		124	0	.4	278	8.1
Dec. 9.....		--		--	--	10	--	145	4	--	5.8		--	.7	--	--		119	0	.4	265	8.4
Jan. 7, 1966.....		--		--	--	7.4	--	102	0	--	3.4		--	.4	--	--		84	0	.3	197	8.1
Feb. 8.....		--		--	--	8.8	--	117	0	--	4.5		--	.5	--	--		101	5	.4	232	8.0
Mar. 4.....		--		--	--	8.3	--	119	1	--	5.0		--	.6	--	--		101	2	.4	232	8.3
Apr. 8.....		--		--	--	9.1	--	132	1	--	5.2		--	.4	--	--		106	0	.4	238	8.3
May 6.....		22		22	13	9.4	1.5	140	0	9.0	4.6		1.4	.5	154	0.21		110	0	.4	248	8.0
June 10.....		--		--	--	9.8	--	145	2	--	4.4		--	.5	--	--		112	0	.4	253	8.4
July 21.....		--		--	--	10	--	152	0	--	4.8		--	.4	--	--		120	0	.4	267	7.8
Sept. 14.....		29		24	16	11	1.9	160	0	9.0	4.6		2.4	.9	A 178	.24		126	0	.4	280	7.7

A Calculated from sum of determined constituents.

11-4510. CACHE CREEK NEAR LOWER LAKE, CALIF.

LOCATION.--Lat 38°55'27", long 122°33'53", at gaging station 500 feet downstream from Clear Lake Dam, 1.9 miles downstream from Copsey Creek, and 2.5 miles northeast of Lower Lake, Lake County.
DRAINAGE AREA.--528 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966 (discontinued).

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 5, 1965.....	53	--		--	--	11	--	151	6	--	5.5		--	0.8	--	--		127	0	0.4	281	8.5
Nov. 3.....	4.1	--		--	--	11	--	165	0	--	5.1		--	.9	--	--		127	0	.4	286	8.2
Dec. 9.....	2.7	--		--	--	10	--	134	0	--	6.0		--	.6	--	--		110	0	.4	254	7.7
Jan. 7, 1966.....	601	---		--	--	7.2	--	66	0	--	4.1		--	.1	--	--		62	8	.4	152	7.9
Feb. 8.....	2420	--		--	--	11	--	152	0	--	5.7		--	.8	--	--		118	0	.4	270	8.2
Mar. 4.....	13	--		--	--	12	--	144	2	--	9.6		--	.8	--	--		116	0	.5	280	8.4
Apr. 7.....	142	--		--	--	14	--	165	0	--	8.2		--	.9	--	--		134	0	.5	308	8.2
May 4.....	516	24		26	13	11	1.9	152	0	9.0	5.4		5.8	.7	175	0.24		120	0	.4	274	7.6
June 7.....	314	--		--	--	10	--	148	4	--	5.4		--	.7	--	--		119	0	.4	268	8.4
July 13.....	401	--		--	--	11	--	152	2	--	5.3		--	.7	--	--		124	0	.4	274	8.4
Sept. 14.....	174	27		25	17	13	2.2	166	0	9.0	6.2		5.7	.9	A 188	.26		132	0	.5	299	8.0

A Calculated from sum of determined constituents.

11-4515. NORTH FORK CACHE CREEK NEAR LOWER LAKE, CALIF.

LOCATION.--Lat 39°01'10", long 122°34'00", at bridge on State Highway 20, 3 miles downstream from gaging station, 2 miles upstream from confluence with Cache Creek, and 6.5 miles northeast of Lower Lake, Lake County.
DRAINAGE AREA.--198 square miles upstream from gaging station.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966 (discontinued).
REMARKS.--Some inflow between gaging station and sampling point during rainy season. Miscellaneous suspended-sediment samples collected at gaging station.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 5, 1965.....	3.0	--		--	--	34	--	215	10	--	66		--	3.9	--	--		226	33	1.0	595	8.5
Nov. 3.....	2.6	--		--	--	39	--	213	9	--	75		--	4.0	--	--		232	43	1.1	615	8.5
Dec. 9.....	53	--		--	--	34	--	216	8	--	51		--	3.6	--	--		198	8	1.1	524	8.5
Jan. 7, 1966.....	1490	--		--	--	6.8	--	89	0	--	4.0		--	.3	--	--		72	0	.4	169	8.1
Feb. 8.....	670	--		--	--	9.7	--	120	1	--	5.8		--	.5	--	--		96	0	.4	223	8.3
Mar. 4.....	202	--		--	--	13	--	159	4	--	9.9		--	.8	--	--		134	0	.5	309	8.4
Apr. 7.....	84	--		--	--	18	--	185	5	--	19		--	1.4	--	--		159	0	.6	373	8.5
May 4.....	51	17		28	24	22	1.1	191	9	13	23		0.8	1.6	236	0.32		169	0	.7	404	8.5
June 7.....	23	--		--	--	30	--	210	10	--	38		--	2.4	--	--		202	13	.9	475	8.7
July 13.....	4.9	--		--	--	32	--	212	8	--	48		--	3.2	--	--		206	19	1.0	517	8.5
Sept. 14.....	3.0	21		40	30	39	2.0	236	0	21	72		2.1	4.1	A 347	.47		224	30	1.1	613	8.1

A Calculated from sum of determined constituents.

SACRAMENTO RIVER BASIN--Continued

11-4515. NORTH FORK CACHE CREEK NEAR LOWER LAKE, CALIF.--Continued

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Oct. 2, 1965.....	1310	70		2.4	4	0.3						--						
Dec. 9.....	0935	48		51	11	1.5						--						
Jan. 4, 1966.....	1715	--		9820	4460	118000		26		51		75	88	98	100			VPWC
Jan. 12.....	1630	47		380	42	43						100						V
Feb. 15.....	1200	43		264	11	7.8						--						
Mar. 22.....	1810	46		160	4	1.7						--						
Apr. 27.....	0915	54		63	2	.3						--						
June 1.....	0915	63		24	2	.1						--						
July 6.....	1530	85		5.7	3	T						--						
Aug. 11.....	0900	75		1.9	12	.1						--						

T Less than 0.05 ton.

11-4517.6. CACHE CREEK ABOVE RUMSEY, CALIF.

LOCATION.--Lat 38°54'47", long 122°16'14", at gaging station, 0.4 mile downstream from highway bridge, and 2.5 miles northwest of Rumsey, Yolo County.
DRAINAGE AREA.--955 square miles.
RECORDS AVAILABLE.--Water temperatures: January 1960 to September 1966.
Sediment records: January 1960 to September 1963, June 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Minimum, 34°F Dec. 17.
Sediment concentrations: Maximum daily, 4,250 ppm Jan. 4; minimum daily, 1 ppm Dec. 21.
Sediment loads: Maximum daily, 132,000 tons Jan. 5; minimum daily, 0.1 ton on several days during October and November.
EXTREMES, 1960-66.--Water temperatures (1964-66): Minimum, 34°F Dec. 17, 1965.
Sediment concentrations (1960-63, 1965-66): Maximum daily, 7,490 ppm Jan. 31, 1963; minimum daily, 1 ppm on several days during 1960-62, Dec. 21, 1965.
Sediment loads (1960-63, 1965-66): Maximum daily, 363,000 tons Jan. 31, 1963; minimum daily, less than 0.05 ton on many days during 1960-61.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	68	68	--	--	55	--	--	61	--	--	67	--	63	--	63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November	--	--	60	--	--	--	--	55	--	--	57	--	--	56	56	57	58	54	54	--	--	49	58	49	48	--	50	58	49	50	--	--
December	50	57	48	48	51	47	47	43	--	45	46	--	45	53	51	35	34	--	35	37	36	42	39	43	48	43	44	42	43	41	39	44
January	42	42	46	47	49	52	50	51	46	47	46	46	48	44	50	50	42	41	42	40	38	--	--	42	--	44	--	40	--	44	47	45
February	45	50	46	47	47	48	47	46	45	47	47	48	49	47	47	47	49	46	49	46	57	52	52	51	49	51	51	49	--	--	--	48
March	51	48	48	45	48	52	52	56	55	51	57	60	59	60	56	55	56	57	56	55	55	55	59	60	--	64	64	66	--	70	67	56
April	68	68	67	67	67	68	68	66	--	--	58	58	60	68	70	--	69	68	--	64	65	68	69	69	70	67	65	67	67	68	--	66
May	69	70	--	70	69	70	69	69	68	--	67	67	69	62	66	71	70	74	--	74	74	75	71	--	77	--	76	--	--	--	74	--
June	--	68	--	67	--	65	--	68	--	74	--	--	75	--	74	--	80	--	--	74	--	69	--	75	--	--	74	--	74	--	--	--
July	74	--	--	74	--	74	--	73	--	--	74	--	71	78	--	--	--	80	--	75	--	--	--	--	80	--	80	--	80	--	--	--
August	82	--	81	--	79	--	--	80	--	79	--	81	--	--	80	--	81	--	81	--	--	79	--	74	--	--	71	--	74	--	73	--
September	--	75	--	--	76	--	75	--	--	--	--	71	--	75	--	66	71	--	73	--	75	--	73	--	--	72	--	72	--	--	--	--

11-4517.6. CACHE CREEK ABOVE RUMSEY, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	82	18	4.0	9.3	4	B 0.1	135	4	1.5
2	83	15	3.4	9.1	4	B .1	116	4	1.3
3	74	15 B	3.0	8.7	4	.1	102	3	.8
4	71	15 B	2.9	8.9	5	B .1	94	4	1.0
5	72	16	3.1	9.4	5	B .1	86	3	.7
6	72	16 B	3.1	9.5	6	B .2	81	3	.7
7	71	17 B	3.3	9.4	6	B .2	77	3	.6
8	69	17	3.2	12	6	.2	74	3	.6
9	69	17 B	3.2	14	5	B .2	73	3	.6
10	68	16 B	2.9	13	4	B .1	68	3	.6
11	68	16	2.9	11	3	.1	69	3	.6
12	69	14	2.6	11	3	B .1	87	6	1.4
13	69	12	2.2	23	4	B .2	93	7	1.8
14	71	12	2.3	333	661	S 898	84	5	1.1
15	70	13	2.5	475	530	S 701	74	3	.6
16	70	13 B	2.5	273	125	S 107	69	2	.4
17	55	12 B	1.8	201	125	S 174	66	2	.4
18	53	10 B	1.4	615	1000	S 1700	63	3	.5
19	52	9 B	1.3	547	215	S 347	60	3	.5
20	52	9 B	1.3	280	55	B 42	59	2	.3
21	58	9 B	1.4	171	20	B 9.2	60	1	.2
22	61	10 B	1.6	126	13	4.4	60	3	.5
23	60	10 B	1.6	105	9	2.6	60	2	.3
24	59	10 B	1.6	379	71	S 132	211	122 S	264
25	60	10 B	1.6	552	102	S 158	818	498 S	1240
26	55	9 B	1.3	327	34	30	376	70	71
27	39	7 B	.7	264	16	11	267	18	13
28	27	6 B	.4	237	11	7.0	1410	435 S	4030
29	14	5 B	.2	189	8	4.1	1960	673 S	3890
30	9.9	4 B	.1	156	7	2.9	995	200	537
31	9.4	4 B	.1	--	--	--	813	170	373
Total	1812.3	--	63.5	5378.3	--	4332.0	8660	--	10435.0

Day	JANUARY			FEBRUARY			MARCH		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	583	80	126	830	303	S 789	1360	86	316
2	441	35	42	754	126	S 266	1350	73	266
3	505	116 S	238	1200	500	S 3690	1180	64 S	212
4	7500	4250 S	127000	5920	2780	S 45600	331	19	17
5	11600	3630 S	132000	4490	1350	16400	308	13	11
6	3730	1650	16600	4000	870	9400	304	7	5.7
7	2460	900	5980	3700	620	6190	291	5	3.9
8	2570	619 S	4660	3500	500	4730	280	5	3.8
9	3350	1190 S	11200	3400	430	3950	291	6	4.7
10	3000	455	3690	3240	365	3190	405	11	12
11	2830	370	2830	2740	325	S 2550	411	11	12
12	2460	320	2130	605	50	82	369	7	7.0
13	1480	170	679	512	18	25	352	13	12
14	1460	116	457	475	10	13	334	7	6.3
15	1230	89 S	309	449	9	11	1250	90 S	320
16	407	29	32	415	7	7.8	1350	83	303
17	340	12	11	390	5	5.3	1840	183 S	1590
18	305	8	6.6	375	4	4.0	2930	562	4450
19	280	7	5.3	560	77	S 141	2840	530	4060
20	260	5	3.5	500	58	S 81	2070	378 S	2460
21	245	5	3.3	405	13	14	987	82	219
22	230	4	2.5	380	6	6.2	333	25	22
23	220	3	1.8	390	6	6.3	245	7	4.6
24	215	3	1.7	400	14	15	234	4	2.5
25	205	3	1.7	535	52	S 140	226	5	3.1
26	200	3	1.6	1380	192	715	217	3	1.8
27	193	3	1.6	1380	135	503	209	5	2.8
28	183	4	2.0	1360	98	360	202	4	2.2
29	302	48 K	92	--	--	--	195	9	4.7
30	1320	502 S	2040	--	--	--	189	5	2.6
31	635	114 S	207	--	--	--	184	5	2.5
Total	50739	--	310354.6	44285	--	98884.6	23067	--	14340.2

S Computed by subdividing day.
B Computed from estimated-concentration graph.
K Computed from estimated-concentration graph and subdividing day.

11-4517.6. CACHE CREEK ABOVE RUMSEY, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	177	6	2.9	574	31	48	410	23	25
2	209	5	2.8	590	29	46	408	23	25
3	223	5	3.0	653	31	55	403	23	25
4	219	4	2.4	671	36	65	404	23	25
5	215	6	3.5	668	33	60	406	26	29
6	238	8	5.1	662	32	57	445	27	32
7	255	7	4.8	641	26	45	439	26	31
8	307	9	7.5	629	26	44	389	25	26
9	312	10	B 8.4	577	24	37	344	24	22
10	245	8	B 5.3	519	24	34	405	22	24
11	324	9	7.9	502	24	33	459	21	B 26
12	367	12	12	487	20	26	461	21	B 26
13	322	13	11	516	19	26	466	24	30
14	281	9	6.8	475	21	27	492	26	35
15	292	9	7.1	433	16	19	480	27	35
16	281	10	7.6	433	14	16	496	25	33
17	306	13	11	455	15	18	498	25	34
18	317	15	13	456	17	21	511	26	B 36
19	357	19	18	484	20	26	544	27	B 40
20	398	26	28	503	25	34	561	28	42
21	431	29	34	474	23	29	563	32	49
22	452	30	37	440	24	29	568	34	52
23	466	30	38	430	25	29	524	31	44
24	472	30	38	497	28	38	501	28	38
25	476	30	39	529	32	46	463	27	B 34
26	531	35	50	533	30	43	435	27	B 32
27	543	34	50	521	28	39	430	27	31
28	538	33	48	486	26	B 34	441	28	B 33
29	503	28	38	454	25	B 31	479	31	B 40
30	509	27	37	472	24	B 31	526	35	B 50
31	--	--	--	450	24	29	--	--	--
Total	10566	--	577.1	16214	--	1115	13951	--	1004

Day	JULY			AUGUST			SEPTEMBER		
	Mean discharge (cfs)	Mean concentration (ppm)	Tons per day	Mean discharge (cfs)	Mean concentration (ppm)	Tons per day	Mean discharge (cfs)	Mean concentration (ppm)	Tons per day
1	544	38	56	407	22	24	317	22	19
2	559	38	B 57	403	24	26	263	22	16
3	547	37	B 55	389	26	27	231	20	B 12
4	536	35	51	389	32	34	217	19	B 11
5	495	29	39	407	39	43	220	18	B 11
6	503	27	37	416	40	B 45	257	19	B 13
7	555	29	43	417	40	B 45	314	23	20
8	554	30	45	425	40	46	360	22	B 21
9	536	29	B 42	465	38	48	306	19	B 16
10	518	26	B 36	452	35	43	253	18	B 12
11	518	24	34	461	34	42	252	17	B 12
12	518	22	31	432	35	41	223	16	B 9.6
13	517	22	31	431	40	B 47	206	15	B 8.3
14	516	22	31	427	47	B 54	221	14	8.4
15	514	22	B 31	414	52	58	218	13	7.7
16	511	22	B 30	433	47	55	218	13	7.7
17	495	23	B 31	446	41	49	205	15	8.3
18	479	23	30	444	36	43	202	14	7.6
19	467	22	28	443	31	37	206	14	7.8
20	497	22	30	435	28	B 33	203	14	7.7
21	485	23	30	401	26	B 28	186	15	7.5
22	512	26	36	391	24	25	178	16	7.7
23	510	26	B 36	417	25	28	155	17	7.1
24	502	25	B 34	399	27	29	153	17	B 7.0
25	471	22	28	384	29	B 30	153	16	B 6.6
26	455	18	22	392	31	B 33	151	15	6.1
27	456	14	17	359	31	30	126	14	4.8
28	469	15	19	310	28	23	119	14	4.5
29	454	16	20	309	24	20	139	14	B 5.3
30	444	17	B 20	329	23	20	141	14	B 5.3
31	439	20	B 24	349	22	21	--	--	--
Total	15576	--	1054	12576	--	1127	6393	--	298.0

Total discharge for year (cfs-days)..... 209217.6
Total load for year (tons)..... 443585

B Computed from estimated-concentration graph.

11-4517.6. CACHE CREEK NEAR RUMSEY, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 19, 1965.....	1230	54		550	146			--		--		99	100	--	--	--		S
Dec. 29.....	1225	43		1660	577			54		83		97	98	99	100	--		VPWC
Jan. 5, 1966.....	0850	49		11400	3540			33		56		79	88	97	100	--		VPWC
Jan. 6.....	1150	52		3660	1630			--		--		80	88	95	99	100		V
Feb. 4.....	0840	47		6390	3060			--		--		49	66	83	96	100		V
Feb. 24.....	1100	48		370	22			--		--		97	99	100	--	--		V
Mar. 18.....	1315	57		2920	545			--		--		56	68	82	100	--		V

11-4520. CACHE CREEK NEAR CAPAY, CALIF.

LOCATION.--Lat 38°43'40", long 122°06'15", at gaging station in Canada de Capay Grant, 1.8 miles upstream from Clear Lake Water Company's diversion dam, 3.2 miles northwest of Capay, Yolo County, and 5.4 miles northwest of Esparto.
DRAINAGE AREA (revised).--1,044 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1952 to September 1966.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 5, 1965.....	69					26		207	9		30			1.3				181	0	0.8	452	8.5
Nov. 19.....	643					38		191	0		50			2.1				170	13	1.3	502	8.1
Dec. 8.....	85					62		242	16		86			2.9				241	16	1.7	714	8.6
Jan. 13, 1966....	1790					17		167	3		16			.8				140	0	.6	343	8.3
Feb. 14.....	482					32		214	8		33			1.1				193	4	1.0	492	8.6
Mar. 24.....	300					35		224	9		40			1.1				200	2	1.1	531	8.5
Apr .7.....	202					38		224	8		39			1.5				206	9	1.2	531	8.6
May 13.....	510	20		26	20	21	2.2	188	0	13	20		1.4	1.2	224	0.30		146	0	.8	363	8.2
June 3.....	419					19		164	0		15			.9				143	9	.7	341	7.7

11-4535. PUTAH CREEK NEAR GUENOC, CALIF.

LOCATION.--Lat 38°46'45", long 122°31'00", temperature recorder at gaging station in Guenoc Grant, on right bank, just upstream from Coyote Valley damsite, 2.8 miles upstream from Soda Creek, 3.2 miles downstream from highway bridge at Guenoc, Lake County, and 5.6 miles northeast of Middletown.
DRAINAGE AREA.-- 112 square miles.
RECORDS AVAILABLE.--Water temperatures: March 1960 to September 1966.
Sediment records: October 1962 to September 1965.
EXTREMES, 1965-66.--Water temperatures: Maximum, 85°F Aug. 3.
EXTREMES, 1960-66.--Water temperatures: Maximum, 86°F July 20, 1960; minimum (1960-65), 41°F Jan. 22, 23, 1962.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	69	67	68	65	69	70	70	70	70	69	70	70	68	67	64	62	64	63	66	65	66	66	65	66	66	65	66	66	66	64	64	67
Minimum	63	63	62	62	63	63	64	64	64	64	63	63	64	63	60	58	60	61	61	61	60	60	60	60	61	61	60	62	61	61	60	62
November																																
Maximum	63	61	62	65	63	62	61	62	61	60	60	60	60	56	58	58	57	55	56	56	56	55	54	54	51	51	53	52	52	54	---	58
Minimum	59	58	59	60	60	58	60	59	58	57	58	60	55	55	56	57	55	54	54	54	54	54	54	51	50	50	51	50	51	52	---	55
December																																
Maximum	53	53	53	53	54	54	54	53	53	53	52	52	52	51	50	49	49	49	49	49	48	48	48	48	47	47	46	46	46	46	46	50
Minimum	51	51	51	51	51	51	52	52	53	50	51	51	50	49	48	47	46	47	46	46	47	48	48	48	46	46	46	45	45	45	45	48
January																																
Maximum	46	45	45	45	45	45	45	45	46	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	45	44	44	45	45	45	45	45	45	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
February																																
Maximum	47	47	47	47	47	47	47	47	47	46	46	45	45	44	44	47	50	49	50	51	51	51	53	52	50	51	52	52	---	---	---	48
Minimum	45	47	47	47	46	47	47	47	46	46	45	45	45	44	44	44	45	46	47	47	47	49	49	48	46	45	46	47	---	---	---	46
March																																
Maximum	51	50	51	48	51	54	56	53	53	56	55	54	58	59	55	55	55	54	59	58	59	59	61	62	63	64	65	66	67	68	69	58
Minimum	47	45	44	45	47	50	50	52	51	50	49	51	52	52	51	49	48	50	51	50	52	52	52	53	54	54	56	56	56	56	58	51
April																																
Maximum	69	68	68	68	68	67	68	66	63	60	58	61	65	67	69	70	68	67	66	66	67	67	70	72	72	68	68	70	71	71	---	67
Minimum	58	58	57	57	57	58	57	58	58	56	54	53	54	56	57	59	59	58	55	55	55	56	57	59	60	60	57	57	58	58	---	57
May																																
Maximum	72	73	72	71	67	72	72	73	69	68	72	73	73	72	73	74	75	76	77	77	75	77	77	78	78	77	78	74	71	72	73	74
Minimum	60	60	62	62	60	60	61	62	63	62	62	62	62	61	62	63	63	65	65	66	67	66	66	67	68	68	68	68	66	65	64	64
June																																
Maximum	72	70	70	73	70	69	70	74	76	76	76	77	80	81	81	80	80	81	80	76	74	75	75	76	78	79	81	81	80	79	---	76
Minimum	64	62	62	62	64	65	63	64	67	66	66	67	69	71	72	72	70	72	72	71	69	67	68	68	68	70	71	72	71	70	---	68
July																																
Maximum	77	77	79	79	79	78	76	72	72	76	76	77	77	77	76	75	76	79	79	79	81	80	81	79	80	80	80	80	83	79	80	78
Minimum	70	69	69	70	70	70	69	68	67	66	68	68	69	68	68	68	69	69	70	70	71	71	72	71	69	69	68	70	71	74	71	69
August																																
Maximum	84	84	85	84	84	83	83	81	83	83	82	83	82	82	82	83	83	82	82	82	82	81	78	75	75	76	77	76	75	72	77	81
Minimum	73	75	76	76	76	75	76	74	73	74	75	75	73	73	73	74	76	76	75	75	75	75	73	70	70	69	70	71	70	69	67	73
September																																
Maximum	79	79	79	80	78	79	75	75	76	74	74	72	70	72	74	75	75	73	73	75	75	72	73	71	73	73	71	73	76	73	---	75
Minimum	69	70	61	71	71	72	71	68	69	69	69	68	67	65	66	67	67	69	67	67	68	68	67	67	65	65	66	67	67	67	---	68

11-4535. PUTAH CREEK NEAR GUENOC, CALIF.--Continued

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Oct. 2, 1965	0945	65		1.2	3	T						--	--	--	--	--		
Nov. 12	1245	59		2.2	2	T						--	--	--	--	--		
Dec. 8	1410	52		48	3	.4						--	--	--	--	--		
Dec. 30	1430	48		795	30	64						--	--	--	--	--		
Dec. 30	1625	48		761	21	43						--	--	--	--	--		
Dec. 31	1635	48		713	28	54						--	--	--	--	--		
Jan. 1, 1966	1530	49		449	12	15						--	--	--	--	--		
Jan. 2	1600	47		343	2010	1860						70	84	94	97	100		V
Jan. 3	1620	49		905	1370	3350						77	88	97	100	--		V
Jan. 4	1125	--		8020	2070	44800		31		47		70	81	94	97	100		VPWC
Jan. 5	1630	50		4600	122	1520						--	--	--	--	--		
Jan. 6	1600	50		1810	64	313						--	--	--	--	--		
Jan. 7	1620	51		1100	38	113						--	--	--	--	--		
Jan. 8	1620	51		799	14	30						--	--	--	--	--		
Jan. 10	1630	51		484	8	.10						--	--	--	--	--		
Jan. 11	1600	52		410	8	8.8						--	--	--	--	--		
Jan. 12	1540	52		353	6	5.7						--	--	--	--	--		
Jan. 13	1530	52		312	6	5.1						--	--	--	--	--		
Jan. 14	1510	52		279	3	2.3						--	--	--	--	--		
Jan. 21	1600	52		157	3	1.3						--	--	--	--	--		
Feb. 1	1015	47		1560	174	733						74	78	90	100	--		V
May 2	1000	60		48	2	.3						--	--	--	--	--		
June 1	1400	69		16	14	.6						--	--	--	--	--		
June 30	0900	72		5.5	4	.1						--	--	--	--	--		
July 29	1130	76		1.7	1	T						--	--	--	--	--		
Aug. 31	0815	67		.3	2	T						--	--	--	--	--		

T Less than 0.05 ton.

11-4540. PUTAH CREEK NEAR WINTERS, CALIF.

LOCATION.--Lat 38°30'55", long 122°04'50", at gaging station 1.3 miles (revised) downstream from Monticello Dam, 6 miles west of Winters, Yolo County, and 8 miles downstream from Capell Creek.
DRAINAGE AREA.--574 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1952 to September 1966 (discontinued).
Water temperatures: November 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 65°F Apr. 3; minimum, 47°F on many days during December to February.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....	352	--		--	--	7.6	--	158	5	--	4.6		--	0.1	--	--		142	4	0.3	293	8.5
Nov. 4.....	101	--		--	--	8.2	--	161	4	--	4.2		--	.1	--	--		144	5	.3	296	8.4
Dec. 5.....	65	--		--	--	9.3	--	166	4	--	6.4		--	.1	--	--		148	5	.3	308	8.6
Jan. 14, 1966....	48	--		--	--	11	--	162	4	--	7.6		--	.2	--	--		148	9	.4	325	8.4
Feb. 9.....	269	--		--	--	9.5	--	164	4	--	6.4		--	.1	--	--		145	4	.3	310	8.5
Mar. 3.....	471	--		--	--	8.7	--	165	4	--	5.0		--	.2	--	--		145	3	.3	305	8.4
Apr. 14.....	436	--		--	--	8.5	--	161	5	--	4.0		--	.1	--	--		144	4	.3	298	8.6
May 20.....	577	13		20	23	8.3	1.3	170	2	17	4.7		0.3	.1	A 174	0.24		146	3	.3	301	8.3
June 17.....	632	--		--	--	8.0	--	161	6	--	4.6		--	.1	--	--		144	2	.3	297	8.6
July 15.....	724	--		--	--	8.2	--	164	4	--	4.5		--	.0	--	--		146	5	.3	296	8.4
Sept. 6.....	442	13		17	25	8.2	1.5	170	0	17	4.0		.4	.1	170	.23		146	7	.3	301	8.2

A Calculated from sum of determined constituents.

11-4540. PUTAH CREEK NEAR WINTERS, CALIF.--Continued

Temperature (°F) of water, November 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
November																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	55	54	55	54	54	54	54	53	53	53	52	52	52	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	54	53	53	53	53	53	53	51	51	52	51	51	51	---	---
December																																
Maximum	52	52	52	52	53	52	52	52	52	52	52	51	51	52	52	52	52	52	52	52	50	48	47	47	48	48	48	49	48	48	49	51
Minimum	51	51	51	51	52	52	52	52	52	52	51	51	51	51	52	52	52	52	52	50	48	47	47	47	47	48	47	47	47	47	48	50
January																																
Maximum	49	49	49	49	49	50	50	50	49	49	49	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Minimum	49	48	49	48	48	49	50	49	48	48	48	48	48	48	48	48	48	47	48	47	47	47	47	48	48	48	48	47	48	47	47	48
February																																
Maximum	48	48	48	48	48	48	49	50	50	50	49	49	49	49	50	50	50	51	51	51	53	52	53	53	52	53	53	51	---	---	---	50
Minimum	48	47	47	47	48	48	48	48	48	48	48	48	48	48	49	49	49	49	50	50	51	51	52	50	51	51	51	51	---	---	---	49
March																																
Maximum	51	51	51	50	51	51	52	52	53	54	54	54	55	55	55	55	55	54	55	55	56	56	56	57	58	59	59	60	61	62	62	55
Minimum	50	50	49	49	50	50	51	51	52	53	52	52	53	54	54	54	53	53	54	54	54	55	55	56	56	57	57	58	58	59	59	54
April																																
Maximum	64	64	65	63	62	61	61	61	59	59	58	59	56	56	55	55	55	54	53	54	53	54	54	54	54	54	54	54	52	52	---	57
Minimum	59	62	62	61	59	59	59	59	58	57	57	56	55	54	53	53	53	52	52	52	51	52	52	52	51	52	52	52	50	50	---	55
May																																
Maximum	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	53	53	53	53	53	53	53	53	53	53	53	53	52	53	53	52
Minimum	50	50	51	50	50	50	51	51	51	51	50	51	50	50	50	50	51	51	51	52	52	52	52	52	52	52	52	52	51	51	52	51
June																																
Maximum	53	53	53	53	53	53	54	54	54	54	54	54	53	53	53	53	53	53	53	53	53	54	54	53	53	53	53	53	53	53	---	53
Minimum	52	52	52	52	52	52	52	52	52	52	52	51	51	51	52	52	52	52	52	52	52	52	52	51	51	51	52	52	52	52	---	52
July																																
Maximum	53	53	53	53	53	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	53	53	53	54	52	54	54
Minimum	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
August																																
Maximum	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	---	54
Minimum	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	53	53	53	52	52	52	52	52	52	52	52	---	52
September																																
Maximum	---	---	---	---	---	---	---	53	52	52	52	52	51	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	---	---
Minimum	---	---	---	---	---	---	---	51	51	51	50	50	50	50	50	50	50	51	51	51	51	51	51	51	51	50	50	50	50	51	---	---

SACRAMENTO RIVER BASIN--Continued

11-4553. LINDSAY SLOUGH NEAR RIO VISTA, CALIF.

LOCATION.--Lat 38°14'45", long 121°42'25", near tidal gaging station, 6 miles north of Rio Vista, Solano County, and 1.1 miles upstream from confluence with Cache Slough.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966 (discontinued).

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....		--		--	--	15	--	97	1	--	9.5		--	0.0	--	--		77	0	0.7	216	8.3
Nov. 4.....		--		--	--	9.3	--	72	0	--	5.1		--	.0	--	--		56	0	.5	159	8.1
Dec. 10.....		--		--	--	11	--	73	0	--	8.0		--	.2	--	--		62	2	.6	176	8.0
Jan. 14, 1966....		--		--	--	18	--	103	0	--	12		--	.3	--	--		90	6	.8	259	7.9
Feb. 9.....		--		--	--	37	--	139	2	--	28		--	.6	--	--		123	6	1.5	411	8.4
Mar. 3.....		--		--	--	27	--	158	2	--	21		--	.5	--	--		139	6	1.0	377	8.3
Apr. 14.....		--		--	--	18	--	108	0	--	23		--	.2	--	--		92	3	.8	262	8.2
May 20.....		15		15	11	16	0.9	97	0	21	14		1.5	.1	160	0.22		82	2	.8	238	7.9
June 17.....		--		--	--	17	--	101	1	--	14		--	.1	--	--		88	4	.8	253	8.3
July 15.....		--		--	--	17	--	97	0	--	12		--	.0	--	--		82	2	.8	237	8.2
Sept. 6.....		19		15	11	17	1.6	104	0	15	11		1.6	.1	147	.20		82	0	.8	235	7.9

SACRAMENTO RIVER BASIN--Continued

11-4554. SACRAMENTO RIVER NEAR RIO VISTA, CALIF.

LOCATION.--Lat 38°08'54", long 121°41'27", at pier, 1,500 feet upstream from tidal gaging station, 1 mile south of Rio Vista, Solano County, and approximately 3.1 miles downstream from Steamboat Slough.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.

Chemical analyses, in parts per million, October 1965 to June 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 6, 1965.....						10		76	0		6.0			0.0				59	0	0.6	161	8.2
Nov. 1.....						8.3		70	0		4.7			.1				53	0	.5	144	8.2
Nov. 29.....						9.7		70	0		6.9			.0				57	0	.6	161	7.8
Jan. 3, 1966.....						11		75	0		8.6			.1				60	0	.6	179	8.2
Feb. 9.....						17		91	0		12			.2				78	3	.8	232	8.2
Mar. 8.....						14		98	0		11			.1				81	1	.7	225	8.2
Apr. 6.....						6.8		61	0		4.6			.1				51	1	.4	132	8.1
May 3.....		16		13	6.0	11	0.9	68	0	15	6.5		1.2	.0	104	0.14		57	1	.6	164	8.0
June 8.....						16		94	0		12			.2				76	0	.8	224	8.1

MISCELLANEOUS ANALYSES OF STREAMS IN SACRAMENTO RIVER BASIN

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
11-4196. YUBA RIVER NEAR SMARTVILLE, CALIF. (391310 1212030)																						
Nov. 5, 1965.....	668					3.1		58	0		1.1			0.1				48	0	0.2	109	8.1
Jan. 7, 1966.....	3460					3.0		38	0		1.0			.0				42	11	.2	99	7.7
Mar. 3.....	1308					3.1		46	0		1.0			.0				40	2	.2	96	7.9
May 5.....	3202	13		8.4	1.5	1.8	0.5	33	0	3.0	.5		0.7	.1	46	0.06		27	0	.2	63	7.6
11-4335. MIDDLE FORK AMERICAN RIVER NEAR AUBURN, CALIF. (385505 1210045)																						
Nov. 2, 1965.....	120					3.8		49	0		3.7			0.0				44	4	0.3	110	8.0
Jan. 5, 1966.....	1020					4.7		42	0		1.8			.0				41	7	.3	98	7.7
Mar. 24.....	794					2.2		28	0		1.2			.0				24	1	.2	59	7.8
May 12.....	390	11		10	0.7	2.5	1.3	32	0	5.0	2.0		0.6	.0	50	0.07		28	2	.2	71	7.4
11-4532. DRY CREEK AT MIDDLETOWN, CALIF. (384405 1223850)																						
Nov. 1, 1965.....	0.1	20		22	61	4.6	0.5	306	14	31	7.2		0.7	0.1	312	0.42		304	30	0.1	536	8.6
Dec. 2.....	8.8	30		34	51	16	2.0	348	0	16	15		.9	.4	A 342	.47		293	8	.4	581	7.9
Feb. 1, 1966.....	72	16		4.8	20	1.6	.6	109	0	5.0	.9		.3	.0	A 104	.14		94	5	.1	182	8.0
Mar. 1.....	30	19		10	27	2.9	.3	151	6	6.0	2.3		.3	.0	148	.20		138	4	.1	256	8.4
Apr. 1.....	9.5	23		7.2	39	3.3	.3	201	3	10	1.6		.1	.0	187	.25		180	10	.1	327	8.3
May 2.....	5.3	21		13	41	3.2	.7	228	4	12	2.8		.5	.0	210	.29		203	9	.1	363	8.4
June 1.....	1.9	22	0.00	12	48	4.2	.6	268	0	13	3.6	0.0	1.6	.1	237	.32		229	9	.1	417	8.2

A Residue at 180°C.

Periodic determinations of suspended-sediment discharge and particle-size analyses, October 1964 to September 1966

(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
11-3710. CLEAR CREEK AT FRENCH GULCH, CALIF. (404140 1223810)																		
Oct. 3, 1965.....	1130	60		14	1	T						--	--	--	--			
Oct. 7.....	1625	66		15	2	.1						--	--	--	--			
Oct. 9.....	0945	58		15	1	T						--	--	--	--			
Oct. 16.....	0930	50		18	1	T						--	--	--	--			
Oct. 23.....	0930	53		15	1	T						--	--	--	--			
Oct. 31.....	0930	53		15	2	.1						--	--	--	--			
Nov. 6.....	0930	51		21	2	.1						--	--	--	--			
Nov. 7.....	1230	53		24	4	.3						--	--	--	--			
Nov. 8.....	1700	54		48	92	12						--	--	--	--			
Nov. 11.....	0930	50		26	2	.1						--	--	--	--			
Nov. 13.....	0930	51		91	12	2.9						--	--	--	--			
Nov. 14.....	1000	51		888	112	269						--	--	--	--			
Nov. 15.....	1230	54		1280	77	266						82	91	95	100			V
Nov. 17.....	1600	54		616	56	93						--	--	--	--			
Nov. 18.....	1200	51		1440	74	288						68	99	100	--			V
Nov. 20.....	0930	50		785	18	38						--	--	--	--			
Nov. 22.....	1340	48		327	3	2.6						--	--	--	--			
Nov. 23.....	1530	49		308	4	3.3						--	--	--	--			
Nov. 25.....	1000	44		598	8	13						--	--	--	--			
Nov. 27.....	1030	46		404	3	3.3						--	--	--	--			
Dec. 4.....	1400	48		212	1	.6						--	--	--	--			
Dec. 11.....	1200	44		206	1	.6						--	--	--	--			
Dec. 16.....	0925	35		108	5	1.5						--	--	--	--			
Dec. 18.....	1545	39		106	2	.6						--	--	--	--			
Dec. 25.....	1100	38		91	--	T						--	--	--	--			
Dec. 29.....	1030	43		462	6	7.5						--	--	--	--			
Dec. 31.....	1200	40		339	1	.9						--	--	--	--			
Jan. 4, 1966.....	0800	41		512	21	29						--	--	--	--			
Jan. 4.....	1700	41		670	17	31						--	--	--	--			
Jan. 5.....	0800	45		1100	40	119						--	--	--	--			
Jan. 6.....	1130	42		1130	27	82						64	74	88	100			V
Jan. 6.....	1700	47		1100	66	196						--	--	--	--			
Jan. 7.....	1700	47		1020	19	52						--	--	--	--			
Jan. 8.....	0930	46		835	19	43						--	--	--	--			
Jan. 9.....	1030	44		745	7	14						--	--	--	--			
Jan. 15.....	0930	44		319	2	1.7						--	--	--	--			
Jan. 22.....	0930	40		239	5	3.2						--	--	--	--			
Jan. 29.....	0930	43		194	4	2.1						--	--	--	--			
Jan. 29.....	1700	43		494	48	64						--	--	--	--			
Jan. 30.....	1000	43		472	7	8.9						--	--	--	--			
Feb. 1.....	1440	43		367	2	2.0						--	--	--	--			
Feb. 1.....	1500	45		367	3	3.0						--	--	--	--			

Feb. 3, 1966.....	0945	44		304	2	1.6						--	--	--	--	
Feb. 4.....	0800	46		1270	140	480						--	--	--	--	
Feb. 4.....	1305	48		1440	82	319						46	56	76	100	V
Feb. 5.....	0930	42		1270	38	130						--	--	--	--	
Feb. 6.....	1000	45		992	16	43						--	--	--	--	
Feb. 7.....	1730	45		720	8	16						--	--	--	--	
Feb. 8.....	1730	45		584	9	14						--	--	--	--	
Feb. 13.....	1000	40		308	2	1.7						--	--	--	--	
Feb. 22.....	1530	45		290	2	1.6						--	--	--	--	
Feb. 23.....	1730	46		379	21	21						--	--	--	--	
Feb. 25.....	1400	45		395	10	11						--	--	--	--	
Feb. 26.....	0900	42		383	2	2.1						--	--	--	--	
Mar. 2.....	1500	46		319	2	1.7						--	--	--	--	
Mar. 4.....	1430	41		270	5	3.6						--	--	--	--	
Mar. 5.....	1000	40		284	2	1.5						--	--	--	--	
Mar. 6.....	1000	43		290	2	1.6						--	--	--	--	
Mar. 8.....	1430	47		512	13	18						--	--	--	--	
Mar. 9.....	1145	46		970	61	160						--	--	--	--	
Mar. 9.....	1730	47		1100	62	184						--	--	--	--	
Mar. 10.....	1800	48		1130	88	268						--	--	--	--	
Mar. 11.....	1745	49		931	20	50						--	--	--	--	
Mar. 12.....	1130	49		835	40	90						--	--	--	--	
Mar. 13.....	1000	48		885	18	43						--	--	--	--	
Mar. 14.....	1730	50		880	18	43						--	--	--	--	
Mar. 15.....	1730	47		830	14	31						--	--	--	--	
Mar. 16.....	1745	45		715	8	15						--	--	--	--	
Mar. 18.....	1700	48		552	8	12						--	--	--	--	
Mar. 19.....	0900	45		521	4	5.6						--	--	--	--	
Mar. 26.....	1200	52		462	4	5.0						--	--	--	--	
Mar. 30.....	1200	51		588	9	14						--	--	--	--	
Mar. 31.....	1645	53		570	10	15						--	--	--	--	
Mar. 31.....	1815	55		575	10	16						--	--	--	--	
Apr. 2.....	0900	48		588	8	13						--	--	--	--	
Apr. 3.....	0930	50		544	7	10						--	--	--	--	
Apr. 4.....	1745	54		472	5	6.4						--	--	--	--	
Apr. 9.....	1000	50		395	3	3.2						--	--	--	--	
Apr. 10.....	0930	49		404	3	3.3						--	--	--	--	
Apr. 11.....	1140	49		363	5	4.9						--	--	--	--	
Apr. 11.....	1740	48		387	4	4.2						--	--	--	--	
Apr. 13.....	1735	54		327	3	2.6						--	--	--	--	
Apr. 15.....	1750	58		287	2	1.5						--	--	--	--	
Apr. 18.....	1745	53		259	2	1.4						--	--	--	--	
Apr. 20.....	1740	54		230	2	1.2						--	--	--	--	
Apr. 22, 1966.....	1745	57		206	2	1.1						--	--	--	--	
Apr. 25.....	1745	61		185	1	.5						--	--	--	--	
Apr. 27.....	1750	--		172	1	.5						--	--	--	--	
Apr. 29.....	1800	59		160	2	.9						--	--	--	--	
May 2.....	1425	58		145	2	.8						--	--	--	--	
June 2.....	1355	56		67	1	.2						--	--	--	--	
July 1.....	1330	69		31	1	.1						--	--	--	--	
Sept. 16.....	--	69		11	3	.1						--	--	--	--	

T Less than 0.05 ton.

Periodic determinations of suspended-sediment discharge and particle-size analyses, October 1964 to September 1966--Continued
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
11-3788.6. RED BANK CREEK AT RAWSON ROAD BRIDGE, NEAR RED BLUFF, CALIF. (400820 1221420) (Formerly published as Red Bank Creek at mouth, near Red Bluff, Calif.)																		
Nov. 10, 1964.....	1455	55		735	1940	3850	44	61	73	83	91	95	97	99	100	--	--	VPWC
Nov. 11.....	0850	50		148	139	56	--	--	--	--	--	98	99	100	--	--	--	S
Nov. 11.....	1100	50		130	124	44	--	--	--	--	--	--	--	--	--	--	--	
Nov. 11.....	1430	49		141	130	49	--	--	--	--	--	--	--	--	--	--	--	
Nov. 11.....	1700	50		167	113	51	--	--	--	--	--	--	--	--	--	--	--	
Nov. 11.....	1740	50		304	327	268	--	--	--	--	--	--	--	--	--	--	--	
Nov. 11.....	2035	50		760	2180	4470	--	--	--	--	--	--	--	--	--	--	--	
Nov. 11.....	2205	50		938	2680	6790	23	35	48	64	79	88	96	99	100	--	--	VPWC
Nov. 11.....	2400	50		876	1860	4400	--	--	--	--	--	--	--	--	--	--	--	
Nov. 12.....	0530	50		361	620	604	--	--	--	--	--	--	--	--	--	--	--	
Nov. 12.....	1015	52		223	307	185	--	--	--	--	--	--	--	--	--	--	--	
Nov. 12.....	1400	--		185	210	105	--	--	--	--	--	96	98	99	100	--	--	S
Nov. 12.....	1530	--		165	195	87	--	--	--	--	--	92	93	94	95	96	100	S
Nov. 12.....	1645	--		157	160	68	--	--	--	--	--	97	98	99	100	--	--	S
Nov. 12.....	1820	50		144	138	54	--	--	--	--	--	--	--	--	--	--	--	
Nov. 13.....	1705	45		58	59	9.2	--	--	--	--	--	--	--	--	--	--	--	
Nov. 13.....	2015	47		53	50	7.2	--	--	--	--	--	--	--	--	--	--	--	
Nov. 14.....	0525	45		29	15	1.2	--	--	--	--	--	--	--	--	--	--	--	
Nov. 14.....	1700	51		23	12	.7	--	--	--	--	--	--	--	--	--	--	--	
Nov. 15.....	0800	40		16	5	.2	--	--	--	--	--	--	--	--	--	--	--	
Nov. 15.....	2045	45		14	3	.1	--	--	--	--	--	--	--	--	--	--	--	
Nov. 16.....	0530	40		12	4	.1	--	--	--	--	--	--	--	--	--	--	--	
Nov. 16.....	1440	48		11	4	.1	--	--	--	--	--	--	--	--	--	--	--	
Nov. 17.....	0530	40		9.4	2	.1	--	--	--	--	--	--	--	--	--	--	--	
Nov. 17.....	1835	50		7.9	2	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 18.....	0510	40		7.2	3	.1	--	--	--	--	--	--	--	--	--	--	--	
Nov. 18.....	1830	45		6.3	3	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 19.....	0500	40		5.7	1	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 19.....	1900	50		5.0	1	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 20.....	0500	40		4.2	1	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 20.....	1915	50		3.3	2	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 21.....	0500	45		3.1	2	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 21.....	1835	50		2.5	2	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 22.....	1000	50		3.0	2	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 22.....	1745	55		2.8	2	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 23.....	0500	47		2.6	6	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 23.....	1930	55		4.4	5	.1	--	--	--	--	--	--	--	--	--	--	--	
Nov. 24.....	0500	50		3.7	2	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 24.....	1900	55		3.2	3	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 25.....	0800	53		2.6	2	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 25.....	1730	55		2.6	3	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 26.....	0530	50		2.6	1	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 26.....	1900	52		2.6	3	T	--	--	--	--	--	--	--	--	--	--	--	

Nov. 27, 1964.....	0500	50	2.6	16	0.1	--	--	--	--	--	--	--	--	--	--	--	
Nov. 27.....	1930	51	2.5	3	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 28.....	0500	50	2.5	2	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 28.....	1940	54	2.5	1	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 29.....	0730	55	2.6	1	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 29.....	1800	55	2.5	6	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 30.....	0500	--	2.3	4	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 30.....	1830	53	5.9	27	.4	--	--	--	--	--	--	--	--	--	--	--	
Dec. 1.....	0500	--	6.8	10	.2	--	--	--	--	--	--	--	--	--	--	--	
Dec. 1.....	1830	55	7.4	3	.1	--	--	--	--	--	--	--	--	--	--	--	
Dec. 2.....	0530	55	11	4	.1	--	--	--	--	--	--	--	--	--	--	--	
Dec. 2.....	1730	55	14	8	.3	--	--	--	--	--	--	--	--	--	--	--	
Dec. 3.....	0500	55	13	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 3.....	1700	55	13	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 4.....	0600	50	13	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 4.....	1730	50	12	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 5.....	0500	58	11	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 5.....	1630	54	9.9	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 6.....	0700	50	9.7	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 6.....	1700	54	9.7	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 7.....	0500	50	8.9	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 7.....	1600	55	8.4	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 8.....	0500	52	8.2	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 8.....	1720	55	7.9	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 9.....	0500	54	7.9	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 9.....	1700	54	7.4	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 10.....	0600	50	7.2	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 10.....	1800	54	7.2	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 11.....	0630	54	7.0	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 11.....	1730	50	6.3	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 12.....	0630	45	5.9	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 12.....	1800	54	5.5	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 13.....	0700	50	4.8	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 13.....	1800	50	4.2	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 14.....	0530	45	4.2	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 15.....	1300	50	3.9	2	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 21.....	1350	--	29	73	5.7	--	--	--	--	--	--	--	--	--	--	--	
Dec. 21.....	1700	55	6740	12000	218000	--	--	--	--	--	--	--	--	--	--	--	
Dec. 22.....	0530	50	6520	5630	99100	24	25	40	54	68	81	96	99	100	--	--	VPWC
Dec. 22.....	1235	56	5640	5390	82100	20	29	40	52	67	77	94	100	--	--	--	VPWC
Dec. 22.....	1635	57	3900	5770	60800	21	27	36	47	60	70	88	96	98	100	--	VPWC
Dec. 22.....	1800	55	3390	4840	44300	--	--	--	--	--	--	--	--	--	--	--	

T Less than 0.05 ton.

Periodic determinations of suspended-sediment discharge and particle-size analyses, October 1964 to September 1966--Continued

(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
11-3788.6. RED BANK CREEK AT RAWSON ROAD BRIDGE, NEAR RED BLUFF, CALIF.--Continued																	
Dec. 23, 1964.....	0930	50		1050	2600	7370	--	--	--	--	--	--	--	--	--	--	--	
Dec. 23.....	1730	60		530	1660	2380	28	39	57	70	80	87	93	98	100	--	--	VPWC
Dec. 24.....	0700	56		333	932	838	--	--	--	--	--	89	94	98	99	100	--	V
Dec. 24.....	1700	60		276	796	593	--	--	--	--	--	86	91	97	100	--	--	V
Dec. 25.....	0700	56		214	192	111	--	--	--	--	--	--	--	--	--	--	--	
Dec. 25.....	1700	58		198	221	118	--	--	--	--	--	--	--	--	--	--	--	
Dec. 26.....	0800	55		167	208	94	--	--	--	--	--	--	--	--	--	--	--	
Dec. 26.....	1700	58		189	176	90	--	--	--	--	--	--	--	--	--	--	--	
Dec. 27.....	0800	50		185	151	75	--	--	--	--	--	--	--	--	--	--	--	
Dec. 27.....	1700	48		155	72	30	--	--	--	--	--	--	--	--	--	--	--	
Dec. 28.....	0800	44		122	66	22	--	--	--	--	--	--	--	--	--	--	--	
Dec. 28.....	1330	48		116	74	23	--	--	--	--	--	--	--	--	--	--	--	
Dec. 28.....	1930	50		111	46	14	--	--	--	--	--	95	97	98	100	--	--	V
Dec. 29.....	0530	50		95	54	14	--	--	--	--	--	--	--	--	--	--	--	
Dec. 29.....	1800	45		98	54	14	--	--	--	--	--	--	--	--	--	--	--	
Dec. 30.....	0540	45		95	46	12	--	--	--	--	--	--	--	--	--	--	--	
Dec. 30.....	1800	46		84	30	6.8	--	--	--	--	--	--	--	--	--	--	--	
Dec. 31.....	0500	45		90	32	7.8	--	--	--	--	--	--	--	--	--	--	--	
Dec. 31.....	1800	45		79	30	6.4	--	--	--	--	--	--	--	--	--	--	--	
Jan. 1, 1965.....	0525	45		70	31	5.8	--	--	--	--	--	--	--	--	--	--	--	
Jan. 2.....	0800	40		61	88	14	--	--	--	--	--	--	--	--	--	--	--	
Jan. 2.....	1800	40		79	128	27	--	--	--	--	--	--	--	--	--	--	--	
Jan. 3.....	0525	36		284	2280	1750	--	--	--	--	--	--	--	--	--	--	--	
Jan. 3.....	1710	35		453	1060	1300	--	--	--	--	--	--	--	--	--	--	--	
Jan. 4.....	0500	50		200	169	91	--	--	--	--	--	--	--	--	--	--	--	
Jan. 4.....	1600	50		209	223	126	--	--	--	--	--	--	--	--	--	--	--	
Jan. 5.....	0900	50		2060	3920	21800	--	--	--	--	--	--	--	--	--	--	--	
Jan. 5.....	1530	--		12700	11200	384000	26	29	45	57	73	82	96	99	100	--	--	VPWC
Jan. 5.....	1700	50		10500	3840	109000	23	29	42	55	68	80	94	98	99	100	--	VPWC
Jan. 6.....	0915	50		893	1680	4050	--	--	--	--	--	--	--	--	--	--	--	
Jan. 6.....	1900	50		518	792	1110	--	--	--	--	--	--	--	--	--	--	--	
Jan. 7.....	0800	50		333	446	401	--	--	--	--	--	--	--	--	--	--	--	
Jan. 7.....	1900	45		255	227	156	--	--	--	--	--	--	--	--	--	--	--	
Jan. 8.....	0900	42		194	136	71	--	--	--	--	--	--	--	--	--	--	--	
Jan. 8.....	1930	47		173	86	40	--	--	--	--	--	--	--	--	--	--	--	
Jan. 9.....	0900	50		153	62	26	--	--	--	--	--	--	--	--	--	--	--	
Jan. 9.....	1800	50		141	32	12	--	--	--	--	--	--	--	--	--	--	--	
Jan. 10.....	0730	50		225	28	17	--	--	--	--	--	--	--	--	--	--	--	
Jan. 10.....	1800	51		211	29	17	--	--	--	--	--	--	--	--	--	--	--	
Jan. 11.....	0500	50		207	26	15	--	--	--	--	--	--	--	--	--	--	--	
Jan. 11.....	1720	53		202	26	14	--	--	--	--	--	--	--	--	--	--	--	
Jan. 12.....	0505	50		99	19	5.1	--	--	--	--	--	--	--	--	--	--	--	

Jan. 12, 1965.....	1600	45		92	15	3.7	--	--	--	--	--	--	--	--	--	--	
Jan. 13.....	0530	50		83	8	1.8	--	--	--	--	--	--	--	--	--	--	
Jan. 14.....	0520	55		76	12	2.5	--	--	--	--	--	--	--	--	--	--	
Jan. 14.....	1430	50		74	14	2.8	--	--	--	--	--	--	--	--	--	--	
Jan. 15.....	0500	50		70	13	2.5	--	--	--	--	--	--	--	--	--	--	
Jan. 15.....	1800	50		65	10	1.8	--	--	--	--	--	--	--	--	--	--	
Jan. 16.....	0500	45		64	8	1.4	--	--	--	--	--	--	--	--	--	--	
Jan. 20.....	1730	50		51	2	.3	--	--	--	--	--	--	--	--	--	--	
Jan. 21.....	1900	50		48	4	.5	--	--	--	--	--	--	--	--	--	--	
Jan. 22.....	0530	--		46	5	.6	--	--	--	--	--	--	--	--	--	--	
Jan. 22.....	1930	50		44	8	1.0	--	--	--	--	--	--	--	--	--	--	
Jan. 23.....	0700	45		42	11	1.2	--	--	--	--	--	--	--	--	--	--	
Jan. 23.....	1800	--		51	2	.3	--	--	--	--	--	--	--	--	--	--	
Jan. 24.....	0800	46		148	112	45	--	--	--	--	--	97	100	--	--	--	S
Jan. 24.....	1800	50		94	66	17	--	--	--	--	--	--	--	--	--	--	
Jan. 25.....	0500	45		73	11	2.2	--	--	--	--	--	--	--	--	--	--	
Jan. 25.....	1530	50		63	15	2.6	--	--	--	--	--	--	--	--	--	--	
Jan. 26.....	0520	45		57	6	.9	--	--	--	--	--	--	--	--	--	--	
Jan. 26.....	1630	50		52	6	.8	--	--	--	--	--	--	--	--	--	--	
Jan. 27.....	0515	--		49	2	.3	--	--	--	--	--	--	--	--	--	--	
Jan. 27.....	1640	--		47	5	.6	--	--	--	--	--	--	--	--	--	--	
Jan. 28.....	0500	--		45	3	.4	--	--	--	--	--	--	--	--	--	--	
Jan. 28.....	1800	--		43	5	.6	--	--	--	--	--	--	--	--	--	--	
Jan. 29.....	0530	50		40	2	.2	--	--	--	--	--	--	--	--	--	--	
Jan. 29.....	1835	--		39	5	.5	--	--	--	--	--	--	--	--	--	--	
Jan. 30.....	0800	--		38	5	.5	--	--	--	--	--	--	--	--	--	--	
Jan. 30.....	1830	--		37	4	.4	--	--	--	--	--	--	--	--	--	--	
Jan. 31.....	0435	--		36	2	.2	--	--	--	--	--	--	--	--	--	--	
Feb. 1.....	1500	--		34	3	.3	--	--	--	--	--	--	--	--	--	--	
Feb. 1.....	1530	50		34	1	.1	--	--	--	--	--	--	--	--	--	--	
Feb. 2.....	0500	--		33	1	.1	--	--	--	--	--	--	--	--	--	--	
Feb. 2.....	1615	--		31	1	.1	--	--	--	--	--	--	--	--	--	--	
Feb. 3.....	0700	50		29	1	.1	--	--	--	--	--	--	--	--	--	--	
Feb. 3.....	1700	--		29	2	.2	--	--	--	--	--	--	--	--	--	--	
Feb. 4.....	0430	--		33	5	.4	--	--	--	--	--	--	--	--	--	--	
Feb. 4.....	1600	--		28	2	.2	--	--	--	--	--	--	--	--	--	--	
Feb. 5.....	0700	--		33	2	.2	--	--	--	--	--	--	--	--	--	--	
Feb. 5.....	1800	50		34	1	.1	--	--	--	--	--	--	--	--	--	--	
Feb. 6.....	0630	--		35	2	.2	--	--	--	--	--	--	--	--	--	--	
Feb. 6.....	1615	--		27	3	.2	--	--	--	--	--	--	--	--	--	--	
Feb. 7.....	0800	--		27	1	.1	--	--	--	--	--	--	--	--	--	--	
Feb. 7.....	1700	--		26	2	.1	--	--	--	--	--	--	--	--	--	--	
Feb. 8, 1965.....	0430	50		26	7	0.5	--	--	--	--	--	--	--	--	--	--	
Feb. 8.....	1700	--		25	1	.1	--	--	--	--	--	--	--	--	--	--	
Feb. 9.....	0700	--		24	2	.1	--	--	--	--	--	--	--	--	--	--	
Feb. 9.....	1615	--		24	3	.2	--	--	--	--	--	--	--	--	--	--	
Feb. 10.....	0600	--		23	1	.1	--	--	--	--	--	--	--	--	--	--	
Feb. 27.....	1545	58		15	1	T	--	--	--	--	--	--	--	--	--	--	
Apr. 1.....	0845	54		10	1	T	--	--	--	--	--	--	--	--	--	--	
Apr. 8.....	0900	50		181	2220	1080	--	--	--	--	--	--	--	--	--	--	
Apr. 8.....	1830	50		3910	2040	21500	--	--	--	--	--	94	99	100	--	--	V
Apr. 9.....	0900	50		1590	2380	10200	--	--	--	--	--	--	--	--	--	--	
Apr. 9.....	1835	50		1250	2000	6750	--	--	--	--	--	--	--	--	--	--	
Apr. 10.....	1830	50		207	46	26	--	--	--	--	--	--	--	--	--	--	

T Less than 0.05 ton.

Periodic determinations of suspended-sediment discharge and particle-size analyses, October 1964 to September 1966--Continued
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
11-3788.6. RED BANK CREEK AT RAWSON ROAD BRIDGE, NEAR RED BLUFF, CALIF.--Continued																	
Apr. 11	0800	50		146	36	14	--	--	--	--	--	--	--	--	--	--	--	
Apr. 11	1930	50		113	49	15	--	--	--	--	--	--	--	--	--	--	--	
Apr. 12	0700	50		102	152	42	--	--	--	--	--	--	--	--	--	--	--	
Apr. 13	0800	50		80	161	35	--	--	--	--	--	--	--	--	--	--	--	
Apr. 14	0830	50		68	126	23	--	--	--	--	--	--	--	--	--	--	--	
Apr. 14	1940	50		64	94	16	--	--	--	--	--	--	--	--	--	--	--	
Apr. 15	0730	50		59	392	62	--	--	--	--	--	--	--	--	--	--	--	
Apr. 15	2000	50		221	128	76	--	--	--	--	--	--	--	--	--	--	--	
Apr. 16	0800	50		189	340	174	--	--	--	--	--	--	--	--	--	--	--	
Apr. 16	1900	50		120	132	43	--	--	--	--	--	--	--	--	--	--	--	
Apr. 17	0830	50		96	144	37	--	--	--	--	--	--	--	--	--	--	--	
Apr. 18	0730	50		79	144	31	--	--	--	--	--	--	--	--	--	--	--	
Apr. 19	0700	50		185	162	81	--	--	--	--	--	--	--	--	--	--	--	
Apr. 20	0830	50		148	156	62	--	--	--	--	--	--	--	--	--	--	--	
Apr. 21	0830	60		62	324	54	--	--	--	--	--	--	--	--	--	--	--	
Apr. 22	1930	60		50	63	8.5	--	--	--	--	--	--	--	--	--	--	--	
Apr. 23	0700	60		52	52	7.3	--	--	--	--	--	--	--	--	--	--	--	
Apr. 24	0800	60		53	41	5.9	--	--	--	--	--	--	--	--	--	--	--	
Apr. 25	1600	60		51	37	5.1	--	--	--	--	--	--	--	--	--	--	--	
Apr. 27	0730	60		52	34	4.8	--	--	--	--	--	--	--	--	--	--	--	
Apr. 28	1000	60		45	6	.7	--	--	--	--	--	--	--	--	--	--	--	
May 5	1350	67		28	3	.2	--	--	--	--	--	--	--	--	--	--	--	
June 15	1425	73		D .2	7	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 14	2100	60		944	5440	13900	--	--	--	--	--	--	--	--	--	--	--	
Nov. 15	0800	60		2590	9940	69500	--	--	--	--	--	--	--	--	--	--	--	
Nov. 15	1900	60		642	621	1080	--	--	--	--	--	--	--	--	--	--	--	
Nov. 16	0830	60		253	67	46	--	--	--	--	--	--	--	--	--	--	--	
Nov. 16	2130	--		158	41	17	--	--	--	--	--	--	--	--	--	--	--	
Nov. 17	1000	60		126	7	2.4	--	--	--	--	--	--	--	--	--	--	--	
Nov. 17, 1965	2300	55		1060	2580	7380	--	--	--	--	--	--	--	--	--	--	--	
Nov. 18	0700	55		498	309	415	--	--	--	--	--	--	--	--	--	--	--	
Nov. 18	1730	55		296	339	271	--	--	--	--	--	--	--	--	--	--	--	
Nov. 19	1030	55		156	132	56	--	--	--	--	--	--	--	--	--	--	--	
Nov. 19	1450	51		141	96	37	--	--	--	--	--	98	100	--	--	--	--	V
Nov. 20	0900	55		88	10	2.4	--	--	--	--	--	--	--	--	--	--	--	
Nov. 21	1330	60		52	9	1.3	--	--	--	--	--	--	--	--	--	--	--	
Nov. 22	1130	55		37	4	.4	--	--	--	--	--	--	--	--	--	--	--	
Nov. 23	0830	50		29	3	.2	--	--	--	--	--	--	--	--	--	--	--	
Nov. 24	1115	50		37	109	11	--	--	--	--	--	99	100	--	--	--	--	S
Nov. 25	1330	50		22	1	.1	--	--	--	--	--	--	--	--	--	--	--	
Nov. 26	0900	50		18	2	.1	--	--	--	--	--	--	--	--	--	--	--	
Nov. 27	--	50		D 15	2	.1	--	--	--	--	--	--	--	--	--	--	--	
Nov. 28	1700	50		11	1	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 29	0900	45		9.8	1	T	--	--	--	--	--	--	--	--	--	--	--	
Nov. 30	0900	50		8.8	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 1	0935	50		6.2	3	.1	--	--	--	--	--	--	--	--	--	--	--	
Dec. 2	0830	55		4.8	4	.1	--	--	--	--	--	--	--	--	--	--	--	

Dec. 3	2000	50	4.2	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 4	0915	50	3.6	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 5	0930	45	3.6	2	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 6	0915	50	3.3	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 7	0930	50	3.3	8	.1	--	--	--	--	--	--	--	--	--	--	--	
Dec. 15	0830	40	2.8	1	T	--	--	--	--	--	--	--	--	--	--	--	
Dec. 29	1530	50	139	291	109	--	--	--	--	--	--	--	--	--	--	--	
Jan. 5, 1966	0925	45	1800	2870	13900	--	25	--	48	--	69	84	96	100	--	--	VPWC
Jan. 5	2200	50	894	3220	7770	--	--	--	--	--	--	--	--	--	--	--	
Jan. 6	0900	50	804	1070	2320	--	--	--	--	--	--	--	--	--	--	--	
Jan. 6	1700	50	530	563	806	43	53	66	81	88	94	97	99	100	--	--	VPWC
Jan. 7	0900	50	322	59	51	--	--	--	--	--	--	--	--	--	--	--	
Jan. 8	0830	50	226	61	37	--	--	--	--	--	--	--	--	--	--	--	
Jan. 9	1230	50	171	52	24	--	--	--	--	--	--	--	--	--	--	--	
Jan. 10	0930	50	124	64	21	--	--	--	--	--	--	--	--	--	--	--	
Jan. 11	1000	50	96	41	11	--	--	--	--	--	--	--	--	--	--	--	
Jan. 11	1520	52	96	24	6.2	--	--	--	--	--	98	99	100	--	--	--	V
Jan. 12	0830	50	88	56	13	--	--	--	--	--	--	--	--	--	--	--	
Jan. 13	0800	50	61	21	3.5	--	--	--	--	--	--	--	--	--	--	--	
Jan. 14	0930	50	53	13	1.9	--	--	--	--	--	--	--	--	--	--	--	
Jan. 15	0730	50	48	21	2.7	--	--	--	--	--	--	--	--	--	--	--	
Jan. 16	0900	50	42	10	1.1	--	--	--	--	--	--	--	--	--	--	--	
Jan. 17	0830	50	37	6	.6	--	--	--	--	--	--	--	--	--	--	--	
Jan. 18	0730	50	32	10	.9	--	--	--	--	--	--	--	--	--	--	--	
Jan. 19, 1966	1100	50	28	13	1.0	--	--	--	--	--	--	--	--	--	--	--	
Jan. 21	0950	39	23	8	.5	--	--	--	--	--	--	--	--	--	--	--	
Jan. 25	0800	50	18	22	1.1	--	--	--	--	--	--	--	--	--	--	--	
Jan. 30	1500	50	106	54	15	--	--	--	--	--	--	--	--	--	--	--	
Jan. 31	1430	47	49	32	4.2	--	--	--	--	--	--	--	--	--	--	--	
Feb. 3	0900	44	128	32	11	--	--	--	--	--	--	--	--	--	--	--	
Feb. 4	0700	50	1320	1570	5600	--	--	--	--	--	--	--	--	--	--	--	
Feb. 4	1645	49	1040	902	2530	28	36	50	61	71	77	89	96	98	99	100	VPWC
Feb. 4	2100	50	1070	1370	3960	--	--	--	--	--	--	--	--	--	--	--	
Feb. 6	1300	50	231	112	70	--	--	--	--	--	--	--	--	--	--	--	
Feb. 7	1235	48	145	48	19	--	--	--	--	--	90	95	96	100	--	--	V
Feb. 8	1515	49	114	27	8.3	--	--	--	--	--	97	98	100	--	--	--	V
Feb. 14	0900	45	57	38	5.8	--	--	--	--	--	--	--	--	--	--	--	
Feb. 19	1900	50	447	18	22	--	--	--	--	--	--	--	--	--	--	--	
Feb. 20	1100	50	121	20	6.5	--	--	--	--	--	--	--	--	--	--	--	
Feb. 24	0915	50	72	9	1.7	--	--	--	--	--	--	--	--	--	--	--	
Feb. 26	0730	40	271	364	266	--	--	--	--	--	--	--	--	--	--	--	
Feb. 27	1100	50	81	14	3.1	--	--	--	--	--	--	--	--	--	--	--	
Mar. 3	0800	40	46	7	.9	--	--	--	--	--	--	--	--	--	--	--	
Mar. 3	1020	44	46	6	.7	--	--	--	--	--	--	--	--	--	--	--	
Mar. 5	0715	50	57	22	3.4	--	--	--	--	--	--	--	--	--	--	--	
Mar. 7	0800	54	64	11	1.9	--	--	--	--	--	--	--	--	--	--	--	
Mar. 9	0720	50	54	14	2.0	--	--	--	--	--	--	--	--	--	--	--	
Mar. 14	0700	55	46	6	.7	--	--	--	--	--	--	--	--	--	--	--	
Mar. 14	0730	55	46	8	1.0	--	--	--	--	--	--	--	--	--	--	--	
Mar. 21	0830	55	27	4	.3	--	--	--	--	--	--	--	--	--	--	--	
Mar. 27	1800	70	19	4	.2	--	--	--	--	--	--	--	--	--	--	--	
Apr. 5	0855	62	13	11	.4	--	--	--	--	--	--	--	--	--	--	--	

T Less than 0.05 ton.
D Daily mean discharge.

Periodic determinations of suspended-sediment discharge and particle-size analyses, October 1964 to September 1966--Continued
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
11-3906.72. STONE CORRAL CREEK NEAR SITES, CALIF. (391718 1221800)																		
Nov. 17, 1965	1705	57		11	105	3.1						--						
Nov. 18	0700	54		2.4	82	.5						--						
Nov. 18	1700	55		2.0	19	.1						--						
Jan. 4, 1966	1700	45		414	1510	1690						--						
Jan. 5	0730	46		174	494	232						--						
Jan. 5	1700	50		46	204	25						--						
Jan. 6	0730	49		18	83	4.1						--						
Jan. 6	1700	54		14	56	2.1						--						
Jan. 7	1700	50		7.1	24	.5						--						
Jan. 8	1510	52		4.7	11	.1						--						
Jan. 9	1130	47		3.3	12	.1						--						
Jan. 10	1700	47		2.2	4	T						--						
Jan. 11, 1966	0900	49		1.9	6	T						--						
Jan. 12	1700	47		1.4	15	.1						--						
Jan. 15	1540	52		1.0	32	.1						--						
Jan. 17	1700	49		.7	78	.1						--						
Jan. 18	1545	44		.7	32	.1						--						
Jan. 19	1630	45		.7	37	.1						--						
Jan. 21	1630	45		.5	48	.1						--						
Jan. 23	1130	49		.5	54	.1						--						
Jan. 25	1645	47		.4	42	T						--						
Jan. 27	1645	48		.3	42	T						--						
Jan. 29	1530	42		1.7	308	1.4						--						
Jan. 30	0840	44		14	146	5.5						--						
Jan. 30	1130	42		10	128	3.5						--						
Jan. 31	0730	42		2.5	142	1.0						--						
Jan. 31	1700	46		1.7	109	.5						--						
Feb. 1	0715	41		8.6	102	2.4						--						
Feb. 1	1700	--		26	486	34						--						
Feb. 2	0715	42		6.2	224	3.7						--						
Feb. 2	0940	44		5.5	151	3.2						--						
Feb. 2	0950	44		5.5	199	3.0						--						
Feb. 2	1650	45		4.0	220	2.3						--						
Feb. 3	1700	46		66	345	61						--						
Feb. 4	0715	44		153	534	221						99	100					S
Feb. 4	1700	51		48	175	23						100	--					S
Feb. 5	0930	49		18	102	5.0						--						
Feb. 5	1530	52		15	80	3.2						--						
Feb. 6	1000	48		9.6	45	1.2						--						
Feb. 7	1650	50		6.4	18	.3						--						
Feb. 8	1650	50		4.7	23	.3						--						
Feb. 9	1650	52		3.8	24	.2						--						
Feb. 11	1650	50		2.5	41	.3						--						
Feb. 13	0930	46		2.2	18	.1						--						
Feb. 15	1645	54		2.0	10	.1						--						
Feb. 17	1650	49		1.7	6	T						--						
Feb. 19	0815	51		5.3	23	.3						--						
Feb. 23	1655	59		2.7	23	.2						--						

Mar. 3	1135	48		1.2	59	.2						--					
Mar. 4	1550	48		1.1	41	.1						--					
Mar. 7	1655	59		1.2	52	.2						--					
Mar. 9	1650	55		1.1	52	.2						--					
Mar. 11	1700	60		.9	45	.1						--					
Mar. 13	0835	56		.8	63	.1						--					
Mar. 15, 1966	1650	57		0.7	69	0.1						--					
Mar. 17	1500	56		.7	58	.1						--					
Mar. 19	1645	60		.7	87	.2						--					
Mar. 21	1530	60		.7	62	.1						--					
Mar. 23	1730	60		.6	106	.2						--					
Mar. 25	1730	69		.6	71	.1						--					
Mar. 27	1000	58		.6	59	.1						--					
Mar. 29	1825	68		.5	76	.1						--					
Mar. 31	1730	71		.5	72	.1						--					
Apr. 3	1145	65		.6	53	.1						--					
Apr. 5	1500	69		.5	25	T						--					
Apr. 6	1335	69		.6	64	.1						--					
Apr. 11	1715	59		.5	32	T						--					
Apr. 13	1712	65		.4	18	T						--					
Apr. 15	1710	67		.4	23	T						--					
Apr. 18	1655	70		.2	21	T						--					
Apr. 20	1704	65		.1	7	T						--					
Apr. 22	1700	67		.1	9	T						--					
11-4230. BEAR RIVER NEAR AUBURN, CALIF. (390100 1210621)																	
Oct. 29, 1965	0800	53		6.8	2	T											
Dec. 2	0930	41		3.8	9	0.1											
Jan. 20, 1966	1000	39		252	9	61											
Feb. 11	1415	43		180	13	63											
Apr. 15	1320	61		606	106	173											
June 13	1330	78		6.6	2	T											
July 14	0850	66		9.1	4	.1											
Aug. 30	1400	70		6.4	3	.1											
11-4335. MIDDLE FORK AMERICAN RIVER NEAR AUBURN, CALIF. (385505 1210045)																	
Oct. 29, 1965	1020	54		130	2	0.7						--	--	--	--		
Nov. 24	1204	51		836	36	81						87	92	98	100		V
Dec. 14	1245	45		185	1	.6						--	--	--	--		
Mar. 1, 1966	1015	46		450	3	3.5						--	--	--	--		
Mar. 31	1030	57		1310	31	110						89	93	96	100		S
May 19	0945	63		438	10	12						--	--	--	--		
July 8	1000	71		121	1	.3						--	--	--	--		
Aug. 25	1400	76		41	1	.1						--	--	--	--		

T Less than 0.05 ton.

Periodic determinations of suspended-sediment discharge and particle-size analyses, October 1964 to September 1966--Continued
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
11-4489. HIGHLAND CREEK ABOVE HIGHLAND CREEK DAM, NEAR KELSEYVILLE, CALIF. (385545 1225510)																		
Dec. 29, 1965.....	1030	42		152	54	22						99	100					V
Jan. 5, 1966.....	1335	--		265	95	68						95	98	100				V
Jan. 14.....	1000	42		13	18	.6						92	--					S
Feb. 17.....	0930	37		10	2	.1						--	--					
Mar. 23.....	1500	56		8.7	2	T						--	--					
Apr. 27.....	1415	68		3.0	9	.1						--	--					
June 2.....	0945	56		1.8	3	T						--	--					
July 7.....	0900	75		.3	3	T						--	--					
11-4517.2. BEAR CREEK NEAR RUMSEY, CALIF. (395635 1222040)																		
Nov. 19, 1965.....	1150	53		46	50	6.2						--	--	--	--			
Dec. 29.....	1300	42		260	1920	1350		59		86		99	100	--	--			VPWC
Dec. 29.....	1440	42		216	574	335						98	98	99	100			V
Feb. 2, 1966.....	1700	44		77	35	7.3						--	--	--	--			
Feb. 24.....	1230	49		76	14	2.9						--	--	--	--			
Apr. 1.....	1725	69		20	17	.9						--	--	--	--			
Apr. 26.....	1200	69		8.6	2	T						60	72	99	100			V
May 27.....	1430	82		3.4	47	.4						--	--	--	--			
July 6.....	1330	77		1.6	22	.1						--	--	--	--			
Aug. 17.....	1510	88		0.4	5	T						--	--	--	--			
Aug. 31.....	1215	--		1.7	24	.1						--	--	--	--			
Sept. 16.....	0910	64		1.3	10	T						--	--	--	--			
11-4525. CACHE CREEK AT YOLO, CALIF. (384330 1214825)																		
Nov. 19, 1965.....	0920	54		431	1260	1470		45		67		86	98	100	--			VPWC
Nov. 19.....	0920	54		431	1220	1420		--		--		--	--	--	--			
Nov. 22.....	1340	--		66	495	88		--		--		100	--	--	--			S
Nov. 30.....	1325	50		94	183	46		--		--		--	--	--	--			
Dec. 3.....	1320	47		35	429	41		--		--		--	--	--	--			
Dec. 4.....	0835	46		24	33	2.1		--		--		--	--	--	--			
Dec. 6.....	1045	44		3.7	23	.2		--		--		--	--	--	--			
Dec. 6.....	1330	46		1.7	15	.1		--		--		--	--	--	--			
Dec. 26.....	1245	42		419	851	963		--		--		--	--	--	--			
Dec. 27.....	1215	41		202	159	87		--		--		--	--	--	--			
Dec. 29.....	1115	44		2850	4020	30900		56		84		95	97	99	100			VPWC
Dec. 29.....	1325	45		2290	4210	26000		--		--		--	--	--	--			
Dec. 30.....	1305	46		1130	737	2250		--		--		--	--	--	--			
Jan. 5, 1966.....	1310	47		17800	4340	220000		50		73		92	96	98	100			VPWC
Jan. 6.....	1140	49		5170	2780	38800		--		--		--	--	--	--			
Jan. 13.....	1300	46		1600	645	2790		--		--		--	--	--	--			
Feb. 3.....	1320	45		634	143	245		--		--		69	80	99	100			V
Feb. 24.....	1615	55		314	109	92		--		--		86	90	100	--			V
Apr. 1.....	1205	64		20	165	8.9		--		--		--	--	--	--			

T Less than 0.05 ton.

11-4560. NAPA RIVER NEAR ST. HELENA, CALIF.

LOCATION.--Lat 38°29'40", long 122°25'50", at gaging station 0.2 mile upstream from highway bridge, 1.3 miles northeast of Zinfandel, and 2.5 miles east of St. Helena, Napa County.
DRAINAGE AREA.--81.4 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966 (discontinued).
Water temperatures: October 1957 to September 1966.
Sediment records: December 1956 to June 1962.
EXTREMES, 1965-66.--Water temperatures: Minimum, 41°F on several days during December.
EXTREMES, 1961-63, 1964-66.--Water temperatures: Maximum (1961-63, 1964-65), 82°F June 17, 1963; minimum (1961-63, 1965-66), 41°F Jan. 22, 1962.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 15, 1965....	0.6	--		--	--	19	--	179	4	--	16		--	0.5	--	--		159	6	0.7	348	8.5
Nov. 12.....	5.2	--		--	--	21	--	146	0	--	26		--	.5	--	--		126	6	.8	342	8.0
Dec. 13.....	13	--		--	--	24	--	100	1	--	24		--	.6	--	--		85	1	1.1	283	8.3
Jan. 14, 1966....	112	--		--	--	11	--	70	0	--	8.0		--	.3	--	--		67	10	.6	192	8.1
Feb. 8.....	202	--		--	--	9.5	--	63	0	--	1.2		--	.1	--	--		53	1	.6	158	8.0
Mar. 4.....	72	--		--	--	12	--	83	0	--	9.0		--	.3	--	--		69	1	.6	201	8.0
Apr. 8.....	27	--		--	--	16	--	101	0	--	14		--	.3	--	--		84	1	.8	247	8.0
May 6.....	14	35		23	9.6	23	2.5	116	0	17	21		7.4	.7	198	0.27		97	2	1.0	303	8.0
June 10.....	4.8	--		--	--	22	--	141	1	--	22		--	.6	--	--		119	2	.9	339	8.4
July 13.....	1.3	--		--	--	18	--	167	2	--	12		--	.3	--	--		150	10	.6	356	8.5
Sept. 16.....	.8	26		33	18	18	2.2	186	0	17	12		8.0	.3	A 226	.31		156	3	.6	373	7.4

A Calculated from sum of determined constituents.

11-4560. NAPA RIVER NEAR ST. HELENA, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	62	62	61	60	61	62	62	62	62	62	61	61	61	61	61	58	57	58	59	59	59	59	59	59	59	59	59	58	58	57	57	60
Minimum	61	61	59	59	60	61	61	62	62	61	60	61	60	61	58	57	57	57	58	58	59	59	59	59	59	59	58	58	57	56	56	59
November																																
Maximum	55	55	55	55	55	55	54	57	57	56	56	56	56	56	57	57	57	56	56	55	54	53	52	52	51	50	50	50	49	50	---	54
Minimum	55	55	55	55	55	54	54	54	55	54	55	55	56	55	56	56	56	55	55	54	52	52	52	51	50	48	50	48	48	49	---	53
December																																
Maximum	49	49	48	48	48	48	48	48	49	48	48	48	48	46	45	43	42	42	42	42	42	42	41	46	46	45	45	46	46	47	47	46
Minimum	47	48	47	47	47	47	48	48	48	48	48	48	46	44	42	42	41	41	41	42	42	41	41	41	45	45	45	45	46	46	46	45
January																																
Maximum	46	45	47	47	49	51	52	52	52	51	51	51	53	54	54	53	53	53	52	51	50	53	53	51	51	51	51	51	51	50	49	51
Minimum	44	43	45	47	47	49	51	51	50	50	50	49	51	51	52	50	50	51	50	48	48	50	51	49	49	49	50	49	50	49	49	49
February																																
Maximum	49	48	48	50	51	51	49	49	50	50	50	50	50	51	51	51	52	52	52	53	53	53	55	53	52	51	53	51	---	---	---	51
Minimum	47	47	48	48	50	49	47	46	47	48	47	48	47	48	48	47	48	50	50	50	51	52	53	52	49	48	48	49	---	---	---	49
March																																
Maximum	52	52	51	50	53	56	58	55	55	58	57	55	60	60	56	56	55	55	59	58	59	59	59	62	60	60	59	62	63	65	67	58
Minimum	50	48	47	48	49	52	54	54	54	54	52	53	54	55	54	51	49	51	53	50	52	51	52	53	55	55	56	57	57	57	58	53
April																																
Maximum	66	65	66	65	64	64	64	63	63	61	60	64	64	67	69	70	68	68	66	67	68	68	71	71	71	70	72	71	72	72	---	67
Minimum	59	59	58	59	59	61	59	59	59	59	58	58	58	60	62	63	65	62	61	60	62	63	64	65	66	65	65	65	65	66	---	61
May																																
Maximum	74	75	74	73	72	73	74	73	71	68	71	73	71	70	71	71	71	72	72	72	70	68	70	70	70	68	68	67	66	63	65	71
Minimum	67	68	70	68	68	68	69	70	68	67	67	67	67	66	66	66	65	67	67	68	66	64	65	65	65	65	66	64	62	62	61	66
June																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	76	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	71	---	---
July																																
Maximum	76	76	76	77	77	75	74	73	72	73	74	74	75	76	75	75	73	76	76	74	75	76	75	74	74	73	72	72	---	---	---	75
Minimum	70	70	70	71	72	72	71	72	71	70	70	71	71	70	68	68	67	71	70	70	70	72	70	69	69	69	69	67	---	---	---	70
August																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
September																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

11-4609.2. SALMON CREEK AT BODEGA, CALIF.

LOCATION.--Lat 38°20'54", long 122°58'45", temperature recorder at gaging station in Estero Americano Grant, on left bank 100 feet upstream from private road bridge, 0.3 mile upstream from unnamed tributary, and 0.4 mile northwest of Bodega, Sonoma County.
DRAINAGE AREA.--15.7 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1964 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 71°F May 2, June 14; minimum, freezing point on several days during December.
EXTREMES, 1964-66.--Water temperatures: Maximum, 74°F Apr. 26, 1965; minimum, freezing point on several days during December in 1965.
REMARKS.--No flow Oct. 1-31, June 16, 29, 30, July 1-8, 14, July 17 to Sept. 30.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	52	54	56	56	54	58	60	56	52	52	54	52	52	56	58	57	56	57	55	56	56	52	50	49	48	44	52	48	48	50	--	53
Minimum	48	48	48	50	47	48	47	50	46	45	48	50	52	52	54	53	54	52	51	49	46	45	46	44	41	39	43	38	41	42	--	47
December																																
Maximum	48	47	47	45	47	44	43	42	44	46	44	46	46	44	42	39	38	37	39	38	36	38	36	41	43	40	41	44	42	45	45	42
Minimum	40	41	41	40	40	41	41	40	40	40	40	40	38	35	32	32	32	32	32	32	32	32	32	33	38	33	33	40	40	40	38	37
January																																
Maximum	43	40	47	50	51	56	54	55	52	49	50	51	51	51	55	55	51	53	52	53	48	50	50	51	48	50	54	51	51	54	50	51
Minimum	33	34	40	47	49	51	50	47	43	42	41	39	41	42	43	46	40	44	45	41	40	45	42	41	43	45	44	42	48	46	45	43
February																																
Maximum	57	52	51	56	59	56	54	54	54	57	53	56	54	53	53	54	55	51	60	60	60	56	62	59	53	54	55	52	--	--	--	55
Minimum	47	45	49	51	53	48	44	43	45	46	42	44	41	42	42	41	43	46	50	53	51	54	54	52	48	42	43	45	--	--	--	47
March																																
Maximum	48	48	48	44	50	54	56	53	52	58	57	51	58	56	54	53	55	52	55	53	53	56	58	56	55	56	52	56	56	61	64	54
Minimum	40	37	36	38	43	46	49	51	51	50	44	46	49	50	49	46	40	42	47	43	46	42	43	44	50	49	50	49	50	49	49	46
April																																
Maximum	63	63	60	60	61	59	60	60	56	56	58	60	61	64	67	67	61	60	61	60	62	68	70	70	67	68	67	63	64	66	--	63
Minimum	53	51	51	55	55	54	53	54	54	52	52	49	47	48	50	54	54	50	51	49	51	52	55	56	57	54	52	52	53	55	--	52
May																																
Maximum	68	71	61	64	61	66	65	65	62	63	65	65	64	63	62	63	63	66	65	64	61	65	63	65	63	65	64	60	68	61	60	64
Minimum	54	56	59	57	55	58	55	58	60	59	57	55	58	54	52	55	53	57	60	59	59	55	55	59	59	58	58	57	55	55	53	57
June																																
Maximum	60	59	60	61	62	61	63	63	63	64	65	67	70	71	67	--	66	66	67	64	62	63	63	66	66	65	66	64	--	--	--	64
Minimum	55	53	53	52	53	57	58	59	59	60	58	56	58	59	60	--	57	56	59	60	58	57	58	56	55	55	56	57	--	--	--	57
July																																
Maximum	--	--	--	--	--	--	--	--	61	61	60	61	61	--	62	62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	56	57	55	57	55	--	53	52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
August																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
September																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

RUSSIAN RIVER BASIN

11-4610. RUSSIAN RIVER NEAR UKIAH, CALIF.

LOCATION.--Lat 39°12'07", long 123°11'55", at gaging station 200 feet downstream from York Creek, 0.7 mile upstream from East Fork, and 3.6 miles north of Ukiah, Mendocino County.
DRAINAGE AREA.--99.7 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1964 to September 1966.
Sediment records: January 1964 to September 1966.
EXTREMES, 1965-66.--Sediment concentrations: Maximum daily, 1,480 ppm Jan 5; minimum daily, 1 ppm on many days.
Sediment loads: Maximum daily, 30,400 tons Jan. 4; minimum daily, less than 0.05 ton on many days.
EXTREMES, 1964-66.--Sediment concentrations: Maximum daily, 9,480 ppm Dec. 22, 1964; minimum daily, no flow on many days in 1964.
Sediment loads: Maximum daily, 352,000 tons Dec. 22, 1964; minimum daily, 0 ton on many days in 1964.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	76	--	--	--	76	--	--	68	--	--	--	68	--	--	68	--	--	--	67	--	--	69	--	--	--	69	--	--	70	--	--	--
November	--	--	--	--	64	--	--	--	59	--	--	56	56	56	56	53	52	52	53	56	53	--	52	52	52	53	53	53	53	54	--	--
December	54	55	54	55	54	53	54	53	--	--	53	53	53	54	54	--	49	49	48	--	--	49	--	--	--	--	--	--	49	49	49	--
January	49	49	49	48	48	48	49	--	48	48	48	48	48	48	48	49	49	49	48	48	48	48	48	48	48	48	48	48	48	48	48	47
February	47	47	47	48	48	48	47	47	47	47	47	47	47	47	47	47	44	47	47	47	48	47	47	47	47	46	47	48	--	--	--	47
March	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	48	47	46	46	47	51	50	50	51	53	53	53	--	54	54	58	49
April	58	58	--	59	59	56	58	58	58	53	56	55	58	59	59	60	60	61	60	60	61	61	60	--	61	61	62	61	61	--	--	59
May	--	63	--	62	--	60	--	--	70	--	71	--	71	--	--	72	--	73	--	74	--	--	--	--	75	--	74	--	--	75	--	--
June	77	--	77	--	--	78	--	78	--	77	--	--	76	--	74	--	75	--	--	76	--	76	--	75	--	--	75	--	78	--	--	--
July	77	--	--	76	--	77	--	78	--	--	78	--	78	--	78	--	--	78	--	78	--	78	--	--	70	--	78	--	78	--	--	--
August	78	--	79	--	78	--	--	78	--	78	--	79	--	--	79	--	78	--	78	--	--	79	--	79	--	80	--	--	--	--	81	--
September	--	81	--	--	80	--	81	--	81	--	--	80	--	79	--	79	--	--	81	--	79	--	79	--	--	78	--	77	--	77	--	--

11-4610. RUSSIAN RIVER NEAR UKIAH, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	0.7	1		1.0	--	T	75	8	1.6
2	.6	--		1.0	1	T	62	9	1.5
3	.6	--		1.2	--	T	52	4	.6
4	.6	--		1.8	--	T	44	5	.6
5	.7	1		1.2	1	T	38	3	.3
6	.8	--		1.1	--	T	34	4	.4
7	.8	--		2.0	--	T	30	5	.4
8	.9	3		7.6	--	T	27	10	.7
9	.9	--		5.8	2	T	26	18 B	1.3
10	.8	--		4.5	2	T	24	17 B	1.1
11	.9	--		3.1	2	T	25	14	.9
12	.8	3		23	17 S	1.9	33	16	1.4
13	.9	--		91	66 S	16	26	10	.7
14	1.0	--		219	143 S	98	23	6	.4
15	1.1	4		204	137 S	80	22	7	.4
16	1.1	--		49	23	3.0	20	4	.2
17	1.1	--		179	55 S	67	18	3	.1
18	1.1	--		812	92 S	226	17	2	.1
19	1.1	1		380	49	50	17	2 B	.1
20	1.0	--		165	44	20	17	2 B	.1
21	1.0	--		109	22	6.5	16	2 B	.1
22	1.1	1		80	12 B	2.6	15	2	.1
23	1.1	--		70	12	2.3	15	2 B	.1
24	1.1	--		666	212 S	428	248	186 K	237
25	1.1	--		757	102 S	217	313	--	220
26	1.0	1		392	54	57	165	--	80
27	1.0	--		313	20	17	120	--	42
28	1.0	--		182	14	6.9	1450	347 K	1880
29	1.1	1		130	14 B	4.9	836	235 S	562
30	1.0	--		102	12 B	3.3	595	190	305
31	1.0	--		--	--	--	901	232 S	595
Total	29.0	--	0.1	4953.3	--	1307.5	5304	--	3934.2

Day	JANUARY			FEBRUARY			MARCH		
1	468	78	99	651	176 S	363	188	11	5.6
2	368	310	308	306	56	46	165	7	3.1
3	1060	596 S	1810	502	113 S	224	145	7	2.7
4	6840	1360 S	30400	1660	183	820	137	7	2.6
5	4470	1480 S	19500	783	180	381	175	10	4.7
6	1700	690 S	3300	710	145	278	159	8	3.4
7	809	275	601	500	78 B	105	152	6	2.5
8	546	57	84	384	37	38	168	9	4.1
9	364	49	48	302	44	36	516	147 S	286
10	279	40	30	252	49	33	581	148 S	247
11	234	30	19	201	46	25	368	38	38
12	201	33	18	175	18	8.5	279	14	11
13	175	25	12	154	10	4.2	279	24	18
14	161	13	5.7	139	11	4.1	237	31	20
15	147	12	4.8	124	13	4.4	249	28	19
16	134	12	4.3	113	15	4.6	285	33	25
17	124	10	3.3	107	7	2.0	234	19	12
18	107	13	3.8	102	8	2.2	201	20	11
19	89	14	3.4	246	13 S	9.7	204	18	9.9
20	77	10	2.1	159	9	3.9	170	8	3.7
21	68	9	1.7	130	10	3.5	161	52	23
22	63	10	1.7	137	9	3.3	145	21	8.2
23	57	20	3.1	154	21 B	8.7	134	11	4.0
24	52	22	3.1	288	75 S	63	124	10	3.3
25	48	19	2.5	386	45 S	61	109	8	2.4
26	46	103	13	376	24	24	97	6	1.6
27	44	127	15	270	14	10	90	6	1.5
28	42	33	3.7	219	15	8.9	82	9	2.0
29	294	104 S	156	--	--	--	76	16	3.3
30	869	175 S	540	--	--	--	72	17	3.3
31	273	64	47	--	--	--	68	4	.7
Total	20209	--	57043.2	9530	--	2575.0	6050	--	782.6

S Computed by subdividing day.
T Less than 0.05 ton.
B Computed from estimated-concentration graph.
K Computed from estimated-concentration graph and subdividing day.

11-4610. RUSSIAN RIVER NEAR UKIAH, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	63	3	0.5	25	--	0.2	12	1	T
2	60	5	.8	25	3	.2	11	--	T
3	57	5	.8	24	--	.3	9.0	2	T
4	51	3	.4	22	6	.4	9.6	--	T
5	50	3	.4	22	--	.4	9.1	--	T
6	47	3	.4	22	6	.4	11	1	T
7	47	3	.4	20	--	.2	8.6	--	T
8	44	3	.4	20	--	.1	8.1	2	T
9	50	3	.4	20	1	.1	8.1	--	T
10	68	35	6.4	20	--	.1	7.6	2	T
11	253	87 S	74	18	2	.1	7.2	--	T
12	359	89 S	103	16	--	.1	7.6	--	0.1
13	165	23	10	14	1	T	7.6	3	.1
14	124	55	18	14	--	T	5.8	--	T
15	102	20	5.5	14	--	T	3.8	3	T
16	67	7	1.3	14	1	T	3.4	--	T
17	78	4	.8	14	--	T	2.6	2	T
18	71	4	.8	14	2	.1	2.1	--	T
19	62	4	.7	13	--	.1	1.2	--	T
20	58	4	.6	13	3	.1	1.2	1	T
21	54	4	.6	13	--	.1	1.1	--	T
22	49	2	.3	12	--	.1	1.0	1	T
23	46	2	.2	12	4	.1	1.2	--	T
24	42	1	.1	12	--	.1	1.4	1	T
25	40	2	.2	12	1	T	2.0	--	T
26	36	2	.2	12	--	T	2.1	--	T
27	35	2	.2	11	2	.1	2.1	2	T
28	34	2	.2	10	--	.1	1.4	--	T
29	30	2	.2	11	--	T	1.2	3	T
30	29	--	.2	12	1	T	1.1	--	T
31	--	--	--	12	--	T	--	--	--
Total	2271	--	228.0	493	--	3.9	151.2	--	0.8

Day	JULY			AUGUST			SEPTEMBER		
1	1.1	3		0.2	3		0.2	--	
2	1.1	--		.2	--		.2	1	
3	1.1	--		.2	3		.2	--	
4	1.2	1		.2	--		.2	--	
5	1.1	--		.2	4		.2	4	
6	1.0	1		.2	--		.2	--	
7	1.1	--		.2	--		.2	3	
8	1.0	1		.2	3		.2	--	
9	.9	--		.2	--		.2	2	
10	1.0	--		.2	3		.2	--	
11	1.2	7		.2	--		.2	--	
12	1.8	--		.2	7		.2	1	
13	1.8	1		.2	--		.2	--	
14	1.8	--		.2	--		.2	4	
15	1.8	1		.2	6		.2	--	
16	2.2	--		.2	--		.2	2	
17	2.1	--		.2	10		.2	--	
18	1.4	1		.1	--		.2	--	
19	1.1	--		.1	11		.2	4	
20	.7	2		.1	--		.2	--	
21	.5	--		.1	--		.2	2	
22	.5	5		.1	8		.2	--	
23	.4	--		.1	--		.2	3	
24	.4	--		.1	17		.2	--	
25	.3	--		.1	--		.2	--	
26	.3	--		.1	3		.2	10	
27	.3	6		.1	--		.2	--	
28	.3	--		.2	--		.2	3	
29	.3	3		.2	2		.1	--	
30	.3	--		.2	--		.2	4	
31	.3	--		.2	5		--	--	
Total	30.4	--	0.2	5.2	--	0.1	5.9	--	0.1

Total discharge for year (cfs-days)..... 49032.0
Total load for year (tons)..... 65875.6

S Computed by subdividing day.
T Less than 0.05 ton.

11-4610. RUSSIAN RIVER NEAR UKIAH, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 24, 1965.....	1640	52		746	257			--		--		100	--	--	--			V
Dec. 30.....	1105	49		606	185			--		--		75	83	97	100			V
Jan. 4, 1966.....	1505	48		9600	1130		29	36	54	68	84	95	99	100	--			VPWC
Jan. 5.....	1650	48		3140	1160			41		65		94	98	100	--			VPWC
Jan. 6.....	1430	55		1470	648			--		--		80	90	98	100			V

11-4615. EAST FORK RUSSIAN RIVER NEAR CALPELLA, CALIF.

LOCATION (revised).--Lat 39°14'48", long 123°07'45", temperature recorder at gaging station on left bank, 0.1 mile downstream from Cold Creek, and 3.9 miles east of Calpella, Mendocino County. Prior to Apr. 6, at site 0.4 mile downstream.
DRAINAGE AREA (revised).--92.2 square miles.
RECORDS AVAILABLE.--Water temperatures: March 1964 to September 1966.
Sediment records: March 1964 to September 1965.
EXTREMES, 1965-66.--Water temperatures: Maximum, 75°F June 15; minimum, 39°F Dec. 16-20.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	66	65	64	63	64	64	64	64	63	64	64	63	63	61	60	59	60	60	--	--	60	60	60	60	60	60	59	60	60	59	58	62
Minimum	61	61	61	61	62	62	62	62	61	61	61	60	60	59	57	56	57	57	--	--	56	58	57	58	58	57	57	57	57	57	56	59
November																																
Maximum	--	--	--	--	--	58	56	58	57	55	56	55	55	55	56	55	54	54	54	53	52	50	51	51	47	48	49	49	46	48	--	53
Minimum	--	--	--	--	--	54	55	55	54	52	53	55	53	53	54	53	53	51	52	51	50	50	50	47	46	45	47	46	45	46	--	51
December																																
Maximum	47	47	47	48	49	50	49	49	49	47	46	47	47	45	43	42	42	42	42	41	42	43	42	44	43	42	43	45	44	45	45	45
Minimum	45	45	44	45	46	47	47	47	46	45	45	45	44	42	41	39	39	39	39	39	40	41	40	41	42	41	42	43	43	43	42	43
January																																
Maximum	43	43	46	49	51	52	51	50	50	48	46	44	44	44	44	43	43	42	43	42	42	43	43	43	42	44	44	43	44	45	47	45
Minimum	41	42	43	46	49	50	50	49	48	46	44	42	42	42	42	41	40	40	41	40	40	41	42	41	41	42	42	41	42	42	45	43
February																																
Maximum	47	48	48	47	50	51	48	47	47	48	46	46	45	45	45	47	47	46	48	48	48	48	49	49	47	48	48	48	--	--	--	47
Minimum	42	47	45	45	47	48	46	45	45	45	44	44	43	43	43	43	44	45	46	47	47	47	47	47	45	43	44	46	--	--	--	45
March																																
Maximum	48	47	47	46	47	49	49	48	51	51	50	50	51	51	50	50	49	49	51	50	51	51	52	53	53	54	55	56	56	56	57	51
Minimum	46	44	44	45	45	47	48	47	48	48	48	48	49	49	49	48	46	47	49	47	49	48	50	48	49	51	52	52	52	52	53	48
April																																
Maximum	56	55	55	55	56	56	57	55	54	54	54	55	56	56	56	57	57	56	56	56	56	57	57	58	58	57	56	56	57	57	--	56
Minimum	52	52	52	53	53	54	54	52	53	53	51	51	50	52	53	54	54	52	53	52	52	53	54	55	55	55	53	54	54	54	--	53
May																																
Maximum	58	58	58	59	57	59	59	60	58	57	59	60	61	59	59	60	61	63	66	68	67	67	67	68	69	67	69	68	65	62	65	62
Minimum	55	55	56	56	55	55	56	57	56	55	55	57	56	55	55	56	57	58	57	59	60	59	59	59	60	61	61	60	60	59	57	57
June																																
Maximum	65	63	63	65	65	62	63	66	68	68	69	69	71	74	75	74	73	74	73	71	69	69	70	69	70	71	73	74	73	73	--	69
Minimum	57	56	55	55	57	59	57	58	59	60	59	59	61	65	65	65	63	64	64	63	62	60	61	61	60	61	63	66	65	65	--	61
July																																
Maximum	71	71	71	71	73	71	71	66	66	67	69	69	69	69	69	68	69	69	69	70	71	71	71	71	70	72	72	70	71	67	68	70
Minimum	64	63	62	63	63	64	63	62	60	58	60	61	62	62	61	61	61	63	63	62	63	63	63	63	62	61	63	63	62	63	61	62
August																																
Maximum	71	72	74	74	74	73	73	73	70	69	72	72	73	73	74	72	73	73	73	73	73	73	71	70	70	70	71	71	70	66	69	72
Minimum	61	63	65	65	65	66	66	65	65	64	64	65	65	65	66	66	66	65	65	66	66	66	65	63	63	64	64	65	65	64	63	65
September																																
Maximum	71	72	72	72	73	72	71	71	70	70	69	68	67	67	68	68	68	69	68	69	69	69	68	68	68	67	67	69	69	69	--	69
Minimum	65	67	67	67	67	67	67	65	66	67	67	66	66	66	66	66	67	68	67	68	68	68	67	67	67	66	66	67	66	66	--	67

11-4615. EAST FORK RUSSIAN RIVER NEAR CALPELLA, CALIF.--Continued

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 10, 1965.....	1635	56		194	10	5.2						--	--	--	--			
Nov. 12.....	1600	56		218	23	14						--	--	--	--			
Nov. 15.....	0700	54		496	309	414						97	99	100	--			S
Nov. 17.....	0705	54		184	105	52						--	--	--	--			
Nov. 19.....	0715	52		374	95	96						--	--	--	--			
Nov. 22.....	0715	49		305	135	111						--	--	--	--			
Nov. 24.....	0715	48		1240	611	2050						84	96	100	--			V
Nov. 26.....	0730	50		524	80	113						--	--	--	--			
Nov. 29.....	0730	46		380	56	57						--	--	--	--			
Dec. 1.....	0820	48		356	34	33						--	--	--	--			
Dec. 2.....	0705	44		206	35	19						--	--	--	--			
Dec. 3.....	0710	43		202	32	17						--	--	--	--			
Dec. 4.....	0715	44		200	26	14						--	--	--	--			
Dec. 5.....	1700	51		198	35	19						--	--	--	--			
Dec. 6.....	2000	48		196	27	14						--	--	--	--			
Dec. 7.....	0730	47		194	26	14						--	--	--	--			
Dec. 8.....	0700	48		192	25	13						--	--	--	--			
Dec. 9.....	0730	47		192	27	14						--	--	--	--			
Dec. 10.....	0715	45		190	24	12						100	--	--	--			S
Dec. 11.....	0900	46		188	27	14						--	--	--	--			
Dec. 12.....	1300	48		204	26	14						--	--	--	--			
Dec. 13.....	0715	42		196	18	9.5						--	--	--	--			
Dec. 14.....	0930	44		192	19	9.8						--	--	--	--			
Dec. 15.....	0930	42		190	16	8.2						--	--	--	--			
Dec. 17.....	0730	39		188	17	8.6						--	--	--	--			
Dec. 17.....	1200	40		188	19	9.6						--	--	--	--			
Dec. 20.....	0730	39		323	31	27						--	--	--	--			
Dec. 22.....	0730	40		323	27	24						--	--	--	--			
Dec. 24.....	0730	42		326	24	21						--	--	--	--			
Dec. 29.....	0730	43		1020	294	810						--	--	--	--			
Dec. 30.....	0745	41		890	63	151						--	--	--	--			
Dec. 31.....	0740	40		1300	58	204						91	97	100	--			V
Jan. 1, 1966.....	1215	37		605	69	113						79	--	--	--			S
Jan. 2.....	1630	43		560	72	109						--	--	--	--			
Jan. 3.....	0730	43		1010	169	461						--	--	--	--			
Jan. 3.....	1110	42		960	173	448						--	--	--	--			

11-4615. EAST FORK RUSSIAN RIVER NEAR CALPELLA, CALIF.--Continued

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Jan. 4, 1966.....	0740	42		5000	122	1650						95	--	--	--			S
Jan. 4.....	0800	43		5420	117	1710						95	--	--	--			S
Jan. 4.....	1100	43		7870	132	2800						94	96	99	100			S
Jan. 5.....	0740	42		3060	117	967						95	97	100	--			S
Jan. 6.....	0730	42		1380	123	458						99	100	--	--			S
Jan. 7.....	1125	48		744	319	641						79	85	94	100			V
Jan. 10.....	1930	46		480	110	143						--	--	--	--			
Jan. 17.....	0740	41		368	110	109						--	--	--	--			
Jan. 20.....	1700	43		253	127	87						--	--	--	--			
Jan. 21.....	0945	43		350	111	105						--	--	--	--			
Jan. 24.....	0745	42		347	118	111						--	--	--	--			
Jan. 28.....	0715	44		332	73	65						--	--	--	--			
Jan. 31.....	0730	46		504	79	107						--	--	--	--			
Feb. 1.....	1945	42		713	73	141						--	--	--	--			
Feb. 5.....	0730	42		870	74	174						--	--	--	--			
Feb. 9.....	0715	44		470	52	66						--	--	--	--			
Feb. 12.....	0930	42		414	49	55						--	--	--	--			
Feb. 14.....	0745	42		392	59	62						--	--	--	--			
Feb. 16.....	1515	46		383	77	80						90	94	96	100			S
Feb. 19.....	0940	46		584	53	84						--	--	--	--			
Feb. 22.....	1000	48		380	59	61						--	--	--	--			
Feb. 22.....	1800	46		500	55	74						--	--	--	--			
Feb. 23.....	0800	46		410	60	66						96	--	--	--			S
Feb. 24.....	1900	46		473	57	73						97	--	--	--			S
Mar. 5.....	0900	46		431	57	66						--	--	--	--			
Mar. 6.....	1600	46		404	74	81						--	--	--	--			
Mar. 16.....	0745	48		459	54	67						--	--	--	--			
Mar. 18.....	1830	46		414	31	35						--	--	--	--			
Mar. 29.....	1830	52		298	45	36						--	--	--	--			
Apr. 9.....	0945	52		338	25	23						--	--	--	--			
Apr. 11.....	0730	52		470	27	34						--	--	--	--			
Apr. 20.....	1400	54		360	35	34						--	--	--	--			
Apr. 22.....	0745	54		363	28	27						--	--	--	--			
Apr. 25.....	0745	56		400	27	29						--	--	--	--			
Apr. 27.....	0750	54		368	29	29						--	--	--	--			
Apr. 29, 1966.....	0745	54		348	28	26						--	--	--	--			
May 18.....	1000	58		221	20	12						--	--	--	--			
June 15.....	1100	68		107	9	2.6						--	--	--	--			
July 19.....	1100	66		199	14	7.5						--	--	--	--			
Aug. 17.....	1200	70		199	9	4.8						--	--	--	--			
Sept. 28.....	1240	70		266	17	12						--	--	--	--			

11-4618. LAKE MENDOCINO NEAR UKIAH, CALIF.

LOCATION.--Lat 39°11'53", long 123°10'50", temperature recorder at gaging station in Yokayo Rancho Grant, in intake tower 30 feet upstream from Coyote Dam on East Fork Russian River, and 3.6 miles northeast of Ukiah, Mendocino County.
DRAINAGE AREA.--105 square miles.
RECORDS AVAILABLE.--Water temperatures: December 1965 to September 1966.
EXTREMES, December 1965 to September 1966.--Water temperatures: Maximum, 81°F Aug. 17; minimum, 44°F Jan. 26.

Temperature (°F) of water, December 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
December																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	52	51	51	50	50	50	49	49	48	48	48	48	47	47	47	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	51	51	50	50	50	49	49	48	48	48	48	47	47	47	47	--
January																																
Maximum	47	47	47	47	46	47	48	49	48	48	48	47	46	46	47	46	46	47	46	46	46	46	46	46	46	46	45	46	46	46	46	47
Minimum	47	47	47	46	46	46	47	48	47	47	47	46	46	46	46	46	46	46	46	46	46	46	46	46	46	44	45	45	45	45	46	46
February																																
Maximum	46	46	45	46	46	46	46	46	46	47	46	46	46	46	46	46	47	48	46	47	48	48	48	48	48	48	48	48	--	--	--	47
Minimum	46	45	45	45	46	46	46	46	46	46	46	46	46	46	46	46	46	45	45	46	47	47	47	47	47	47	47	47	--	--	--	46
March																																
Maximum	47	47	47	47	46	48	48	47	47	50	51	49	51	53	54	51	53	53	50	51	52	53	54	58	57	58	60	59	59	60	64	52
Minimum	46	46	47	45	46	46	47	47	47	47	49	48	48	51	50	51	51	51	49	50	51	52	52	53	53	56	55	57	57	58	59	50
April																																
Maximum	62	62	67	64	64	62	65	64	63	60	58	60	60	61	64	66	65	63	62	62	62	64	67	68	66	66	69	67	66	68	--	64
Minimum	62	62	62	59	59	62	62	63	58	56	57	58	58	60	61	63	62	62	61	61	61	61	64	64	66	66	66	66	65	65	--	62
May																																
Maximum	69	68	70	66	66	67	66	68	68	64	67	67	69	67	68	67	70	71	71	72	71	72	72	73	74	72	73	73	69	66	66	69
Minimum	65	65	65	63	62	62	65	66	64	64	64	66	66	66	65	66	66	68	70	70	68	68	69	70	71	72	71	69	66	66	66	67
June																																
Maximum	66	66	--	--	--	--	--	--	--	--	--	--	--	78	77	76	76	78	77	76	74	72	72	74	75	74	76	74	75	74	--	--
Minimum	66	66	--	--	--	--	--	--	--	--	--	--	--	72	74	74	74	74	75	74	73	72	71	71	72	71	72	72	72	72	--	--
July																																
Maximum	74	73	75	75	78	74	76	74	73	74	74	73	73	74	73	74	74	75	75	76	77	78	78	78	78	77	77	77	78	76	79	75
Minimum	73	72	72	73	72	73	73	73	72	72	71	72	72	71	72	72	72	72	72	73	74	75	76	76	75	75	75	75	76	75	74	73
August																																
Maximum	78	78	79	78	79	80	80	79	79	79	79	78	79	80	79	80	81	79	79	80	79	79	78	77	76	76	76	75	74	73	75	78
Minimum	75	76	76	77	77	77	78	78	77	78	77	76	76	76	76	78	77	78	78	77	77	76	76	76	75	74	74	74	73	72	72	76
September																																
Maximum	76	77	77	76	76	75	74	76	78	78	78	78	77	78	78	78	79	77	78	77	76	76	76	77	77	76	76	75	76	76	--	77
Minimum	72	73	73	73	73	73	72	73	75	76	77	77	77	76	76	77	77	77	77	76	76	76	76	76	76	74	74	75	75	75	--	75

11-4620. EAST FORK RUSSIAN RIVER NEAR UKIAH, CALIF.

LOCATION.--Lat 39°11'45", long 123°11'30", at gaging station 500 feet downstream from Coyote Dam, 1,300 feet upstream from mouth, and 3.2 miles northeast of Ukiah, Mendocino County.
DRAINAGE AREA.--105 square miles.
RECORDS AVAILABLE.--Chemical analyses: December 1952 to March 1955.
Water temperatures: December 1952 to March 1955, October 1964 to September 1966.
Sediment records: December 1952 to March 1955, January 1964 to September 1966.
EXTREMES, 1965-66.--Sediment concentrations: Maximum daily, 286 ppm Jan. 12; minimum daily, 3 ppm Aug. 12, Sept. 1-3, 12, 13.
Sediment loads: Maximum daily, 1,990 tons Jan. 11; minimum daily, 0.4 ton Jan. 5.
EXTREMES, 1964-66.--Sediment concentrations: Maximum daily, (estimated) 1,900 ppm Dec. 25, 1964; minimum daily, 1 ppm on several days in 1965.
Sediment loads: Maximum daily, (estimated) 22,000 tons Dec. 25, 1964; minimum daily, 0.4 ton Nov. 29, 1964, Jan. 5, 1966.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Aver-age
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	59	--	--	--	58	--	--	65	--	--	--	64	--	--	65	--	--	--	65	--	--	65	--	--	--	65	--	--	64	--	--	--
November	--	--	--	--	63	--	--	--	63	--	--	62	62	62	61	62	61	62	59	59	--	54	54	54	56	56	56	56	55	56	--	--
December	56	56	57	57	56	53	53	53	--	--	52	52	53	53	53	--	50	50	50	--	--	50	--	--	--	--	--	--	49	45	49	--
January	49	49	50	49	48	48	47	48	47	47	48	48	48	49	48	48	48	48	49	48	48	48	48	48	48	48	--	--	48	--	47	48
February	47	47	--	47	--	47	47	47	47	47	--	47	47	47	47	47	42	47	47	47	47	48	47	48	47	48	47	--	--	--	--	47
March	--	46	47	47	48	47	47	47	47	47	47	47	47	47	48	48	48	48	47	47	47	47	47	47	48	48	48	--	48	48	--	47
April	49	49	49	49	49	49	49	49	49	49	49	48	49	49	49	49	46	48	50	50	50	50	50	49	49	49	50	50	50	--	--	49
May	--	51	--	51	--	50	--	--	49	--	49	--	49	--	--	49	--	50	--	50	--	--	50	--	50	--	50	--	--	50	--	--
June	50	--	50	--	--	50	--	50	--	50	--	--	52	--	50	--	50	--	--	50	--	51	--	51	--	--	52	--	53	--	--	--
July	52	--	--	52	--	54	--	54	--	--	54	--	54	--	55	--	--	55	55	55	--	55	--	--	56	--	56	--	56	--	--	--
August	56	--	57	--	57	--	--	57	--	57	--	58	--	--	60	--	60	64	60	--	--	61	--	61	--	62	--	--	62	--	63	--
September	--	63	--	--	64	--	64	--	64	--	--	64	--	64	--	64	--	--	65	--	65	--	69	--	--	64	--	64	--	--	63	--	--

11-4620. EAST FORK RUSSIAN RIVER NEAR UKIAH, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	258	10	7.0	299	--	4.0	21	27	1.5
2	258	--	7.0	297	5	4.0	32	26	2.2
3	265	--	5.7	297	--	4.0	36	22	2.1
4	265	--	4.3	297	--	3.2	36	23	2.2
5	270	5	3.6	297	4	3.2	36	23	2.2
6	275	--	3.7	296	--	3.2	33	19	1.7
7	280	--	4.5	296	--	3.2	63	18	3.1
8	347	7	6.6	296	--	4.0	168	14	6.4
9	421	--	8.0	297	5	4.0	311	12 B	10
10	419	--	7.9	298	--	4.0	311	13 B	11
11	418	--	7.9	298	--	4.8	311	14	12
12	348	7	6.6	298	6	4.8	311	13	11
13	240	--	4.5	298	6	4.8	311	13	11
14	241	--	4.6	297	8	6.4	311	12	10
15	221	7	4.2	1210	11 S	39	311	13	11
16	248	--	5.4	1900	13	67	311	11	9.2
17	248	--	6.0	1870	14	71	311	12	10
18	247	--	6.7	1850	14	70	311	11	9.2
19	246	11	7.3	1200	19 S	61	307	12	9.9
20	244	--	7.2	234	21	13	307	12 B	9.9
21	244	--	6.6	234	31 B	20	307	11 B	9.1
22	244	9	5.9	83	47	11	307	8	6.6
23	244	--	5.9	21	57	3.2	307	--	6.6
24	244	--	5.3	20	46	2.5	304	--	5.7
25	244	--	4.6	20	57	3.1	307	--	5.8
26	245	6	4.0	20	61	3.3	307	--	5.8
27	245	--	4.0	20	41	2.2	202	--	3.8
28	245	--	4.0	20	39	2.1	28	--	1.2
29	282	6	4.6	21	33	1.9	355	40 S	39
30	299	--	4.8	21	28	1.6	640	67 S	121
31	298	--	4.0	--	--	--	558	66	99
Total	8593	--	172.4	12905	--	429.5	7771	--	449.2

Day	JANUARY			FEBRUARY			MARCH		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	558	68	102	1720	66	307	808	32 S	65
2	558	133	200	1700	70	321	1340	29	105
3	700	73 S	136	795	67	144	715	42 S	74
4	59	47	7.5	474	66	84	359	49	47
5	2.9	47	.4	1690	66	301	406	39	43
6	1420	155	594	1680	62	281	406	37	41
7	3200	194	1680	1660	68	305	406	35	38
8	3130	143	1210	1640	54	239	406	37	41
9	3070	130	1080	558	82 S	97	406	39	43
10	3000	130	1050	17	100	4.6	500	33	45
11	2950	250	1990	16	90	3.9	508	31	43
12	1160	286 S	906	16	92	4.0	406	33	36
13	16	282	12	17	88	4.0	406	34	37
14	13	260	9.1	17	86	3.9	501	32	43
15	8.8	245	5.8	17	65	3.0	558	30	45
16	8.8	210	5.0	17	59	2.7	558	30	45
17	8.8	194	4.6	17	58	2.7	558	26	39
18	8.8	179	4.3	17	52	2.4	502	26	35
19	7.9	131	2.8	17	52	2.4	470	29	37
20	7.9	85	1.8	17	53	2.4	470	24	30
21	7.9	81	1.7	17	53	2.4	470	28	36
22	7.9	77	1.6	17	50	2.3	402	28	30
23	7.9	81	1.7	17	50	2.3	363	27	26
24	7.9	85	1.8	18	50	2.4	332	29	26
25	7.9	82	1.7	18	46	2.2	314	29	25
26	7.9	80	1.7	18	44	2.1	314	27	23
27	7.9	78	1.7	18	45	2.2	314	26	22
28	8.4	75	1.7	18	47	2.3	276	28	21
29	9.3	71	1.8	--	--	--	192	28	15
30	8.8	73	1.7	--	--	--	160	31	13
31	1060	75	215	--	--	--	160	29	13
Total	21029.7	--	9233.4	12243	--	2133.2	13986	--	1182

S Computed by subdividing day.
B Computed from estimated-concentration graph.

11-4620. EAST FORK RUSSIAN RIVER NEAR UKIAH, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	160	29	13	297	--	15	148	16	6.4
2	160	27	12	297	19	15	148	--	6.0
3	160	25	11	297	--	15	148	15	6.0
4	160	23	9.9	313	20	17	148	--	5.6
5	160	26	11	323	--	15	148	--	4.4
6	160	25	11	324	13	11	148	9	3.6
7	163	24	11	325	--	11	145	--	4.7
8	163	22	9.7	325	--	11	145	17	6.7
9	163	20	8.8	325	13	11	145	--	8.6
10	163	20	8.8	374	--	14	145	23	9.0
11	163	21	9.2	398	15	16	145	--	8.6
12	165	20	8.9	398	--	17	145	--	8.2
13	276	20	15	365	17	17	144	20	7.8
14	360	24	23	323	--	15	143	--	7.3
15	279	21	16	325	--	14	143	22	8.5
16	230	22	14	184	15	7.5	143	--	8.5
17	230	20	12	95	--	3.8	159	20	8.6
18	210	19	11	95	15	3.8	173	--	8.4
19	165	21	9.4	97	--	4.2	171	--	7.4
20	168	19	8.6	98	16	4.2	182	16	7.9
21	168	21	9.5	99	--	4.3	221	--	9.5
22	168	22	10.0	100	--	4.6	234	18	11
23	168	19	8.6	100	18	4.9	252	--	13
24	169	17 B	7.8	134	--	7.2	283	19	15
25	255	17	12	149	22	8.9	292	--	15
26	318	20	17	148	--	8.8	290	--	14
27	306	17	14	148	21	8.4	290	18	14
28	293	17	13	148	--	8.4	290	--	14
29	296	19	15	148	--	8.0	262	20	14
30	297	19 B	15	148	20	8.0	244	--	13
31	--	--	--	148	--	7.2	--	--	--
Total	6296	--	355.2	7048	--	316.2	5674	--	274.7

Day	JULY			AUGUST			SEPTEMBER		
1	244	20	13	232	4	2.5	248	--	2.0
2	244	--	13	223	--	3.6	248	3	2.0
3	244	--	14	223	9	5.4	248	--	2.0
4	244	24	16	223	--	3.6	248	--	2.7
5	244	--	13	232	4	2.5	248	4	2.7
6	244	18	12	237	--	2.6	248	--	2.7
7	244	--	13	237	--	2.6	248	4	2.7
8	244	20	13	234	4	2.5	248	--	2.7
9	244	--	12	234	--	2.5	248	5	3.3
10	244	--	11	234	5	3.2	248	--	3.3
11	226	14	8.5	252	--	2.7	248	--	2.7
12	213	--	8.6	262	3	2.1	248	3	2.0
13	213	16	9.2	262	--	2.8	248	--	2.0
14	213	--	9.8	262	--	4.2	248	4	2.7
15	210	19	11	252	7	4.8	248	--	3.3
16	209	--	11	248	--	3.3	245	6	4.0
17	209	--	11	248	4	2.7	244	--	3.3
18	221	19	11	248	5	3.3	244	--	2.6
19	227	20	12	248	6	4.0	244	4	2.6
20	236	16	10	248	--	4.0	244	--	2.6
21	241	--	9.8	248	--	4.7	244	4	2.6
22	250	14	9.4	248	8	5.4	244	--	2.6
23	255	--	11	248	--	4.0	244	4	2.6
24	255	--	12	248	5	3.3	244	--	2.6
25	255	20	14	247	--	2.7	244	--	3.3
26	255	--	11	248	4	2.7	244	6	4.0
27	254	12	8.2	248	--	2.7	244	--	4.0
28	253	--	6.1	248	--	2.7	244	6	4.0
29	251	5	3.4	248	4	2.7	244	--	3.3
30	251	--	3.4	248	--	2.7	244	4	2.6
31	251	--	2.7	248	4	2.7	--	--	--
Total	7388	--	323.1	7566	--	101.2	7381	--	85.5

Total discharge for year (cfs-days)..... 117880.7
Total load for year (tons)..... 15055.6

B Computed from estimated-concentration graph.

11-4620. EAST FORK RUSSIAN RIVER NEAR UKIAH, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Dec. 30, 1965.....	1045	45		1410	71							95	98	100				V
Jan. 1, 1966.....	1305	49		558	66							100	--					S
Jan. 29.....	1435	48		8.8	69							100	--					S
Feb. 7.....	1700	47		1660	70							99	100					S
Feb. 23.....	1335	47		17	49							100	--					S

RUSSIAN RIVER BASIN--Continued

11-4625. RUSSIAN RIVER NEAR HOPLAND, CALIF.

LOCATION.--Lat 39°01'35", long 123°07'45", temperature recorder at gaging station, in Rancho de Sanel Grant, on right bank 0.2 mile downstream from McNab Creek, 4 miles north of Hopland, Mendocino County, and 17 miles upstream from Sulfur Creek.
DRAINAGE AREA.--362 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1965.
Water temperatures: September 1965.to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 72°F Aug. 20, Sept. 3, 4, 7, 8; minimum, 43°F Feb. 8, 9.
EXTREMES, September 1965 to September 1966: Maximum, 72°F Aug. 20, Sept. 3, 4, 7, 8, 1966; minimum, 43°F Feb. 8, 9, 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Nov. 10, 1965....	454	--		--	--	7.2	--	122	0	--	3.4		--	0.4	--	--		97	0	0.3	215	8.0
Jan. 13, 1966....	765	--		--	--	7.0	--	92	0	--	3.4		--	.2	--	--		74	0	.3	186	7.5
Mar. 8.....	750	--		--	--	7.7	--	97	0	--	3.2		--	.2	--	--		84	4	.4	189	8.2
May 16.....	306	11		18	9.2	7.0	1.1	98	0	13	3.5		1.5	.2	119	0.16		83	3	.3	188	7.8
July 12.....	199	--		--	--	6.0	--	99	1	--	2.8		--	.1	--	--		84	1	.3	187	8.3
Sept. 23.....	243	13		21	8.1	6.6	.9	104	0	8.0	2.4		.9	.3	112	.15		86	1	.3	193	8.0

11-4625. RUSSIAN RIVER NEAR HOPLAND, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	67	67	66	66	67	69	70	69	66	68	69	68	67	66	64	64	66	65	66	65	66	66	66	65	64	64	64	64	64	64	63	66
Minimum	60	60	60	61	63	62	63	63	64	64	63	62	62	62	60	59	60	62	63	60	60	60	60	59	60	59	58	59	59	59	58	61
November																																
Maximum	62	63	63	64	63	63	62	62	61	61	61	59	58	57	59	59	59	59	58	58	58	58	57	56	55	54	53	53	53	53	---	59
Minimum	59	58	59	62	59	58	60	60	58	57	59	58	56	55	56	58	59	58	58	57	57	57	57	55	54	53	52	52	52	52	---	57
December																																
Maximum	53	52	52	52	51	50	50	51	51	50	50	49	50	48	48	48	47	48	48	47	47	47	47	47	47	47	46	46	46	46	46	49
Minimum	52	51	51	51	50	50	50	50	50	49	49	49	48	47	47	47	47	47	47	46	46	46	46	46	46	46	46	46	46	45	45	48
January																																
Maximum	46	46	46	47	48	48	48	47	47	46	46	46	46	46	47	47	47	47	47	47	46	46	46	46	46	46	47	47	47	47	47	47
Minimum	46	46	46	46	47	48	47	46	46	45	45	45	45	46	45	46	46	46	46	45	45	45	45	45	45	45	46	46	46	46	47	46
February																																
Maximum	48	46	45	45	45	45	45	44	45	45	46	46	46	45	46	46	46	46	47	47	48	48	48	48	48	48	48	48	---	---	---	46
Minimum	46	45	44	44	45	44	44	43	43	44	45	45	44	44	44	45	45	46	46	46	47	48	47	47	48	47	47	47	---	---	---	45
March																																
Maximum	48	48	47	47	47	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	49	49	49	49	49	50	50	48
Minimum	47	46	45	47	46	47	47	48	48	47	47	47	46	47	47	47	46	46	46	46	46	46	46	48	47	47	47	47	47	47	48	47
April																																
Maximum	51	51	52	52	52	52	52	53	52	52	52	51	51	51	51	52	52	52	52	52	53	53	53	54	54	54	53	53	53	53	---	52
Minimum	49	49	49	50	50	51	51	51	51	51	51	50	49	49	49	49	50	50	50	50	51	51	51	51	52	52	51	51	51	51	---	50
May																																
Maximum	53	53	53	54	54	54	54	54	54	53	53	53	53	53	53	53	54	54	--	--	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	51	51	51	52	52	52	52	52	53	52	51	51	51	51	51	51	52	52	--	--	---	---	---	---	---	---	---	---	---	---	---	---
June																																
Maximum	--	--	62	65	63	62	63	66	67	67	69	69	69	69	69	72	71	70	71	65	65	66	65	67	66	66	67	67	66	67	---	67
Minimum	--	--	56	56	58	58	56	58	59	61	58	59	61	63	63	64	64	63	63	59	58	56	57	56	56	56	56	57	57	57	---	59
July																																
Maximum	67	66	67	68	67	67	67	64	63	66	67	66	68	67	67	67	68	68	68	69	69	70	69	69	69	69	69	70	70	64	70	68
Minimum	57	57	57	57	58	58	58	58	58	57	57	59	59	59	59	59	59	59	59	60	61	61	60	60	60	60	60	60	61	62	60	59
August																																
Maximum	70	70	70	---	---	---	---	---	70	70	70	70	70	70	70	70	--	70	70	72	71	71	71	70	70	71	71	71	71	71	71	70
Minimum	61	62	62	---	---	---	---	---	63	63	63	62	63	63	63	64	---	63	65	65	65	64	64	64	64	65	64	64	64	64	64	64
September																																
Maximum	71	71	72	72	71	70	68	71	71	70	70	69	68	69	70	71	72	72	70	70	70	70	69	69	69	69	69	70	68	67	---	70
Minimum	64	65	65	64	63	63	63	63	63	63	63	62	63	62	63	62	64	66	62	62	63	63	62	61	61	62	62	62	61	62	---	63

11-4630. RUSSIAN RIVER NEAR CLOVERDALE, CALIF.

LOCATION.--Lat 38°52'55", long 123°03'15", at gaging station at Lambert Ranch, 400 feet downstream from Cummisky Creek, and 5 miles northwest of Cloverdale, Sonoma County.
DRAINAGE AREA.--502 square miles.
RECORDS AVAILABLE.--Water temperatures: November 1963 to September 1966.
Sediment records: November 1963 to September 1966.
EXTREMES, 1965-66.--Sediment concentrations: Maximum daily, 2,670 ppm Jan. 5; minimum daily, 6 ppm Dec. 3-5.
Sediment loads: Maximum daily, 179,000 tons Jan. 5; minimum daily, 3.0 tons May 23.
EXTREMES, 1964-66.--Sediment concentrations: Maximum daily, 4,600 ppm Dec. 23, 1964; minimum daily, 3 ppm Oct. 20-22, 1964.
Sediment loads: Maximum daily, 495,000 tons Dec. 22, 1964; minimum daily, 1.9 tons Oct. 20-22, 1964.
REMARKS.--Where no maximum or minimum is shown, temperature is once-daily reading.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	--	--	--	--	--	--	--	--	--	--	68	--	67	--	62	--	--	66	--	65	--	66	--	--	67	--	65	--	63	--	--	--
Maximum	67	66	65	65	68	68	68	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	68	63	62	63	64	64	64	66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November	63	--	62	--	62	--	--	62	58	60	--	60	--	57	59	59	60	56	56	56	--	54	--	51	--	--	--	--	51	--	--	--
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
December	52	--	50	--	--	53	--	52	52	--	52	50	48	--	47	--	45	46	--	45	--	44	--	48	--	45	44	47	46	47	45	--
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	47	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	45	--	--	--	--	--	--	--	--	--	--	--	--	--
January	42	44	42	49	52	55	50	50	49	44	44	45	49	52	52	50	49	48	49	48	45	50	50	49	--	48	--	--	--	--	--	48
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	47	48	47	50	50	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	45	46	46	47	46	--
February	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	49	49	49	50	51	50	50	48	48	48	50	49	51	50	50	51	52	52	52	51	52	53	53	53	54	53	52	51	--	--	--	51
Minimum	44	48	46	46	49	47	47	46	46	46	46	47	48	47	47	48	48	49	51	50	50	51	52	52	52	52	48	48	--	--	--	48
March	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	51	52	52	52	51	51	51	53	53	53	53	54	55	55	55	56	56	55	55	55	55	55	57	58	58	--	--	--	--	62	63	55
Minimum	48	51	51	50	48	50	50	50	52	53	53	52	53	54	53	55	55	54	53	53	53	53	53	52	56	--	--	--	--	58	59	53
April	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	63	63	64	64	64	64	64	64	63	61	60	59	61	61	62	64	64	64	63	63	62	63	64	65	65	66	63	--	--	--	--	63
Minimum	60	60	60	62	60	61	60	60	61	59	59	57	57	58	59	60	62	60	60	59	59	59	60	61	62	61	59	--	--	--	--	60
May	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	--	--	61	61	61	--	--	--	--	58	59	60	60	--	58	59	62	65	62	64	--	--	--	--	--	--	--	--	--	--	60	62	--
Minimum	--	--	59	58	60	--	--	--	--	56	55	56	57	--	55	56	56	59	66	66	--	--	--	--	--	--	--	--	--	--	57	58	--
June	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	62	62	62	63	63	63	62	64	66	66	66	67	68	71	72	69	69	68	68	68	66	64	63	62	--	--	--	--	--	--	--	66
Minimum	59	59	59	59	61	61	57	60	62	64	63	63	64	66	68	65	65	65	65	64	61	60	61	60	--	--	--	--	--	--	--	62
July	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	63	63	--	--	--	--	--	--	--	--	64	64	64	64	64	65	65	63	64	64	64	64	65	64	63	63	63	63	63	63	61	--
Minimum	60	60	--	--	--	--	--	--	--	--	60	61	61	61	61	61	60	60	60	60	61	61	61	61	60	60	60	60	60	59	57	--
August	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	63	64	64	65	65	65	65	65	64	64	64	63	63	63	63	63	64	65	65	66	66	65	66	66	65	66	67	67	68	66	66	65
Minimum	59	61	62	62	62	62	62	62	62	62	61	61	61	60	61	61	62	62	62	64	64	63	64	62	63	64	64	65	66	65	63	62
September	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	72	72	72	72	72	70	68	70	70	71	69	67	65	67	68	69	71	70	69	69	69	69	69	69	69	69	69	69	68	68	--	69
Minimum	66	67	68	68	68	67	66	64	66	66	65	63	63	62	63	63	66	67	65	66	66	66	65	65	66	65	65	65	64	65	--	65

11-4630. RUSSIAN RIVER NEAR CLOVERDALE, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	246	14	9.3	302	10	8.2	360	11	11
2	247	--	9.3	306	--	8.3	311	--	5.9
3	249	--	9.4	306	10	8.3	280	6	4.5
4	249	--	9.4	306	--	8.3	260	--	4.2
5	246	--	9.3	306	11	9.1	242	--	3.9
6	246	--	12	306	--	9.1	232	7	4.4
7	247	28	19	316	--	13	216	--	4.7
8	267	--	22	335	20	18	228	11	6.8
9	376	33	34	320	15	13	355	43	41
10	403	--	27	316	9	7.7	408	--	46
11	414	22	25	316	--	8.5	442	--	41
12	420	--	23	325	15	13	528	50	71
13	306	16	13	564	259	K 567	469	23	29
14	268	--	8.7	1170	967	S 3070	452	--	24
15	260	9	6.3	1610	468	S 2100	442	20	24
16	249	--	6.1	2120	310	1770	430	--	21
17	260	--	8.4	2580	380	S 2970	425	16	18
18	260	13	9.1	3930	897	S 9720	420	17	19
19	260	--	9.1	2960	440	K 3760	420	--	18
20	260	13	9.1	1030	110	306	414	11	12
21	256	--	7.6	756	--	100	414	--	12
22	256	9	6.2	624	40	67	408	11	12
23	252	--	6.1	403	--	33	403	--	12
24	256	--	6.9	1390	339	S 1400	1120	649	S 2930
25	253	11	7.5	1820	570	K 2840	1440	595	K 2440
26	253	--	10	1250	330	K 1220	990	70	187
27	256	18	12	918	--	250	822	50	111
28	256	--	10	654	--	97	6020	2010	S 41100
29	260	10	7.0	534	51	74	4360	1080	S 13900
30	293	--	7.9	436	--	29	2730	332	S 2560
31	302	--	8.2	--	--	--	3340	425	S 3880
Total	8626	--	367.9	28509	--	30497.5	29381	--	67553.4

Day	JANUARY			FEBRUARY			MARCH		
	Mean discharge (cfs)	Mean concentration (ppm)	Tons per day	Mean discharge (cfs)	Mean concentration (ppm)	Tons per day	Mean discharge (cfs)	Mean concentration (ppm)	Tons per day
1	2310	170	1060	5690	761	S 11600	1070	44	S 193
2	1680	120	544	4390	240	2840	2230	245	1480
3	2840	247	S 2110	4940	398	S 6270	1990	150	806
4	17300	2350	S 147000	7300	907	S 18100	970	55	144
5	21700	2670	S 179000	6040	610	9950	1020	--	110
6	8110	911	S 20100	5110	560	7730	990	42	112
7	7000	1120	21200	4410	320	3810	940	44	112
8	6050	920	15000	3890	240	2520	920	34	84
9	5320	--	11000	3060	260	2150	1590	320	S 1740
10	4910	650	8620	1480	100	400	2280	330	S 2100
11	4630	500	6250	1160	46	144	1830	100	494
12	3660	330	3260	970	--	89	1420	78	299
13	1330	111	399	824	25	56	1390	60	225
14	1010	56	153	728	17	33	1290	51	178
15	872	34	80	640	11	19	1480	62	248
16	792	20	43	568	14	21	1630	70	308
17	712	16	31	518	17	24	1500	47	190
18	624	17	29	488	27	36	1360	38	140
19	554	15	22	1200	317	S 1100	1270	37	127
20	500	13	18	824	59	131	1190	32	103
21	452	10	12	648	24	42	1160	--	94
22	400	10	11	616	24	40	1080	31	90
23	355	13	12	672	29	53	920	29	72
24	305	15	12	776	45	94	856	30	69
25	270	--	8.7	980	92	K 265	777	25	52
26	255	10	6.9	1380	345	S 1380	730	--	43
27	240	--	6.5	1020	42	116	695	--	39
28	218	10	5.9	872	27	64	657	21	37
29	2040	1000	S 10300	--	--	--	578	20	31
30	5040	881	S 13400	--	--	--	501	19	26
31	2810	370	S 3030	--	--	--	468	18	23
Total	104289	--	442724.0	61194	--	69077	36782	--	9769

S Computed by subdividing day.
K Computed from estimated-concentration graph and subdividing day.

11-4630. RUSSIAN RIVER NEAR CLOVERDALE, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	450	16	19	406	--	22	156	11	4.6
2	434	19	22	401	20	22	156	11	4.6
3	422	18	21	395	--	21	157	11	4.7
4	409	13	14	394	21	22	158	--	4.7
5	407	17	19	410	--	23	160	--	4.8
6	399	--	23	411	21	23	163	11	4.8
7	394	21	22	404	--	23	162	--	4.8
8	385	--	19	403	--	24	156	11	4.6
9	397	15	16	403	23	25	149	--	4.4
10	432	--	19	415	--	28	147	11	4.4
11	559	33 S	52	457	26	32	145	--	4.3
12	964	192 S	530	457	--	36	146	--	4.7
13	678	58	106	451	31	38	147	13	5.2
14	726	35	69	397	--	31	138	--	5.2
15	660	31	55	383	--	25	133	13	4.7
16	526	28	40	368	21	21	124	15	5.0
17	498	--	34	222	--	11	123	17	5.6
18	474	22	28	191	--	8.3	146	--	7.1
19	413	19	21	173	11	5.1	154	--	7.9
20	392	--	19	164	--	3.5	162	22	9.6
21	379	19	19	152	8	3.3	170	--	12
22	372	17	17	147	--	3.2	200	30	16
23	362	--	16	138	8	3.0	209	--	15
24	350	--	15	128	--	3.1	229	22	14
25	349	16	15	154	11	4.6	255	--	14
26	435	--	25	159	--	4.7	269	--	16
27	441	--	40	153	--	4.5	272	24	18
28	424	36	41	156	10	4.2	266	--	17
29	416	--	30	156	--	4.2	263	23	16
30	410	--	23	165	10	4.5	232	--	13
31	--	--	--	161	11	4.8	--	--	--
Total	13957	--	1389	8974	--	488.0	5347	--	256.7
	JULY			AUGUST			SEPTEMBER		
1	222	--	9.0	229		9.3	226		9.2
2	221	12	7.2	208		8.4	222		9.0
3	224	--	7.9	203		8.2	218		8.8
4	228	15	9.2	198		8.0	226		9.2
5	222	--	9.6	199		8.1	231		9.4
6	215	18	10	213		8.6	226		9.2
7	214	--	12	216		8.7	226		9.2
8	212	21	12	216		8.7	231		9.4
9	213	--	12	217		8.8	231		9.4
10	219	--	11	218		8.8	226		9.2
11	221	15	9.0	227		9.2	231		9.4
12	197	--	6.9	248		10	231		9.4
13	186	12	6.0	254		10	231		9.4
14	183	--	6.4	257		10	236		9.6
15	185	14	7.0	257		10	231		9.4
16	184	--	7.0	245		9.9	231		9.4
17	185	--	7.0	245		9.9	231		9.4
18	187	14	7.1	244		9.9	231		9.4
19	197	--	7.4	242		9.8	236		9.6
20	197	15	8.0	239		9.7	231		9.4
21	210	--	7.9	241		9.8	222		9.0
22	212	13	7.4	246		10.0	226		--
23	222	--	7.8	241		9.8	226		9.2
24	225	--	8.5	233		9.4	225		9.1
25	226	15	9.2	242		9.8	225		9.1
26	228	--	8.6	234		9.5	225		9.1
27	228	14	8.6	230		9.3	225		9.1
28	227	--	8.6	231		9.4	225		9.1
29	227	16	9.8	228		9.2	225		9.1
30	226	--	9.8	230		9.3	225		9.1
31	226	--	9.2	230		9.3	--		
Total	6569	--	267.1	7161	--	288.8	6832	--	268.3

Total discharge for year (cfs-days)..... 317621
Total load for year (tons)..... 622946.7

S Computed by subdividing day.

11-4630. RUSSIAN RIVER NEAR CLOVERDALE, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 15, 1965.....	1300	59		1410	172		--	--	--	--	--	99	100	--	--			S
Dec. 28.....	1100	47		6360	2370		--	45	--	75	--	97	99	100	--			VPWC
Dec. 28.....	1700	45		9940	2980		29	40	50	64	77	83	96	100	--			VPWC
Jan. 5, 1966.....	0900	52		26500	3100		22	29	38	46	54	58	65	79	89	100		VPWC
Jan. 5.....	1700	54		14300	1740		--	35	--	57	--	80	88	99	100			VPWC
Jan. 29.....	1700	48		4080	1920		32	38	48	59	75	87	97	100	--			VPWC

11-4640. RUSSIAN RIVER NEAR HEALDSBURG, CALIF.

LOCATION.--Lat 38°36'48", long 122°50'07". temperature recorder at gaging station in Sotoyome Grant, 2 miles east of Healdsburg, Sonoma County, and 3.5 miles upstream from Dry Creek.
DRAINAGE AREA.--793 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1965.
Water temperatures: October 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 79°F June 19, Aug. 6, 7; minimum, 43°F Dec. 21-23, Jan. 26.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Nov. 10, 1965....	327	--		--	--	8.4	--	134	4	--	4.3		--	0.5	--	--		119	3	0.3	257	8.4
Jan. 19, 1966....	1400	--		--	--	8.2	--	146	0	--	3.8		--	.2	--	--		128	8	.3	277	7.9
Mar. 8.....	1320	--		--	--	7.7	--	122	3	--	3.1		--	.1	--	--		109	4	.3	237	8.4
May 3.....	487	13		26	13	8.8	1.1	145	0	14	5.2		1.5	.3	154	0.21		120	1	.3	262	8.1
July 12.....	--	--		--	--	8.2	--	139	4	--	3.8		--	.2	--	--		122	1	.3	259	8.4
Sept. 23.....	200	13		25	13	8.0	1.2	140	0	11	3.2		.2	.4	146	.20		116	1	.3	249	8.0

11-4640. RUSSIAN RIVER NEAR HEALDSBURG, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	---	---	---	---	---	---	71	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	64	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
November																																
Maximum	---	---	---	---	---	61	60	62	60	60	62	60	59	58	59	59	59	59	58	58	57	57	56	56	51	50	52	52	52	53	---	57
Minimum	---	---	---	---	---	57	59	59	58	56	59	59	57	56	58	58	58	57	57	57	55	55	55	51	50	49	50	49	50	51	---	55
December																																
Maximum	53	53	53	53	53	54	53	52	53	52	52	52	51	49	47	46	46	46	46	46	44	46	46	49	49	49	49	49	50	50	48	50
Minimum	51	52	52	52	52	52	51	51	51	51	50	50	49	47	45	44	44	44	44	44	43	43	43	46	47	47	47	46	49	48	47	48
January																																
Maximum	47	47	49	51	53	55	55	53	52	50	49	48	48	49	50	50	50	48	48	48	47	48	48	47	48	45	46	47	47	47	47	49
Minimum	46	45	47	49	51	53	53	52	50	49	47	47	47	48	49	49	48	47	47	46	46	47	47	46	45	43	44	46	47	46	46	48
February																																
Maximum	48	47	47	49	50	50	48	47	48	49	49	49	48	48	48	49	49	49	50	51	51	51	52	52	51	49	49	49	---	---	---	49
Minimum	46	46	47	47	49	48	47	46	46	47	47	47	46	46	46	46	47	49	48	49	49	51	51	51	48	46	46	48	---	---	---	48
March																																
Maximum	49	48	47	47	49	52	53	53	53	53	53	53	54	55	55	54	53	53	54	54	56	56	57	58	58	58	58	59	60	62	63	54
Minimum	48	46	45	45	47	49	52	52	52	52	52	52	53	54	53	51	50	51	52	52	53	53	54	55	56	57	57	58	59	59	61	53
April																																
Maximum	65	64	65	63	64	60	64	65	60	58	59	60	61	64	66	67	64	65	65	65	67	68	71	72	71	70	69	69	70	70	---	65
Minimum	60	58	58	59	58	57	58	58	57	56	56	55	54	57	60	61	59	59	58	57	57	59	61	62	62	60	59	60	60	61	---	59
May																																
Maximum	71	72	69	70	66	70	71	71	65	63	69	71	71	69	71	72	73	74	74	74	68	73	74	73	73	72	72	70	66	65	68	70
Minimum	61	62	62	62	61	61	62	63	61	60	60	62	63	61	60	61	62	63	62	63	61	60	61	63	67	66	67	66	61	61	62	62
June																																
Maximum	68	68	67	69	68	67	69	72	74	74	73	74	78	79	79	78	78	78	79	76	74	73	74	76	76	77	78	78	78	78	---	74
Minimum	63	63	63	64	67	65	63	67	69	69	68	69	72	75	75	73	72	73	75	72	70	68	70	71	72	72	72	73	73	73	---	70
July																																
Maximum	77	76	76	77	77	76	75	74	72	75	75	75	76	76	76	76	77	78	78	77	78	78	78	78	78	77	77	76	75	73	76	76
Minimum	73	73	72	72	73	72	71	70	69	70	72	72	72	71	71	71	72	73	73	73	73	74	73	73	73	72	72	72	70	71	71	72
August																																
Maximum	78	78	77	78	78	79	79	78	78	77	75	75	74	75	77	77	78	77	75	74	73	72	73	74	74	74	75	75	73	71	72	76
Minimum	73	73	73	73	73	74	74	74	74	73	72	71	71	70	71	72	74	74	72	71	70	69	69	70	70	70	71	71	70	68	67	72
September																																
Maximum	74	74	74	74	74	72	70	71	72	72	72	68	68	67	69	71	73	73	72	71	71	71	71	71	71	73	72	74	74	73	---	72
Minimum	69	70	70	70	70	69	69	67	67	68	68	65	65	63	63	63	64	68	65	64	63	63	63	64	63	64	64	66	66	63	---	66

11-4645. DRY CREEK NEAR CLOVERDALE, CALIF.

LOCATION.--Lat 38°44'59", long 123°05'28", temperature recorder at gaging station on left bank 500 feet (revised) downstream from Smith Creek, and 5 miles southwest of Cloverdale, Sonoma County.
DRAINAGE AREA.--87.8 square miles.
RECORDS AVAILABLE.--Water temperatures: May 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 92°F Aug. 6, 7.
EXTREMES, May 1965 to September 1966.--Water temperatures: Maximum, 92°F Aug. 6, 7, 1966.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	71	72	70	65	70	68	68	68	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	60	61	62	63	63	60	60	60	59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	63	62	64	60	58	58	59	59	59	57	58	58	58	56	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	56	56	58	58	57	57	58	58	55	55	55	54	53	53	--	--	--	--	--	--	--	--	--	--
December																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	44	44	44	--	--	--	--	--	--	--	--	--	49	49	48	47	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	38	37	38	--	--	--	--	--	--	--	--	--	48	48	46	45	--
January																																
Maximum	47	50	52	53	53	54	55	55	53	52	51	50	50	50	51	48	48	47	48	47	46	49	49	49	47	47	49	49	48	48	49	50
Minimum	46	47	50	52	50	52	54	53	50	49	48	46	46	46	47	44	43	42	44	42	41	45	44	44	44	45	44	42	47	46	48	46
February																																
Maximum	49	49	49	50	52	52	51	50	51	52	50	51	51	51	51	52	52	49	53	54	54	52	55	53	50	52	52	52	--	--	--	51
Minimum	47	48	48	49	50	49	48	48	48	48	46	46	45	45	45	45	45	47	48	49	49	50	50	49	47	45	45	47	--	--	--	47
March																																
Maximum	52	51	51	47	51	56	55	54	52	55	56	55	59	56	54	55	55	55	59	57	59	60	60	61	61	63	63	67	68	69	70	58
Minimum	45	44	42	43	46	49	50	51	51	51	51	50	52	52	50	47	45	45	48	47	50	48	48	49	51	53	53	54	54	54	55	49
April																																
Maximum	70	69	70	68	69	64	70	68	60	62	60	66	68	70	72	74	71	70	70	69	71	72	75	75	74	73	73	73	74	--	--	70
Minimum	55	56	56	59	58	59	57	57	57	56	55	53	53	54	55	57	59	56	55	53	55	56	57	58	59	57	56	57	57	--	--	56
May																																
Maximum	--	--	--	--	75	71	67	76	79	63	67	76	75	73	72	74	74	76	77	77	77	75	77	78	78	79	78	77	74	65	79	74
Minimum	--	--	--	--	60	62	63	61	63	61	60	59	59	61	58	59	59	60	62	63	65	65	62	63	64	65	65	65	64	61	60	62
June																																
Maximum	73	72	73	76	63	75	75	75	81	80	82	81	84	87	84	82	83	83	82	78	77	80	79	82	82	81	83	82	81	82	--	79
Minimum	59	59	59	59	59	59	57	60	63	65	66	65	65	67	69	68	66	67	66	65	63	63	64	64	63	64	64	65	64	64	--	63
July																																
Maximum	80	80	82	83	82	80	82	73	76	77	78	79	80	83	83	83	83	83	84	84	84	85	87	86	88	86	84	84	84	76	90	82
Minimum	64	63	63	64	65	66	65	66	65	64	64	62	63	65	64	64	65	66	65	65	66	67	66	66	64	64	65	64	65	64	64	65
August																																
Maximum	90	87	86	89	90	92	92	90	89	89	86	84	84	86	88	90	90	87	84	84	82	81	84	86	84	87	88	87	85	83	84	87
Minimum	63	64	64	65	65	65	64	63	65	64	65	62	63	62	62	64	64	64	63	64	64	64	62	59	60	60	60	61	59	60	62	63
September																																
Maximum	83	84	84	86	82	80	73	83	84	84	80	80	72	82	83	85	87	82	81	80	80	80	80	82	80	79	82	83	80	68	--	81
Minimum	60	60	62	60	61	62	61	60	58	58	58	56	58	55	55	55	59	64	61	60	59	58	58	59	58	60	57	57	57	62	--	59

11-4652. DRY CREEK NEAR GEYSERVILLE, CALIF.

LOCATION.--Lat 38°41'55", long 122°57'25", at gaging station in Tzabaco Grant, 0.3 mile downstream from Pena Creek, and 3 miles west of Geyserville, Sonoma County.
DRAINAGE AREA.--162 square miles.
RECORDS AVAILABLE.--Water temperatures: March 1964 to September 1966.
Sediment records: March 1964 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 77°F Oct. 6; minimum, 43°F on several days during December.
Sediment concentrations: Maximum daily, 8,230 ppm Jan. 4; minimum daily, 1 ppm on several days.
Sediment loads: Maximum daily, 293,000 tons Jan. 4; minimum daily, less than 0.05 ton on many days.
EXTREMES, 1964-66.--Water temperatures; Maximum, 77°F Sept. 15, 30, Oct. 6, 1965; minimum, 43°F on several days during January and December 1965.
Sediment concentrations: Maximum daily, (estimated) 15,000 ppm Dec. 22, 1964; minimum daily, no flow on many days in 1964.
Sediment loads: Maximum daily, (estimated) 830,000 tons Dec. 22, 1964; minimum daily, 0 ton on many days in 1964.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	75	74	74	70	72	77	74	72	65	72	73	72	72	64	67	66	67	65	69	68	69	69	69	69	68	67	67	69	68	65	65	69
Minimum	59	59	58	60	62	61	61	62	63	62	61	60	60	59	58	57	57	59	59	58	58	58	58	59	58	57	56	58	58	57	56	59
November																																
Maximum	62	64	65	66	64	62	59	63	60	60	61	58	57	57	59	58	58	--	--	--	--	--	--	--	--	--	--	--	--	52	--	--
Minimum	58	56	57	59	56	54	58	58	55	54	56	57	54	55	57	56	55	--	--	--	--	--	--	--	--	--	--	--	--	48	--	--
December																																
Maximum	--	--	--	--	--	--	--	--	--	--	52	51	50	49	47	47	47	47	47	46	46	47	47	48	47	47	48	50	51	50	49	--
Minimum	--	--	--	--	--	--	--	--	--	--	49	48	47	46	44	43	43	43	43	43	43	44	43	46	45	44	46	48	49	49	47	--
January																																
Maximum	48	48	51	53	55	56	56	55	53	53	52	52	52	52	53	52	51	51	51	51	50	51	51	51	51	51	52	52	52	50	50	52
Minimum	46	47	48	51	53	55	55	53	50	51	49	49	49	50	50	49	48	48	49	47	48	50	48	48	49	50	49	49	49	48	47	49
February																																
Maximum	51	51	50	53	53	52	51	50	51	52	50	52	51	51	51	52	52	49	52	53	53	52	55	54	51	53	54	53	--	--	--	52
Minimum	49	49	49	49	52	50	47	46	47	48	46	47	44	45	46	45	45	48	47	48	48	50	51	50	48	46	46	48	--	--	--	48
March																																
Maximum	52	52	52	48	52	56	55	55	53	57	57	56	60	56	55	56	55	54	58	57	58	59	60	61	60	62	62	--	--	--	--	56
Minimum	47	45	44	45	48	50	51	52	52	52	50	51	53	53	52	49	47	49	51	48	51	49	50	50	53	54	54	--	--	--	--	50
April																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	65	66	68	69	66	66	65	65	66	67	68	69	69	68	68	68	69	69	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	53	54	56	57	59	56	55	54	55	56	57	58	58	57	56	57	57	58	--	--
May																																
Maximum	70	70	65	70	62	68	68	67	65	63	68	68	68	66	67	67	68	69	68	69	67	69	69	69	69	69	69	67	64	65	67	67
Minimum	57	58	62	59	59	60	61	61	61	60	60	60	61	58	59	59	60	61	63	63	63	63	63	64	64	64	64	63	62	61	61	61
June																																
Maximum	67	66	70	68	66	65	68	70	70	70	70	70	72	74	73	72	73	74	74	72	71	72	70	73	74	74	75	75	75	75	--	71
Minimum	61	60	60	61	63	63	60	64	63	64	63	63	65	67	68	67	66	67	67	64	64	64	64	64	64	63	64	64	65	64	--	64
July																																
Maximum	74	74	74	74	75	73	74	68	70	74	72	73	74	74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	64	63	64	64	65	64	64	64	64	64	64	64	64	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
August																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	74	74	74	74	74	74	74	73	73	72	73	73	73	72	72	72	72	68	72	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	66	66	65	66	66	66	66	66	66	66	65	64	65	65	66	66	66	66	64	--
September																																
Maximum	72	72	72	71	71	70	68	70	70	70	69	68	67	67	66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	65	65	66	66	65	66	65	65	64	65	65	65	64	64	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

11-4652. DRY CREEK NEAR GEYSERVILLE, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	1.0			1.3	--	T	152	17	7.0
2	1.0			1.3	--	T	136	12	4.4
3	1.0			1.4	--	T	122	10	3.3
4	1.0			1.5	--	T	110	8	2.4
5	1.4			1.5	--	T	98	7 B	1.9
6	1.9			1.5	--	T	89	7 B	1.7
7	2.2			2.0	--	0.1	82	6	1.3
8	2.6			7.0	39	.7	77	5 B	1.0
9	2.7			17	--	.9	72	5	1.0
10	2.9			14	15	.6	68	6	1.1
11	2.9			13	--	.3	79	8 S	2.1
12	2.7			17	5	.2	193	108 S	60
13	2.5			600	--	490	130	17 S	6.1
14	2.2			1700	2650	12200	110	9	2.7
15	2.0			1270	1200	4110	100	5	1.3
16	2.0			402	138 S	168	93	3	.8
17	2.1			615	824 K	2870	84	4	.9
18	2.2			1110	1240 K	3860	74	7	1.4
19	2.2			695	386 S	780	69	5	.9
20	2.2			370	82	82	60	3	.5
21	2.2			246	68	45	59	3	.5
22	2.0			182	50	25	58	2	.3
23	1.8			152	25	10	56	2	.3
24	1.7			718	717 S	1490	676	806 K	3270
25	1.6			648	200	350	750	479 S	1010
26	1.4			454	160	196	430	420	488
27	1.3			363	160	157	363	144 S	140
28	1.2			279	70	53	3870	3800 S	48600
29	1.2			216	34	20	2280	1250 S	8210
30	1.3			180	24	12	1390	650	2440
31	1.3			---	---	---	1330	1250 S	4520
Total	57.7	--	0.9	10278.5	--	26920.9	13260	--	68780.9

Day	JANUARY			FEBRUARY			MARCH		
1	964	1100	2860	1870	2200 S	11900	390	33	35
2	745	380	764	1230	530	1760	349	44	41
3	991	743 S	2410	1790	1390 K	11100	321	49	42
4	9580	8230 S	293000	4430	1120 K	14000	297	38	30
5	10400	6400 S	203000	2530	600	4100	282	39	30
6	3560	1570 S	16400	1620	500	2190	267	49	35
7	2180	640	3770	1180	260	828	252	45	31
8	1560	520	2190	958	150	388	240	34	22
9	1140	415	1280	780	112	236	668	390 K	990
10	904	320	781	661	88	157	810	281 K	615
11	730	200	394	553	72	108	566	240	367
12	612	150	248	486	68	89	474	148	189
13	526	62	88	430	62	72	474	162	207
14	454	60	74	386	50	52	406	113	124
15	398	56	60	346	52	49	394	112	119
16	342	48	44	318	70	60	394	98	104
17	300	45	36	291	310	244	349	65	61
18	279	39	29	282	430	327	314	58	49
19	255	23	16	925	555 S	1500	297	73	59
20	234	15	9.5	580	240	376	273	43	32
21	222	13	7.8	466	170	214	261	33	23
22	210	13	7.4	450	135	164	249	32	22
23	200	10	5.4	446	88	106	231	26	16
24	185	12	6.0	458	91 S	113	216	24	14
25	170	11 B	5.0	486	69 K	91	202	24	13
26	162	7	3.1	548	56	83	192	31	16
27	158	6	2.6	458	56	69	182	20	9.8
28	150	4	1.6	422	42	48	172	14	6.5
29	1100	2560 K	15100	---	---	---	165	10	4.5
30	2520	2670 S	19500	---	---	---	156	12	5.1
31	1300	1450	5090	---	---	---	152	19	7.8
Total	42531	--	567182.4	25380	--	50424	9995	--	3319.7

S Computed by subdividing day.
T Less than 0.05 ton.
B Computed from estimated-concentration graph.
K Computed from estimated-concentration graph and subdividing day.

11-4652. DRY CREEK NEAR GEYSERVILLE, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	148	13	5.2	63	--	1.0	28	--	0.3
2	142	--	4.6	60	--	1.0	28	--	.4
3	140	--	4.5	58	6	.9	25	6	.4
4	134	--	4.7	58	--	.5	23	--	.4
5	132	19	6.8	44	--	.8	23	--	.5
6	130	14 B	4.9	55	8	1.2	23	--	.6
7	126	11 B	3.7	56	--	1.2	24	10	.6
8	120	10	3.2	53	--	1.3	24	--	.3
9	126	11 B	3.7	52	--	1.3	23	2	.1
10	154	14 B	5.8	56	10	1.5	20	15	.8
11	154	10 B	4.2	56	--	1.4	18	--	.6
12	234	298 S	188	52	--	1.1	17	--	.6
13	160	60 B	26	41	6	.7	15	--	.4
14	142	11 B	4.2	41	--	.7	14	9	.3
15	132	11	3.9	41	--	.6	14	--	.4
16	122	--	3.6	41	--	.6	14	--	.3
17	114	--	3.1	39	4	.4	13	7	.2
18	110	--	3.0	36	--	.4	13	--	.2
19	102	9	2.5	33	--	.4	12	--	.2
20	96	--	2.3	32	5	.4	12	--	.2
21	95	--	2.3	33	--	.4	11	5	.1
22	89	6	1.4	31	--	.4	11	--	.1
23	86	--	1.9	29	--	.4	10	--	.1
24	80	--	1.7	29	5	.4	9.7	5	.1
25	74	--	1.6	29	--	.4	9.3	--	.1
26	74	7	1.4	26	--	.4	9.0	--	.1
27	77	--	1.5	25	6	.4	8.6	--	.1
28	72	--	1.4	27	--	.4	8.2	5	.1
29	68	--	1.3	27	--	.4	7.8	--	.1
30	68	--	1.3	28	--	.3	7.5	--	.1
31	--	--	--	28	3	.2	--	--	--
Total	3501	--	303.7	1279	--	21.5	475.1	--	8.8

	JULY			AUGUST			SEPTEMBER		
1	7.2		0.1	1.9			0.6		
2	7.0		.1	1.8			.6		
3	6.6		.1	1.7			.6		
4	6.3		.1	1.6			.5		
5	6.0		.1	1.5			.5		
6	5.8		.1	1.4			.5		
7	5.6		.1	1.2			.6		
8	5.4		T	1.1			.5		
9	5.2		T	1.0			.5		
10	5.0		T	.8			.4		
11	4.8		T	.7			.4		
12	4.6		T	.6	1		.4		
13	4.4		T	.6			.4		
14	4.2	3	T	.6			.4		
15	4.1		T	.6			.3		
16	4.0		T	.6			.3		
17	3.9		T	.6			.2		
18	3.7		T	.6			.1		
19	3.6		T	.6			.1		
20	3.5		T	.6			.1		
21	3.3		T	.6			.1		
22	3.2		T	.6			.1		
23	3.1		T	.6			.1		
24	2.9		T	.6			.1		
25	2.8		T	.6			.1		
26	2.7		T	.6			.1		
27	2.5		T	.6			.1		
28	2.4		T	.6			.1		
29	2.3		T	.6			.1		
30	2.1		T	.6			.1		
31	2.0		T	.6			--		
Total	130.2	--	1.4	26.7	--	0.1	9.0	--	T

Total discharge for year (cfs-days)..... 106923.2
Total load for year (tons)..... 716964.3

S Computed by subdividing day.
T Less than 0.05 ton.
B Computed from estimated concentration graph.

11-4652. DRY CREEK NEAR GEYSERVILLE, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 15, 1965.....	0800	58		1650	1420	6330	--	--	--	--	--	75	84	93	100	--		V
Nov. 24.....	0830	50		952	1080	2780	--	--	--	--	--	88	93	98	100	--		V
Nov. 26.....	1045	48		438	149	176	--	--	--	--	--	62	--	--	--	--		S
Nov. 27.....	1000	55		374	187	189	--	--	--	--	--	75	--	--	--	--		S
Dec. 10.....	1700	55		71	11	2.1	--	--	--	--	--	59	--	--	--	--		S
Dec. 28.....	0930	54		3350	6850	62000	17	25	32	44	56	64	80	95	99	100		VPWC
Dec. 30.....	0845	47		1400	681	2570	--	--	--	--	--	60	--	--	--	--		S
Dec. 31.....	0945	47		1370	1120	4140	--	--	--	--	--	61	--	--	--	--		S
Jan. 1, 1966.....	0930	47		988	1290	3440	--	--	--	--	--	61	--	--	--	--		S
Jan. 4.....	1145	52		9700	7060	185000	19	24	34	44	58	69	86	96	99	100		V
Jan. 5.....	0900	54		10900	6990	206000	--	--	--	--	--	61	--	--	--	--		S
Jan. 6.....	0900	55		3640	1580	15500	--	--	--	--	--	61	--	--	--	--		S
Jan. 7.....	1645	55		1990	618	3320	--	--	--	--	--	70	--	--	--	--		V
Jan. 7.....	1520	54		2020	444	2420	--	--	--	--	--	90	99	100	--	--		V
Jan. 29.....	0830	47		144	11	4.3	--	--	--	--	--	67	--	--	--	--		S
Feb. 1.....	0830	49		3180	3030	26000	--	27	--	43	--	68	90	95	100	--		VPWC
Feb. 7.....	0830	49		1210	281	918	--	--	--	--	--	95	--	--	--	--		S
Feb. 23.....	0930	51		450	88	107	--	--	--	--	--	76	--	--	--	--		S
Feb. 23.....	1250	52		446	68	82	--	--	--	--	--	50	56	89	100	--		V
Feb. 24.....	0830	49		486	124	163	--	--	--	--	--	53	--	--	--	--		S

11-4670. RUSSIAN RIVER NEAR GUERNEVILLE, CALIF.
(Formerly published as Russian River at Guerneville, Calif.)

LOCATION (revised).--Lat 38°30'00", long 122°56'05", temperature recorder at gaging station on left bank 0.6 mile downstream from Hobson Creek and 3.4 miles east of Guerneville, Sonoma County.
DRAINAGE AREA.--1,340 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1965.
Water temperatures: January 1964 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 80°F July 19, 20; minimum, 42°F on several days during December.
EXTREMES, 1964-66.--Water temperatures: Maximum, 83°F June 24, 1964; minimum (1965-66), 42°F on several days during December 1965.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Nov. 9, 1965.....	360	--		--	--	18	--	154	0	--	14		--	0.4	--	--		129	3	0.7	327	8.2
Jan. 11, 1966....	7850	--		--	--	6.8	--	98	0	--	4.0		--	.2	--	--		86	6	.3	197	7.8
Mar. 30.....	1180	--		--	--	10	--	157	0	--	5.2		--	.2	--	--		131	2	.4	287	8.2
May 3.....	610	13		28	15	11	1.1	156	0	15	6.0		2.0	.3	A 168	0.23		131	3	.4	288	7.8
July 12.....	178	--		--	--	11	--	157	4	--	6.6		--	.2	--	--		137	2	.4	298	8.4
Sept. 21.....	208	13		27	15	11	1.4	156	0	12	6.4		1.0	.3	167	.23		129	1	.4	287	8.0

A Calculated from sum of determined constituents.

RUSSIAN RIVER BASIN--Continued

11-4670. RUSSIAN RIVER NEAR GUERNEVILLE, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	68	68	68	67	67	69	69	67	67	67	67	67	67	65	63	61	61	62	63	64	64	63	63	63	64	64	63	63	63	63	62	65
Minimum	65	66	66	65	66	65	66	66	66	65	65	65	65	63	61	60	60	60	62	62	62	61	61	61	62	62	61	61	61	61	61	63
November																																
Maximum	61	60	61	62	61	61	60	59	58	58	59	57	57	57	56	56	55	55	55	54	54	54	53	52	51	48	48	48	48	48	--	56
Minimum	60	60	60	60	60	59	59	59	57	57	57	57	57	56	56	55	55	55	54	54	54	53	52	51	48	47	47	48	48	47	--	55
December																																
Maximum	47	47	47	47	47	47	47	46	46	46	46	46	46	46	44	43	42	42	42	42	42	42	42	43	43	43	43	44	44	44	44	45
Minimum	47	47	47	47	47	47	46	46	46	46	46	46	46	43	43	42	42	42	42	42	42	42	42	42	43	43	43	43	44	44	44	44
January																																
Maximum	44	43	44	46	48	49	50	50	50	49	47	47	47	48	48	49	49	49	49	49	49	48	48	49	49	49	49	49	48	48	48	48
Minimum	43	43	43	44	46	48	49	50	49	47	47	47	47	47	48	48	49	49	49	48	48	48	48	48	49	49	49	48	48	48	47	47
February																																
Maximum	47	47	47	48	49	49	49	48	47	48	48	48	48	48	49	50	50	50	51	51	51	51	53	53	53	51	50	50	--	--	--	49
Minimum	47	47	46	47	48	49	47	47	47	47	48	48	48	48	48	49	50	50	50	51	51	51	51	53	51	49	49	50	--	--	--	49
March																																
Maximum	50	50	49	47	49	52	53	53	53	53	53	53	55	55	55	55	52	51	54	54	54	54	56	57	57	57	56	58	59	61	62	54
Minimum	50	49	47	47	47	49	52	53	53	53	53	53	53	55	55	52	51	51	51	53	52	53	54	55	57	56	56	56	58	58	60	53
April																																
Maximum	62	62	63	62	62	62	60	61	61	60	58	58	59	62	64	65	65	63	62	61	61	62	65	66	67	66	66	65	64	64	--	63
Minimum	61	62	62	62	61	60	59	60	60	58	58	58	58	59	61	63	63	60	60	60	60	61	62	65	66	66	64	64	64	64	--	61
May																																
Maximum	65	66	66	65	64	64	64	65	66	64	62	64	65	65	65	66	67	70	70	72	69	66	69	70	68	68	68	68	65	64	65	66
Minimum	64	65	65	64	62	62	64	64	64	62	60	62	64	64	63	64	65	66	67	68	65	63	63	65	66	65	66	65	63	62	60	64
June																																
Maximum	66	66	66	66	66	66	66	69	70	71	71	72	74	76	77	76	76	77	77	76	76	76	74	73	77	78	79	79	79	79	--	73
Minimum	62	62	62	63	64	64	64	64	66	67	67	68	70	73	74	74	73	72	74	74	73	72	72	71	72	73	73	74	73	73	--	69
July																																
Maximum	78	77	77	76	76	76	74	73	70	69	71	72	74	75	76	76	77	79	80	80	79	79	78	78	78	78	77	77	76	74	76	76
Minimum	73	72	72	72	72	72	71	70	68	68	68	69	68	70	72	73	74	75	76	76	75	75	75	75	74	74	74	73	72	71	72	72
August																																
Maximum	77	77	77	77	77	78	78	74	77	76	75	74	74	74	75	75	76	76	76	74	73	72	72	71	71	73	74	74	74	72	71	75
Minimum	72	73	73	73	74	74	74	77	73	73	73	71	71	70	70	71	71	72	72	71	70	69	68	67	68	68	70	70	70	69	68	71
September																																
Maximum	72	72	73	73	73	72	70	70	70	70	70	70	68	67	68	69	70	71	--	--	--	--	69	70	70	70	70	71	71	70	--	70
Minimum	68	68	69	69	69	70	68	67	66	66	67	66	65	64	64	64	66	68	--	--	--	--	66	67	67	68	68	67	68	69	--	67

11-4670. RUSSIAN RIVER NEAR GUERNEVILLE, CALIF.--Continued

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 12, 1965.....	1530	--		335	66	60						--	--	--				
Nov. 13.....	0905	59		566	71	109						--	--	--				
Nov. 14.....	0830	56		6640	1410	25300						92	95	100				V
Nov. 14.....	1155	57		8870	1260	29800						--	--	--				
Nov. 15.....	0830	--		7880	772	16400						--	--	--				
Nov. 16.....	0845	57		4370	404	4770						--	--	--				
Nov. 17.....	0815	58		3970	184	1970						--	--	--				
Nov. 18.....	0845	--		7770	738	15500						94	96	100				V
Nov. 19.....	0915	56		9180	700	17400						--	--	--				
Nov. 23.....	1400	55		1620	50	219						--	--	--				
Nov. 25.....	1100	49		5740	220	3410						96	98	100				S
Nov. 26.....	0935	48		5100	154	2120						95	97	100				S
Nov. 27.....	1500	52		3370	105	955						86	--	--				S
Nov. 29.....	1115	49		2010	41	223						--	--	--				
Dec. 2.....	0930	50		1050	24	68						--	--	--				
Dec. 6.....	0920	49		629	20	34						--	--	--				
Dec. 14.....	0900	45		902	25	61						--	--	--				
Jan. 2, 1966.....	--	42		6940	181	3390						--	--	--				
Feb. 24.....	1225	52		2570	41	284						93	98	100				S
Mar. 14.....	1600	51		2730	51	376						--	--	--				
Mar. 18.....	1600	52		2450	38	251						--	--	--				
Mar. 22.....	1700	57		1920	27	140						--	--	--				
Mar. 27.....	1400	58		1400	20	76						--	--	--				
Mar. 29.....	1600	62		1260	20	68						--	--	--				
Apr. 3.....	1600	61		968	14	37						--	--	--				
Apr. 6.....	1600	61		888	13	31						--	--	--				
Apr. 12.....	1700	59		1620	30	131						--	--	--				
May 4.....	1215	66		606	21	34						--	--	--				
May 6.....	1405	66		603	18	29						--	--	--				
May 9.....	1035	64		582	18	28						--	--	--				
May 11.....	1350	67		617	42	70						--	--	--				
May 13.....	1520	70		624	25	42						--	--	--				
May 16.....	1040	68		526	17	24						--	--	--				
May 18.....	1520	76		389	11	12						--	--	--				
May 20.....	1315	72		305	17	14						--	--	--				
May 23.....	0950	64		255	16	11						--	--	--				

May 25, 1966.....	1820	67		178	17	8.2						--	--	--			
May 27.....	1615	72		183	19	9.4						--	--	--			
May 30.....	1815	68		203	23	13						--	--	--			
June 1.....	1740	68		195	30	16						--	--	--			
June 3.....	1400	65		183	46	23						--	--	--			
June 6.....	1615	64		173	28	13						--	--	--			
June 8.....	1525	72		180	15	7.3						--	--	--			
June 10.....	1955	76		160	15	6.5						--	--	--			
June 13.....	0815	72		144	15	5.8						--	--	--			
June 15.....	0810	78		130	21	7.4						--	--	--			
June 17.....	0740	78		116	23	7.2						--	--	--			
June 20.....	0815	66		110	15	4.5						--	--	--			
June 22.....	0820	66		116	28	8.8						--	--	--			
June 24.....	0645	78		132	36	13						--	--	--			
June 27.....	0820	78		165	22	9.8						--	--	--			
July 4.....	0730	74		173	27	13						--	--	--			
July 6.....	0840	72		170	29	13						--	--	--			
July 11.....	0745	70		178	27	13						--	--	--			
July 13.....	0735	70		173	34	16						--	--	--			
July 29.....	1415	73		160	18	7.8						--	--	--			
Aug. 18.....	0935	72		175	25	12						--	--	--			

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966

(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
11-4632. BIG SULPHUR CREEK NEAR CLOVERDALE, CALIF. (384921 1225907)																	
Nov. 8, 1965	1330	59		32	64	5.5						98	100					S
Dec. 18	1510	40		36	9	.9												
Jan. 22, 1966	1600	40		129	4	1.4												
Feb. 18	1030	40		161	6	2.6												
Mar. 24	1345	59		132	4	1.4												
Apr. 21	1400	63		72	2	.4												
May 19	1245	71		30	3	.2												
June 16	1245	72		13	2	.1												
July 18	1145	77		8.0	1	T												
Aug. 3	0725	79		5.8	2	T												
Aug. 13	0900	68		5.0	1	T												
Sept. 2	1230	77		4.6	1	T												
Sept. 30	1000	67		3.3	1	T												
11-4639. MAACAMA CREEK NEAR KELLOGG, CALIF. (383825 1224545)																	
Nov. 8, 1965	1110	56		3.8	5	0.1												
Dec. 14	1340	46		20	76	4.1												
Jan. 5, 1966	1550	---		2460	874	5810						51	68	83	94	100		V
Jan. 19	1250	42		65	3	.5												
Feb. 25	1110	46		123	5	1.7												
Feb. 27	1115	46		126	3	1.0												
Mar. 30	1520	62		31	3	.3												
May 2	1145	62		19	2	.1												
June 10	1140	63		6.4	1	T												
July 12	0945	65		3.1	1	T												

T Less than 0.05 ton.

MISCELLANEOUS ANALYSES OF STREAMS IN GUALALA RIVER BASIN

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
11-4675. SOUTH FORK GUALALA RIVER NEAR ANNAPOLIS, CALIF. (384214 1232513)																						
Nov. 16, 1965....	460	--		--	--	8.4	--	88	0	--	6.7		--	0.0	--	--		77	5	0.4	188	8.1
Jan. 19, 1966....	185	--		--	--	8.2	--	92	0	--	5.7		--	.0	--	--		78	3	.4	191	7.8
Mar. 17.....	485	--		--	--	8.4	--	85	0	--	4.7		--	.0	--	--		72	2	.4	171	8.0
May 17.....	47	14		24	11	12	1.7	133	0	13	7.8		0.3	.1	157	0.21		105	0	.5	248	8.0
July 20.....	12	--		--	--	13	--	148	0	--	6.6		--	.0	--	--		114	0	.5	267	8.2
Sept. 9.....	2.5	19		27	12	14	1.5	155	0	9.0	6.4		.2	.2	A 165	.22		117	0	.6	276	7.7

A Calculated from sum of determined constituents.

11-4676. GARCIA RIVER NEAR POINT ARENA, CALIF.

LOCATION.--Lat 38°55'35", long 123°37'45", temperature recorder at gaging station on left bank 0.9 mile downstream from North Fork Garcia River, and 3.5 miles northeast of town of Point Arena, Mendocino County.
DRAINAGE AREA.--98.5 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1963 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 70°F May 18; minimum, 43°F Dec. 16, 17, Jan. 21.
EXTREMES, 1963-66.--Water temperatures: Maximum, 72°F June 22, 1964; minimum, 43°F Dec. 16, 17, 1965, Jan. 21, 1966.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	62	61	61	61	63	63	63	65	62	62	63	62	60	61	60	59	61	61	63	61	59	60	61	61	60	58	58	62	62	60	59	61
Minimum	57	56	55	55	59	59	57	59	60	59	56	57	57	57	55	53	54	58	59	56	54	56	57	58	58	57	56	56	55	55	55	57
November																																
Maximum	57	60	61	61	59	59	58	60	59	59	60	58	57	57	58	58	57	56	56	56	55	54	55	54	51	52	52	51	52	52	--	56
Minimum	56	54	57	58	55	52	57	57	54	54	56	56	56	56	57	56	55	54	54	54	53	53	53	51	50	50	50	48	49	49	--	54
December																																
Maximum	51	52	52	54	55	56	56	54	53	53	51	52	50	49	48	47	47	48	48	48	48	48	48	49	48	47	49	50	51	50	50	50
Minimum	48	48	48	50	52	53	53	52	51	50	49	49	47	46	44	43	43	44	44	44	44	45	44	48	47	44	46	49	50	48	48	47
January																																
Maximum	48	49	50	53	54	55	54	54	51	50	50	49	49	50	51	49	48	48	49	47	46	48	48	48	47	49	49	48	48	48	48	50
Minimum	46	47	49	50	53	54	53	51	50	49	49	47	47	48	48	47	45	45	46	44	43	46	45	45	45	47	46	44	47	46	46	47
February																																
Maximum	48	48	48	51	52	51	48	48	49	50	48	50	48	48	49	49	48	48	50	52	51	51	53	51	50	48	49	49	--	--	--	49
Minimum	47	46	47	48	51	48	47	46	46	48	45	47	44	44	44	44	44	45	48	48	48	49	49	49	46	44	45	46	--	--	--	47
March																																
Maximum	48	47	47	45	49	51	51	50	50	52	52	52	54	53	53	52	52	52	54	53	55	55	56	56	56	57	53	58	57	59	60	53
Minimum	45	44	42	42	45	47	48	49	49	49	48	48	50	51	50	48	46	47	49	47	49	47	49	49	51	50	51	51	52	52	53	48
April																																
Maximum	59	59	61	58	59	57	60	60	56	56	55	58	58	59	62	62	58	60	60	59	60	61	63	62	62	62	63	62	62	62	--	60
Minimum	53	52	53	54	54	54	53	54	54	54	53	51	50	51	52	54	54	52	52	50	51	52	53	54	57	54	53	54	53	54	--	53
May																																
Maximum	62	63	62	64	58	65	64	64	59	62	64	64	64	62	63	64	67	70	69	68	65	67	67	65	65	62	62	60	56	59	62	63
Minimum	54	55	56	56	55	57	57	57	58	57	56	56	56	55	55	56	56	59	60	60	60	59	58	56	56	56	55	55	55	54	53	56
June																																
Maximum	62	62	62	63	62	61	63	63	65	66	64	65	67	69	68	65	65	66	66	63	65	66	66	66	66	65	66	66	66	64	--	65
Minimum	54	53	54	54	55	57	56	56	56	58	56	56	56	58	59	58	55	58	58	58	57	57	60	54	58	58	58	60	58	58	--	57
July																																
Maximum	64	64	66	67	67	66	66	66	66	68	64	64	64	66	66	66	67	67	66	66	68	68	67	67	66	66	63	64	64	64	65	66
Minimum	58	58	58	59	51	60	61	62	62	62	61	59	60	59	60	60	61	60	60	60	61	62	62	61	60	60	60	59	59	58	57	60
August																																
Maximum	65	64	64	65	64	65	65	66	66	67	66	67	66	67	67	67	68	65	--	--	--	--	65	64	66	65	64	66	65	66	65	66
Minimum	60	59	59	59	59	59	59	59	60	60	61	61	60	60	60	60	59	60	--	--	--	--	60	58	60	61	59	59	60	60	62	60
September																																
Maximum	66	66	67	67	66	66	64	66	65	65	64	64	65	64	64	66	67	65	66	66	66	66	66	66	67	66	67	66	65	63	--	66
Minimum	59	60	60	60	60	60	61	61	60	60	59	58	60	58	58	58	61	61	60	60	60	60	60	60	60	61	59	60	59	60	--	60

NAVARRO RIVER BASIN

11-4680. NAVARRO RIVER NEAR NAVARRO, CALIF.

LOCATION.--Lat 39°10'15", long 123°39'55", temperature recorder at gaging station 2.7 miles downstream from North Fork, 5.4 miles upstream from mouth, and 6.6 miles west of Navarro, Mendocino County.
DRAINAGE AREA.--303 square miles.
RECORDS AVAILABLE.--Chemical analyses: January 1959 to July 1965.
Water temperatures: October 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 77°F Aug. 20.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Nov. 12, 1965....	63					13		150	3		8.2			0.2				121	0	0.5	285	8.4
Jan. 14, 1966....	560					8.6		85	0		5.8			.1				71	1	.4	177	7.6
Mar. 17.....	630					12		85	0		11			.0				70	0	.6	195	8.2
May 17.....	63	16		26	10	12	1.4	136	0	12	7.9		0.1	.2	154	0.21		106	0	.5	255	7.9
July 20.....	13					13		142	4		7.4			.0				115	0	.5	270	8.4

NAVARRO RIVER BASIN--Continued

11-4680. NAVARRO RIVER NEAR NAVARRO, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	64	63	64	60	63	65	65	63	61	63	64	63	62	60	61	58	59	60	64	61	61	61	61	61	61	61	61	62	62	60	59	62
Minimum	56	56	56	56	58	58	58	59	59	59	57	57	57	57	54	52	52	57	58	56	55	55	55	55	56	55	56	58	56	55	54	56
November																																
Maximum	58	59	60	62	60	57	57	58	56	57	58	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	55	54	56	59	56	54	56	56	54	54	55	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
December																																
Maximum	---	---	---	---	---	---	54	54	53	51	49	50	48	45	43	42	40	41	41	40	41	41	42	45	46	45	45	48	49	49	48	46
Minimum	---	---	---	---	---	---	53	53	51	49	48	48	45	43	42	40	39	39	39	39	39	39	39	42	45	44	44	46	48	48	47	44
January																																
Maximum	47	47	48	52	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	46	46	47	48	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
February																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
March																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
April																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	64	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	56	---	---
May																																
Maximum	64	66	65	67	62	67	66	67	65	66	67	68	65	64	64	65	65	68	68	68	69	68	68	68	67	67	67	65	64	62	64	66
Minimum	57	58	59	60	59	59	59	61	62	61	59	61	60	58	57	59	58	60	62	62	62	61	60	61	61	61	62	60	60	60	57	60
June																																
Maximum	64	64	64	66	64	63	67	68	69	70	70	71	74	75	75	74	73	74	74	71	71	70	72	73	73	73	74	73	72	71	---	70
Minimum	58	58	58	58	60	60	59	61	62	64	63	62	64	66	67	66	64	65	66	65	62	62	65	63	63	63	64	65	63	63	---	63
July																																
Maximum	70	70	71	71	72	72	71	71	69	70	70	70	70	70	71	69	72	71	69	70	70	70	70	69	72	72	70	70	70	68	71	70
Minimum	63	62	62	63	64	64	64	64	64	63	64	64	64	64	64	64	65	65	64	64	64	64	62	62	64	64	63	64	64	64	63	64
August																																
Maximum	69	70	71	72	72	72	70	72	71	71	69	66	64	71	72	72	72	73	73	77	73	74	73	73	69	70	70	70	69	67	70	71
Minimum	63	64	64	64	64	64	65	65	65	64	65	64	63	62	63	64	65	66	65	64	65	65	65	65	64	65	65	64	64	64	64	64
September																																
Maximum	71	71	70	70	69	69	68	70	69	70	68	67	67	67	67	67	68	67	67	67	67	66	66	67	68	67	67	67	67	66	---	68
Minimum	65	65	64	63	63	64	65	64	64	65	64	61	63	61	61	61	63	65	63	63	62	62	63	63	64	64	62	62	62	62	---	63

MISCELLANEOUS ANALYSES OF STREAMS IN BIG RIVER BASIN

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
11-4681. BIG RIVER NEAR MOUTH, NEAR MENDOCINO, CALIF. (391852 1234215)																						
Nov. 11, 1965....		--		--	--	12	--	126	0	--	7.7		--	0.4	--	--		96	0	0.5	236	8.2
Jan. 13, 1966....		---		--	--	7.7	--	65	0	--	5.0		--	.1	--	--		52	0	.5	139	7.6
Mar. 16.....		--		--	--	7.3	--	67	0	--	4.8		--	.0	--	--		52	0	.4	137	8.1
May 16.....		16		19	6.4	11	1.4	100	0	8.0	6.8		0.1	.2	119	0.16		74	0	.6	192	7.9
July 19.....		--		--	--	12	--	112	0	--	6.2		--	.2	--	--		81	0	.6	208	7.7
Sept. 8.....		16		20	7.3	12	1.5	114	0	6.0	7.0		.1	.5	132	.18		80	0	.6	216	7.7

NOYO RIVER BASIN

11-4685. NOYO RIVER NEAR FORT BRAGG, CALIF.

LOCATION.--Lat 39°25'31", long 123°44'10", temperature recorder at gaging station 0.7 mile downstream from South Fork, and 3.5 miles east of Fort Bragg, Mendocino County.
DRAINAGE AREA.--106 square miles.
RECORDS AVAILABLE.--Chemical analyses: January 1959 to September 1965.
Water temperatures: December 1965 to September 1966.
EXTREMES, December 1965 to September 1966.--Water temperatures: Maximum, 72°F July 21, 22, Aug. 17; minimum, 36°F Dec. 17-21.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Nov. 12, 1965....	11	--		--	--	11	--	84	0	--	8.2		--	0.2	--	--		62	0	0.6	172	8.1
Jan. 14, 1966....	220	--		--	--	7.0	--	49	0	--	5.3		--	.0	--	--		38	0	.5	110	7.4
Mar. 17.....	344	--		--	--	7.5	--	52	0	--	4.9		--	.0	--	--		38	0	.5	111	7.9
May 17.....	38	18		14	4.6	9.7	0.9	72	0	9.0	7.5		0.0	.1	104	0.14		54	0	.6	149	7.9
July 20.....	5.9	--		--	--	11	--	82	0	--	7.7		--	.0	--	--		61	0	.6	168	8.1
Sept. 9.....	3.4	17		16	5.8	12	1.3	84	0	5.0	9.1		.3	.2	108	.15		64	0	.6	176	8.1

11-4685. NOYO RIVER NEAR FORT BRAGG, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
December																																
Maximum	--	--	--	--	--	--	--	51	50	48	47	47	45	43	40	39	38	38	38	37	39	39	40	43	42	42	44	46	46	46	45	--
Minimum	--	--	--	--	--	--	--	50	48	46	46	45	43	40	38	37	36	36	36	36	36	38	37	40	41	40	42	44	46	45	43	--
January																																
Maximum	44	45	48	50	51	52	52	52	50	48	48	47	48	48	47	46	43	43	43	42	42	44	45	44	44	46	44	43	44	45	45	46
Minimum	43	43	45	48	50	51	51	50	48	47	47	46	46	47	46	43	42	41	42	40	39	42	43	43	42	43	42	41	43	44	44	45
February																																
Maximum	45	45	47	48	48	48	46	45	45	46	44	45	43	44	45	44	45	45	48	49	48	48	50	49	47	46	47	48	--	--	--	46
Minimum	44	44	45	47	48	46	45	44	44	43	43	41	40	40	41	41	42	43	45	45	45	47	47	46	45	45	46	46	--	--	--	44
March																																
Maximum	47	45	45	44	48	49	50	50	50	51	50	51	52	52	51	50	48	49	51	49	51	51	52	52	52	52	51	53	55	56	56	50
Minimum	43	42	41	41	44	47	48	49	50	49	48	49	51	50	49	46	45	46	47	46	47	47	47	47	48	49	50	50	50	50	51	47
April																																
Maximum	57	56	57	54	55	53	57	57	54	54	52	53	54	55	57	58	58	57	56	55	55	57	58	59	58	58	58	58	57	57	--	56
Minimum	51	50	51	53	52	52	51	52	53	51	51	51	50	50	51	52	52	50	48	47	51	49	50	51	52	51	49	50	48	49	--	51
May																																
Maximum	58	59	58	60	56	60	60	63	58	60	60	61	61	60	59	61	64	68	66	65	67	66	65	67	64	64	63	62	58	58	60	62
Minimum	49	50	52	53	51	53	53	56	56	54	53	53	54	53	49	54	52	58	56	57	60	58	54	58	57	58	56	56	55	53	51	54
June																																
Maximum	60	59	61	62	62	61	64	64	65	64	64	66	69	71	70	67	66	67	67	64	64	67	66	66	65	65	66	66	67	67	--	65
Minimum	54	52	53	54	54	57	55	59	58	59	56	55	56	59	61	59	56	58	58	56	55	56	59	56	55	55	57	58	58	58	--	57
July																																
Maximum	68	66	68	70	67	68	68	69	70	67	69	66	65	68	68	68	69	70	66	71	72	72	68	68	68	67	66	67	67	66	66	68
Minimum	58	59	59	59	60	58	61	57	59	61	59	59	59	59	58	59	61	62	60	58	60	61	59	59	60	62	58	59	60	59	58	59
August																																
Maximum	66	66	68	68	67	68	66	66	66	67	66	65	65	68	68	69	72	68	69	68	67	64	67	68	68	68	66	66	66	65	66	67
Minimum	57	57	56	59	59	61	58	61	59	58	59	62	61	58	52	58	61	59	62	59	59	59	58	59	57	58	58	59	57	58	61	59
September																																
Maximum	70	70	68	67	66	64	64	67	66	66	64	64	64	65	64	67	68	64	67	68	67	67	65	65	66	67	66	66	66	63	--	66
Minimum	59	59	58	57	57	58	60	60	60	60	59	55	58	55	55	57	60	60	58	60	59	58	61	61	62	61	58	57	58	58	--	59

11-4686. MIDDLE FORK TENMILE RIVER NEAR FORT BRAGG, CALIF.

LOCATION.--Lat 39°34'20", long 123°41'45", temperature recorder at gaging station on right bank 0.9 mile upstream from confluence w with North Fork Tenmile River, and 10.4 miles (revised) northeast of Fort Bragg, Mendocino County.
DRAINAGE AREA.--32.9 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1964 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 69°F June 14, 18.
EXTREMES, 1964-66.--Water temperatures: Maximum, 69°F June 14, 18, 1966; minimum (1964-65), 43°F Nov. 18, 1964.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	62	62	62	56	60	61	59	58	57	60	62	60	58	57	58	59	55	56	61	59	61	59	60	60	61	59	58	62	60	59	54	59
Minimum	54	53	54	54	55	56	55	56	56	57	55	55	54	56	54	52	52	55	56	55	54	54	54	54	55	54	55	55	54	54	53	55
November																																
Maximum	56	56	56	57	56	55	54	54	54	54	54	54	54	54	54	54	54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	54	54	54	56	54	53	54	54	54	53	53	54	54	54	54	54	54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
December																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
January																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
February																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	42	42	42	43	43	45	45	46	46	47	47	46	46	45	46	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	41	42	41	42	42	43	45	45	46	46	46	46	45	44	45	--	--	--	--
March																																
Maximum	46	46	45	44	47	48	48	48	48	48	48	49	50	50	50	51	49	49	50	49	50	50	51	51	52	52	51	53	54	55	56	50
Minimum	45	44	43	43	44	47	47	48	48	48	47	48	49	50	49	48	46	47	48	46	48	47	47	47	49	50	50	50	50	51	52	48
April																																
Maximum	56	55	56	55	56	55	55	55	54	53	53	54	55	55	57	59	57	56	55	55	56	56	58	58	58	57	57	57	57	58	--	56
Minimum	52	51	51	54	54	54	52	53	52	52	52	52	51	51	51	53	54	51	50	49	51	51	52	53	54	53	51	52	51	52	--	52
May																																
Maximum	58	58	56	58	56	59	58	59	59	59	60	60	61	59	59	61	62	63	63	63	63	63	63	63	62	62	62	59	57	55	58	60
Minimum	52	52	53	54	52	54	52	55	57	56	54	55	56	54	53	54	54	56	56	56	58	58	56	56	58	57	57	55	55	55	53	55
June																																
Maximum	58	67	62	60	58	57	61	63	63	64	64	64	66	69	67	66	65	69	66	63	63	62	64	65	64	65	66	67	66	64	--	64
Minimum	54	53	53	54	55	57	55	57	58	59	57	56	58	60	61	60	58	59	59	58	57	58	60	58	58	58	59	60	59	58	--	58
July																																
Maximum	61	62	63	64	62	62	61	62	59	62	62	61	60	62	63	62	64	64	65	64	65	64	63	65	64	63	62	63	62	60	64	63
Minimum	57	55	54	57	57	58	59	58	57	57	58	60	58	57	58	58	58	60	58	57	59	59	58	57	57	57	57	58	58	57	57	58
August																																
Maximum	64	63	64	63	64	64	63	66	65	63	63	62	61	63	65	64	66	64	62	62	62	62	63	62	61	62	62	62	61	58	61	63
Minimum	57	58	57	57	58	57	57	56	58	59	58	57	57	57	57	57	59	58	58	57	57	58	56	56	57	59	57	58	56	57	58	57
September																																
Maximum	61	61	60	61	60	57	57	61	61	61	59	55	56	56	58	59	59	58	60	60	59	58	59	58	59	61	60	62	63	57	--	59
Minimum	56	56	55	54	54	54	56	56	56	55	55	51	52	51	52	52	54	56	55	55	54	52	54	55	55	56	52	53	53	53	--	54

MATTOLE RIVER BASIN

11-4690. MATTOLE RIVER NEAR PETROLIA, CALIF.

LOCATION.--Lat 40°18'40", long 124°16'10", at gaging station 0.2 mile downstream from Clear Creek, 1.2 miles southeast of Petrolia, Humboldt County, and 1.3 miles upstream from North Fork.
DRAINAGE AREA.--240 square miles.
RECORDS AVAILABLE.--Chemical analyses: January 1959 to September 1966.
Water temperatures: November 1965 to September 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 13, 1965....	37	--		--	--	8.8	--	133	3	--	4.4		--	0.1	--	--		130	16	0.3	287	8.5
Nov. 9.....	175	--		--	--	8.3	--	105	1	--	4.0		--	.1	--	--		116	28	.3	261	8.4
Dec. 7.....	801	--		--	--	6.9	--	69	0	--	4.0		--	.0	--	--		66	9	.4	165	8.1
Jan. 11, 1966....	1750	--		--	--	5.2	--	52	0	--	2.8		--	.0	--	--		45	2	.3	119	8.0
Feb. 15.....	737	--		--	--	5.7	--	61	0	--	2.1		--	.0	--	--		55	5	.3	140	8.0
Mar. 15.....	3490	--		--	--	4.7	--	48	0	--	2.4		--	.0	--	--		43	4	.3	109	7.8
Apr. 13.....	1380	--		--	--	5.3	--	59	0	--	1.5		--	.1	--	--		52	4	.3	130	8.2
May 17.....	190	11		26	4.6	6.9	1.4	93	0	17	3.9		0.1	.0	124	0.17		84	8	.3	194	8.2
June 14.....	96	--		--	--	7.5	--	111	0	--	3.0		--	.0	--	--		100	9	.3	226	8.2
July 19.....	50	--		--	--	8.2	--	120	4	--	3.4		--	.0	--	--		116	11	.3	258	8.4
Aug. 17.....	38	--		--	--	9.0	--	130	2	--	4.0		--	.0	--	--		126	16	.3	274	8.3
Sept. 14.....	31	9.0		40	6.3	8.6	1.4	132	0	31	3.6		.4	.1	168	.23		126	18	.3	278	7.8

11-4690. MATTOLE RIVER NEAR PETROLIA, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	49	49	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	49	49	--	--
December																																
Maximum	49	49	49	49	50	50	50	50	50	49	49	49	48	47	46	45	45	45	44	44	44	44	44	46	47	47	48	46	47	49	49	47
Minimum	49	49	49	49	49	50	50	50	49	49	49	48	47	46	45	45	45	44	44	44	44	44	43	41	46	47	45	45	45	47	49	47
January																																
Maximum	49	49	48	45	46	47	46	46	44	43	44	44	45	46	47	45	45	46	44	44	43	43	43	45	44	44	45	45	46	47	46	45
Minimum	49	48	40	44	45	46	45	44	42	42	42	42	43	45	45	43	43	44	43	42	41	42	41	43	42	43	42	42	45	46	45	44
February																																
Maximum	47	48	50	51	50	49	48	48	49	49	47	48	45	49	48	48	47	47	49	50	50	51	--	--	--	--	--	--	--	--	--	49
Minimum	45	46	48	49	49	47	46	46	47	46	45	44	43	43	46	45	46	46	47	49	48	49	--	--	--	--	--	--	--	--	--	46
March																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	53	53	53	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	53	53	53	--
April																																
Maximum	53	53	53	54	54	53	53	54	54	54	53	53	53	53	53	53	--	--	--	--	--	--	--	--	--	--	--	--	56	56	--	--
Minimum	53	52	52	54	54	53	53	53	54	53	53	53	53	53	53	53	--	--	--	--	--	--	--	--	--	--	--	--	53	55	--	--
May																																
Maximum	56	56	56	56	57	57	57	57	57	57	58	58	58	58	58	59	59	59	59	59	59	59	59	59	59	59	58	58	58	--	--	58
Minimum	56	56	56	56	56	56	57	57	56	56	57	57	58	58	58	58	59	59	59	59	58	59	59	59	59	58	58	58	58	--	--	58
June																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
July																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	70	71	71	71	71	71	71	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	70	70	70	70	70	70	70	--
August																																
Maximum	71	71	71	71	71	71	71	70	71	71	71	70	70	69	69	69	70	70	70	70	70	70	70	70	71	71	71	71	71	71	71	70
Minimum	70	70	70	70	70	70	70	70	70	70	70	69	69	68	68	68	69	69	68	70	69	69	69	69	70	71	71	71	70	70	70	70
September																																
Maximum	71	71	71	71	71	71	71	71	72	72	72	72	71	72	72	72	72	72	71	71	71	71	71	71	71	71	71	71	71	70	--	71
Minimum	70	70	71	71	71	70	71	71	71	72	71	71	71	71	71	71	71	71	71	71	71	70	71	71	71	71	69	69	69	70	--	71

MISCELLANEOUS ANALYSES OF STREAMS IN BEAR RIVER BASIN

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
11-4695.5. BEAR RIVER AT CAPETOWN, CALIF. (402745 1242103)																						
Oct. 3, 1965.....		--			--	12	--	142	2	--	7.0		--	0.2	--	--		145	25	0.4	336	8.3
May 17, 1966.....		8.9		35	5.5	8.3	1.2	114	0	30	6.6		0.1	.1	158	0.21		110	17	.3	252	8.2
Sept. 14.....		8.2		58	7.3	12	1.7	178	0	45	7.0		.4	.1	240	.33		174	28	.4	378	8.2

11-4700. LAKE PILLSBURY NEAR POTTER VALLEY, CALIF.

LOCATION.--Lat 39°24'30", long 122°57'30", temperature recorder at gaging station at Scott Dam near right bank of Eel River, 0.3 mile downstream from Rice Fork, and 10.2 miles northeast of town of Potter Valley, Mendocino County.
DRAINAGE AREA.--289 square miles.
RECORDS AVAILABLE.--Water temperatures: December 1965 to September 1966.
EXTREMES, December 1965 to September 1966.--Water temperatures: Maximum, 80°F Aug. 8.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
December																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	46	46	46	44	44	44	42	42	42	42	42	42	42	42	42	41	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	46	45	44	44	44	42	42	42	42	42	42	41	42	42	41	40	--
January																																
Maximum	40	40	41	42	46	46	46	46	46	44	44	44	44	43	42	43	--	--	--	42	41	41	42	42	42	40	42	42	41	42	42	43
Minimum	40	40	40	41	42	46	46	45	43	42	42	42	41	42	42	42	--	--	--	40	41	41	41	40	40	40	40	41	40	41	42	42
February																																
Maximum	42	43	41	41	43	45	44	43	42	42	42	42	44	44	42	44	45	43	44	45	45	45	45	44	44	44	46	45	--	--	--	44
Minimum	41	40	41	40	41	43	43	42	42	41	42	41	42	42	42	42	42	42	42	43	43	43	43	43	42	43	43	43	--	--	--	42
March																																
Maximum	43	43	44	43	44	46	44	46	46	48	50	47	49	48	48	47	48	48	48	47	49	50	50	48	50	52	53	54	54	57	58	48
Minimum	43	42	42	42	42	43	44	44	46	45	44	45	45	47	47	46	47	46	45	47	47	48	47	47	47	48	49	51	51	53	54	46
April																																
Maximum	64	62	61	62	61	61	59	58	58	57	56	56	57	58	60	60	59	58	58	58	60	60	63	62	64	63	63	66	63	64	--	60
Minimum	55	58	57	56	58	58	58	58	57	56	56	56	55	55	56	57	54	57	55	56	56	59	58	58	58	60	59	59	58	58	--	57
May																																
Maximum	63	65	68	63	64	65	65	65	64	65	67	66	65	66	66	65	67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	58	59	60	60	61	61	61	61	63	63	64	63	63	64	63	63	63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
June																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	74	74	74	76	75	72	72	72	71	74	72	74	74	73	73	75	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	71	70	72	72	70	70	70	69	70	70	70	70	71	71	70	71	--	--
July																																
Maximum	72	73	73	75	74	73	72	72	71	72	72	72	72	71	72	72	73	74	74	75	74	76	76	76	76	76	78	78	78	76	77	74
Minimum	71	71	71	70	71	71	71	71	70	70	70	70	70	70	70	70	70	71	71	71	72	72	72	73	72	74	75	75	75	75	75	72
August																																
Maximum	78	78	78	78	78	78	79	80	78	78	78	78	78	78	79	79	79	78	78	78	78	78	77	76	76	76	76	75	75	74	75	77
Minimum	75	75	75	76	76	76	76	76	77	76	76	76	76	76	76	76	76	76	76	76	76	75	75	74	74	74	74	73	73	73	72	75
September																																
Maximum	76	75	75	75	75	76	74	74	74	74	73	72	71	72	71	71	72	72	71	72	70	69	69	68	68	69	69	68	70	69	--	72
Minimum	72	73	73	73	73	73	72	72	72	72	72	71	71	71	70	70	70	70	70	70	68	68	68	68	67	67	67	67	68	68	--	70

11-4705. EEL RIVER BELOW SCOTT DAM, NEAR POTTER VALLEY, CALIF.

LOCATION.--Lat 39°24'30", long 122°58'15", temperature recorder at gaging station on left bank 0.4 mile upstream from Soda Creek, 0.7 mile downstream from Scott Dam, and 9.7 miles northeast of town of Potter Valley, Mendocino County.
DRAINAGE AREA.--290 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1963 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 68°F Sept. 8-12.
EXTREMES, 1963-66.--Water temperatures: Maximum, 68°F Sept. 8-12, 1966.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	63	63	63	63	63	63	63	63	63	63	64	64	63	63	62	62	61	61	62	60	60	60	60	60	59	59	59	59	58	58	58	61
Minimum	63	63	63	63	63	63	63	63	63	63	63	63	63	62	62	61	60	59	59	58	59	60	60	59	59	59	59	58	58	58	58	61
November																																
Maximum	58	57	57	58	57	56	56	56	56	55	55	55	55	54	53	53	53	53	52	52	52	52	52	52	51	50	50	49	49	49	---	54
Minimum	56	54	55	57	55	56	56	56	55	55	55	55	54	53	53	53	53	52	52	52	52	52	52	51	50	50	49	49	49	49	---	53
December																																
Maximum	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
January																																
Maximum	---	---	---	---	---	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	41	42
Minimum	---	---	---	---	---	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	41	41	42
February																																
Maximum	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
March																																
Maximum	---	---	---	---	---	---	---	---	---	44	44	45	46	46	45	46	47	47	47	47	47	49	48	49	49	48	48	49	49	49	49	---
Minimum	---	---	---	---	---	---	---	---	---	44	44	44	44	45	45	45	46	46	46	46	47	47	47	47	47	46	47	47	47	48	48	---
April																																
Maximum	49	49	49	49	49	48	49	51	51	52	52	52	52	52	52	52	52	52	52	50	49	48	49	48	48	49	49	49	49	49	---	50
Minimum	49	48	48	48	48	48	48	49	51	51	52	51	51	51	52	52	49	51	50	48	48	48	48	48	48	48	48	48	48	48	---	49
May																																
Maximum	50	50	50	50	50	50	50	50	50	50	49	50	49	50	49	49	50	50	50	51	51	51	51	51	51	51	51	52	51	51	52	50
Minimum	49	49	49	49	50	50	50	50	49	49	49	49	48	48	48	48	48	48	48	48	49	49	49	49	49	49	50	50	50	50	50	49
June																																
Maximum	52	52	52	52	52	51	52	53	53	53	54	54	54	54	54	54	55	55	54	53	52	52	52	52	52	52	53	53	53	53	---	53
Minimum	50	50	50	50	50	51	51	51	51	51	51	51	52	52	52	52	53	53	52	52	51	51	51	51	50	51	51	51	51	51	---	51
July																																
Maximum	53	53	53	54	54	53	53	53	53	54	53	54	54	54	54	54	54	54	54	54	54	54	54	54	55	55	55	55	55	55	55	54
Minimum	51	51	52	52	52	52	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	54	54	54	54	55	54	53
August																																
Maximum	56	58	58	57	57	57	57	56	56	56	57	57	57	57	58	58	58	58	59	60	60	61	61	62	62	62	62	63	64	64	65	59
Minimum	55	56	56	56	55	55	55	55	55	55	55	55	55	55	56	56	57	57	57	58	58	59	59	60	61	61	62	62	63	63	64	58
September																																
Maximum	67	67	67	67	67	67	67	68	68	68	68	68	67	67	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	---	67
Minimum	65	66	67	67	67	67	67	67	67	68	68	67	66	66	66	66	66	66	66	66	66	66	66	66	66	66	65	66	65	65	---	66

11-4705. EEL RIVER BELOW SCOTT DAM, NEAR POTTER VALLEY, CALIF.--Continued

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 10, 1965.....	1345	57		170	14	6.4						--	--	--				
Dec. 15.....	1415	44		150	30	12						--	--	--				
Jan. 7, 1966.....	1455	45		4790	412	5330						99	99	100				V
Jan. 19.....	1250	41		572	200	308						100	--	--				V
Feb. 15.....	0850	40		D 620	135	226						96	98	99	100			S
Mar. 22.....	1430	50		700	60	113						100	--	--				S
Apr. 19.....	1500	49		483	46	60						--	--	--				
May 17.....	1345	56		204	14	7.7						--	--	--				
June 14.....	1430	61		140	14	5.3						--	--	--				
July 26.....	1435	57		199	4	2.2						--	--	--				
Aug. 16.....	1340	63		227	7	4.3						--	--	--				

D Daily mean discharge.

11-4710. POTTER VALLEY POWERHOUSE TAILRACE NEAR POTTER VALLEY, CALIF.

LOCATION.--Lat 39°21'42", long 123°07'38", at gaging station 100 feet downstream from powerhouse of Pacific Gas and Electric Company, 1.8 miles southwest of Van Arsdale Dam, and 2.9 miles northwest of town of Potter Valley, Mendocino County.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1965.
Water temperatures: March 1964 to September 1966.
Sediment records: March 1964 to September 1966.
EXTREMES, 1965-66.--Sediment concentrations: Maximum daily, 876 ppm Dec. 28; minimum, 1 ppm Nov. 3.
Sediment loads: Maximum daily, 745 tons Dec. 28; minimum daily, less than 0.05 ton Oct. 19, Nov. 2-4.
EXTREMES, 1964-66.--Water temperatures (1964-65): Minimum, 40°F on several days during winter months.
Sediment concentrations: Maximum daily, 3,970 ppm Jan. 4, 1965; minimum daily, 1 ppm Nov. 3, 1965.
Sediment loads: Maximum daily, 3,280 tons Jan. 4, 1965; minimum daily, less than 0.05 ton Oct. 19, Nov. 2-4.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Nov. 10, 1965....	147	--		--	--	7.1	--	129	4	--	4.3		--	0.6	--	--		111	0	0.3	238	8.4
Jan. 13, 1966....	315	--		--	--	5.6	--	65	0	--	2.0		--	.1	--	--		55	2	.3	124	7.7
Mar. 8.....	303	--		--	--	4.4	--	70	0	--	1.3		--	.1	--	--		61	4	.2	134	8.1
May 16.....	304	9.2		17	4.7	4.4	0.9	74	0	7.0	1.5		0.3	.2	93	0.13		62	1	.2	139	7.9
July 21.....	222	--		--	--	4.3	--	80	0	--	1.4		--	.0	--	--		66	0	.2	147	8.0
Sept. 23.....	323	8.0		22	6.2	5.3	.7	98	0	8.0	1.7		.2	.3	A 100	.14		80	0	.3	176	7.8

A Calculated from sum of determined constituents.

11-4710. POTTER VALLEY POWERHOUSE TAILRACE NEAR POTTER VALLEY, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	61	61	60	62	63	63	62	61	62	62	61	61	59	58	58	58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	58	57	57	60	59	58	59	59	59	58	57	57	58	56	57	55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
December																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
January																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
February																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
March																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	47	49	48	47	47	48	48	49	51	51	52	52	53	53	54	55	55	55	56	56	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	44	45	46	46	45	45	45	46	46	48	47	47	47	48	50	50	50	50	52	52	--
April																																
Maximum	55	55	55	55	55	55	56	55	53	53	52	53	55	56	57	58	58	57	57	56	56	57	58	58	58	57	57	57	58	58	--	56
Minimum	50	50	50	50	51	50	51	51	51	52	51	50	51	50	51	51	52	51	50	49	49	49	50	51	51	51	50	50	50	51	--	50
May																																
Maximum	56	56	56	57	57	57	57	57	57	54	58	58	58	57	57	58	59	60	62	63	63	62	63	64	64	63	64	63	63	59	61	59
Minimum	49	49	50	51	51	50	50	51	52	51	51	50	50	50	50	50	50	53	56	56	59	58	57	58	58	59	59	59	58	56	55	53
June																																
Maximum	63	56	57	59	58	56	58	61	62	62	62	63	64	65	65	--	--	--	64	64	62	61	61	60	59	61	62	64	64	63	--	61
Minimum	53	52	53	55	56	54	54	57	58	56	57	58	59	60	59	--	--	--	59	59	57	56	57	57	61	60	61	61	62	62	--	58
July																																
Maximum	64	64	63	64	64	65	65	62	58	61	62	62	62	62	62	62	63	64	64	64	64	64	64	64	63	65	66	64	64	64	62	63
Minimum	62	62	61	62	63	63	59	57	55	57	58	59	60	58	56	57	57	58	58	58	59	59	59	60	59	62	60	58	59	60	58	59
August																																
Maximum	65	65	66	66	66	67	67	67	67	64	66	66	67	67	67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	60	63	62	63	63	63	63	62	62	61	62	62	63	63	63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
September																																
Maximum	--	72	72	72	72	72	72	72	72	72	72	70	70	70	71	72	72	72	71	72	72	72	71	71	70	71	71	71	72	72	--	71
Minimum	--	67	67	67	67	68	68	67	67	67	68	66	66	65	65	65	66	68	67	67	67	67	66	66	66	66	66	66	66	66	--	67

11-4710. POTTER VALLEY POWERHOUSE TAILRACE NEAR POTTER VALLEY, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	320	6	5.2	62	5	0.8	210	52	29
2	318	--	5.2	.4	--	T	164	46	20
3	321	--	5.2	.4	1	T	163	41	18
4	322	8	7.0	.4	--	T	163	36	16
5	322	--	10	34	3	.3	163	37	16
6	321	14	12	167	--	3.2	163	41	18
7	322	--	11	167	11	5.0	163	34	15
8	322	10	8.7	165	7	3.1	162	32	14
9	324	--	8.7	120	--	1.6	162	29	13
10	324	--	13	147	7	2.8	162	24	10
11	326	17	15	165	6	2.7	161	34	15
12	326	--	11	165	17	7.6	161	30	13
13	326	9	7.9	165	130	58	162	23	10
14	320	--	8.6	165	315	140	162	25	11
15	322	13	11	164	80	35	163	26	11
16	326	--	11	154	80	33	163	21	9.2
17	302	--	9.0	146	95	37	163	20	8.8
18	27	9	.7	163	232	102	164	30	13
19	2.0	--	T	163	131	58	171	33	15
20	9.6	8	.2	163	80	35	320	43	37
21	326	--	6.2	215	112	65	320	80	69
22	323	5	4.4	295	121	96	320	71	61
23	323	--	2.6	309	160	133	320	55	48
24	325	--	2.6	327	158	139	310	55	46
25	326	3	2.6	258	67	47	315	54	46
26	326	--	2.6	318	70	60	315	60	51
27	326	4	3.5	330	78	69	315	--	320
28	325	--	3.5	328	66	58	315	876	745
29	323	3	2.6	328	46	41	310	822	688
30	323	--	2.6	328	49	43	308	120	100
31	323	--	2.6	--	--	--	308	110	91
Total	9071.6	--	196.2	5512.2	--	1276.1	6921	--	2577.0
	JANUARY			FEBRUARY			MARCH		
1	306	80	66	306	80	66	303	--	43
2	303	160	131	308	102	85	303	56	46
3	303	548	448	308	100	83	303	58	47
4	221	660	394	308	240	200	303	57	47
5	261	685	483	309	145	121	303	67	55
6	306	543	449	308	141	117	303	60	49
7	303	505	413	308	89	74	303	70	57
8	306	393	325	308	90	75	303	140	115
9	308	298	248	308	90	75	303	133	109
10	306	200	165	223	90	54	283	140	107
11	306	203	168	286	90	69	294	90	71
12	308	--	160	310	100	84	306	77	64
13	315	145	123	310	75	63	306	74	61
14	287	--	100	309	79	66	306	70	58
15	314	130	110	309	70	58	304	71	58
16	314	142	120	309	76	63	304	71	58
17	310	147	123	309	76	63	304	52	43
18	310	144	121	309	74	62	303	55	45
19	310	148	124	310	93	78	302	66	54
20	289	183	143	309	72	60	289	54	42
21	314	151	128	309	64	53	303	49	40
22	306	145	120	309	67	56	303	49	40
23	308	147	122	308	92	77	304	50	41
24	309	140	117	303	85	70	309	48	40
25	308	132	110	303	67	55	308	46	38
26	308	138	115	303	68	56	248	35	23
27	308	140	116	303	67	55	243	30	20
28	308	152	126	303	55	45	240	25	16
29	306	175	145	--	--	--	240	23	15
30	306	162	134	--	--	--	237	27	17
31	306	98	81	--	--	--	262	28	20
Total	9373	--	5728	8505	--	2083	9025	--	1539

T Less than 0.05 ton.

11-4710. POTTER VALLEY POWERHOUSE TAILRACE NEAR POTTER VALLEY, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	312	36	30	308	--	22	127	11	3.8
2	312	37	31	309	27	23	126	--	3.4
3	310	36	30	310	--	20	126	10	3.4
4	310	34	28	310	21	18	126	--	3.4
5	304	37	30	310	--	17	126	--	3.4
6	312	45	38	310	22	18	126	10	3.4
7	310	46	39	311	--	17	126	--	3.4
8	309	39	33	308	--	15	126	11	3.7
9	308	39	32	308	17	14	126	--	4.4
10	308	38	32	305	--	14	126	14	4.8
11	308	51	42	304	17	14	127	--	5.1
12	306	48	40	302	--	13	129	--	5.6
13	293	43	34	291	--	12	116	14	4.4
14	300	32	26	308	14	12	125	10	3.4
15	312	30	25	304	--	11	140	9	3.4
16	312	30	25	304	--	11	147	--	2.8
17	309	36	30	282	13	9.9	144	6	2.3
18	306	33	27	199	--	7.0	131	--	2.1
19	306	33	27	133	--	4.7	137	--	2.6
20	308	33	27	137	12	4.4	141	8	3.0
21	310	33	28	135	--	4.4	136	--	2.6
22	309	34	28	136	--	4.4	134	8	2.9
23	308	30	25	135	12	4.4	128	--	4.1
24	310	30	25	135	--	4.0	127	16	5.5
25	310	32	27	135	11	4.0	125	--	5.4
26	310	31	26	129	--	3.8	124	--	3.7
27	309	26	22	127	11	3.8	119	7	2.2
28	310	29	24	131	--	3.9	117	--	3.2
29	322	27	23	131	--	4.2	119	14	4.5
30	300	26	21	131	12	4.2	126	--	3.7
31	--	--	--	135	--	4.4	--	--	--
Total	9253	--	875	7113	--	322.5	3853	--	109.6

Day	JULY			AUGUST			SEPTEMBER		
	Mean discharge (cfs)	Mean concentration (ppm)	Tons per day	Mean discharge (cfs)	Mean concentration (ppm)	Tons per day	Mean discharge (cfs)	Mean concentration (ppm)	Tons per day
1	129	7	2.4	221	5	3.0	220	--	2.4
2	130	--	2.1	219	--	3.5	220	4	2.4
3	130	6	2.1	219	7	4.1	220	--	2.4
4	130	--	2.1	220	--	3.6	220	--	2.4
5	131	--	2.8	220	5	3.0	220	4	2.4
6	185	10	5.0	220	--	2.4	216	--	2.3
7	215	--	4.6	219	--	2.4	210	4	2.3
8	213	8	4.6	216	4	2.3	242	--	2.6
9	212	--	5.2	211	--	2.3	317	5	4.3
10	216	--	5.2	213	--	2.3	319	--	4.3
11	218	9	5.3	213	--	2.3	321	--	3.5
12	219	--	5.3	218	--	2.4	322	4	3.5
13	258	9	6.3	220	--	2.4	322	--	3.5
14	241	--	5.2	221	--	3.0	317	4	3.4
15	228	6	3.7	219	--	3.0	312	--	3.4
16	227	--	3.7	220	5	3.0	306	5	4.1
17	226	--	3.7	221	7	4.2	325	--	4.4
18	225	6	3.6	220	--	3.6	324	--	4.4
19	225	6	3.6	221	--	3.0	324	5	4.4
20	221	10	6.0	221	5	3.0	323	4	3.5
21	222	--	6.0	224	10	6.0	320	7	6.0
22	220	8	4.8	228	12	7.4	322	--	7.0
23	220	--	3.6	227	--	4.9	323	9	7.8
24	220	--	3.6	229	4	2.5	321	--	7.8
25	215	6	3.5	229	--	3.1	323	--	7.0
26	125	--	2.0	225	6	3.6	323	7	6.1
27	206	6	3.3	221	--	4.2	323	--	8.7
28	254	--	3.4	220	--	4.2	313	13	11
29	224	5	3.0	220	7	4.2	312	--	9.3
30	222	--	3.0	220	--	3.0	314	10	8.5
31	223	--	3.0	219	4	2.4	--	--	--
Total	6330	--	121.7	6834	--	104.3	8794	--	145.1

Total discharge for year (cfs-days)..... 90584.8
Total load for year (tons)..... 15077.5

11-4710. POTTER VALLEY POWERHOUSE TAILRACE NEAR POTTER VALLEY, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 15, 1965.....	0800	54		159	72							100	--					S
Nov. 27.....	0800	45		330	79							98	100					V
Jan. 7, 1966.....	1225	46		303	522							97	99	100				V

11-4721.5. EEL RIVER NEAR DOS RIOS, CALIF.

LOCATION.--Lat 39°37'36", long 123°20'36", at bridge upstream from Outlet Creek, and approximately 6.2 miles south of Dos Rios, Mendocino County.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966.
REMARKS.--Discharge used is difference between gaging stations at Eel River above Dos Rios and Outlet Creek near Longvale. no correction made for inflow between stations.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 7, 1965.....	8.0	--		--	--	11	--	168	0	--	6.7		0.3	0.4	--	--		120	0	0.4	285	8.2
Nov. 11, 1965....	60	--		--	--	11	--	139	5	--	8.0		1.8	.6	--	--		141	19	.4	316	8.5
Dec. 9, 1965.....	200	--		--	--	7.1	--	105	1	--	3.9		.5	.2	--	--		97	9	.3	217	8.3
Jan. 12, 1966....	2200	--		--	--	4.3	--	69	0	--	1.7		.4	.0	--	--		58	1	.2	133	8.1
Feb. 16.....	800	--		--	--	4.9	--	80	0	--	1.3		.4	.1	--	--		68	2	.3	154	8.2
Mar. 16.....	2300	--		--	--	4.4	--	72	0	--	1.5		.7	.1	--	--		60	1	.2	137	8.2
Apr. 12.....	4000	--		--	--	4.3	--	68	0	--	.8		.5	.1	--	--		57	1	.3	129	8.1
May 16.....	270	10		28	8.5	6.6	1.3	121	1	17	3.3		.2	.2	135	0.18		105	4	.3	231	8.3
June 13.....	85	--		--	--	8.2	--	121	2	--	4.0		--	.3	--	--		112	10	.3	244	8.5
July 20.....	10	--		--	--	10	--	113	3	--	5.0		.6	.3	--	--		110	12	.4	252	8.5
Aug. 17.....	4.0	--		--	--	11	--	104	4	--	6.5		.6	.3	--	--		109	17	.5	258	8.6
Sept. 14.....	3.0	5.4		27	8.4	11	1.5	97	3	35	8.0		.8	.3	148	.20		102	18	.5	256	8.4

11-4722. OUTLET CREEK NEAR LONGVALE, CALIF.

LOCATION.--Lat 39°37'05", long 123°21'20", at railroad bridge, approximately 0.9 mile downstream from gaging station, approximately 600 feet upstream from Eel River, and 6.5 miles northeast of Longvale, Mendocino County.
DRAINAGE AREA.--161 square miles, upstream from gaging station.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966 (discontinued).
REMARKS.--No appreciable inflow between sampling point and gaging station.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 14, 1965....	1.8	--		--	--	15	--	167	0	--	27		--	2.0	--	--		151	14	0.5	362	8.1
Nov. 11.....	17	--		--	--	19	--	151	7	--	28		--	3.0	--	--		148	11	.7	369	8.5
Dec. 9.....	41	--		---	--	8.7	--	93	0	--	7.4		--	.5	--	--		78	2	.4	194	8.2
Jan. 12, 1966....	475	--		--	--	4.9	--	55	0	--	3.2		--	.0	--	--		44	0	.3	112	8.0
Feb. 16.....	222	--		--	--	5.6	--	67	0	--	2.6		--	.1	--	--		54	0	.3	132	8.1
Mar. 16.....	822	--		--	--	4.0	--	46	0	--	2.1		--	.0	--	--		40	2	.3	97	7.6
Apr. 12.....	1080	--		--	--	4.2	--	40	0	--	1.9		--	.1	--	--		35	2	.3	86	7.6
May 16.....	30	9.3		22	8.3	9.1	1.6	114	0	9.0	7.4		1.1	.5	124	0.17		89	0	.4	212	7.9
June 13.....	13	--		--	--	11	--	103	3	--	9.8		--	1.1	--	--		102	13	.5	245	8.5
July 20.....	2.7	--		--	--	13	--	131	5	--	16		.3	1.3	--	--		118	2	.5	280	8.5
Aug. 17.....	.4	--		--	--	15	--	135	4	--	20		--	1.7	--	--		118	1	.6	295	8.4
Sept. 14.....	.9	81		30	12	16	1.4	150	0	9.0	24		1.0	1.8	183	.25		124	1	.6	321	8.1

11-4725. EEL RIVER ABOVE DOS RIOS, CALIF.

LOCATION (revised).--Lat 39°41'20", long 123°21'30", temperature recorder at discontinued gaging station on left bank, 1.8 miles upstream from Middle Fork, and 2.1 miles south of Dos Rios, Mendocino County.
DRAINAGE AREA.--705 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1957 to September 1959, October 1960 to September 1966, May to September 1966. Sediment records: October 1957 to September 1965.
EXTREMES, May to September 1966.--Water temperatures: Maximum, 84°F June 15.
EXTREMES, 1962-65, May to September 1966.--Water temperatures: Maximum, 84°F June 15, 1966; minimum (1962-65), 38°F Nov. 23, 1964.

Temperature (°F) of water, May to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
May																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	72	72	70	64	66	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	62	63	64	58	56	--
June																																
Maximum	66	63	65	68	68	65	68	72	75	74	72	72	73	80	84	80	77	75	76	73	73	74	75	75	76	76	78	80	76	75	--	73
Minimum	57	56	56	56	61	62	60	62	64	66	62	61	64	66	70	71	66	66	66	66	63	63	66	64	63	64	65	68	65	63	--	63
July																																
Maximum	75	72	76	79	81	80	77	72	71	75	76	76	76	76	78	77	79	79	78	76	80	80	80	76	76	78	79	79	81	74	79	77
Minimum	64	62	62	65	67	68	66	66	64	63	65	67	67	66	66	65	67	67	66	63	65	66	66	66	64	64	65	66	67	68	66	65
August																																
Maximum	81	82	81	79	78	78	78	76	75	78	78	80	80	81	81	79	82	80	80	80	80	79	77	75	73	74	75	74	70	70	75	78
Minimum	67	69	69	68	67	66	67	66	65	66	67	68	69	68	70	70	70	70	69	69	69	68	66	65	64	64	64	64	63	63	65	67
September																																
Maximum	78	80	82	82	82	81	76	78	78	77	73	72	71	72	74	76	75	72	74	76	76	74	75	74	73	72	74	76	74	76	--	76
Minimum	66	67	68	68	70	69	69	68	67	67	65	62	62	62	62	63	64	66	64	65	66	65	64	64	63	64	63	64	64	64	--	65

11-4728. MIDDLE FORK EEL RIVER ABOVE BLACK BUTTE RIVER, NEAR COVELO, CALIF.

LOCATION.--Lat 39°49'45", long 123°04'11", temperature recorder at gaging station on left bank, 1.2 miles upstream from Black Butte River, and 9.8 miles northeast of Covelo, Mendocino County.
DRAINAGE AREA.--204 square miles.
RECORDS AVAILABLE.--Water temperatures: May to September 1966.
EXTREMES, May to September 1966.--Water temperatures: Maximum, 80°F Aug. 2, 3, 7, 17, 18.

Temperature (°F) of water, May to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
May																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	64	64	61	58	61	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	56	57	57	56	54	--
June																																
Maximum	61	57	59	62	60	58	59	64	66	66	65	67	69	71	70	70	70	71	72	69	69	69	69	71	72	72	73	74	74	74	--	67
Minimum	53	52	51	52	55	56	55	55	58	58	56	57	58	60	62	62	60	61	62	61	60	60	60	60	60	61	62	63	62	63	--	58
July																																
Maximum	72	71	73	74	74	74	73	68	70	73	73	74	74	74	74	74	75	75	76	76	78	77	77	76	75	76	77	76	74	72	77	74
Minimum	63	61	62	63	64	63	62	63	63	63	63	64	64	63	63	63	64	65	65	65	66	66	66	66	65	66	66	66	66	66	65	64
August																																
Maximum	79	80	80	78	79	79	80	78	77	76	79	79	79	79	79	76	80	80	79	79	78	78	77	76	77	77	77	78	78	71	76	78
Minimum	67	68	69	69	68	68	70	68	69	69	70	70	69	69	70	69	70	70	68	70	70	70	68	66	67	66	68	68	68	68	65	69
September																																
Maximum	77	77	77	77	77	77	74	75	76	74	72	71	70	72	73	74	74	69	71	75	75	74	73	73	72	72	73	74	74	73	--	74
Minimum	67	67	67	67	66	66	66	65	66	65	66	63	64	63	63	64	65	65	64	64	65	64	63	64	64	65	64	64	64	64	--	65

11-4729. BLACK BUTTE RIVER NEAR COVELO, CALIF.

LOCATION (revised).--Lat 39°49'15", long 123°04'50", at gaging station 10 feet upstream from highway bridge, 0.5 mile upstream from mouth, and 9.5 miles east of Covelo, Mendocino County.
DRAINAGE AREA.--162 square miles.
RECORDS AVAILABLE.--Chemical analyses: November 1964 to September 1966 (discontinued).
Water temperatures: May 1964 to September 1966.
Sediment records: October 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 79°F on several days during June to August; minimum, freezing point Dec. 25, 26, Mar. 3, 4.
Sediment concentrations: Maximum daily, 10,600 ppm Jan. 4; minimum daily, 2 ppm Dec. 18-21, 23.
Sediment loads: Maximum daily, 143,000 tons Jan. 4; minimum daily, 0.2 ton Dec. 18-21, 23.
EXTREMES, 1964-66.--Water temperatures: Maximum, 89°F Aug. 23, 1964; minimum (1965-66), freezing point Dec. 24, 25, 1965, Mar. 3, 4, 1966.
Sediment concentrations (1965-66): Maximum daily, 10,600 ppm Jan. 4, 1966; minimum daily, 2 ppm Dec. 18-21, 23, 1965.
Sediment loads (1965-66): Maximum daily, 143,000 tons Jan. 4, 1966; minimum daily, 0.2 ton Dec. 18-21, 23, 1965.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 14, 1965....	5.0	--		--	--	7.1	--	156	2	--	2.0		0.1	0.0	--	--		187	56	0.2	402	8.3
Nov. 11.....	13	--		--	--	7.2	--	151	5	--	2.6		2.0	.1	--	--		214	82	.2	427	8.4
Dec. 8.....	125	--		--	--	4.4	--	87	1	--	1.2		.2	.0	--	--		94	21	.2	204	8.3
Jan. 13, 1966....	870	--		--	--	3.5	--	80	0	--	.7		.4	.0	--	--		79	13	.2	174	8.2
Feb. 17.....	268	--		--	--	4.1	--	95	1	--	.5		.2	.0	--	--		99	19	.2	210	8.3
Mar. 16.....	620	--		--	--	3.2	--	69	0	--	.8		.7	.0	--	--		65	8	.2	144	8.1
Apr. 12.....	870	--		--	--	2.7	--	61	0	--	.4		.8	.0	--	--		56	6	.2	121	8.1
May 16.....	151	8.5		25	2.3	3.1	0.8	76	0	14	.8		.7	.0	97	0.13		72	10	.2	154	8.1
June 13.....	44	--		--	--	5.9	--	114	1	--	1.1		--	.1	--	--		115	20	.2	242	8.3
July 20.....	13	--		--	--	5.5	--	135	4	--	1.4		.2	.0	--	--		160	43	.2	326	8.5
Aug. 17.....	4.2	--		--	--	6.3	--	148	2	--	1.8		.5	.0	--	--		189	64	.2	379	8.3
Sept. 14.....	5.4	9.0		64	8.4	6.3	15	145	0	85	1.5		.1	.1	260	.35		194	75	.2	397	8.1

11-4729. BLACK BUTTE RIVER NEAR COVELO, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	50	51	47	48	--	--	--	46	44	43	43	42	42	42	43	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	48	45	44	45	--	--	--	44	41	40	39	39	36	36	38	--	--
December																																
Maximum	42	42	43	43	44	44	43	42	42	40	40	42	41	38	38	37	36	36	35	36	--	--	37	40	36	37	39	41	40	39	40	40
Minimum	37	36	36	38	42	41	40	39	40	39	38	40	37	34	35	34	34	34	33	34	--	--	34	34	32	32	35	37	37	36	36	36
January																																
Maximum	42	40	41	41	44	45	44	45	42	40	40	39	40	40	40	40	38	38	38	36	36	37	38	40	40	44	45	41	39	41	39	40
Minimum	35	38	38	39	41	43	42	41	39	38	38	37	38	37	38	38	36	36	36	34	34	36	36	34	33	33	34	35	37	37	36	37
February																																
Maximum	41	40	39	41	44	42	41	41	40	42	41	42	39	40	40	40	43	43	43	45	44	42	45	43	39	41	42	44	--	--	--	42
Minimum	37	35	37	38	39	37	35	33	35	37	35	37	34	34	35	35	35	35	38	37	35	39	39	39	35	35	34	33	--	--	--	36
March																																
Maximum	40	41	41	37	41	43	44	43	43	46	42	47	48	44	43	42	41	41	47	45	48	49	50	49	51	51	53	53	53	53	50	46
Minimum	35	34	32	32	36	39	39	30	41	40	39	38	42	41	39	35	33	39	38	35	39	37	-37	40	39	42	40	42	40	41	41	38
April																																
Maximum	53	53	53	48	48	52	54	53	49	48	46	48	53	56	58	53	53	53	55	52	51	52	53	54	56	56	55	52	59	59	--	53
Minimum	41	42	42	44	45	43	45	46	47	44	43	42	42	44	45	48	49	47	49	45	45	47	48	50	50	49	46	47	47	47	--	46
May																																
Maximum	61	62	61	62	60	62	62	62	59	65	64	65	65	62	64	64	66	66	69	71	70	68	70	72	73	71	72	71	68	65	68	66
Minimum	47	49	50	53	51	49	50	52	54	52	51	52	52	51	51	52	52	54	55	56	57	56	55	57	58	59	59	59	59	57	56	54
June																																
Maximum	67	62	65	68	65	61	64	70	73	73	74	77	79	78	78	77	77	78	78	74	74	73	74	76	77	77	79	79	75	77	--	73
Minimum	54	52	51	53	56	58	57	57	59	60	59	61	63	65	67	62	64	64	64	64	63	61	63	61	61	62	63	65	62	60	--	60
July																																
Maximum	75	74	74	77	77	77	75	77	69	74	75	76	76	75	76	76	77	78	78	79	77	76	75	74	73	74	75	74	72	66	76	75
Minimum	63	68	68	59	60	60	60	60	59	58	59	59	60	59	60	59	60	62	61	62	62	63	62	59	59	60	60	60	60	60	58	61
August																																
Maximum	77	78	79	78	79	78	79	78	74	78	77	78	79	78	78	74	78	78	78	77	76	76	76	76	76	76	76	76	75	69	75	77
Minimum	61	63	63	62	62	63	63	62	63	63	63	63	63	63	63	63	64	64	63	61	60	60	60	60	60	60	60	60	60	61	60	62
September																																
Maximum	76	77	77	77	77	77	71	74	76	75	73	72	70	71	73	73	74	68	70	74	74	72	72	72	72	72	73	74	74	72	--	73
Minimum	61	60	63	61	61	61	62	61	60	60	60	58	57	57	57	58	58	59	59	59	59	59	57	58	58	59	57	59	58	63	--	59

11-4729. BLACK BUTTE RIVER NEAR COVELO, CALIF.--Continued

Suspended sediment, November 1965 to April 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1				--	--	--	115	95	29
2				--	--	--	105	81	23
3				--	--	--	120	104	34
4				--	--	--	135	162	59
5				--	--	--	160	194	84
6				--	--	--	181	--	88
7				--	--	--	136	--	59
8				--	--	--	125	--	41
9				--	--	--	125	90	30
10				--	--	--	106	62	18
11				--	--	--	84	33	7.5
12				--	--	--	88	28	6.7
13				--	--	--	81	18	3.9
14				--	--	--	62	8	1.3
15				--	--	--	52	7	1.0
16				--	--	--	49	5	.7
17				229	816	S 1090	41	--	.3
18				704	1800	S 3700	41	2	.2
19				412	435	S 534	38	2	.2
20				238	210	135	34	2	.2
21				244	150	99	35	2	.2
22				222	50	30	35	3	.3
23				178	80	38	29	2	.2
24				454	667	S 840	151	625	S 413
25				281	310	235	168	300	136
26				173	152	71	118	70	22
27				200	210	113	148	70	28
28				150	190	77	636	4280	10100
29				130	145	51	685	1400	2590
30				120	107	35	755	900	1830
31				--	--	--	638	650	1120
Total				3735	--	7048	5276	--	16726.7
	JANUARY			FEBRUARY			MARCH		
1	250	200	135	220	370	220	200	--	54
2	210	500	284	193	400	208	186	--	40
3	1110	2830	S 9960	442	677	S 1000	216	75	44
4	4700	10600	S 143000	1320	3080	S 11200	255	--	48
5	4050	7200	S 80200	1060	1600	4580	288	140	109
6	2680	4800	34700	1090	1030	3030	358	320	309
7	2020	3400	18500	958	830	2150	395	500	533
8	2120	2700	15500	828	--	1400	454	630	772
9	1910	--	11000	705	490	933	744	1640	S 3690
10	1580	1500	6400	636	--	670	800	2180	4710
11	1270	--	3800	454	330	405	720	1450	2820
12	1090	950	2800	431	--	350	650	1140	2000
13	870	900	2110	320	--	190	740	1230	2460
14	665	800	1440	294	--	150	700	1250	2360
15	552	750	1120	211	--	85	650	980	1720
16	463	--	940	211	150	85	620	1070	1790
17	314	650	551	268	--	120	580	790	1240
18	307	600	497	294	--	170	540	600	875
19	255	--	390	495	280	374	520	700	983
20	155	495	207	438	--	300	461	--	1100
21	125	390	132	373	200	201	507	--	990
22	122	--	110	395	330	352	429	520	602
23	94	--	71	344	320	297	450	400	486
24	88	--	62	238	--	240	460	--	430
25	84	260	59	294	660	524	480	--	440
26	66	--	43	238	340	218	500	--	770
27	60	--	34	300	--	160	520	--	2400
28	53	190	27	300	--	97	580	--	2700
29	233	1020	S 1100	--	--	--	680	1600	2940
30	358	780	754	--	--	--	760	--	3100
31	280	410	310	--	--	--	704	--	2700
Total	28134	--	336236	13350	--	29709	16147	--	45215

S Computed by subdividing day.

11-4729. BLACK BUTTE RIVER NEAR COVELO, CALIF.--Continued

Suspended sediment, November 1965 to April 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	715	1830	S 3490						
2	881	--	4300						
3	675	1300	2370						
4	725	--	2200						
5	627	--	1900						
6	627	--	1900						
7	776	1140	2390						
8	685	910	1680						
9	818	--	2100						
10	1050	1250	3540						
11	1060	1000	2860						
12	870	1000	2350						
13	796	--	1600						
14	656	--	1200						
15	589	--	920						
16	608	--	870						
17	796	520	1120						
18	755	--	920						
19	534	330	476						
20	534	--	320						
21	328	160	142						
22	274	--	110						
23	294	--	110						
24	274	--	96						
25	244	--	79						
26	294	--	87						
27	294	--	79						
28	268	--	65						
29	288	--	62						
30	274	--	52						
31	--	--	--						
Total	17609	--	39388						

Total discharge for period Nov. 1, 1965 to Apr. 30, 1966 (cfs-days)..... 84251
Total load for period Nov. 1, 1965 to Apr. 30, 1966 (tons)..... 474322.7

S Computed by subdividing day.

11-4729. BLACK BUTTE RIVER NEAR COVELO, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 16, 1965.....	1630	52		94	207		---	---	---	---	---	83	88	93	99	100		V
Nov. 18.....	1315	49		665	1530		22	33	40	53	64	69	80	91	98	100		VPWC
Jan. 4, 1966.....	1420	39		5640	12300		23	33	42	55	70	77	90	99	100	---		VPWC
Jan. 5.....	0845	46		4380	8340		---	27	---	42	---	60	71	84	92	100		VPWC
Jan. 6.....	1230	43		2680	4700		---	27	---	53	---	72	82	94	98	100		VPWC
Feb. 2.....	1000	36		193	386		---	---	---	---	---	69	77	87	100	---		V
Mar. 3.....	1300	40		164	91		---	---	---	---	---	62	67	80	98	100		V
Apr. 19.....	1000	45		543	473		---	---	---	---	---	56	64	78	95	100		V

11-4730. MIDDLE FORK EEL RIVER BELOW BLACK BUTTE RIVER, NEAR COVELO, CALIF.

LOCATION.--Lat 39°49'35", long 123°05'30", at gaging station 0.2 mile downstream from Black Butte River and 8.6 miles east of Covelo, Mendocino County.
DRAINAGE AREA.--367 square miles.
RECORDS AVAILABLE.--Chemical analyses: November 1964 to September 1966 (discontinued).
Water temperatures: July to November 1961, October 1962 to September 1966.
Sediment records: October 1962 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 80°F Aug. 2, 3, 7, 17, 18.
Sediment concentrations: Maximum daily, 7,090 ppm Jan. 4; minimum daily, 1 ppm on many days.
Sediment loads: Maximum daily, 198,000 tons Jan. 4; minimum daily, less than 0.05 ton on many days.
EXTREMES, 1962-66.--Water temperatures (1962-63, 1965-66): Maximum, 80°F Sept. 4, 1963, Aug. 2, 3, 7, 17, 18, 1966.
Sediment concentrations: Maximum daily, (estimated) 9,000 ppm Dec. 22, 1964; minimum daily, 1 ppm on many days during 1962-66.
Sediment loads: Maximum daily, (estimated) 2,500,000 tons Dec. 22, 1964; minimum daily, less than 0.05 ton on many days during 1962-66.
REMARKS.--Where no maximum or minimum is shown, temperature is once-daily reading.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 14, 1965....	8.7	--		--	--	19	--	147	7	--	40		0.1	0.4	--	--		206	74	0.6	488	8.5
Nov. 11.....	12	--		--	--	17	--	130	5	--	25		1.7	.3	--	--		174	59	.6	411	8.5
Dec. 8.....	699	--		--	--	3.4	--	62	0	--	2.1		.2	.0	--	--		58	7	.2	130	8.2
Jan. 13, 1966....	2200	--		--	--	3.4	--	62	0	--	1.4		.4	.0	--	--		55	4	.2	123	8.2
Feb. 17.....	540	--		--	--	3.6	--	70	0	--	1.5		.1	.0	--	--		64	7	.2	143	8.2
Mar. 16.....	2060	--		--	--	2.4	--	55	0	--	.9		1.0	.0	--	--		48	3	.1	107	8.1
Apr. 12.....	2500	--		--	--	2.0	--	45	0	--	.4		.4	.0	--	--		40	3	.1	87	8.0
May 16.....	628	5.8		14	1.3	2.1	0.8	45	0	7.0	1.2		.8	.0	62	0.08		40	3	.1	90	8.0
June 13.....	140	--		--	--	4.1	--	76	0	--	3.5		--	.0	--	--		71	9	.2	160	8.2
July 20.....	32	--		--	--	9.5	--	118	3	--	14		.3	.1	--	--		127	25	.4	291	8.5
Aug. 17.....	15	--		--	--	13	--	134	2	--	25		.7	.1	--	--		162	49	.4	373	8.3
Sept. 14.....	14	8.3		51	10	17	1.8	126	5	49	34		.5	.2	278	.38		168	56	.6	417	8.4

11-4730. MIDDLE FORK EEL RIVER BELOW BLACK BUTTE RIVER, NEAR COVELO, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	---	---	---	64	---	---	---	---	---	63	---	---	---	63	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
November	---	---	---	---	---	---	57	55	54	55	55	53	51	51	50	50	50	48	47	46	46	45	46	42	37	40	41	41	42	42	---	48
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
December	42	42	42	43	42	42	43	---	42	---	41	43	41	---	39	38	---	38	38	36	38	35	37	38	37	36	39	38	38	37	36	39
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
January	37	37	40	39	39	40	41	43	---	39	---	40	42	41	42	---	39	37	38	38	39	---	39	---	39	---	---	---	40	38	---	---
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
February	40	38	40	41	40	40	---	---	---	40	---	---	---	---	---	---	41	---	42	---	---	42	---	---	39	---	---	---	---	---	---	---
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
March	---	---	40	39	40	40	40	41	41	41	40	41	43	42	42	41	42	---	43	---	45	---	47	---	---	---	---	---	48	---	---	---
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
April	45	---	43	---	---	---	---	54	46	44	42	40	---	---	---	---	51	---	49	---	48	---	---	---	---	---	---	---	---	---	---	---
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
May	---	---	---	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	52	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	64	64	61	58	61	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	56	57	57	56	54	---
June	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	61	57	59	62	60	58	59	64	66	66	65	67	69	71	70	70	70	71	72	69	69	69	69	71	72	72	73	74	74	74	---	67
Minimum	53	52	51	52	55	56	55	55	58	58	56	57	58	60	62	62	60	61	62	61	60	60	60	60	60	61	62	63	62	63	---	58
July	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	72	71	73	74	74	74	73	68	70	73	73	74	74	74	74	74	75	75	76	76	78	77	77	76	75	76	77	76	74	72	77	74
Minimum	63	61	62	63	64	63	62	63	63	63	63	64	64	63	63	63	64	65	65	65	66	66	66	66	65	66	66	66	66	68	65	64
August	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	79	80	80	78	79	79	80	78	77	79	79	79	79	79	79	76	80	80	79	79	78	78	77	76	77	77	77	78	78	71	76	78
Minimum	67	68	69	69	68	68	70	68	69	69	70	70	69	69	70	69	70	70	68	70	70	70	68	66	67	66	68	68	68	67	65	68
September	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	77	77	77	77	77	77	74	75	76	74	72	71	70	72	73	74	74	69	71	75	75	74	73	73	72	72	73	74	74	73	---	74
Minimum	67	67	67	67	66	66	66	65	66	65	66	63	64	63	63	64	65	65	64	64	65	64	63	64	64	65	64	64	64	64	---	65

11-4730. MIDDLE FORK EEL RIVER BELOW BLACK BUTTE RIVER, NEAR COVELO, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	8.7	--	T	11	--	0.2	460	141	175
2	8.7	--	T	11	--	.2	440	82	97
3	8.7	--	T	13	--	.2	550	141	209
4	8.7	1	T	18	--	.4	650	238	418
5	9.7	--	T	20	--	.4	790	452	964
6	11	--	0.1	18	--	.4	920	700	1740
7	11	--	.1	68	68 K	43	800	635	1370
8	9.7	--	.1	280	191 S	193	699	420 B	793
9	8.7	--	.1	50	13	1.8	484	184	240
10	8.7	3	.1	21	3	.2	354	120 B	115
11	8.7	--	.1	12	--	.1	300	74	60
12	8.0	--	.1	121	313 K	244	332	49	44
13	8.0	--	.1	700	1600	3020	300	37	30
14	8.7	3	.1	1500	1680	6800	265	29 B	21
15	13	--	.1	900	1400	3400	224	20	12
16	13	--	.1	518	450	629	220	14	8.3
17	13	--	.1	550	700	1040	188	16 B	8.1
18	13	--	.1	2300	1550	9630	192	22	11
19	15	--	.2	1700	1330	6100	176	13	6.2
20	15	--	.2	800	560	1210	156	6	2.5
21	14	--	.2	500	395	533	156	2	.8
22	13	--	.2	400	280	302	149	4	1.6
23	13	--	.2	350	280	265	124	18	6.0
24	12	--	.2	1700	800	3670	342	675 S	872
25	12	--	.2	1300	377	1320	700	230	435
26	12	--	.2	750	318	644	450	58	70
27	12	--	.2	800	351	758	370	77	77
28	11	--	.2	600	172	279	2900	5090 S	46600
29	11	--	.2	520	158	222	1370	1800	6660
30	11	--	.2	480	193	250	1150	605	1880
31	11	--	.2	--	--	--	1050	447	1270
Total	341.0	--	3.9	17011	--	40555.9	17261	--	64196.5

Day	JANUARY			FEBRUARY			MARCH		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	836	204	460	740	222	444	540	--	160
2	917	285	706	635	205	351	530	--	160
3	1940	1750 S	11200	836	235 K	720	500	110	149
4	9500	7090 S	198000	2560	1070 S	7860	540	82	120
5	10200	6300	174000	2400	1150	7450	560	115	174
6	8150	4900	108000	1750	605	2860	620	360	603
7	6000	3350	54300	1300	--	1500	1320	370	1320
8	5100	2840	39100	1100	--	1040	1990	1270 S	7210
9	4200	2300 B	26100	960	260 B	674	2810	2530 S	20800
10	3600	1550	15100	860	195	453	2900	2690 S	21800
11	3200	1300 B	11200	760	--	290	2350	1620	10300
12	2600	900	6320	710	--	190	2190	1080	6390
13	2200	682	4050	660	--	150	2580	2030	14100
14	2000	582	3140	620	--	130	2300	1780	11100
15	1750	550	2600	600	--	130	2380	1420	9120
16	1500	425	1720	560	--	120	2060	1170	6510
17	1250	360 B	1220	540	77	112	1820	970	4770
18	1100	350	1040	650	--	120	1780	--	3600
19	971	290	760	750	182	369	1820	650	3190
20	917	235	582	720	--	310	1500	--	2200
21	809	208	454	660	--	270	1420	440	1690
22	715	190 B	367	640	162	280	1400	--	1400
23	640	165	285	640	--	290	1380	350	1300
24	582	150 B	236	660	--	250	1440	--	1700
25	530	133	190	620	167	280	1520	--	2000
26	497	120 B	161	580	--	250	1580	--	2600
27	438	100 B	118	570	--	200	1600	--	3300
28	371	90 B	90	550	--	180	1670	--	4300
29	778	314 S	915	--	--	--	1960	1200	6350
30	872	268	631	--	--	--	2220	--	9000
31	724	240 B	469	--	--	--	2510	--	11000
Total	74887	--	663514	24631	--	27273	51790	--	168416

S Computed by subdividing day.
T Less than 0.05 ton.
B Computed from estimated-concentration graph.
K Computed from estimated-concentration graph and subdividing day.

11-4730. MIDDLE FORK EEL RIVER BELOW BLACK BUTTE RIVER, NEAR COVELO, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	2900	1660	13000	908	--	368	270		10
2	3220	--	14000	1030	--	417	250		9.4
3	3080	1460	12100	1240	--	469	225		7.9
4	3080	--	11000	1780	140	673	210		7.4
5	3180	--	10000	1560	--	550	200		6.5
6	3080	--	9100	1120	--	390	200		6.5
7	2950	--	6200	971	--	310	190		5.6
8	2900	960	7520	944	--	280	185		5.5
9	2800	880	6650	935	--	250	175		5.2
10	4500	930	11300	926	--	240	170		4.6
11	3500	970	9170	863	--	210	160		4.3
12	2500	930	6280	758	--	160	150		3.6
13	2200	--	5100	715	--	140	140		3.4
14	1900	--	4100	683	--	120	135		2.9
15	1800	--	3500	635	--	96	125		2.7
16	1900	--	3200	628	--	80	120		2.6
17	2300	540	3350	598	--	65	115		2.2
18	2100	--	2600	575	--	51	110		2.1
19	1850	390	1950	560	--	38	105		1.7
20	1790	--	1300	540	19	28	100		1.6
21	1680	170	771	535	19	27	96		1.3
22	1570	--	680	500	--	24	92		1.2
23	1520	--	660	460	--	22	90		1.2
24	1520	--	660	430	--	20	88		1.0
25	1700	--	730	420	--	19	84		.9
26	1590	--	640	415	--	19	80		.6
27	1120	--	450	400	--	17	76		.6
28	971	--	390	360	--	16	74		.4
29	917	--	370	340	--	14	70	2	.4
30	899	--	364	310	--	13	68		.4
31	--	--	--	290	--	11	--		--
Total	67017	--	146771	22429	--	5137	4153	--	103.7

Day	JULY			AUGUST			SEPTEMBER		
1	65	--	0.4	22	--	0.1	16	1	T
2	63	--	.3	21	--	.1	16	--	T
3	62	--	.3	20	--	.1	15	--	T
4	60	--	.2	20	--	.1	15	--	T
5	58	--	.2	19	--	.1	15	--	T
6	56	1	.2	18	--	T	14	--	T
7	54	--	.1	18	--	T	14	--	T
8	52	--	.1	18	--	T	14	--	T
9	51	--	.1	19	--	.1	14	--	T
10	50	--	.1	20	--	.1	14	--	T
11	49	--	.1	19	--	.1	14	--	T
12	49	--	.1	18	--	T	14	--	T
13	48	--	.1	17	1	T	14	1	T
14	46	--	.1	17	--	T	14	--	T
15	45	--	.1	16	--	T	14	--	T
16	43	--	.1	16	--	T	14	--	T
17	40	--	.1	15	--	T	16	--	0.2
18	38	--	.1	14	--	T	23	15	.9
19	35	--	.1	14	--	T	26	--	.7
20	32	1	.1	13	--	T	24	--	.5
21	32	--	.1	13	--	T	22	--	.4
22	31	--	.1	13	--	T	21	--	.3
23	30	1	.1	12	--	T	20	3	.2
24	29	--	.1	12	--	T	20	--	.2
25	28	--	.1	12	--	T	20	--	.2
26	28	--	.1	13	--	T	18	--	.1
27	27	--	.1	13	--	T	17	--	.1
28	26	--	.1	13	--	T	16	--	.1
29	25	--	.1	14	--	T	14	2	.1
30	24	--	.1	14	--	T	13	--	.1
31	23	--	.1	14	--	T	--	--	--
Total	1299	--	4.1	497	--	1.7	501	--	4.7

Total discharge for year (cfs-days)..... 281817.0
Total load for year (tons)..... 1115981.5

T Less than 0.05 ton.

11-4730. MIDDLE FORK EEL RIVER BELOW BLACK BUTTE RIVER, NEAR COVELO, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 16, 1965.....	1440	50		518	276		--	--	--	--	--	84	87	93	100	--		V
Nov. 18.....	1330	48		1710	1230		21	32	43	52	64	72	80	90	98	100		VPWC
Jan. 6, 1966.....	0740	40		10300	5260		23	23	35	45	59	66	77	90	98	100		VPWC
Jan. 8.....	1610	43		D 5100	2730		--	24	--	44	--	61	70	84	97	100		VPWC
Feb. 2.....	1200	38		635	205		--	--	--	--	--	59	67	78	95	100		V
Mar. 3.....	1445	40		D 500	104		--	--	--	--	--	43	48	57	96	100		V
Mar. 8.....	0745	41		1920	986		--	--	--	--	--	56	66	80	96	100		V
Apr. 8.....	0930	54		2900	966		--	--	--	--	--	54	64	79	95	100		V
Apr. 19.....	1330	49		D 1850	390		--	--	--	--	--	52	59	68	83	98	100	V

D Daily mean discharge.

EEL RIVER BASIN--Continued

11-4731. WILLIAMS CREEK NEAR COVELO, CALIF.

LOCATION.--Lat 39°49'30", long 123°08'25", at gaging station 1.0 mile upstream from mouth and 6.1 miles northeast of Covelo, Mendocino County.
DRAINAGE AREA.--30.4 square miles.
RECORDS AVAILABLE.--Chemical analyses: November 1964 to September 1966 (discontinued).

Chemical analyses, in partspper million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 14, 1965....	0.6	--		--	--	5.0	--	208	9	--	1.9		0.2	0.0	--	--		196	11	0.2	371	8.4
Nov. 11.....	3.0	--		--	--	4.8	--	186	8	--	1.8		1.5	.1	--	--		189	23	.2	358	8.5
Dec. 8.....	33	--		--	--	2.8	--	72	0	--	1.0		.2	.0	--	--		65	6	.1	140	8.2
Jan. 13, 1966....	100	--		--	--	2.6	--	56	0	--	.6		.4	.0	--	--		49	3	.2	110	8.1
Feb. 17.....	68	--		--	--	3.0	--	65	0	--	.4		.2	.0	--	--		59	6	.2	130	8.2
Mar. 16.....	192	--		--	--	2.6	--	49	0	--	.7		.7	.0	--	--		43	3	.2	98	7.9
Apr. 12.....	156	--		--	--	2.2	--	50	0	--	.3		.2	.0	--	--		45	4	.1	99	8.1
May 16.....	32	7.0		15	6.0	2.4	0.8	71	0	8.0	.6		.7	.0	76	0.10		62	4	.1	131	7.9
June 13.....	8.6	--		--	--	4.3	--	99	1	--	.5		--	.0	--	--		89	6	.2	182	8.4
July 20.....	1.8	--		--	--	3.5	--	141	6	--	.8		.1	.0	--	--		134	9	.1	260	8.6
Aug. 17.....	150	--		--	--	4.4	--	155	9	--	1.1		.9	.0	--	.--		152	10	.2	290	8.6
Sept. 14.....	140	9.7		38	17	4.5	1.3	188	0	20	1.0		.8	.0	185	.25		165	11	.2	319	8.2

EEL RIVER BASIN--Continued

11-4737. MILL CREEK NEAR COVELO, CALIF.

LOCATION.--Lat 39°44'45", long 123°10'15", at gaging station 50 feet upstream from unnamed tributary, 0.65 mile downstream from county road bridge, and 5.2 miles southeast of Covelo, Mendocino County.
DRAINAGE AREA.--96.9 square miles.
RECORDS AVAILABLE.--Chemical analyses: December 1964 to September 1966 (discontinued).
REMARKS.--No flow Oct. 1 to Nov. 6 and July 18 to Sept. 30.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Dec. 8, 1965.....	12					6.4		106	1		3.5		1.2	0.0				94	5	0.3	209	8.3
Jan. 13, 1966....	310					5.8		94	0		2.3		1.1	.0				81	4	.3	181	8.2
Feb. 17.....	117					6.5		117	3		2.4		.9	.0				103	2	.3	222	8.4
Mar. 16.....	366					5.4		91	0		2.0		.9	.0				77	2	.3	170	8.1
Apr. 12.....	300					6.2		108	0		2.0		.6	.0				92	3	.3	200	8.2
May 16.....	9.5	12		37	17	9.3	1.4	201	1	14	3.8		.9	.0	195	0.27		164	0	.3	335	8.3
June 13.....	4.0					11		196	8		4.4		---	.1				166	0	.4	346	8.6

11-4738. ELK CREEK NEAR HEARST, CALIF.

LOCATION.--Lat 39°38'57", long 123°07'12", temperature recorder at gaging station on right bank 300 feet upstream from unnamed tributary, and 13.5 miles northeast of Hearst, Mendocino County.
DRAINAGE AREA.--84.1 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1964 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 87°F Aug. 23, 28-30, Sept. 1, 2.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																														Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	--	--	57	56	55	55	55	55	56	52	52	52	52	49	52	49	46	47	48	48	46	47	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	53	54	53	51	53	54	51	49	49	48	48	46	48	45	45	45	45	44	44	44	--	--
December																																
Maximum	47	47	46	46	47	47	48	47	48	48	46	47	46	45	44	44	44	43	42	42	42	42	42	41	41	41	41	42	42	42	42	44
Minimum	43	42	43	44	45	44	44	44	45	45	44	44	43	40	41	40	41	41	41	41	41	41	41	39	39	41	41	40	40	40	39	42
January																																
Maximum	42	42	43	45	47	47	47	47	45	43	44	44	43	43	43	43	43	42	41	42	40	42	42	42	42	42	42	42	42	43	43	43
Minimum	40	42	41	43	45	46	45	45	42	41	43	43	43	42	43	42	41	41	40	40	41	41	42	41	40	41	41	40	41	40	42	42
February																																
Maximum	43	43	43	45	46	45	44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	42	42	43	43	44	43	40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
March																																
Maximum	--	--	--	--	--	--	--	47	49	50	--	--	--	--	--	--	--	--	--	--	--	--	53	47	51	55	48	48	49	53	55	--
Minimum	--	--	--	--	--	--	--	42	41	46	--	--	--	--	--	--	--	--	--	--	--	--	43	42	47	43	44	47	48	47	47	--
April																																
Maximum	52	51	51	53	57	57	58	56	54	53	52	53	57	55	62	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	50	50	49	50	47	48	48	49	50	52	50	47	47	48	51	51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
May																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	64	64	65	64	64	64	64	64	66	66	66	66	66	63	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	56	57	59	60	60	59	60	61	63	63	63	62	62	60	--
June																																
Maximum	63	62	61	61	61	63	62	61	63	65	64	64	64	66	76	72	70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	59	57	57	57	59	60	59	59	61	63	61	62	62	64	66	66	66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
July																																
Maximum	--	--	--	--	--	--	--	84	78	77	76	74	72	74	76	78	77	74	74	78	84	86	82	80	82	80	82	80	78	73	80	--
Minimum	--	--	--	--	--	--	--	64	62	62	63	58	59	60	59	59	61	65	63	63	67	66	66	63	63	63	63	64	64	65	65	--
August																																
Maximum	82	82	82	81	81	79	76	72	74	79	82	81	81	81	81	76	86	83	82	84	85	84	87	84	84	86	84	87	87	87	86	82
Minimum	64	64	64	63	64	63	64	64	62	62	62	64	64	62	63	62	63	66	64	65	67	67	66	68	65	65	64	65	66	69	64	64
September																																
Maximum	87	87	86	85	85	85	81	79	80	82	84	84	84	85	86	76	82	82	84	78	78	--	--	--	--	--	--	--	--	--	--	--
Minimum	66	68	69	68	68	68	68	66	67	68	68	68	68	68	68	68	69	68	67	63	63	--	--	--	--	--	--	--	--	--	--	--

11-4738. ELK CREEK NEAR HEARST, CALIF.--Continued

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 10, 1965.....	1130	52		8.4	7	0.2						--	--	--	--	--		
Dec. 16.....	1155	42		35	8	7.6						--	--	--	--	--		
Jan. 7, 1966.....	1345	46		1170	2050	6480		38		65		83	91	98	100	--		VPWC
Feb. 16.....	1200	38		142	101	39						80	84	92	97	100		V
Mar. 23.....	1140	48		194	201	105						49	53	64	79	96	100	V
Apr. 20.....	1230	49		206	125	70						--	--	--	--	--		
May 18.....	1000	57		55	2	.3						--	--	--	--	--		
June 15.....	1005	67		17	1	T						--	--	--	--	--		
July 7.....	1055	66		7.6	1	T						--	--	--	--	--		

T Less than 0.05 ton.

11-4739. MIDDLE FORK EEL RIVER NEAR DOS RIOS, CALIF.
(Formerly published as Middle Fork Eel River at Dos Rios, Calif.)

LOCATION (revised).--Lat 39°42'23", long 123°19'27", at gaging station 0.6 mile upstream from Eastman Creek, 1.7 miles southeast of Dos Rios, Mendocino County, and 1.9 miles upstream from mouth.
DRAINAGE AREA.--745 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966 (discontinued).
Water temperatures: October 1957 to September 1959, October 1960 to September 1966.
Sediment records: October 1957 to September 1966.
EXTREMES, 1965-66.--Sediment concentrations: Maximum daily, 11,800 ppm Jan. 4; minimum daily, 1 ppm on many days.
Sediment loads: Maximum daily, 1,430,000 tons Jan. 4; minimum daily, less than 0.05 ton on many days.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 14, 1965....	18	--		--	--	12	--	151	8	--	59		0.2	0.1	--	--		198	61	0.4	429	8.5
Nov. 11.....	54	--		--	--	12	--	151	7	--	18		1.5	.3	--	--		205	70	.4	437	8.5
Dec. 8.....	914	--		--	--	3.9	--	77	0	--	2.0		.3	.0	--	--		78	15	.2	170	8.2
Jan. 13, 1966. ..	2150	--		--	--	4.9	--	81	0	--	1.2		.6	.0	--	--		74	8	.2	163	8.2
Feb. 17.....	1160	--		--	--	4.6	--	94	1	--	1.2		.3	.0	--	--		90	11	.2	198	8.3
Mar. 16.....	4400	--		--	--	3.5	--	72	0	--	1.0		.8	.3	--	--		64	5	.2	141	8.1
Apr. 12.....	4860	--		--	--	3.0	--	64	0	--	.5		.8	.0	--	--		56	4	.2	121	8.2
May 16.....	770	7.3		17	4.5	2.8	0.7	69	0	9.0	1.3		.4	.0	85	0.12		61	4	.2	133	8.2
June 13.....	168	--		--	--	6.1	--	106	2	--	2.9		--	.1	--	--		102	12	.3	219	8.4
July 20.....	41	--		--	--	7.6	--	129	5	--	7.0		.7	.1	--	--		148	34	.3	310	8.5
Aug. 17.....	21	--		--	--	9.4	--	125	5	--	11		.7	.0	--	--		160	49	.3	345	8.5
Sept. 14.....	17	11		45	13	10	1.6	114	4	65	16		.8	.0	230	.31		166	66	.3	364	8.5

EEL RIVER BASIN--Continued

11-4739. MIDDLE FORK EEL RIVER NEAR DOS RIOS, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	--	--	--	67	--	--	--	--	64	--	--	--	--	--	--	63	--	--	--	--	--	--	--	61	--	--	--	--	--	58	--	--
November	--	--	--	61	--	--	58	56	53	--	55	55	55	51	52	53	53	48	50	49	47	48	46	45	41	45	44	42	44	44	--	50
December	45	44	44	43	47	45	46	45	45	44	43	45	42	41	38	37	36	35	35	35	--	36	35	40	--	--	40	43	40	39	39	41
January	38	40	41	43	44	45	45	46	43	41	42	40	39	38	39	42	40	40	--	39	--	41	41	38	40	40	--	--	43	42	42	41
February	43	42	42	44	44	43	43	42	42	42	41	45	46	--	--	42	42	43	45	47	46	45	45	46	42	41	41	44	--	--	--	43
March	42	41	38	38	42	46	45	45	47	45	44	47	49	47	46	43	41	44	46	43	47	46	49	48	50	49	46	49	54	53	54	46
April	52	53	49	54	54	53	50	52	50	47	46	46	49	49	50	53	50	48	47	47	49	50	52	55	52	50	48	50	50	59	--	50
May	53	54	54	54	58	53	55	55	52	55	56	55	55	54	55	58	65	61	61	60	60	58	59	70	71	63	62	65	68	60	65	59
June	65	--	59	--	64	--	67	--	67	--	66	--	72	--	--	73	--	76	--	--	73	--	--	70	--	--	77	--	76	--	--	--
July	71	--	--	--	--	70	--	--	71	--	77	--	76	--	75	--	--	70	--	79	79	76	--	--	76	--	80	--	73	--	--	--
August	78	--	79	--	76	--	--	75	--	80	--	76	--	--	77	--	79	--	78	--	--	81	--	79	--	77	--	--	74	78	77	--
September	--	78	--	--	76	--	72	--	72	--	--	73	--	72	--	73	--	66	65	--	71	--	67	--	--	--	--	--	--	--	--	--

11-4739. MIDDLE FORK EEL RIVER AT DOS RIOS, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	18	--	T	19	--	0.1	770	68	141
2	18	--	T	20	--	.1	722	240	468
3	18	--	T	20	--	.1	788	430	915
4	18	1	T	21	1	.1	928	525	1320
5	18	--	T	22	--	.1	1010	--	1450
6	19	--	0.1	22	--	.1	1330	580	2080
7	19	--	.1	30	5	.4	1080	530	1550
8	19	--	.1	240	220 S	194	914	380	938
9	19	1	.1	147	63 S	27	782	135	285
10	18	--	T	72	30 B	5.8	656	--	156
11	18	--	T	54	8	1.2	560	86 B	130
12	18	--	T	58	22	3.4	515	85	118
13	18	--	T	530	1400 S	3500	447	72	87
14	18	--	T	2820	6160 S	52800	391	58	61
15	20	--	.1	1880	2490 K	12900	331	57	51
16	21	1	.1	764	756 S	1650	286	40	31
17	22	--	.1	890	384 S	1520	266	30	22
18	22	--	.1	4200	4600 S	53600	245	24	16
19	22	--	.1	2590	2790 S	21600	236	20 B	13
20	22	--	.1	1100	1100	3270	214	18	10
21	22	--	.1	764	480	990	205	20 B	11
22	22	--	.1	614	160	265	211	24	14
23	21	--	.1	545	180	265	192	16	8.3
24	21	1	.1	3210	3570 S	34000	1080	3130 S	16700
25	21	--	.1	2160	2380 S	14100	1300	2730 K	10500
26	20	--	.1	1260	755 S	2760	800	813 K	1830
27	20	--	.1	1350	1490 S	5540	680	253 S	469
28	19	--	.1	1020	500	1380	5470	6470 S	144000
29	19	--	.1	908	95	235	3840	2740 S	30100
30	19	1	.1	842	65 B	148	2640	1330	9480
31	19	--	.1	--	--	--	2820	1240 S	10200
Total	608	--	2.6	28172	--	210755.4	31709	--	233154.3

Day	JANUARY			FEBRUARY			MARCH		
1	1530	480	1980	2400	1050	6800	1400	160	605
2	1270	410	1410	1800	900	4370	1400	138	522
3	5720	4640 S	85300	5000	780	10500	1220	132	435
4	45000	11800	1430000	5500	3380	50200	1190	118	379
5	32000	8100	700000	4360	2080	24500	1470	283 S	1160
6	21100	5740 S	329000	3940	1700	18100	2150	800	4640
7	9870	4700	125000	3000	700	5670	2400	1400	9070
8	7480	3480	70300	2400	800	5180	3160	1750	14900
9	5310	3970	56900	2160	850	4960	6360	2740 S	48800
10	3900	2890	30400	1700	330	1510	7540	3590 S	74600
11	2950	2300	18300	1600	290	1250	5180	1800	25200
12	2470	2000	13300	1400	160	605	4190	1350	15300
13	2150	700	4060	1320	172	613	4860	1900	24900
14	1960	800	4230	1320	170 B	606	4690	1700	21500
15	1850	650	3250	1240	140 B	469	4530	1400	17100
16	1850	700	3500	1240	105	352	4400	900	10700
17	1740	670	3150	1160	110	345	3800	770	7900
18	1650	505	2250	1240	140	469	3450	700	6520
19	1550	400 B	1670	2160	468	2730	3660	1080	10700
20	1400	360	1360	1600	300	1300	3180	540	4640
21	1340	320 B	1160	1400	194	733	3000	400	3240
22	1280	238	823	1320	150	535	2880	360	2800
23	1250	190	641	1800	250	1220	2760	350	2610
24	1240	195	653	2160	310 B	1810	2880	400	3110
25	1180	166	529	2300	294	1830	3120	640	5390
26	1160	132	413	2500	385	2600	3450	1750	16300
27	1160	100	313	2000	240	1300	3730	1970	19800
28	1160	85	266	1600	182	786	3930	2000	21200
29	4000	1800	19400	--	--	--	4120	1700	18900
30	2500	2120	14300	--	--	--	4320	1520	17700
31	2450	610	4040	--	--	--	4390	1600	19000
Total	171470	--	2927898	61620	--	151343	108810	--	429621

S Computed by subdividing day.
T Less than 0.05 ton.
B Computed from estimated-concentration graph.
K Computed from estimated-concentration graph and subdividing day.

11-4739. MIDDLE FORK EEL RIVER AT DOS RIOS, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	4600	1670	20700	1490	240	966	343	25	23
2	4510	1700	20700	1510	260 B	1060	313	--	17
3	4220	1750	19900	1520	270	1110	279	18	14
4	4150	1650	18500	1840	350	1740	251	--	8.1
5	4050	1430	15600	2040	430	2370	276	9	6.7
6	4070	1500	16500	1480	400	1600	239	--	3.9
7	3950	1580	16900	1340	300	1090	254	3	2.1
8	3730	1530	15400	1300	220	772	233	--	1.9
9	3380	1380	12600	1320	145	517	219	3	1.8
10	4560	2530 S	31200	1300	200	702	214	--	2.3
11	4930	2670 S	36400	1240	240	804	198	5	2.7
12	4860	2300 S	32300	1030	220	612	177	--	2.4
13	3530	1030	9820	992	200	536	168	4	1.8
14	3040	1020	8370	928	235	589	163	--	1.8
15	2980	1200	9660	860	180	418	151	--	1.6
16	3390	1630	14900	770	130	270	160	--	1.3
17	3690	1450	14400	740	107	214	147	--	1.2
18	3300	1140	10200	704	94	179	134	3	1.1
19	2640	800	5700	710	116	222	130	--	1.4
20	2230	600	3610	734	136	270	125	--	1.3
21	2050	500	2770	734	155	307	120	5	1.6
22	1970	390	2070	668	80	144	115	--	1.2
23	2040	410	2260	560	64	97	115	--	.9
24	2160	600	3500	555	85	127	110	3	.9
25	2380	860	5530	540	82	120	105	--	.9
26	2380	800	5140	530	70	100	100	--	.5
27	1920	300	1560	495	58	78	95	2	.5
28	1700	320	1470	470	44	56	92	--	.5
29	1630	330	1450	416	39	44	88	2	.5
30	1540	210	873	403	32	35	85	--	.7
31	--	--	--	366	30	30	--	--	--
Total	95580	--	359983	29585	--	17179	5199	--	105.6

	JULY			AUGUST			SEPTEMBER		
1	82	4	0.9	31	1	0.1	21	--	0.1
2	79	--	.9	30	--	.1	21	1	.1
3	78	--	.8	30	2	.2	19	--	.1
4	76	--	.6	29	--	.2	19	--	.1
5	74	--	.6	28	1	.1	18	1	T
6	69	3	.6	26	--	.1	18	--	T
7	67	--	.9	26	--	.1	17	1	T
8	64	--	1.0	25	1	.1	17	--	T
9	64	7	1.2	24	--	.1	17	1	T
10	64	--	.9	24	1	.1	17	--	.1
11	58	3	.5	24	--	.1	17	--	.1
12	57	--	.8	22	2	.1	17	3	.1
13	60	7	1.1	22	--	.1	17	--	.1
14	57	--	.8	22	--	.1	17	2	.1
15	55	3	.4	22	2	.1	18	--	.1
16	54	--	.3	21	--	.1	18	3	.1
17	45	--	.2	21	1	.1	18	--	.1
18	43	1	.1	20	--	.1	21	--	.1
19	42	--	.1	19	2	.1	27	2	.1
20	41	1	.1	18	--	.1	24	--	.2
21	40	2	.2	18	--	T	22	4	.2
22	41	1	.1	18	1	T	21	--	.1
23	40	--	.1	17	--	T	20	1	.1
24	38	--	.1	17	1	T	19	--	.1
25	37	1	.1	17	--	T	19	--	.1
26	35	--	.2	17	1	T	18	--	T
27	35	2	.2	17	--	T	18	--	T
28	34	--	.2	17	--	.1	18	--	T
29	33	12	1.1	17	2	.1	17	--	T
30	32	--	.4	17	2	.1	17	--	T
31	32	--	.3	20	2	.1	--	--	--
Total	1626	--	15.8	676	--	2.9	567	--	2.7

Total discharge for year (cfs-days)..... 535622
Total load for year (tons)..... 4330063.3

S Computed by subdividing day.
B Computed from estimated-concentration graph.
T Less than 0.05 ton.

11-4739. MIDDLE FORK EEL RIVER AT DOS RIOS, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 15, 1965.....	1540	54		2040	1500		--	35	--	56	--	73	82	91	97	100		VPWC
Nov. 18.....	0930	48		5600	5780		15	20	26	34	43	51	72	88	96	100		VPWC
Dec. 28.....	1725	--		7700	11500		17	23	34	43	52	59	77	90	98	100		VPWC
Jan. 4, 1966.....	1500	45		43800	7730		--	32	--	59	--	81	86	94	98	100		VPWC
Jan. 4.....	1630	44		50500	11600		--	26	--	40	--	58	75	90	99	100		VPWC
Jan. 31.....	1630	41		2000	496		--	--	--	--	--	56	64	76	93	100		V
Mar. 2.....	1415	46		1400	122		--	--	--	--	--	81	83	90	100	--		V
Apr. 6.....	1230	53		4010	1330		21	30	41	50	62	70	82	91	98	100		VPWC
Apr. 20.....	1230	47		2220	439		--	--	--	--	--	68	77	87	98	100		V
May 10.....	1545	60		1220	191		--	--	--	--	--	58	60	66	85	100		V

11-4750. EEL RIVER AT FORT SEWARD, CALIF.
(Formerly published as Eel River at Alderpoint, Calif.)

LOCATION (revised).--Lat 40°13'05", long 123°37'54", at gaging station at bridge, 1.0 mile southeast of Fort Seward, Humboldt County, 1.9 miles upstream from Dobbyn Creek, and 11.8 miles northeast of Garberville. Prior to Oct. 1, 1965, at site 7.7 miles upstream.
DRAINAGE AREA (revised).--2,107 square miles.
RECORDS AVAILABLE.--Water temperatures: November 1960 to September 1966.
Sediment records: October 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 91°F July 16, Aug. 15; minimum, 33°F on several days during December.
Sediment concentrations: Maximum daily, 13,900 ppm Jan. 4; minimum daily, 1 ppm on many days.
Sediment loads: Maximum daily, 4,270,000 tons Jan. 4; minimum daily, 0.1 ton on many days.
EXTREMES, 1960-64, 1965-66.--Water temperatures: Maximum, 91°F July 16, Aug. 15, 1966; minimum, 33°F on several days during December 1965.
Sediment concentrations (1965-66): Maximum daily, 13,900 ppm Jan. 4, 1966; minimum daily 1 ppm on many days.
Sediment loads (1965-66): Maximum daily, 4,270,000 tons Jan. 4; minimum daily, 0.1 ton on many days.
REMARKS.--Where no maximum or minimum is shown, temperature is once-daily reading.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																														Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	71	68	68	61	68	68	74	70	66	67	67	64	62	61	61	58	60	57	66	66	67	68	69	69	69	68	63	66	70	70	68	66
Minimum	57	57	56	56	58	58	59	60	58	61	58	58	55	57	54	51	50	55	56	56	56	56	56	56	58	58	58	61	60	59	58	57
November	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	64	63	62	66	65	64	59	62	62	55	54	55	54	53	55	56	55	51	51	53	53	48	47	45	43	42	44	45	43	45	--	54
Minimum	58	57	60	60	59	57	57	57	54	53	53	53	53	51	51	51	51	48	48	49	48	47	45	42	41	40	41	40	39	40	--	50
December	--	--	--	--	52	52	50	50	49	48	46	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	44	45	48	--	--	--	--	--	--	--	--	--	48	46	44	42	40	39	39	40	39	40	37	41	42	41	43	44	44	42	41	--
Minimum	40	40	39	--	--	--	--	--	--	--	--	--	43	40	37	33	34	33	33	33	33	33	33	37	39	38	39	42	41	41	40	--
January	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	41	42	45	47	49	52	50	52	49	45	47	48	45	47	49	49	46	46	45	45	44	44	44	47	44	45	47	45	44	44	45	46
Minimum	38	40	42	45	47	49	49	47	44	43	43	42	42	44	44	42	40	41	39	38	37	39	41	41	40	39	40	40	43	43	42	42
February	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	46	45	46	48	48	49	48	47	47	50	47	49	44	47	49	50	49	46	49	52	51	49	51	51	47	49	51	49	--	--	--	48
Minimum	43	42	44	45	47	45	43	41	41	43	43	42	40	40	40	41	40	41	44	46	46	47	47	46	43	42	43	45	--	--	--	43
March	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	47	44	49	44	45	49	50	50	51	54	54	53	55	55	53	51	49	50	54	51	55	57	60	61	63	61	62	64	64	59	64	54
Minimum	43	40	40	40	42	45	47	48	49	49	48	49	51	51	47	45	43	45	47	46	48	47	58	49	52	54	54	54	55	55	52	48
April	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	60	60	64	63	62	60	60	58	53	52	50	53	59	61	64	65	62	62	60	60	60	62	66	67	66	64	64	64	67	66	--	61
Minimum	52	52	51	51	52	53	53	62	52	50	48	48	48	50	52	54	54	50	50	50	50	52	54	56	58	54	53	54	54	54	--	52
May	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	68	72	67	69	67	70	70	67	67	67	69	69	67	65	68	68	72	76	77	76	73	72	75	78	82	74	74	74	72	67	69	71
Minimum	56	58	67	60	59	59	59	60	60	58	58	58	59	57	56	58	58	60	65	65	65	63	60	64	67	68	67	64	64	62	59	61
June	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	69	64	69	74	71	70	76	78	81	80	79	80	84	85	84	86	84	84	83	80	80	80	82	82	82	82	85	82	80	80	--	79
Minimum	61	60	58	61	64	64	64	66	67	70	68	66	67	70	72	70	71	68	71	69	67	67	70	69	66	79	69	71	70	68	--	67
July	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	*
Maximum	76	77	80	84	86	84	83	83	78	83	84	82	82	84	89	91	86	86	84	86	89	88	87	84	85	86	86	88	90	83	88	85
Minimum	68	66	67	68	72	72	72	72	71	69	70	72	71	70	72	74	70	73	69	71	71	72	72	73	69	69	71	71	71	71	69	71
August	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	88	87	86	87	87	87	88	85	87	89	86	89	86	90	91	90	90	90	86	88	89	83	84	82	83	83	84	82	84	82	82	86
Minimum	70	71	70	70	70	70	71	70	70	71	71	71	71	71	73	73	75	73	71	69	72	70	70	77	78	78	77	71	76	67	68	72
September	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Maximum	82	85	88	89	89	86	78	83	82	81	78	76	77	77	80	81	79	76	79	75	80	81	81	81	79	78	78	79	80	75	--	80
Minimum	67	67	69	70	70	69	69	70	67	69	66	64	62	62	62	63	65	67	66	68	67	66	66	67	67	68	65	64	65	66	--	66

11-4750. EEL RIVER AT FORT SEWARD, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	38	--	0.2	40	--	0.2	2400	73	473
2	38	--	.2	42	2	.2	2100	59	335
3	38	--	.2	47	--	.3	1900	55	282
4	39	2	.2	76	--	.4	1980	47	251
5	39	--	.2	85	2	.5	2010	61	331
6	39	--	.2	77	--	.4	2100	121 S	696
7	39	--	.2	111	9 K	3.6	2040	210	1160
8	39	2	.2	203	21 K	13	1720	135	627
9	39	--	.2	533	44 K	62	1470	87	345
10	40	--	.1	432	28 B	33	1210	60	196
11	40	--	.1	294	19	15	1010	47	128
12	40	1	.1	257	11	7.6	880	35	83
13	40	--	.1	590	245 S	578	804	27	59
14	41	--	.1	5210	1910 S	27600	733	22	44
15	41	1	.1	4680	--	13000	675	20	36
16	40	--	.1	3100	700	5860	621	13	22
17	40	--	.1	1490	--	1300	572	12	19
18	39	--	.1	8700	3240 S	107000	549	12	18
19	39	--	.1	10200	2400 S	70900	520	8	11
20	39	1	.1	4470	700	8450	509	8	11
21	39	--	.1	2350	230	1460	484	7	9.1
22	39	--	.1	1580	120	512	472	8	10
23	39	--	.1	1250	141 S	519	470	9	11
24	39	--	.1	9240	2890 S	76200	994	1030 S	4070
25	39	1	.1	11100	2130 S	65300	6300	1990 S	34000
26	39	--	.1	7570	1080	22100	4230	550	6280
27	39	--	.1	6370	820	14100	2660	150	1080
28	39	--	.1	4600	360	4470	16300	8910 S	499000
29	39	1	.1	3600	170	1650	20300	6100	334000
30	39	--	.1	2900	100	783	12900	2690 S	92400
31	39	--	.1	--	--	--	12000	4000 S	131000
Total	1216	--	4.0	91197	--	421918.2	102913	--	1106987.1
	JANUARY			FEBRUARY			MARCH		
1	8100	2250	49200	7800	950	20000	4480	140	1690
2	6100	1000	16500	7600	550	11300	4360	133	1570
3	18700	5150 S	281000	5920	290	4640	4000	125	1350
4	105000	13900 S	4270000	16000	3610 S	168000	3400	105	964
5	120000	8700 S	2930000	17500	2700 S	130000	4800	562 K	7780
6	69600	5720	1070000	15200	1880 S	77500	6950	1570 K	29800
7	40200	4600	499000	11800	1100	35000	8180	1060	23400
8	26600	3650	262000	8750	680	16100	11600	2670 S	90500
9	19500	2970	156000	7520	450	9140	17200	3470 S	161000
10	13700	1820	67300	7500	320	6480	20900	3890 S	220000
11	9920	1290	34600	6320	245	4180	16000	2270	98100
12	7650	760	15700	4400	180	2140	11700	1650	52100
13	6250	535	9030	3740	140	1410	11200	1900	57500
14	5380	415	6030	3140	118	1000	10900	1380	40600
15	4800	380	4920	2760	110	820	9920	1150	30800
16	4340	290	3400	2430	95	623	10700	1200	34700
17	3900	242	2550	2170	73	428	9320	770	19400
18	3400	205	1880	2050	60	332	7850	550	11700
19	3010	175	1420	3290	301 S	3330	8840	900	21500
20	2600	182	1280	5260	537 S	7780	7580	500	10200
21	2260	150	915	3820	190	1960	6600	360	6420
22	2110	145	826	3270	125	1100	5950	320	5140
23	2120	120	687	4620	266 S	3370	5360	300	4340
24	1840	98	487	5420	350 S	5210	5020	260	3520
25	1660	98	439	6420	467 S	8110	4960	300	4020
26	1510	80	326	6520	427 S	7520	4900	310	4100
27	1400	68	257	5640	285	4340	4740	370	4740
28	1260	62	211	4920	200	2660	4940	450	6000
29	2940	938 S	12200	--	--	--	5080	550	7540
30	12600	3320 S	117000	--	--	--	5220	650	9160
31	8180	950	21000	--	--	--	5340	680	9800
Total	516630	--	9836158	181780	--	534473	247990	--	979434

S Computed by subdividing day.
B Computed from estimated-concentration graph.
K Computed from estimated-concentration graph and subdividing day.

11-4750. EEL RIVER AT FORT SEWARD, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	5440	1030	15100	1900	80	410	544	7	10
2	5500	1180	17500	1850	75	375	497	--	9.4
3	5260	1100 B	15600	1860	80	402	457	6	7.4
4	5100	890	12300	1980	87	465	438	--	7.1
5	4980	740	9950	2530	--	820	411	--	5.5
6	4860	720	9450	2340	170	1070	394	4	4.3
7	4760	700	9000	2050	--	1100	383	--	4.1
8	4580	620	7670	1870	--	710	390	3	3.2
9	4540	530	6500	1860	85	427	379	--	3.1
10	5340	620	8940	1860	--	380	366	4	4.0
11	8180	2070 S	48600	1830	78	385	344	--	3.7
12	11800	2500 S	79400	1710	--	330	330	--	2.7
13	8540	1100	25400	1570	57	242	314	3	2.5
14	6300	580	9870	1480	--	190	294	--	2.4
15	5340	470	6780	1380	--	160	286	4	3.1
16	5180	460	6430	1290	40	139	271	--	2.9
17	5360	550	7960	1210	--	130	254	5	3.4
18	5160	580	8080	1120	39	118	244	--	2.6
19	4420	380	4530	1090	--	110	228	--	1.8
20	3700	275	2750	1100	30	89	214	2	1.2
21	3220	230	2000	1100	--	77	204	--	1.1
22	2860	175	1350	1060	--	72	199	2	1.1
23	2730	155	1140	971	24	63	192	--	1.6
24	2760	150	1120	854	--	51	184	3	1.5
25	2840	173	1330	757	21	43	180	--	1.0
26	2910	242	1900	746	--	36	176	--	.5
27	2660	200	1440	729	16	31	168	1	.5
28	2280	140	862	696	--	26	161	--	.4
29	2080	115	646	666	--	22	154	--	.4
30	1960	100	529	619	10	17	150	--	.8
31	--	--	--	589	--	14	--	--	--
Total	140640	--	324127	42667	--	8504	8806	--	93.3

	JULY			AUGUST			SEPTEMBER		
1	146	2	0.8	55	9	1.3	36	6	0.6
2	142	--	.8	55	--	1.5	35	--	.5
3	138	--	.7	54	11	1.6	36	--	.4
4	134	--	1.1	52	--	1.3	38	--	.3
5	133	3	1.1	48	7	.9	38	2	.2
6	129	--	.7	49	--	.9	37	--	.2
7	122	--	.7	49	--	1.1	36	--	.2
8	118	2	.6	47	8	1.0	34	2	.2
9	115	--	.3	47	--	.8	33	--	.2
10	114	--	.3	47	5	.6	33	--	.3
11	112	1	.3	46	--	.6	33	--	.3
12	112	--	2.1	46	5	.6	31	3	.3
13	110	11	3.3	46	--	.5	31	--	.3
14	110	--	3.3	40	--	.4	32	--	.3
15	112	10	3.0	39	3	.3	33	3	.3
16	109	--	2.9	39	--	.3	34	--	.3
17	106	--	2.9	37	2	.2	35	--	.3
18	100	11	3.0	37	--	.3	42	--	.2
19	96	--	2.9	37	4	.4	43	--	.2
20	86	11	2.6	36	--	.4	43	2	.2
21	82	--	2.2	36	--	.3	44	--	.2
22	79	10	2.1	35	--	.3	46	--	.4
23	78	--	2.1	35	3	.3	47	3	.4
24	76	--	2.3	34	--	.4	45	--	.4
25	66	11	2.0	34	--	.6	42	--	.2
26	65	--	1.8	32	7	.6	40	2	.2
27	63	9	1.5	32	--	.4	39	--	.2
28	60	--	1.5	32	--	.3	39	--	.1
29	59	10	1.6	32	--	.3	38	1	.1
30	56	--	1.5	33	3	.3	38	--	.1
31	56	--	1.4	34	--	.5	--	--	--
Total	3084	--	53.4	1275	--	19.3	1131	--	8.1

Total discharge for year (cfs-days)..... 1339329
Total load for year (tons)..... 13211779.4

S Computed by subdividing day.
B Computed from estimated-concentration graph.

11-4750. EEL RIVER AT FORT SEWARD, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 19, 1965.....	1215	52		10700	1850		24	28	42	53	64	72	84	95	100	--		VPWC
Dec. 13.....	1250	46		800	26		--	--	--	--	--	99	100	--	--	--		S
Dec. 24.....	1445	42		780	1230		--	--	--	--	--	100	--	--	--	--		S
Dec. 28.....	1130	45		16500	11300		20	25	36	46	58	65	85	97	100	--		VPWC
Dec. 30.....	0910	42		12800	1790		--	25	--	43	--	60	76	90	99	100		VPWC
Jan. 5, 1966.....	1530	48		104000	6910		22	27	35	47	59	68	91	99	100	--		VPWC
Jan. 6.....	0820	48		74200	5740		--	28	--	49	--	71	90	96	100	--		VPWC
Jan. 6.....	1605	49		63000	5840		20	25	36	46	58	66	87	97	100	--		VPWC
Jan. 7.....	0845	48		43300	4680		--	24	--	46	--	66	86	95	99	100		VPWC
Jan. 8.....	1150	48		24600	3440		24	28	33	44	55	65	82	92	98	100		VPWC
Mar. 2.....	1630	43		4400	145		--	--	--	--	--	91	96	99	100	--		V
Mar. 30.....	1545	59		5540	1270		--	--	--	--	--	44	46	51	90	99	100	V

11-4752.5. EEL RIVER AT MCCANN, CALIF.

LOCATION.--Lat 40°19'35", long 123°50'15", downstream from Summer Bridge approximately 0.5 mile northwest of McCann, Humboldt County, and 6.5 miles upstream from confluence with the South Fork.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
REMARKS.--No discharge records available.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 13, 1965....		--		--	--	8.8	--	169	3	--	7.1		--	0.1	--	--		163	19	0.3	345	8.3
Nov. 10.....		--		--	--	9.5	--	178	5	--	8.7		--	.2	--	--		198	44	.3	392	8.5
Dec. 8.....		--		--	--	5.9	--	91	0	--	.2		--	.0	--	--		88	13	.3	194	8.2
Jan. 12, 1966....		--		--	--	4.1	--	78	0	--	1.7		--	.0	--	--		69	5	.2	155	8.2
Feb. 16.....		--		--	--	5.0	--	93	0	--	1.4		--	.0	--	--		84	8	.2	184	8.2
Mar. 15.....		--		--	--	3.9	--	75	0	--	1.2		--	.0	--	--		65	3	.2	142	8.1
Apr. 13.....		--		--	--	3.8	--	73	0	--	.7		--	.1	--	--		63	3	.2	137	8.1
May 17.....		8.1		26	4.4	4.0	1.0	94	0	11	1.2		0.5	.0	110	0.15		83	6	.2	177	8.2
June 13.....		--		--	--	6.4	--	138	0	--	3.0		--	.1	--	--		121	8	.3	258	8.2
July 19.....		--		--	--	6.5	--	157	6	--	3.9		--	.1	--	--		155	16	.2	315	8.5
Aug. 17.....		--		--	--	8.0	--	181	2	--	5.1		--	.0	--	--		170	18	.3	349	8.4
Sept. 14.....		9.0		48	13	8.5	1.6	191	0	33	5.0		1.3	.1	A 214	.29		174	17	.3	366	7.9

A Calculated from sum of determined constituents.

11-4755. SOUTH FORK EEL RIVER NEAR BRANSCOMB, CALIF.

LOCATION.--Lat 39°43'09", long 123°39'06", at gaging station 0.4 mile upstream from Jack of Hearts Creek, and 4.7 miles north of Branscomb, Mendocino County.
DRAINAGE AREA.--43.9 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1960 September 1966.
Sediment records: October 1962 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 79°F Aug. 6, 7.
Sediment concentrations: Maximum daily, 3,190 ppm Jan. 4; minimum daily, 1 ppm on many days.
Sediment loads: Maximum daily, 101,000 tons Jan. 4; minimum daily, less than 0.05 ton on many days.
EXTREMES, 1960-66.--Water temperatures: Maximum (1960-61, 1962-66), 82°F Aug. 7, 1961; minimum (1961-65), 37°F Nov. 17, 18, 1961.
Sediment concentrations (1962-66): Maximum daily, (estimated) 4,900 ppm Dec. 22, 1964; minimum daily, 1 ppm on many days during 1963-66.
Sediment loads (1962-66): Maximum daily, (estimated) 230,000 tons Dec. 22, 1964; minimum daily, less than 0.05 ton on many days during 1963-66.
REMARKS.--Where no maximum or minimum is shown, temperature is once-daily reading.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																														Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maximum	62	60	61	59	61	64	64	63	61	59	61	59	59	58	55	53	54	55	59	56	56	55	56	56	57	56	55	56	55	54	53	58
Minimum	54	53	53	54	57	56	57	57	55	58	56	53	54	55	53	49	49	54	55	52	50	50	50	51	52	51	50	52	50	50	48	53
November	—	—	—	—	—	54	—	54	—	—	—	—	—	—	—	—	—	49	—	50	—	—	47	45	45	46	48	46	—	47	—	—
Maximum	51	54	54	56	55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Minimum	48	49	53	54	53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
December	—	—	—	47	—	—	51	—	48	—	45	—	—	—	40	—	—	39	—	—	43	—	—	42	—	42	46	44	44	47	45	—
Maximum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Minimum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
January	—	46	46	48	52	52	—	—	—	—	—	47	—	48	—	—	45	—	—	43	—	44	—	43	—	—	48	45	45	—	45	—
Maximum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Minimum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
February	—	—	—	45	48	—	45	—	45	—	—	—	—	—	46	—	—	—	—	—	48	—	—	—	—	—	—	46	—	—	—	—
Maximum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Minimum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
March	—	—	45	—	—	48	—	—	49	—	—	51	—	—	47	—	—	49	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maximum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	48	48	48	49	50	51	51	52	52	53	53	—
Minimum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	47	47	47	47	48	50	50	50	50	51	51	—
April	—	—	—	—	—	—	—	—	—	52	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maximum	53	54	54	55	56	56	55	55	—	—	—	—	52	54	55	57	57	55	54	54	54	55	57	58	58	58	57	57	57	58	—	56
Minimum	51	52	52	52	52	53	53	53	—	—	—	—	50	50	52	53	54	52	50	50	50	52	53	54	54	53	53	54	53	53	—	52
May	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maximum	58	58	58	59	58	59	59	61	61	59	58	60	60	60	59	60	62	63	65	66	65	65	64	64	67	66	66	65	63	59	58	61
Minimum	53	53	55	57	55	55	56	57	59	57	55	56	57	56	55	55	56	58	60	61	61	59	58	60	61	61	60	60	59	57	53	57
June	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maximum	60	59	57	62	59	59	62	66	66	66	66	68	72	74	76	76	73	73	72	70	68	64	67	69	70	71	74	74	72	73	—	68
Minimum	56	55	53	54	57	58	56	58	61	63	60	60	63	67	68	68	65	65	65	64	62	60	61	59	60	61	62	64	62	62	—	61
July	—	—	—	—	—	—	—	—	—	—	—	66	—	71	—	—	—	74	64	—	—	—	—	—	—	—	—	—	—	—	—	*8
Maximum	68	70	71	73	75	73	69	—	—	—	—	—	—	—	—	—	—	—	—	75	77	78	77	75	75	76	76	76	78	72	76	—
Minimum	62	60	59	62	62	62	63	—	—	—	—	—	—	—	—	—	—	—	—	63	65	66	65	65	63	63	63	63	65	66	64	—
August	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maximum	77	78	78	77	78	79	79	76	75	76	76	76	76	76	76	74	75	74	74	73	73	72	70	66	66	67	69	69	66	62	66	73
Minimum	64	67	66	65	66	66	66	65	66	67	65	66	65	64	66	65	66	64	64	64	64	63	62	59	59	60	61	61	60	58	58	64
September	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maximum	68	69	70	70	69	68	64	63	64	62	61	59	58	60	60	61	61	61	63	65	62	61	61	60	60	62	63	64	64	63	—	63
Minimum	58	59	59	59	59	59	60	58	56	56	56	52	54	52	52	52	53	58	56	57	57	56	55	55	55	56	54	55	56	56	—	56

11-4755. SOUTH FORK EEL RIVER NEAR BRANSCOMB, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	2.5	--	T	2.9	1	T	68	--	0.4
2	2.2	--	T	2.9	--	T	56	--	.3
3	2.4	--	T	3.8	1	T	46	--	.2
4	2.7	2	T	9.5	10	A 0.3	42	3	.3
5	5.9	1	T	8.5	--	.2	39	--	.3
6	5.1	--	T	7.1	8	.2	34	--	.2
7	4.1	--	T	14	53	K 4.7	31	2	.2
8	3.6	--	T	40	242	S 28	29	--	.2
9	3.1	--	T	17	90	K 4.3	27	1	.1
10	3.1	1	T	12	--	1.1	24	--	.1
11	3.3	--	T	11	--	.3	24	2	.1
12	3.1	--	T	27	19	K 1.8	23	--	.1
13	2.9	--	T	76	32	K 8.0	20	--	.1
14	4.8	--	T	95	49	K 14	19	--	.1
15	6.7	1	T	58	26	K 4.4	18	2	.1
16	5.1	--	T	31	--	.8	17	--	.1
17	4.4	--	T	48	35	K 9.7	17	--	T
18	4.4	--	T	203	174	S 103	17	1	T
19	4.4	1	T	153	61	K 30	16	--	T
20	4.4	--	T	74	3	.6	15	--	T
21	4.1	--	T	46	--	.2	15	1	T
22	4.1	--	T	36	--	.1	15	--	T
23	3.8	--	T	43	26	S 3.8	14	--	T
24	3.6	--	T	354	229	S 230	194	327	S 277
25	3.6	1	T	348	62	S 60	228	--	120
26	3.3	--	T	280	40	S 36	160	32	14
27	3.1	--	T	247	13	8.7	129	11	3.8
28	3.1	--	T	160	6	2.6	862	670	S 1900
29	3.1	--	T	114	--	1.5	790	220	469
30	3.1	--	T	87	2	.5	618	115	192
31	2.9	--	T	--	--	--	600	101	164
Total	116.0	--	0.3	2608.7	--	554.8	4207	--	3143.0

Day	JANUARY			FEBRUARY			MARCH		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	425	--	49	280	131	K 110	203	--	3.3
2	450	56	S 80	262	--	18	192	--	3.1
3	2070	783	S 4850	242	10	K 6.8	170	6	2.8
4	11100	3190	S 101000	390	145	S 152	155	--	2.1
5	5380	2170	S 31800	384	57	S 60	168	--	2.7
6	2380	1300	S 8620	425	39	K 45	211	40	S 24
7	1100	405	K 1300	355	19	18	228	44	K 27
8	762	103	K 220	304	--	11	345	80	K 82
9	526	--	65	253	11	7.5	646	255	S 491
10	412	--	36	217	--	4.7	910	258	K 660
11	329	--	21	182	--	2.9	610	--	160
12	265	18	13	160	--	2.2	464	50	65
13	222	--	9.0	140	--	1.5	425	--	53
14	188	14	7.1	129	--	1.0	348	--	7.5
15	162	--	5.2	118	3	1.0	355	46	44
16	138	--	3.4	107	--	.9	368	--	25
17	124	7	2.3	99	--	.5	323	--	13
18	112	6	1.8	92	--	.5	301	17	S 14
19	99	--	1.6	152	15	K 7.1	352	47	K 46
20	90	5	1.2	138	--	2.6	295	--	62
21	84	--	1.1	124	--	1.3	283	--	11
22	90	11	2.7	134	9	K 3.5	244	11	7.2
23	84	--	6.8	160	12	K 5.1	217	--	5.9
24	75	32	6.5	239	29	S 19	190	--	4.1
25	70	--	4.9	286	43	K 35	168	--	2.7
26	64	--	2.9	295	--	26	145	--	2.0
27	62	--	1.3	259	14	9.8	131	--	1.4
28	58	3	.5	225	7	4.3	122	3	1.0
29	142	85	S 54	--	--	--	112	--	.9
30	198	--	24	--	--	--	103	--	.8
31	170	17	7.8	--	--	--	97	--	.5
Total	27431	--	148198.1	6151	--	557.2	8881	--	1825.0

S Computed by subdividing day.
T Less than 0.05 ton.
A Computed from partly estimated-concentration graph.
K Computed from estimated-concentration graph and subdividing day.

11-4755. SOUTH FORK EEL RIVER NEAR BRANSCOMB, CALIF.--Continued

Suspended-sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	90	--	0.5	47	--	0.4	19	--	0.1
2	82	2	.4	45	--	.4	18	--	T
3	80	--	.6	42	--	.5	19	1	.1
4	75	--	1.0	41	4	.4	18	3	.1
5	72	8	1.6	40	--	.3	18	--	.1
6	67	13	2.4	38	2	.2	15	--	.1
7	62	--	2.5	37	--	.2	12	--	.1
8	59	--	2.4	36	--	.1	12	3	.1
9	58	--	2.3	35	1	.1	13	--	.1
10	80	55	S 17	34	--	.1	15	--	.1
11	244	85	S 84	33	1	.1	15	--	.1
12	368	83	K 91	31	--	.1	15	2	.1
13	230	--	13	30	--	.1	14	--	.1
14	180	13	6.3	28	1	.1	13	--	.1
15	152	--	4.1	27	--	.1	12	2	.1
16	134	--	2.9	26	--	.1	12	--	.1
17	124	--	2.3	25	--	.1	12	--	.1
18	118	5	1.6	25	1	.1	12	--	.1
19	107	--	1.2	24	--	.1	11	--	.1
20	101	3	.8	23	--	.1	11	2	.1
21	93	--	.8	22	--	.1	11	--	.1
22	88	--	.7	21	--	.1	11	2	.1
23	80	--	.9	21	1	.1	11	--	.1
24	75	--	1.0	21	--	.1	11	1	T
25	70	6	1.1	19	--	.1	11	--	T
26	65	--	.9	20	--	.1	9.6	--	T
27	60	--	.8	19	1	.1	9.6	1	T
28	56	--	.8	19	--	.1	9.1	--	T
29	53	--	.6	19	--	.1	9.1	--	T
30	50	3	.4	18	--	.1	8.7	1	T
31	--	--	--	19	2	.1	--	--	--
Total	3173	--	245.9	885	--	4.8	387.1	--	2.4

Day	JULY			AUGUST			SEPTEMBER		
1	8.2	--	T	3.9	--	T	3.1	--	T
2	8.2	--	T	3.4	2	T	2.7	--	T
3	8.2	--	T	3.4	--	T	2.2	--	T
4	8.2	1	T	2.9	--	T	1.6	--	T
5	8.2	--	T	2.7	--	T	1.4	--	T
6	7.7	--	T	2.7	--	T	1.3	--	T
7	7.7	--	0.1	2.4	--	T	1.3	5	T
8	7.7	4	.1	2.2	5	T	1.3	--	T
9	7.7	--	.1	1.9	--	T	1.4	--	T
10	7.7	--	.1	2.2	--	T	1.6	--	T
11	7.7	--	.1	2.2	--	T	1.9	--	T
12	7.7	3	.1	1.9	--	T	1.7	--	T
13	7.7	--	T	2.2	--	T	1.7	--	T
14	7.7	1	T	2.2	--	T	1.9	--	T
15	7.0	--	T	1.7	4	T	2.2	5	T
16	6.6	--	T	1.7	--	T	2.2	--	T
17	5.9	--	T	1.7	--	T	1.9	--	T
18	5.5	1	T	1.6	--	T	4.8	--	0.1
19	5.2	1	T	1.4	--	T	4.8	--	.1
20	4.8	3	T	1.4	--	T	3.9	--	T
21	4.8	--	T	1.6	--	T	3.1	4	T
22	4.5	2	T	1.6	--	T	2.9	--	T
23	4.1	--	T	1.4	--	T	2.7	--	T
24	4.1	--	T	1.7	--	T	2.7	--	T
25	3.9	2	T	1.7	--	T	2.9	--	T
26	4.1	--	T	1.7	--	T	2.7	--	T
27	4.1	--	T	1.9	--	T	2.7	5	T
28	3.9	--	T	2.2	--	T	2.7	--	T
29	3.9	2	T	1.7	3	T	2.4	--	T
30	3.9	--	T	2.7	--	T	1.9	--	T
31	3.9	--	T	3.6	--	T	--	--	--
Total	190.5	--	1.2	67.5	--	0.6	71.6	--	1.0

Total discharge for year (cfs-days)..... 54169.4
Total load for year (tons)..... 154534.3

S Computed by subdividing day.
K Computed from estimated-concentration graph and subdividing day.
T Less than 0.05 ton.

EEL RIVER BASIN--Continued

11-4755. SOUTH FORK EEL RIVER NEAR BRANSCOMB, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment											Method of analysis
							Percent finer than size indicated, in millimeters											
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 18, 1965.....	0910	49		259	285			62		91		99	100	--	--			VPWC
Jan. 4, 1966.....	1630	49		16400	3770			35		62		81	94	99	100			VPWC
Jan. 5.....	1330	52		4240	1890		22	31	48	60	72	78	88	95	99	100		VPWC
Feb. 4.....	1000	45		393	151			--		--		99	99	100	--			V

EEL RIVER BASIN--Continued

11-4758. SOUTH FORK EEL RIVER AT LEGGETT, CALIF.

LOCATION.--Lat 39°52'30", long 123°43'10", temperature recorder at gaging station on right bank near Standish-Hickey State Park, 0.2 mile upstream from Rock Creek, and 0.5 mile northwest of Leggett, Mendocino County.
DRAINAGE AREA.--248 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 78°F June 15; minimum, 41°F Dec. 20, 21, 23.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	65	64	65	63	66	67	67	66	64	63	65	63	64	62	60	60	62	61	63	62	62	62	62	62	62	61	60	61	62	61	60	63
Minimum	59	59	59	59	61	61	61	61	61	62	60	59	59	59	58	55	55	59	59	58	57	57	57	57	57	57	56	56	58	57	56	58
November																																
Maximum	59	59	59	62	59	59	58	58	57	56	56	56	56	55	56	55	55	54	54	54	53	53	52	51	49	48	48	48	48	48	--	54
Minimum	56	56	58	58	57	55	57	56	55	55	55	56	55	54	55	54	54	53	53	53	53	52	51	49	48	48	48	48	48	48	--	53
December																																
Maximum	48	48	48	51	51	51	52	52	51	50	49	49	48	46	45	44	43	42	42	42	42	42	42	44	43	43	44	45	46	46	46	46
Minimum	48	48	47	48	51	51	51	51	50	49	49	48	46	45	44	43	42	42	42	41	41	42	41	42	43	43	43	44	45	46	46	46
January																																
Maximum	46	46	48	49	52	53	53	53	51	50	49	49	48	48	48	48	47	46	46	45	45	45	46	46	46	46	47	46	46	46	46	48
Minimum	46	46	46	48	49	52	53	51	50	49	49	48	48	48	48	47	46	46	45	45	44	44	45	46	45	45	46	45	46	46	46	47
February																																
Maximum	46	46	47	49	49	49	48	47	47	48	47	47	46	46	47	47	47	46	47	49	49	49	50	49	47	47	48	49	--	--	--	48
Minimum	46	46	46	47	49	48	47	47	47	47	46	46	45	45	45	44	44	45	46	47	47	48	49	47	46	45	46	47	--	--	--	46
March																																
Maximum	48	46	47	45	47	49	49	49	50	51	51	51	51	51	51	50	49	50	51	50	52	52	53	54	55	56	57	56	--	--	59	51
Minimum	45	44	44	44	45	47	48	49	49	50	49	50	49	51	50	49	47	48	49	48	49	49	49	49	50	51	52	52	--	--	54	49
April																																
Maximum	59	59	60	60	60	59	60	58	56	54	--	--	56	58	60	62	61	60	59	59	60	60	62	63	63	62	62	62	63	63	--	60
Minimum	54	54	54	54	55	56	55	54	54	52	--	--	52	52	53	55	56	54	52	52	52	53	54	55	56	55	54	54	54	54	--	54
May																																
Maximum	64	64	56	62	58	64	64	64	62	64	64	62	64	63	64	64	66	66	68	67	68	67	68	72	74	72	73	72	68	64	70	66
Minimum	55	56	54	56	54	56	55	56	56	57	55	55	56	55	54	55	55	56	57	58	59	58	57	64	63	64	63	62	63	60	60	58
June																																
Maximum	70	68	70	70	68	65	71	73	73	73	73	74	76	77	78	76	76	76	76	72	70	70	71	70	70	72	70	74	74	72	--	72
Minimum	60	60	60	60	60	62	62	62	62	64	62	62	64	65	66	66	66	66	66	66	66	68	66	65	65	66	66	67	66	66	--	64
July																																
Maximum	69	70	70	70	71	71	70	70	70	70	70	70	70	71	70	70	71	72	74	72	72	72	73	74	72	72	73	72	72	72	72	71
Minimum	66	64	65	66	66	67	67	67	66	66	66	68	67	67	66	66	66	65	68	68	68	69	69	68	68	68	69	68	70	69	70	67
August																																
Maximum	74	74	74	74	74	75	75	74	74	74	74	74	73	73	74	74	73	73	73	73	73	73	72	72	72	71	71	72	72	70	71	73
Minimum	70	70	70	70	70	70	70	70	70	72	70	71	70	71	71	71	71	70	70	70	70	70	69	68	68	69	69	69	68	68	68	70
September																																
Maximum	71	70	71	71	71	70	70	70	70	70	70	68	67	67	67	67	67	69	69	68	68	68	67	68	68	68	69	67	67	67	--	69
Minimum	68	68	68	68	68	68	68	68	67	68	67	66	65	65	65	63	66	67	66	67	66	66	66	66	66	67	66	65	65	65	--	66

11-4765. SOUTH FORK EEL RIVER NEAR MIRANDA, CALIF.

LOCATION.--Lat 40°10'55", long 123°46'30", at gaging station on right bank at Sylvandale Campgrounds on U.S. Highway 101, 0.5 mile upstream from Rocky Glen Creek, 4.3 miles southeast of Miranda, Humboldt County, and 20 miles upstream from mouth.
DRAINAGE AREA.--537 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
Water temperatures: November 1960 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 80°F Aug. 15, 16, Sept. 16; minimum, 37°F Dec. 17, 18, 21-23.
EXTREMES, 1960-64, 1965-66.--Water temperatures: Maximum (1960-61, 1963-64, 1965-66), 93°F July 25, 1964; minimum, 34°F Jan. 20, 21, 1963.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 13, 1965....	50	--		--	--	10	--	181	8	--	7.0		2.1	0.1	--	--		162	0	0.3	339	8.6
Nov. 10.....	204	--		--	--	9.6	--	147	4	--	6.5		2.0	.1	--	--		144	17	.3	298	8.5
Dec. 8.....	378	--		--	--	7.8	--	110	1	--	4.7		.6	.0	--	--		98	6	.3	222	8.3
Jan. 12, 1966....	3250	--		--	--	5.3	--	66	0	--	2.6		.5	.0	--	--		54	0	.3	130	8.1
Feb. 16.....	1320	--		--	--	5.9	--	77	0	--	2.6		.3	.0	--	--		64	1	.3	152	8.2
Mar. 16.....	4050	--		--	--	5.2	--	62	0	--	2.2		1.1	.0	--	--		50	0	.3	124	7.8
Apr. 13.....	2160	--		--	--	5.3	--	67	0	--	1.2		.4	.0	--	--		55	0	.3	131	7.9
May 17.....	315	13		26	7.1	7.5	1.4	113	0	10	4.5		.2	.1	147	0.20		94	1	.3	211	8.2
June 13.....	160	--		--	--	8.2	--	125	2	--	3.8		--	.0	--	--		106	0	.3	234	8.3
July 19.....	77	--		--	--	9.1	--	144	4	--	5.0		.6	.0	--	--		126	1	.4	273	8.5
Aug. 17.....	43	--		--	--	10	--	159	0	--	6.0		.8	.0	--	--		129	0	.4	286	8.2
Sept. 14.....	79	8.2		36	12	10	1.6	167	0	17	6.4		.4	.1	175	.24		140	3	.4	304	8.0

11-4765. SOUTH FORK EEL RIVER NEAR MIRANDA, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	67	65	65	62	65	66	68	68	66	64	65	63	62	62	61	58	59	59	63	62	63	62	61	61	62	62	60	62	63	63	61	63
Minimum	62	61	60	60	60	62	62	64	63	63	61	60	59	60	58	55	54	58	59	59	59	59	58	58	59	59	57	59	60	60	58	60
November																																
Maximum	58	58	59	62	60	58	58	59	58	57	56	57	57	56	56	57	57	54	53	54	54	53	52	51	48	48	48	47	48	49	--	55
Minimum	56	56	58	59	58	56	57	57	56	55	55	56	56	55	55	55	54	53	52	53	53	52	51	47	47	47	47	46	46	48	--	53
December																																
Maximum	48	49	49	49	53	53	53	53	52	50	49	49	47	45	43	43	41	41	41	41	41	41	40	45	44	43	45	47	45	45	45	46
Minimum	47	47	48	48	49	52	53	52	50	48	47	47	44	41	40	38	37	37	38	38	37	37	37	40	42	41	43	45	44	45	44	44
January																																
Maximum	45	46	48	51	52	53	53	52	51	48	48	48	48	49	49	49	47	45	45	44	44	45	46	46	46	46	47	46	47	47	47	48
Minimum	43	45	46	48	51	52	52	51	48	47	48	47	47	48	48	47	45	44	43	42	42	44	45	45	45	43	45	44	46	46	46	46
February																																
Maximum	47	46	48	49	49	49	47	47	47	48	47	47	45	46	47	46	46	46	48	49	49	49	50	50	49	47	48	49	--	--	--	48
Minimum	46	45	46	48	49	47	46	44	45	46	46	45	43	43	45	44	43	44	45	47	48	48	48	47	47	44	46	47	--	--	--	46
March																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	57	58	60	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	56	54	56	--
April																																
Maximum	60	59	61	61	62	61	60	60	68	55	54	54	56	58	60	62	60	60	58	58	60	60	64	64	64	62	61	62	62	64	--	60
Minimum	56	56	56	57	57	58	57	57	56	54	53	52	52	54	56	58	58	56	54	54	55	56	57	58	59	58	56	56	56	57	--	56
May																																
Maximum	65	67	66	66	64	66	66	66	64	66	66	66	65	64	64	66	68	71	72	70	69	68	70	72	76	68	68	69	68	64	64	67
Minimum	58	63	61	60	60	60	61	61	61	61	60	60	60	58	58	58	59	62	65	63	64	62	60	66	64	64	62	60	62	58	57	61
June																																
Maximum	65	64	66	68	66	65	68	72	73	74	72	72	74	78	79	76	74	74	73	71	72	70	72	72	74	73	74	73	72	72	--	72
Minimum	59	58	57	58	60	62	62	63	64	67	64	63	64	66	72	69	66	65	68	66	64	66	68	66	64	65	66	68	65	65	--	64
July																																
Maximum	70	70	72	74	76	74	74	75	74	74	74	74	72	72	75	74	76	76	74	74	76	76	76	74	74	75	74	75	76	72	75	74
Minimum	65	63	64	65	68	68	67	69	70	67	68	70	68	67	68	68	68	70	68	67	67	69	70	68	67	66	68	68	68	68	67	68
August																																
Maximum	76	75	74	74	75	75	75	74	75	76	76	76	77	78	80	80	79	79	75	77	78	73	72	73	72	73	73	72	72	71	73	75
Minimum	68	68	68	69	69	68	68	68	68	68	70	68	70	70	73	73	74	72	70	68	73	69	66	66	66	67	66	68	66	66	67	69
September																																
Maximum	73	73	76	76	76	75	70	72	73	72	70	69	67	68	70	80	79	79	75	77	78	73	72	73	72	73	73	72	72	71	--	73
Minimum	66	66	69	70	70	68	67	66	66	67	65	64	62	62	62	73	74	72	70	68	73	69	66	66	66	67	66	68	66	66	--	67

11-4770. EEL RIVER AT SCOTIA, CALIF.

LOCATION.--Lat 40°29'30", long 124°05'55", at gaging station at bridge on U.S. Highway 101, 0.5 mile north of Scotia, Humboldt County, and 6 miles upstream from Van Duzen River.
DRAINAGE AREA.--3,113 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
Water temperatures: October 1957 to September 1966.
Sediment records: October 1957 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 73°F June 15; minimum, 40°F Dec. 19-23.
Sediment concentrations: Maximum daily, 12,700 ppm Jan. 4; minimum daily, 1 ppm Sept. 11.
Sediment loads: Maximum daily, 6,760,000 tons Jan. 4; minimum daily, 0.3 ton Sept. 11.
EXTREMES, 1957-66.--Water temperatures: Maximum (1960-64, 1965-66), 76°F Aug. 16, 1962; minimum, 38°F Jan. 13, 14, 1963.
Sediment concentrations: Maximum daily, (estimated) 32,000 ppm Dec. 23, 1964; minimum daily, 1 ppm on many days during 1958-64, 1966.
Sediment loads: Maximum daily, (estimated) 57,000,000 tons Dec. 23, 1964; minimum daily, 0.3 ton on many days during 1958-63, 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 12, 1965....	131	--	--	--	--	10	--	189	5	--	6.8	--	--	0.1	--	--		168	5	0.3	352	8.5
Nov. 9.....	428	--	--	--	--	10	--	187	7	--	8.0	--	--	.1	--	--		180	15	.3	369	8.6
Dec. 7.....	3090	--	--	--	--	8.1	--	124	3	--	7.1	--	--	.0	--	--		130	23	.3	284	8.4
Jan. 11, 1966....	18500	--	--	--	--	5.0	--	76	0	--	1.7	--	--	.0	--	--		67	5	.3	154	8.2
Feb. 15.....	6600	--	--	--	--	5.3	--	89	1	--	1.8	--	--	.0	--	--		79	4	.3	180	8.3
Mar. 15.....	16900	--	--	--	--	4.5	--	74	0	--	1.6	--	--	.0	--	--		64	3	.2	146	8.0
Apr. 13.....	13300	9.3	--	22	2.2	4.2	1.7	73	0	10	1.4	0.0	0.7	.0	88	0.12		64	4	.2	144	7.8
May 17.....	1830	9.5	0.01	28	7.8	5.5	1.1	118	0	15	3.8	.2	.1	.1	A 130	.18		102	5	.2	220	8.2
June 14.....	555	9.0	.00	38	8.5	7.0	1.3	148	2	19	3.4	.3	.8	.0	162	.22		130	5	.3	276	8.3
July 19.....	234	9.4	.00	43	12	8.3	1.5	181	0	20	4.9	.2	.7	.0	189	.26		156	8	.3	326	8.2
Aug. 16.....	125	10	.00	44	13	9.8	1.7	181	5	23	5.7	.1	1.0	.1	202	.27		164	7	.3	343	8.5
Sept. 13.....	107	11	.00	32	13	10	1.7	147	6	23	6.7	.2	1.1	.1	177	.24		134	4	.4	303	8.4

A Residue at 180°C.

11-4770. EEL RIVER AT SCOTIA, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	60	62	63	61	60	59	59	59	57	57	57	57	56	56	56	54	53	52	53	53	52	52	51	48	48	47	47	47	48	--	55
Minimum	--	60	60	60	58	58	58	58	57	57	57	56	56	55	56	54	53	52	52	52	52	52	51	48	48	47	47	47	47	46	--	54
December																																
Maximum	48	48	48	48	50	51	53	51	50	49	48	48	47	46	45	43	42	42	41	41	41	41	41	43	43	43	44	45	45	44	44	46
Minimum	47	47	47	48	48	50	51	50	49	48	48	47	46	45	43	42	41	41	40	40	40	40	40	41	43	42	42	44	44	44	44	45
January																																
Maximum	44	45	47	48	49	49	49	49	49	47	46	46	46	46	46	47	46	45	45	45	44	44	45	46	46	45	45	45	45	45	45	46
Minimum	44	44	45	47	48	49	49	49	47	46	46	46	45	45	46	46	45	44	44	44	43	44	44	45	45	44	44	44	45	45	45	45
February																																
Maximum	45	45	45	46	47	47	46	45	45	46	45	45	45	44	45	46	46	46	47	48	48	47	48	48	47	46	46	47	--	--	--	46
Minimum	45	45	45	45	46	46	45	44	44	45	45	44	44	44	44	44	45	45	45	47	47	47	47	47	46	44	45	46	--	--	--	45
March																																
Maximum	47	46	45	44	45	46	48	48	49	49	50	51	52	52	52	50	48	48	50	50	51	51	52	54	55	55	54	55	56	56	58	51
Minimum	46	44	44	44	44	45	46	48	48	49	49	50	50	52	50	48	47	47	48	49	49	49	50	52	53	54	54	54	55	54	53	49
April																																
Maximum	57	57	58	58	58	58	58	57	58	55	54	53	54	56	58	58	58	58	56	59	57	58	60	60	60	59	58	58	60	60	--	58
Minimum	56	56	55	56	56	56	56	56	55	54	52	52	51	53	55	57	57	56	55	54	54	55	56	57	57	57	56	56	56	57	--	55
May																																
Maximum	60	60	60	62	61	63	62	60	57	58	59	59	58	58	59	60	61	63	64	64	64	62	64	65	63	64	62	62	62	60	60	61
Minimum	58	59	60	60	60	60	59	57	57	57	56	57	56	56	56	57	57	58	61	61	58	58	59	60	62	60	58	58	60	57	58	58
June																																
Maximum	63	63	64	66	64	64	68	68	69	69	68	69	70	72	73	70	68	69	69	68	69	69	71	70	70	70	72	70	68	68	--	68
Minimum	58	62	60	61	63	64	63	66	66	67	65	64	64	66	68	65	65	64	66	64	64	64	66	66	64	65	66	64	63	63	--	64
July																																
Maximum	65	66	69	71	71	70	70	68	67	70	70	68	64	69	70	71	71	70	68	70	71	71	70	68	70	71	70	69	71	68	70	69
Minimum	64	63	62	65	67	67	66	66	66	65	66	64	64	64	66	66	66	68	66	64	66	66	66	67	64	66	66	66	66	66	65	65
August																																
Maximum	70	69	69	70	70	70	70	71	72	72	70	70	70	71	71	71	71	70	70	70	70	69	67	69	68	69	70	69	69	68	69	70
Minimum	66	66	66	66	66	66	67	67	67	67	66	66	66	67	67	67	66	66	66	66	66	65	64	64	65	65	66	65	65	65	66	66
September																																
Maximum	70	69	71	70	70	71	69	70	70	70	69	67	67	67	67	67	67	67	67	65	67	68	68	69	69	68	68	67	68	68	--	68
Minimum	66	66	67	67	67	67	66	66	67	67	65	64	63	65	63	63	64	64	63	64	63	64	64	65	66	65	64	63	65	65	--	65

11-4770. EEL RIVER AT SCOTIA, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	116	--	2.5	136	--	0.7	4120	147	1640
2	115	--	2.5	130	--	1.1	3570	105	1010
3	115	--	2.5	140	--	1.5	3190	80	689
4	117	--	2.5	186	4	2.0	3090	68	567
5	119	8	2.6	208	--	2.2	3150	61	519
6	125	--	1.7	238	--	3.2	3030	59	483
7	131	3	1.1	250	5	3.4	3090	67	559
8	136	--	1.1	290	6	4.7	2750	65	483
9	136	--	1.1	428	--	46	2450	88	582
10	135	3	1.1	668	26	47	2190	60	355
11	132	--	1.1	738	12	24	1930	47	245
12	131	--	1.1	607	21	34	1750	45	213
13	133	3	1.1	1120	125	378	1620	36	157
14	138	--	1.5	4300	1280 S	20100	1520	27	111
15	140	--	1.9	6660	2290 S	43000	1400	23	87
16	142	--	2.3	4960	990	13300	1290	22	77
17	145	6	2.3	3030	475	3890	1190	20	64
18	145	--	2.0	6720	1830 S	62100	1100	16	48
19	146	--	1.6	16600	4260 S	209000	1050	15	43
20	149	3	1.2	8570	1190 S	30100	1010	15	41
21	146	--	1.2	4720	520	6630	980	13	34
22	145	--	.8	3260	250	2200	941	9	23
23	145	2	.8	2580	95	662	914	6	15
24	143	--	.8	9650	1890 S	73800	1920	29	220
25	142	--	.8	21200	2960	169000	8270	1550 S	40800
26	155	--	.8	15000	1370	55500	8180	940	20800
27	161	--	.9	11700	1090	34400	5800	460	7200
28	152	--	.8	8660	700	16400	26400	6260 S	695000
29	147	--	.8	6210	360	6040	51100	7480 S	1100000
30	140	--	.8	4940	214	2850	29200	3000	237000
31	137	2	.7	--	--	--	25700	2010	139000
Total	4259	--	44.0	143899	--	749519.8	203895	--	2248065

Day	JANUARY			FEBRUARY			MARCH		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	19000	1590	81600	15200	1540	63200	9040	450	11000
2	13800	1590 S	60900	15800	1800	76800	8730	520	12300
3	47400	5820 S	840000	12500	1110	37500	8520	420	9660
4	197000	12700	6760000	22600	3440 S	271000	7850	340	7210
5	261000	9380	6610000	32500	4700	412000	8360	570	12900
6	135000	8100	2950000	28500	2800	215000	11300	970	29600
7	81800	6800	1500000	23200	2670	167000	14300	1480	57100
8	50800	4900	672000	17300	1810	84500	23200	3810 S	256000
9	34900	3300	311000	13600	1180	43300	42600	5520	635000
10	24100	2340	152000	11400	1040	32000	46200	4220	526000
11	18500	1700	84900	9850	720	19100	33300	2550	229000
12	14600	1220	48100	8560	580 B	13000	22900	1770	109000
13	12100	980	32000	7670	490	10100	20000	1480	79900
14	10100	750	20500	7070	425	8110	18400	1440	71500
15	9010	602	14600	6680	415	7480	16900	1400 B	64000
16	8000	560 B	12000	6020	300	4880	18100	1300	63500
17	7220	547	10700	5490	200	2960	16800	1180	53500
18	6650	510 B	9200	4900	220	2910	14000	970	36700
19	5990	462	7470	6950	949 S	19800	15000	900	36400
20	5520	339	5050	9640	1010	26300	14200	800	30700
21	4900	290 B	3800	8090	450	9830	12400	600	20100
22	4790	282	3650	7130	300	5780	11400	500	15400
23	4770	273	3520	7970	530	11400	10400	415	11700
24	4450	260	3120	10100	830	22600	9540	360	9270
25	3970	152	1630	11800	1170	37300	8800	360	8550
26	3700	120	1200	13000	1260	44200	8270	365	8150
27	3510	110	1040	11500	720	22400	7850	370	7840
28	3350	92	832	9960	480	12900	7490	390	7890
29	11200	4030 S	156000	--	--	--	7340	450	8920
30	25500	4300	296000	--	--	--	7250	470	9200
31	18000	2160 S	108000	--	--	--	7190	520	10100
Total	1050630	--	20760812	344980	--	1683350	467630	--	2448090

S Computed by subdividing day.
B Computed from estimated-concentration graph.

11-4770. EEL RIVER AT SCOTIA, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	7130	600	11600	3000	86	697	1000	8	22
2	7110	695	13300	2500	73	493	920	--	17
3	7050	770	14700	1800	64	311	840	8	18
4	6780	620	11300	1800	78	379	800	--	17
5	6530	545	9610	3100	83	695	770	--	17
6	6320	500	8530	3000	98	794	740	--	14
7	6130	505	8360	2800	113	854	740	--	14
8	5970	515	8300	2550	81	558	740	7	14
9	5830	480	7560	2550	62	427	710	--	13
10	5900	440 B	7000	2550	54	372	670	--	13
11	10300	969 S	27900	2500	52	351	640	7	12
12	15500	1500 S	65500	2400	--	325	610	--	12
13	13300	1400 S	51300	2310	48	299	580	--	9.4
14	9660	710	18500	2180	53	312	555	6	9.0
15	7860	525	11100	2000	40	216	530	--	8.6
16	7160	420	8120	1920	38	197	500	--	9.4
17	7070	380	7250	1830	35	173	475	7	9.0
18	6980	470	8860	1800	--	170	450	--	7.3
19	6380	400	6890	1800	29	141	425	--	5.7
20	5500	269	3990	1800	22	107	405	4	4.4
21	4730	180	2300	1740	23	108	390	--	4.2
22	4280	146	1690	1620	26	114	380	4	4.1
23	4050	138	1510	1500	18	73	375	--	4.0
24	3960	119	1270	1420	14	54	370	--	4.0
25	3920	133	1410	1400	14	53.	370	4	4.0
26	3980	152	1630	1370	14	52	360	--	3.9
27	3940	161	1710	1310	--	50	355	--	3.8
28	3680	152	1510	1270	13	45	350	3	2.8
29	3410	116	1070	1180	--	38	345	--	3.7
30	3270	98	865	1110	11	33	340	--	4.6
31	--	--	--	1060	--	29	--	--	--
Total	193680	--	324635	61170	--	8520	16735	--	284.9
	JULY			AUGUST			SEPTEMBER		
1	330	6	5.3	159	--	0.9	117	--	0.9
2	325	--	3.5	156	--	.8	119	--	.6
3	320	3	2.6	155	--	.8	119	--	.6
4	315	--	3.4	150	--	.8	119	2	.6
5	305	--	3.3	145	--	1.2	119	--	.6
6	302	5	4.1	144	--	1.2	119	--	.6
7	295	--	3.2	140	--	1.1	119	--	.6
8	290	--	3.1	138	3	1.1	119	2	.6
9	285	3	2.3	135	--	1.5	113	--	.6
10	280	--	2.3	135	5	1.8	111	--	.6
11	280	--	2.3	130	--	1.4	111	1	.3
12	280	3	2.3	130	--	1.1	107	--	.6
13	280	--	3.0	130	2	.7	107	--	.6
14	281	--	4.6	125	--	.7	107	--	.6
15	282	7	5.3	125	--	1.0	111	3	.9
16	264	--	5.0	125	3	1.0	113	--	1.2
17	243	--	4.6	125	--	1.0	113	--	1.8
18	243	--	5.2	123	--	1.3	105	8	2.3
19	234	8	5.1	121	4	1.3	98	--	1.6
20	229	--	4.3	115	--	1.2	123	--	1.7
21	221	6	3.6	115	--	.9	162	3	1.3
22	213	--	3.5	115	--	.6	158	--	1.3
23	204	--	3.3	113	2	.6	151	--	.8
24	195	7	3.7	113	--	.6	145	2	.8
25	191	--	3.1	111	--	.6	142	--	.8
26	183	--	3.0	111	--	.9	136	--	1.1
27	178	5	2.4	111	3	.9	133	3	1.1
28	176	--	1.9	111	--	.9	126	--	1.0
29	173	--	1.4	111	--	.9	125	--	.7
30	167	2	.9	111	--	.9	124	--	.7
31	164	--	.9	115	3	.9	--	--	--
Total	7728	--	102.5	3943	--	30.6	3671	--	27.5

Total discharge for year (cfs-days)..... 2502220
Total load for year (tons)..... 28223481.3

S Computed by subdividing day.
B Computed from estimated-concentration graph.

EEL RIVER BASIN--Continued

11-4770. EEL RIVER AT SCOTIA, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 14, 1965.....	1600	56		4870	1530		--	--	--	--	--	82	99	100	--			V
Nov. 20.....	1155	52		8150	1070		31	42	55	66	76	80	89	100	--			VPWC
Jan. 3, 1966.....	1530	46		54000	6280		18	26	32	42	52	61	87	98	100			VPWC
Jan. 4.....	0900	46		169000	13500		--	27	--	49	--	74	94	99	100			VPWC
Feb. 21.....	1400	48		7910	438		--	--	--	--	--	58	67	96	100			V

11-4775. VAN DUZEN RIVER NEAR DINSMORES, CALIF.

LOCATION.--Lat 40°29'05", long 123°39'25", temperature recorder at gaging station on right bank 10 feet upstream from private road bridge, 0.3 mile upstream from South Fork, and 2.8 miles west of Dinsmores, Trinity County.
DRAINAGE AREA.--85.1 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 75°F on several days during August; minimum, freezing point Mar. 2, 3.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	62	61	57	62	63	65	65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	55	53	53	55	55	55	56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	57	55	55	54	54	54	53	53	53	51	51	53	52	52	47	49	49	49	48	47	41	41	43	43	43	43	44	--	49
Minimum	--	--	--	54	53	51	53	52	52	52	52	51	48	48	49	49	46	45	46	47	46	45	42	40	38	41	39	38	39	40	--	47
December																																
Maximum	43	44	44	44	47	46	45	45	45	44	44	44	42	40	38	38	38	39	38	38	39	38	39	40	36	38	39	39	38	39	37	41
Minimum	40	40	39	40	43	43	42	44	42	41	41	41	39	36	35	34	34	34	34	34	36	35	34	34	33	35	37	36	35	35	34	37
January																																
Maximum	38	39	37	39	42	44	44	43	43	41	42	42	43	43	44	43	41	41	39	39	39	40	41	43	40	41	41	42	42	41	40	41
Minimum	34	35	35	35	39	41	41	40	39	39	39	38	38	40	40	37	35	35	35	33	33	35	37	39	37	37	36	36	37	37	38	37
February																																
Maximum	41	41	41	41	43	42	43	42	43	44	43	43	40	42	43	43	43	44	41	45	42	42	45	43	41	44	47	44	--	--	--	43
Minimum	37	37	37	37	40	38	38	37	38	39	37	38	35	35	35	35	35	37	37	39	37	40	39	39	39	37	39	40	--	--	--	38
March																																
Maximum	42	37	40	39	41	41	42	43	44	46	46	48	48	47	43	40	43	46	45	47	47	49	51	52	53	53	53	53	54	54	55	47
Minimum	35	32	32	34	36	39	39	40	41	40	40	41	42	43	39	35	35	38	39	39	40	39	49	40	41	41	41	42	41	43	43	39
April																																
Maximum	53	53	54	54	54	54	54	50	48	47	45	48	53	54	58	58	55	54	53	53	55	57	59	60	59	56	57	57	58	58	--	54
Minimum	48	42	42	42	43	43	44	44	47	43	41	41	42	42	42	46	46	43	41	41	43	44	45	47	48	46	44	45	44	46	--	44
May																																
Maximum	60	61	60	60	57	62	62	60	57	61	61	62	60	58	60	61	63	66	66	66	64	63	65	67	67	62	65	64	62	58	59	62
Minimum	47	48	50	52	50	49	51	52	52	51	50	50	52	49	58	50	49	54	55	56	56	53	53	56	57	57	57	54	56	51	49	52
June																																
Maximum	58	54	60	63	59	58	61	66	66	64	64	66	68	70	70	68	67	68	67	64	64	63	63	65	66	66	68	65	66	66	--	64
Minimum	52	51	50	51	55	55	54	56	58	59	56	56	59	60	63	60	60	60	61	59	57	57	58	57	57	58	59	61	59	58	--	57
July																																
Maximum	61	62	65	67	68	68	67	66	66	66	68	64	65	66	67	66	68	69	69	70	71	71	71	71	70	71	71	71	73	70	72	68
Minimum	58	55	56	59	61	62	61	62	56	58	60	61	60	60	60	60	60	62	63	61	61	63	63	63	61	61	62	62	63	63	62	61
August																																
Maximum	73	74	74	73	74	74	74	72	74	75	74	75	75	75	75	73	74	75	74	74	74	72	70	71	70	70	72	68	66	67	70	73
Minimum	63	64	63	63	63	63	63	62	62	64	63	64	63	63	64	64	64	64	62	63	63	63	61	59	60	59	60	60	58	59	59	62
September																																
Maximum	70	71	72	72	71	70	66	69	70	69	67	62	61	64	65	66	64	62	66	61	66	66	66	66	66	66	65	66	66	63	--	66
Minimum	59	60	60	60	60	60	60	59	59	59	58	57	54	54	55	56	57	58	58	60	58	59	58	59	59	59	57	58	59	58	--	58

11-4785. VAN DUZEN RIVER NEAR BRIDGEVILLE, CALIF.

LOCATION (revised).--Lat 40°28'50", long 123°53'23", at gaging station at bridge on State Highway 36, 0.9 upstream from Grizzly Creek, and 5 miles west of Bridgeville, Humboldt County.
DRAINAGE AREA (revised).--222 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966.
Water temperatures: December 1960 to September 1966.
Sediment records: October 1955 to September 1963.
EXTREMES, 1965-66.--Water temperatures: Maximum, 79°F June 14, 15; minimum, 33°F Dec. 18-20, 23.
EXTREMES, 1960-64, 1965-66.--Water temperatures: Maximum, 80°F July 11, 12, 1961; minimum, 33°F Dec. 18-20, 23, 1965.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 13, 1965....	10	--		--	--	9.7	--	158	0	--	4.6		--	0.1	--	--		144	14	0.3	324	8.2
Nov. 10.....	74	--		--	--	6.8	--	140	5	--	2.9		--	.2	--	--		148	25	.2	308	8.5
Dec. 7.....	696	--		--	--	5.0	--	75	0	--	1.6		--	.0	--	--		71	9	.3	155	8.2
Jan. 12, 1966....	1190	--		--	--	3.4	--	72	0	--	1.2		--	.0	--	--		62	3	.2	139	8.2
Feb. 16..	569	--		--	--	3.9	--	75	0	--	.8		--	.0	--	--		66	4	.2	149	8.2
Mar. 15.....	2010	--		--	--	2.9	--	62	0	--	1.1		--	.0	--	--		55	4	.2	119	8.1
Apr. 13.....	1200	--		--	--	3.2	--	66	0	--	.6		--	.0	--	--		58	4	.2	126	8.1
May 17.....	178	10		25	4.7	3.9	1.0	94	0	13	1.2		0.9	.0	110	0.15		82	5	.2	176	8.1
June 14.....	64	--		--	--	11	--	122	2	--	1.7		--	.0	--	--		110	7	.5	232	8.4
July 19.....	24	--		--	--	6.6	--	139	4	--	2.4		--	.0	--	--		134	13	.3	279	8.5
Aug. 16.....	13	--		--	--	8.5	--	157	3	--	3.1		--	.0	--	--		152	18	.3	320	8.4
Sept. 13.....	11	10		47	9.8	9.6	17	169	0	39	4.5		.8	.0	210	.29		158	19	.3	343	8.1

EEL RIVER BASIN--Continued

11-4785. VAN DUZEN RIVER NEAR BRIDGEVILLE, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	69	67	66	62	69	66	70	66	64	65	63	63	58	60	59	58	61	58	64	62	63	63	64	63	63	62	60	60	63	62	60	63
Minimum	57	57	56	57	59	61	60	58	59	59	58	58	57	57	53	51	49	56	57	55	54	54	54	55	55	55	56	58	55	54	53	56
November																																
Maximum	59	59	61	62	60	58	58	59	59	55	56	58	56	54	55	55	55	51	52	53	51	51	51	49	45	45	44	44	45	45	--	54
Minimum	54	53	58	56	54	52	56	55	54	51	53	55	53	52	53	51	51	49	49	51	49	49	49	44	43	43	42	40	43	43	--	50
December																																
Maximum	45	45	47	47	49	49	48	49	48	46	47	47	42	41	39	39	39	39	38	39	39	39	39	41	39	39	44	45	42	42	41	43
Minimum	42	42	44	45	47	47	45	47	46	43	44	42	40	37	35	34	34	33	33	33	35	34	33	39	37	37	39	42	41	41	39	40
January																																
Maximum	41	42	43	43	46	48	48	47	45	43	44	43	45	45	47	45	43	43	42	41	41	43	43	45	44	45	44	45	44	46	44	44
Minimum	38	41	41	42	43	46	45	45	43	41	42	41	41	43	45	41	39	41	39	37	37	40	41	42	41	41	40	39	43	44	42	41
February																																
Maximum	45	45	46	46	46	44	43	43	45	46	44	45	41	42	45	45	45	45	45	47	46	46	48	47	45	45	48	47	--	--	--	45
Minimum	43	41	43	45	45	41	41	40	41	43	40	41	38	38	39	38	39	41	43	43	42	45	44	44	42	39	43	43	--	--	--	42
March																																
Maximum	43	38	41	40	45	44	45	46	47	48	48	49	50	49	48	44	44	47	47	48	48	50	52	53	54	51	51	53	54	55	57	48
Minimum	38	35	35	37	40	43	43	44	45	45	44	45	47	47	44	41	38	42	44	43	44	43	44	48	48	49	49	49	49	50	51	44
April																																
Maximum	55	54	59	58	56	54	55	53	51	49	47	49	51	54	58	58	57	56	55	55	57	59	62	61	58	60	59	60	61	61	--	56
Minimum	51	51	50	53	51	51	50	50	50	48	45	45	45	48	50	53	51	48	46	46	48	50	51	53	53	56	49	50	49	50	--	50
May																																
Maximum	63	66	65	64	63	66	66	57	55	62	65	64	62	62	64	66	67	72	70	69	61	67	67	71	70	63	62	66	68	58	66	65
Minimum	51	53	53	55	53	54	54	55	53	52	52	53	53	51	50	52	52	52	56	56	56	54	54	56	57	57	55	54	54	52	52	54
June																																
Maximum	66	62	64	70	64	62	69	71	73	70	71	73	75	79	79	74	73	76	73	72	74	74	70	74	75	76	78	64	72	72	--	72
Minimum	52	59	51	53	55	56	57	57	59	60	56	58	58	58	63	62	60	60	60	59	59	59	62	60	59	60	61	60	58	58	--	58
July																																
Maximum	67	68	74	78	77	73	74	74	71	76	75	70	70	75	75	74	78	76	76	76	78	78	76	76	76	77	74	75	77	72	77	75
Minimum	60	57	59	60	62	62	61	57	57	59	60	62	61	61	62	62	62	64	63	62	60	60	62	63	62	62	63	62	62	62	61	61
August																																
Maximum	77	74	74	71	74	77	75	76	76	77	75	76	75	78	77	76	76	75	74	76	71	70	71	74	74	73	76	72	71	70	72	74
Minimum	60	62	62	62	62	62	60	62	63	62	62	60	60	64	63	62	64	63	62	61	62	60	61	59	60	61	62	68	68	61	63	62
September																																
Maximum	74	75	76	75	74	74	70	73	73	73	69	68	69	70	70	72	71	67	70	64	75	72	73	70	70	70	70	69	71	70	--	71
Minimum	62	59	61	62	61	62	61	61	63	63	61	67	56	57	57	57	61	62	60	61	61	59	59	61	62	63	59	61	60	61	--	61

11-4785. VAN DUZEN RIVER NEAR BRIDGEVILLE, CALIF.--Continued

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Oct. 5, 1965.....	1540	66		10	20	.5	--	--	--	--	--	--	--	--	--	--		
Nov. 20.....	0935	51		1070	569	1640	--	--	--	--	--	92	97	99	100	--		V
Dec. 13.....	1025	41		255	38	26	--	--	--	--	--	--	--	--	--	--		
Dec. 29.....	1305	42		3460	2210	20600	--	29	--	48	--	67	79	89	98	99	100	VPWC
Jan. 3, 1966.....	1450	43		6600	5340	95200	19	23	28	37	48	56	75	91	99	100		VPWC
Jan. 31.....	1635	43		1740	1150	5400	--	36	--	59	--	78	88	95	99	100		VPWC
Mar. 7.....	1300	43		2420	1500	9800	19	26	37	47	58	72	88	99	100	--		VPWC
Apr. 4.....	1650	56		795	206	442	--	--	--	--	--	89	94	97	100	--		V
Apr. 26.....	1155	56		426	36	41	--	--	--	--	--	--	--	--	--	--		
May 23.....	1450	72		147	3	1.2	--	--	--	--	--	--	--	--	--	--		
July 15.....	0855	64		30	2	.2	--	--	--	--	--	--	--	--	--	--		
Aug. 12.....	0910	63		13	1	T	--	--	--	--	--	--	--	--	--	--		

T Less than 0.05 ton.

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966

(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
11-4740. EEL RIVER BELOW DOS RIOS, CALIF. (394415 1232215)																		
Dec. 23, 1965	1330	37		318	12	10	--	--	--	--	--	--	--	--	--	--	--	
Dec. 24	1515	37		3790	4970	50900	--	--	--	--	--	40	74	93	99	100	--	V
Dec. 25	1720	40		2900	349	2730	--	--	--	--	--	--	--	--	--	--	--	
Dec. 26	1320	38		1720	164	762	--	--	--	--	--	--	--	--	--	--	--	
Dec. 27	1505	44		1210	73	238	--	--	--	--	--	--	--	--	--	--	--	
Dec. 28	1445	44		19400	6340	332000	24	35	46	60	75	83	86	91	96	99	100	VPWC
Dec. 29	1400	42		8820	1550	36900	--	23	--	36	--	49	58	73	83	94	100	VPWC
Dec. 29	1530	45		8600	1340	31100	--	--	--	--	--	--	--	--	--	--	--	
Dec. 30	1445	42		6480	636	11100	--	--	--	--	--	--	--	--	--	--	--	
Dec. 31	0920	40		7560	1080	22000	--	--	--	--	--	--	--	--	--	--	--	
Jan. 1, 1966	1015	39		4350	350	4110	--	--	--	--	--	--	--	--	--	--	--	
Jan. 5	0945	47		67900	4490	823000	--	26	--	46	--	66	80	94	99	100	--	VPWC
Jan. 5	1345	47		85200	4280	985000	--	--	--	--	--	--	--	--	--	--	--	
Jan. 6	1730	48		43700	3410	402000	--	--	--	--	--	--	--	--	--	--	--	
Jan. 7	1615	48		21700	2310	135000	--	--	--	--	--	--	--	--	--	--	--	
Jan. 8	1720	--		15300	1900	78500	--	--	--	--	--	--	--	--	--	--	--	
Jan. 9	1730	--		9560	1350	34800	--	--	--	--	--	--	--	--	--	--	--	
Jan. 10	1700	--		7540	973	19800	--	--	--	--	--	--	--	--	--	--	--	
Jan. 11	1620	--		6120	872	14400	--	--	--	--	--	--	--	--	--	--	--	
Jan. 12	1715	--		4930	650	8650	--	--	--	--	--	--	--	--	--	--	--	
Jan. 13	1445	--		4330	506	5920	--	--	--	--	--	--	--	--	--	--	--	
Jan. 14	1500	--		3760	510	5180	--	--	--	--	--	--	--	--	--	--	--	
Jan. 15	1400	--	D	3750	466	4720	--	--	--	--	--	--	--	--	--	--	--	
Jan. 17	1200	--		3060	404	3340	--	--	--	--	--	--	--	--	--	--	--	
Jan. 17	1530	--		2740	286	2120	--	--	--	--	--	83	86	91	99	100	--	V
Jan. 22	1015	49		1780	176	846	--	--	--	--	--	--	--	--	--	--	--	
Jan. 22	1430	44		1780	172	827	--	--	--	--	--	--	--	--	--	--	--	
Jan. 31	1410	40	D	6600	259	4620	--	--	--	--	--	--	--	--	--	--	--	
Feb. 2	0920	38	D	5000	182	2460	--	--	--	--	--	--	--	--	--	--	--	
Feb. 2	1410	38	D	5000	187	2520	--	--	--	--	--	--	--	--	--	--	--	
Feb. 3	1415	43	D	13500	237	8640	--	--	--	--	--	64	72	82	92	100	--	V
Feb. 4	1015	45		14700	1110	44100	30	39	56	70	84	95	100	--	--	--	--	VPWC
Feb. 6	1030	37		10700	465	13400	--	--	--	--	--	--	--	--	--	--	--	
Feb. 6	1400	38		10300	465	12900	--	--	--	--	--	--	--	--	--	--	--	
Feb. 13	1025	40		2610	110	775	--	--	--	--	--	--	--	--	--	--	--	
Feb. 13	1500	40		2530	112	765	--	--	--	--	--	--	--	--	--	--	--	
Feb. 23	1115	41		3200	128	1110	--	--	--	--	--	--	--	--	--	--	--	
Feb. 23	1530	41		3080	135	1120	--	--	--	--	--	--	--	--	--	--	--	
Feb. 27	1100	43		3760	90	914	--	--	--	--	--	--	--	--	--	--	--	
Feb. 27	1500	43		3620	86	841	--	--	--	--	--	--	--	--	--	--	--	
Mar. 4	1130	38		2350	104	660	--	--	--	--	--	--	--	--	--	--	--	
Mar. 8	1100	44		6070	254	4160	--	--	--	--	--	--	--	--	--	--	--	
Mar. 8	1500	44		7700	322	6690	--	--	--	--	--	--	--	--	--	--	--	

D Daily mean discharge.

MISCELLANEOUS ANALYSES OF STREAMS IN EEL RIVER BASIN--Continued

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966--Continued
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
11-4740. EEL RIVER BELOW DOS RIOS, CALIF.--Continued																		
Mar. 11, 1966.....	1020	44		10300	573	15900	--	--	--	--	--	--	--	--	--	--	--	
Mar. 11.....	1500	45		9540	540	13900	--	--	--	--	--	--	--	--	--	--	--	
May 2.....	1500	60		1790	138	667	--	--	--	--	--	--	--	--	--	--	--	
July 19.....	1615	77		58	4	.6	--	--	--	--	--	--	--	--	--	--	--	
Aug. 30.....	1145	67		D 22	1	.1	--	--	--	--	--	--	--	--	--	--	--	
11-4745. NORTH FORK EEL RIVER NEAR MINA, CALIF. (395610 1232110)																		
Oct. 5, 1965.....	0745	64		2.6	2	T						--	--	--	--			
Nov. 16.....	1035	51		250	31	21						93	97	99	100			S
Dec. 22.....	0730	33		71	3	.6						--	--	--	--			
Dec. 28.....	1430	42		10300	5260	146000	23	26	37	46	58	65	84	96	100			VPWC
Jan. 5, 1966.....	1340	47		12600	4310	147000						--	--	--	--			
Jan. 7.....	1500	46		3630	1730	17000						68	78	88	99	100		V
Jan. 19.....	1100	--		452	54	66						--	--	--	--			
Feb. 1.....	1210	47		1200	350	1130						76	79	86	100			V
Feb. 2.....	1005	46		1030	291	809						--	--	--	--			
Mar. 3.....	1030	36		520	37	52						86	87	93	100			V
Apr. 7.....	1130	55		378	67	68						98	99	100	--			S
May 5.....	1030	60		122	5	1.6						--	--	--	--			
July 14.....	1700	78		9.8	1	T						--	--	--	--			
Aug. 31.....	1015	67		3.0	1	T						--	--	--	--			

T Less than 0.05 ton.
D Daily mean discharge.

11-4805. MAD RIVER NEAR FOREST GLEN, CALIF.

LOCATION.--Lat 40°27'30", long 123°30'35", temperature recorder at gaging station on right bank 0.7 mile downstream from Lamb Creek, and 7.0 miles northwest of Forest Glen, Trinity County.
DRAINAGE AREA.--143 square miles.
RECORDS AVAILABLE.--Water temperatures: November 1960 to September 1966.
Sediment records: January 1957 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 70°F Sept. 28, 29; minimum, 39°F Jan. 20, 21, Mar. 4, 5.
EXTREMES, 1960-66.--Water temperatures: Maximum, 79°F June 25, 1961; minimum, 35°F Jan. 24, 1962.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	60	58	58	57	60	60	60	59	59	58	58	58	58	58	56	54	56	56	58	57	57	57	57	57	57	57	57	58	57	56	55	58
Minimum	55	54	53	54	56	56	56	55	55	55	54	54	54	56	54	52	52	55	56	55	54	54	54	54	55	55	54	57	55	54	53	55
November																																
Maximum	55	56	57	58	56	56	55	55	55	55	54	54	54	54	54	54	54	53	53	53	52	51	51	50	49	49	49	47	46	46	--	53
Minimum	52	54	56	56	55	55	55	55	54	54	54	54	54	53	54	54	53	52	52	52	50	50	50	48	48	49	47	46	46	46	--	52
December																																
Maximum	46	45	45	45	46	46	46	46	46	46	46	46	45	44	44	43	42	42	42	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	45	45	44	44	45	46	45	46	46	46	45	45	44	44	43	42	41	41	42	--	--	--	--	--	--	--	--	--	--	--	--	--
January																																
Maximum	--	--	--	--	--	--	41	41	40	40	40	40	40	41	41	40	40	40	40	40	40	41	41	41	41	41	41	41	40	42	42	41
Minimum	--	--	--	--	--	--	41	40	40	40	40	40	40	40	40	40	39	40	40	39	39	40	40	41	41	40	40	40	40	40	41	40
February																																
Maximum	42	41	40	41	41	41	41	41	42	41	41	41	41	42	41	41	41	42	42	42	42	41	43	43	42	43	43	43	--	--	--	42
Minimum	41	40	40	40	41	41	40	40	40	40	40	40	40	40	40	40	40	40	40	41	41	41	41	42	42	42	42	42	--	--	--	41
March																																
Maximum	42	41	42	40	41	42	42	42	42	42	42	42	43	43	43	43	43	43	44	44	44	44	45	46	46	47	47	47	48	48	48	44
Minimum	41	40	40	39	39	41	42	42	42	42	42	42	42	43	43	42	42	42	42	42	42	42	42	42	43	44	44	44	44	45	44	42
April																																
Maximum	50	48	50	50	50	50	50	48	47	47	47	47	50	51	51	52	52	50	50	50	52	53	54	54	54	53	53	54	54	54	--	51
Minimum	44	45	44	45	46	45	46	46	46	46	46	46	46	46	46	46	46	46	44	44	45	46	46	46	47	46	44	47	46	46	--	46
May																																
Maximum	55	56	54	55	52	55	56	55	54	58	57	58	58	56	57	58	58	60	60	61	61	59	60	62	62	59	61	60	57	56	58	58
Minimum	46	46	47	52	49	48	48	49	50	50	48	48	50	48	48	49	48	50	50	51	52	51	50	51	52	53	53	51	52	52	50	50
June																																
Maximum	56	54	56	60	57	55	56	63	64	63	62	64	66	68	66	67	66	66	66	62	64	62	63	64	65	66	67	67	66	66	--	63
Minimum	50	50	50	50	53	54	54	54	56	56	54	54	56	58	59	58	58	57	58	57	56	56	57	56	55	56	57	58	58	57	--	55
July																																
Maximum	62	63	65	66	67	66	66	64	61	66	63	66	66	66	66	64	67	66	67	67	68	68	68	68	67	68	68	68	68	64	66	66
Minimum	57	54	55	57	58	58	58	58	58	56	56	59	59	59	58	58	58	62	59	54	60	60	56	60	58	56	59	59	58	58	57	58
August																																
Maximum	67	68	67	66	67	68	68	66	68	68	67	68	67	66	66	65	65	66	66	66	66	65	64	64	65	64	66	64	63	62	65	66
Minimum	57	58	58	57	58	58	58	56	58	59	58	59	58	58	58	58	58	56	57	58	58	58	57	56	58	58	57	58	57	58	58	58
September																																
Maximum	66	66	66	66	66	67	--	66	66	66	65	62	62	65	65	67	66	66	68	64	68	68	68	67	67	69	69	70	70	69	--	67
Minimum	58	58	58	58	58	57	--	57	57	57	57	55	56	57	56	57	57	61	60	61	59	61	60	60	60	62	61	61	61	61	--	59

11-4805. MAD RIVER NEAR FOREST GLEN, CALIF.--Continued

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Oct. 3, 1965.....	1630	60		D 69	3	0.6						--	--	--	--			
Oct. 5.....	1720	62		D 71	3	.6						--	--	--	--			
Oct. 10.....	1430	60		D 79	5	1.1						--	--	--	--			
Oct. 18.....	1530	60		D 77	4	.8						--	--	--	--			
Oct. 25.....	1700	60		D 75	4	.8						--	--	--	--			
Oct. 31.....	1600	58		D 73	4	.8						--	--	--	--			
Nov. 7.....	1700	55		85	30	.9						--	--	--	--			
Nov. 14.....	1630	54		129	20	10						--	--	--	--			
Nov. 19.....	1700	53		349	38	36						94	96	99	100			S
Nov. 21.....	1530	53		323	53	46						--	--	--	--			
Nov. 24.....	1400	47		425	47	54						--	--	--	--			
Nov. 26.....	1430	48		376	25	25						--	--	--	--			
Nov. 28.....	1500	47		353	19	18						--	--	--	--			
Dec. 5.....	1600	47		251	12	8.1						--	--	--	--			
Dec. 12.....	1400	46		243	7	4.6						--	--	--	--			
Dec. 13.....	1655	44		243	11	7.2						--	--	--	--			
Dec. 19.....	1600	42		135	3	1.1						--	--	--	--			
Dec. 26.....	1000	40		D 310	5	4.2						--	--	--	--			
Dec. 28.....	1300	38		976	335	883						--	--	--	--			
Dec. 30.....	1500	44		D 860	17	39						--	--	--	--			
Jan. 4, 1966.....	1400	42		2570	625	4340						--	--	--	--			
Jan. 5.....	1400	38		D 7800	459	9670						77	90	100	--			V
Jan. 9.....	1150	40		2220	222	1330						75	78	82	94	100		V
Jan. 10.....	1600	40		1390	136	510						--	--	--	--			
Jan. 11.....	1400	40		1010	137	374						98	100	--	--			S
Jan. 12.....	1400	42		795	127	273						--	--	--	--			
Jan. 13.....	1500	42		660	131	233						--	--	--	--			
Jan. 14.....	1400	42		585	129	204						--	--	--	--			
Jan. 16.....	1500	42		540	118	172						--	--	--	--			
Jan. 17.....	1500	42		520	112	157						--	--	--	--			
Jan. 18.....	1500	42		495	116	155						--	--	--	--			
Jan. 20.....	1500	42		410	108	120						--	--	--	--			
Jan. 25.....	1400	42		370	80	80						--	--	--	--			
Jan. 26.....	1500	42		370	85	85						--	--	--	--			
Jan. 29.....	1300	42		675	40	73						--	--	--	--			
Feb. 1.....	1330	42		475	49	63						--	--	--	--			
Feb. 2.....	0955	40		460	40	50						100	--	--	--			S

Feb. 4	1330	41		905	138	337						--	--	--	--			
Feb. 6	1100	41		1180	61	194						--	--	--	--			
Feb. 9	1430	42		710	44	84						--	--	--	--			
Feb. 13	1500	42		435	36	42						--	--	--	--			
Feb. 17	1500	42		390	34	36						--	--	--	--			
Feb. 20	1200	43		440	28	33						--	--	--	--			
Feb. 23	1500	45		480	26	34						--	--	--	--			
Feb. 26	1200	43		490	24	32						--	--	--	--			
Feb. 28	1300	44		460	25	31						--	--	--	--			
Mar. 3	1330	43		440	26	31						--	--	--	--			
Mar. 4	1100	39		415	22	25						--	--	--	--			
Mar. 7	1430	40		1110	65	195						--	--	--	--			
Mar. 9	0800	40		3070	133	1100						--	--	--	--			
Mar. 9	1200	40		3200	135	1170						--	--	--	--			
Mar. 9	1600	41		3180	105	893						--	--	--	--			
Mar. 10	0930	41		2850	112	862						--	--	--	--			
Mar. 11	0930	40		1960	69	365						--	--	--	--			
Mar. 13	1300	43		1220	36	119						--	--	--	--			
Mar. 16	1200	41		990	42	112						--	--	--	--			
Mar. 20	1530	44		810	40	87						--	--	--	--			
Mar. 27	1200	46		490	26	34						--	--	--	--			
Mar. 30	1430	50		450	24	29						--	--	--	--			
Mar. 31	1635	51		440	28	33						--	--	--	--			
Apr. 3	1130	49		410	24	27						--	--	--	--			
Apr. 10	1500	46		395	26	28						--	--	--	--			
Apr. 17	1200	50		430	17	20						--	--	--	--			
Apr. 24	1700	56		208	11	6.2						--	--	--	--			
May 1	1130	54		155	9	3.8						--	--	--	--			
May 4	1540	56		121	10	3.3						--	--	--	--			
May 27	1405	62		D 92	5	1.2						--	--	--	--			
July 18	1400	65		D 58	3	.5						--	--	--	--			
Aug. 18	0750	59		109	7	1.9						--	--	--	--			

D Daily mean discharge.

11-4807.5. MAD RIVER NEAR KNEELAND, CALIF.

LOCATION.--Lat 40°45'50", long 123°53'20", temperature recorder at gaging station on left bank at mouth of Maple Creek, 30 feet upstream from bridge, and 5.4 miles east of Kneeland, Humboldt County.
DRAINAGE AREA.--352 square miles.
RECORDS AVAILABLE.--Water temperatures: November 1965 to September 1966.
EXTREMES, November 1965 to September 1966.--Water temperatures: Maximum, 67°F July 22; minimum, 36°F Mar. 2.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	--	--	--	--	54	52	53	54	52	52	52	52	51	50	50	51	50	50	48	48	45	45	44	43	44	45	--	--
Minimum	--	--	--	--	--	--	--	--	59	56	55	57	54	53	56	55	54	55	54	52	52	52	51	51	50	49	47	46	46	47	--	--
December																																
Maximum	46	47	47	47	49	49	48	48	48	47	47	47	47	46	45	44	44	43	43	43	44	44	45	46	46	42	43	43	43	42	41	45
Minimum	44	44	44	46	47	47	47	47	47	46	46	46	45	45	44	44	43	43	43	42	43	43	43	45	42	41	41	42	41	41	39	44
January																																
Maximum	41	42	43	43	44	44	45	45	43	43	43	43	43	43	43	44	44	43	43	43	43	43	43	42	42	42	42	42	43	43	43	43
Minimum	39	41	42	42	43	44	43	43	42	41	43	43	43	43	43	43	43	43	43	43	43	43	42	41	41	41	41	41	42	42	42	42
February																																
Maximum	43	43	43	44	44	44	44	43	43	42	43	43	43	42	42	42	42	42	42	43	43	43	43	43	43	43	43	43	--	--	--	43
Minimum	43	43	42	43	43	41	43	43	42	42	42	43	42	42	42	41	41	41	42	42	42	43	43	43	43	43	43	42	--	--	--	42
March																																
Maximum	42	42	43	43	44	44	44	45	46	46	46	46	46	47	48	47	47	45	46	46	47	47	48	48	48	48	49	49	49	50	49	46
Minimum	38	36	38	43	43	43	44	44	45	44	44	45	46	46	47	47	45	45	45	46	46	46	46	46	47	48	48	49	49	49	46	45
April																																
Maximum	50	51	52	53	54	54	54	52	52	52	52	52	51	51	50	51	52	52	53	52	52	52	52	52	53	53	58	58	59	58	--	53
Minimum	50	50	50	51	52	52	52	52	52	52	52	51	50	50	50	50	51	51	52	52	52	52	51	52	52	52	52	52	52	53	--	51
May																																
Maximum	58	58	57	56	56	59	56	56	55	55	55	55	54	54	54	54	54	54	54	55	54	55	55	55	56	56	56	56	56	55	56	55
Minimum	53	54	54	55	54	54	54	55	54	54	54	54	54	54	54	54	54	52	54	54	54	54	54	54	55	55	55	55	55	55	55	54
June																																
Maximum	56	60	60	60	60	60	60	60	60	60	60	60	59	58	58	60	60	60	60	61	59	60	60	62	62	62	62	60	62	62	--	60
Minimum	60	60	61	61	60	60	61	62	62	60	62	62	60	60	60	60	61	61	61	62	61	61	60	63	63	64	64	62	64	64	--	61
July																																
Maximum	63	63	64	64	64	64	64	64	64	65	65	64	64	65	65	65	65	64	65	65	65	67	66	65	66	66	--	--	--	--	--	65
Minimum	62	62	62	62	62	63	63	63	64	64	64	64	64	64	64	64	64	64	64	64	63	64	64	64	64	64	--	--	--	--	--	63
August																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
September																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

11-4810. MAD RIVER NEAR ARCATA, CALIF.

LOCATION.--Lat 40°54'35", long 124°03'35", at gaging station 100 feet upstream from bridge on U.S. Highway 299, 1.0 mile downstream from Warren Creek, and 2.8 miles northeast of Arcata, Humboldt County.
DRAINAGE AREA.--485 square miles.
RECORDS AVAILABLE.--Chemical analyses: November 1958 to September 1966.
Water temperatures: December 1957 to September 1966.
Sediment records: December 1957 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 77°F June 15, 16, Aug. 12; minimum, 33°F Dec. 17-20.
Sediment concentrations: Maximum daily, 11,200 ppm Jan. 4; minimum daily, 4 ppm May 31.
Sediment loads: Maximum daily, 887,000 tons Jan. 4; minimum daily, 0.6 ton Oct. 19.
EXTREMES, 1957-66.--Water temperatures: Maximum (1963-64, 1965-66), 77°F June 15, 16, Aug. 12, 1966; minimum, 33°F Dec. 17-20, 1965.
Sediment concentrations: Maximum daily, 21,500 ppm Dec. 23, 1964; minimum daily, 1 ppm on many days in 1958-60, 1962, 1965.
Sediment loads: Maximum daily, 3,140,000 tons Dec. 22, 1964; minimum daily, 0.1 ton on many days in 1958-60, 1962.
REMARKS.--Where no maximum or minimum is shown, temperature is once-daily reading.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 11, 1965....	59	--		--	--	5.6	--	133	3	--	2.4		--	0.1	--	--		118	4	0.2	246	8.5
Nov. 8.....	98	--		--	--	5.0	--	122	4	--	2.5		--	.1	--	--		116	9	.2	242	8.5
Dec. 6.....	1130	--		--	--	3.6	--	64	0	--	2.1		--	.0	--	--		58	6	.2	134	7.9
Jan. 10, 1966....	4390	--		--	--	3.1	--	56	0	--	1.4		--	.0	--	--		48	2	.2	111	8.1
Feb. 14.....	1530	--		--	--	3.3	--	60	0	--	1.2		--	.0	--	--		54	5	.2	121	8.0
Mar. 14.....	3650	--		--	--	3.0	--	54	0	--	1.4		--	.0	--	--		47	3	.2	105	8.0
Apr. 14.....	1940	--		--	--	3.3	--	53	0	--	1.0		--	.0	--	--		47	4	.2	108	7.7
May 18.....	245	6.7		24	4.4	3.8	1.0	90	0	12	2.0		0.4	.1	101	0.14		78	4	.2	170	8.0
June 15.....	127	--		--	--	4.7	--	116	0	--	2.0		--	.0	--	--		100	5	.2	209	8.2
July 18.....	54	--		--	--	5.5	--	122	2	--	2.8		--	.0	--	--		110	7	.2	231	8.5
Aug. 15.....	80	--		--	--	5.2	--	125	0	--	2.1		--	.0	--	--		108	6	.2	228	8.2
Sept. 12.....	90	9.4		35	5.7	4.6	1.1	126	0	15	2.1		1.0	.0	A 136	.18		111	8	.2	229	8.0

A Calculated from sum of determined constituents.

11-4810. MAD RIVER NEAR ARCATA, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	72	66	72	63	67	68	69	60	59	61	63	60	58	60	62	55	57	57	59	60	61	60	61	60	61	57	57	57	57	60	57	61
Minimum	53	53	55	53	57	57	58	58	58	58	54	57	56	55	53	45	46	55	56	55	55	55	51	52	53	53	53	57	55	53	54	54
November	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	59	57	60	64	59	57	56	59	60	55	55	57	57	54	57	58	55	51	52	54	55	53	52	49	47	46	48	48	45	50	---	54
Minimum	53	51	56	58	53	49	54	52	55	52	53	54	54	53	52	53	51	51	49	50	51	50	50	46	44	45	44	42	43	45	---	50
December	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	48	49	48	48	50	51	51	50	49	45	45	47	45	43	42	41	40	40	41	41	40	41	38	43	41	40	43	43	41	41	41	44
Minimum	44	44	45	46	48	49	48	47	45	43	43	41	40	37	35	34	33	33	33	33	35	35	34	38	38	38	39	40	40	41	41	40
January	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	41	42	43	43	44	45	44	45	43	41	44	43	43	45	47	47	44	44	44	42	41	43	46	48	45	45	47	45	46	46	46	44
Minimum	41	41	42	43	43	44	43	42	41	41	41	41	41	43	44	41	39	39	38	37	38	41	42	43	42	42	41	40	44	44	44	41
February	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	47	46	49	48	47	47	47	47	47	49	47	48	45	45	48	48	46	48	47	47	46	46	49	48	47	46	50	47	---	---	---	47
Minimum	44	44	45	46	46	45	44	43	44	45	43	42	40	40	41	40	42	43	43	42	42	43	44	46	43	41	44	44	---	---	---	43
March	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	44	41	47	43	47	46	47	47	47	49	47	47	47	48	48	47	45	46	48	47	48	49	49	49	49	49	49	49	51	51	51	47
Minimum	40	38	38	39	43	45	45	46	46	46	45	47	47	47	46	44	43	44	45	45	46	45	47	47	48	49	49	49	49	49	50	45
April	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	53	53	53	54	53	53	54	54	54	54	53	53	53	54	54	56	56	56	56	55	56	56	57	58	58	58	57	57	61	65	---	55
Minimum	51	51	51	52	53	53	53	54	53	53	51	50	50	51	52	53	54	53	52	52	53	54	55	56	56	54	54	55	55	56	---	53
May	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	62	64	64	64	64	68	66	64	61	66	68	69	67	66	66	67	69	71	73	72	68	69	72	73	65	64	69	70	62	64	68	67
Minimum	58	59	60	60	57	60	58	60	59	58	57	59	61	56	53	55	53	57	58	60	62	54	53	56	60	58	58	54	56	57	57	58
June	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	69	70	67	68	69	70	---	68	70	68	65	---	---
Maximum	69	67	69	72	64	63	71	67	75	73	73	73	75	76	77	77	76	76	70	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	53	57	51	52	55	59	58	62	60	62	59	67	58	59	63	65	62	59	64	---	---	---	---	---	---	---	---	---	---	---	---	---
July	65	64	---	---	66	---	---	---	---	---	---	---	---	---	67	---	---	67	66	67	68	68	---	---	69	68	67	66	69	---	---	62
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	64	61	60	60	61	60	60	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
August	67	69	65	64	65	69	---	69	68	70	67	77	---	69	---	---	70	---	---	68	---	69	---	65	66	68	---	---	65	65	66	---
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
September	63	65	---	---	61	---	---	64	---	58	---	---	59	---	65	64	63	61	60	---	60	60	61	60	---	62	61	60	61	60	---	---
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

11-4810. MAD RIVER NEAR ARCATA, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	41	--	11	54	60	8.7	790	158	337
2	42	100	11	53	--	4.3	666	100	180
3	41	--	6.0	54	7	1.0	675	114	208
4	44	85	10	67	--	1.1	849	186	426
5	43	--	4.1	97	6	1.6	1150	210	652
6	43	41	4.8	82	--	1.3	1130	280	854
7	44	--	1.3	77	7	1.5	895	144	348
8	51	60	8.3	98	--	4.2	816	98	216
9	55	--	3.7	114	30	9.2	741	82	164
10	58	14	2.2	97	--	9.2	676	65	119
11	59	--	1.9	93	--	5.5	630	50	85
12	59	12	1.9	171	83 K	60	580	48	75
13	58	--	2.2	443	195	233	548	--	74
14	71	37	7.1	749	504 S	1070	536	54	78
15	97	--	19	552	168	250	490	--	67
16	110	84	25	444	40	48	447	--	53
17	98	--	7.9	401	78	84	421	--	30
18	89	7	1.7	1040	1130 S	4000	379	17	17
19	79	--	.6	1760	1930 S	9560	363	14	14
20	79	7	1.5	1010	350	954	349	11	10
21	77	--	3.7	860	194	450	344	18	17
22	69	39	7.3	698	112	211	378	75	77
23	71	--	13	644	85	148	373	85	86
24	70	70	13	1790	1290 S	6860	905	239 K	810
25	66	--	10	2790	598 S	4280	1480	--	1000
26	61	37	6.1	2030	363 S	2000	1120	--	600
27	58	--	3.0	1750	273 S	1330	935	180	454
28	55	14	2.1	1190	168	540	6870	6170 S	144000
29	68	--	2.8	1010	133	363	5280	2010 S	29800
30	83	17	3.8	906	129	316	3530	930	8860
31	64	--	4.7	--	--	--	3280	390	3450
Total	2003	--	200.7	21124	--	32804.6	37626	--	193161

Day	JANUARY			FEBRUARY			MARCH		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	2230	280	1690	2870	570	4420	1650	170	757
2	2040	296 S	1920	2360	480	3060	1820	220	1080
3	8820	3860 S	105000	1990	770	4140	1810	190	929
4	29700	11200 S	887000	2790	1000 S	8550	1730	160	747
5	25900	9410 S	664000	3860	1220	12700	1820	255	1250
6	21100	9890 S	584000	4640	1240	15500	3160	1290 S	12900
7	11300	5200	159000	3830	570	5890	4470	1600	19300
8	8450	4010	91500	3040	410	3370	6100	2240	36900
9	6000	2800	45400	2470	440	2930	7820	2370	50000
10	4390	1000	11900	2570	510	3540	8450	3940	89900
11	3420	740	6830	2170	290	1700	5370	2170	31500
12	2640	564	4020	1920	280	1450	4160	1250	14000
13	2220	480	2880	1680	190	862	3950	800	8530
14	1980	419	2240	1530	160	661	3650	660	6500
15	1840	345	1710	1410	160	609	3590	750	7270
16	1790	338	1630	1320	130	463	4140	740	8270
17	1230	300	996	1270	110	377	3590	500	4850
18	1550	280	1170	1240	108	362	3100	400	3350
19	1450	243	951	1350	181	660	4650	1440	18100
20	1280	220	760	1720	138	641	3740	860	8680
21	1210	208	680	1500	255	1030	4930	1250	16600
22	1450	204	799	1450	330	1290	3710	420	4210
23	1480	184	735	1890	500	2550	2820	320	2440
24	1260	162	551	1830	285	1410	2420	290	1890
25	1200	142	460	1810	250	1220	2200	250	1490
26	1130	142	433	1920	313	1620	2060	240	1330
27	1090	120	353	1800	200	972	1960	250	1320
28	1050	135	383	1670	190	857	1870	230	1160
29	4040	3220 S	42800	--	--	--	1790	220	1060
30	4860	1600	21000	--	--	--	1750	240	1130
31	3950	710	7570	--	--	--	1680	200	907
Total	162050	--	2650361	59900	--	82834	105960	--	358350

S Computed by subdividing day.
K Computed from estimated-concentration graph and subdividing day.

11-4810. MAD RIVER NEAR ARCATA, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	1680	250	1130	533	65	94	179	28	14
2	1570	210	890	460	--	62	181	98	48
3	1480	180	719	435	45	53	182	98	48
4	1400	170	643	408	28	31	155	6	2.5
5	1350	170	620	399	--	32	149	309	124
6	1280	170	588	373	--	35	134	92	33
7	1230	140	465	377	19	19	136	81	30
8	1160	80	251	374	21	21	137	68	25
9	1140	110	339	347	57	53	132	165	59
10	1580	260	1110	353	33	31	131	80	28
11	2530	1260	8610	314	14	12	129	91	32
12	3140	1020	8650	303	--	7.4	129	--	32
13	2390	290	1870	297	11	8.8	129	128	45
14	1940	210	1100	297	8	6.4	126	250	85
15	1590	170	730	286	7	5.4	127	152	52
16	1350	160	583	259	7	4.9	120	260	84
17	1240	140	469	251	49	33	112	220	67
18	1110	126	378	245	38	25	106	160	46
19	1020	106	292	223	48	29	101	--	31
20	955	127	327	222	7	4.2	97	121	32
21	905	82	200	211	29	17	95	158	41
22	830	84	188	216	31	18	83	200	45
23	716	71	137	194	124	65	73	196	39
24	660	53	94	187	7	3.5	59	210	33
25	640	50	86	180	47	23	50	120	16
26	616	50	83	174	63	30	56	--	29
27	576	47	73	183	32	16	56	226	34
28	520	107	150	164	--	14	66	220	39
29	476	73	94	154	38	16	78	340	72
30	487	88	116	179	--	3.9	68	350	64
31	--	--	--	216	4	2.3	--	--	
Total	37561	--	30985	8814	--	775.8	3376	--	1329.5

Day	JULY			AUGUST			SEPTEMBER		
1	62	164	27	65	280	49	93	105	26
2	58	370	58	65	152	27	93	109	27
3	56	--	6.8	65	160	28	92	--	11
4	76	--	2.5	65	160	28	92	--	3.7
5	68	8	1.5	65	190	33	92	8	2.0
6	65	105	18	65	138	24	92	--	1.7
7	68	29	5.3	65	210	37	92	--	1.5
8	52	360	51	65	180	32	92	5	1.2
9	51	237	33	65	130	23	92	--	1.2
10	57	--	37	65	121	21	92	5	1.2
11	63	294	50	65	28	4.9	92	--	1.2
12	70	190	36	65	112	20	90	--	1.2
13	57	170	26	65	--	4.0	90	5	1.2
14	56	306	46	65	5	.9	90	--	1.7
15	55	324	48	80	--	2.2	90	127	31
16	54	--	31	105	--	9.1	90	158	38
17	54	--	19	105	8	2.3	90	175	43
18	54	114	17	105	--	1.7	90	73	18
19	53	120	17	96	--	1.3	90	63	15
20	53	170	24	96	5	1.3	90	--	14
21	53	183	26	96	18	4.7	90	65	16
22	53	167	24	96	88	23	90	110	27
23	53	--	26	96	114	30	90	163	40
24	53	--	30	93	148	37	115	177	55
25	53	200	29	93	182	46	150	--	57
26	53	198	28	93	95	24	155	110	46
27	53	138	20	93	--	22	160	200	86
28	53	288	41	93	--	23	120	232	75
29	51	179	25	93	100	25	92	155	39
30	56	--	26	93	65	16	88	180	43
31	65	--	33	93	70	18	--	--	--
Total	1778	--	862.1	2529	--	618.4	2974	--	724.8

Total discharge for year (cfs-days)..... 445695
Total load for year (tons)..... 3353006.9

11-4810. MAD RIVER NEAR ARCATA, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 20, 1965.....	1645	53		976	238		--	--	--	--	--	91	94	99	100			V
Dec. 14.....	1315	44		482	55		--	--	--	--	--	96	97	99	100			S
Jan. 3, 1966.....	1130	42		7230	3030		--	23	--	39	--	58	77	95	100			VPWC
Jan. 4.....	0900	44		21800	11000		24	30	38	44	61	74	92	100	--			VPWC
Jan. 6.....	0900	42		13700	7900		--	19	--	29	--	48	74	96	100			VPWC
Feb. 4.....	1550	48		3140	1560		--	35	--	65	--	90	96	99	100			VPWC
Feb. 26.....	1000	43		1945	304		--	--	--	--	--	89	91	95	98	100		V
Mar. 20.....	1600	45		3580	1200		23	29	43	51	71	83	96	100	--			VPWC
Apr. 8.....	1530	54		1150	20		--	--	--	--	--	68	76	99	100			V

REDWOOD CREEK BASIN

11-4825. REDWOOD CREEK AT ORICK, CALIF.

LOCATION.--Lat 41°17'20", long 124°03'30", at gaging station on pier of bridge on U.S. Highway 101 at Orick, Humboldt County, and 0.9 mile downstream from Prairie Creek.
DRAINAGE AREA.--278 square miles.
RECORDS AVAILABLE.--Chemical analyses: November 1958 to September 1966 (discontinued).
Water temperatures: October 1965 to January 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 12, 1965....	18	--		--	--	5.9	--	79	0	--	6.8		--	0.0	--	--		77	12	0.3	182	8.2
Nov. 9.....	86	--		--	--	5.4	--	96	0	--	5.0		--	.1	--	--		112	33	.2	246	8.2
Dec. 7.....	475	--		--	--	4.6	--	63	0	--	3.3		--	.0	--	--		70	18	.2	162	8.1
Jan. 11, 1966....	2670	--		--	--	3.1	--	35	0	--	2.8		--	.0	--	--		36	7	.2	88	7.6
Feb. 15.....	1180	--		--	--	3.5	--	44	0	--	2.1		--	.0	--	--		43	7	.2	105	8.0
Mar. 14.....	2910	--		--	--	3.0	--	34	0	--	2.2		--	.0	--	--		34	6	.2	85	7.4
Apr. 14.....	1280	--		--	--	3.4	--	45	0	--	1.4		--	.0	--	--		42	5	.2	100	7.5
May 18.....	205	5.8		25	1.8	3.8	0.7	68	0	16	3.0		0.3	.0	96	0.13		70	14	.2	157	7.5
June 14.....	123	--		--	--	4.4	--	75	0	--	4.0		--	.0	--	--		78	16	.2	178	7.9
July 19.....	44	--		--	--	4.8	--	76	2	--	5.0		--	.0	--	--		81	15	.2	183	8.3
Aug. 16.....	20	--		--	--	5.7	--	71	0	--	6.0		--	.0	--	--		73	15	.3	173	7.6
Sept. 13.....	19	7.7		27	3.2	5.0	.7	74	0	19	5.0		.5	.0	113	.15		80	19	.2	179	7.0

11-4825. REDWOOD CREEK AT ORICK, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	61	60	60	60	63	64	63	59	58	60	59	58	57	63	62	61	62	61	63	60	62	62	61	60	59	57	57	58	57	57	55	60
Minimum	54	54	55	54	58	58	58	57	57	56	54	55	54	56	55	52	52	57	57	56	54	55	56	55	54	54	54	56	55	54	54	55
November																																
Maximum	55	57	62	63	60	59	58	60	61	57	56	58	58	56	58	59	58	54	54	57	57	55	55	52	49	50	50	49	49	51	--	56
Minimum	53	53	57	59	55	53	56	56	56	55	55	56	56	55	54	55	54	53	53	54	53	52	52	49	48	49	48	46	46	48	--	53
December																																
Maximum	50	53	51	52	52	53	54	54	53	52	50	50	49	47	45	45	44	44	45	44	45	45	45	45	43	45	47	48	47	45	45	48
Minimum	48	48	48	50	51	52	53	52	50	49	48	46	45	43	41	40	39	39	39	39	41	41	40	43	42	43	45	46	45	45	43	45
January																																
Maximum	44	46	47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	43	44	46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
February																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
March																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
April																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
May																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
June																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
July																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
August																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
September																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

11-5165.3. KLAMATH RIVER BELOW IRON GATE DAM, CALIF.

LOCATION.--Lat 41°55'40", long 122°26'35", at gaging station 0.1 mile downstream from Bogus Creek, 0.6 mile downstream from Iron Gate Dam, Siskiyou County, and 5.9 miles northeast of Hornbrook.
RECORDS AVAILABLE.--Chemical analyses: October 1961 to September 1966.
Water temperatures: October 1962 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 70°F on several days during August; minimum, 35°F Jan. 4.
EXTREMES, 1962-66.--Water temperatures: Maximum, 72°F July 11 and on several days during August 1963, July 30, 1964, July 8, 18, 1965; minimum, 34°F on several days during January 1965.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 5, 1965.....	2530	--		--	--	26	--	83	8	--	5.5		3.7	0.0	--	--		77	0	1.3	280	8.6
Nov. 2.....	3010	--		--	--	16	--	78	0	--	3.2		6.4	.1	--	--		56	0	.9	187	7.7
Nov. 30.....	4380	--		--	--	16	--	76	0	--	2.9		7.3	.0	--	--		52	0	1.0	181	8.0
Jan. 4, 1966.....	3420	--		--	--	18	--	94	0	--	3.0		5.5	.0	--	--		57	0	1.0	197	7.7
Feb. 8.....	1620	--		--	--	14	--	78	0	--	3.6		5.8	.1	--	--		50	0	.9	168	7.7
Mar. 9.....	1500	--		--	--	26	--	93	0	--	4.5		4.8	.0	--	--		82	6	1.2	275	8.1
Apr. 4.....	2100	--		--	--	22	--	102	1	--	5.5		2.8	.1	--	--		92	7	1.0	282	8.3
May 2.....	1140	21		14	6.6	23	2.5	104	0	23	3.3		1.6	.0	152	0.21		62	0	1.3	219	7.9
June 8.....	715	--		--	--	36	--	144	4	--	5.0		1.1	.1	--	--		66	0	1.9	278	8.5
July 12.....	729	--		--	--	30	--	135	0	--	4.7		1.9	.0	--	--		73	0	1.5	271	8.2
Aug. 8.....	1040	--		--	--	39	--	132	2	--	7.5		1.6	.0	--	--		99	0	1.7	365	8.3
Sept. 12.....	1300	27		14	8.3	24	3.2	94	0	30	4.5		5.0	.0	174	.24		69	0	1.3	240	8.0

11-5165.3. KLAMATH RIVER BELOW IRON GATE DAM, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	58	58	58	58	57	57	57	57	58	57	57	57	57	57	57	57	57	57	57	56	56	55	56	56	56	55	55	55	55	55	54	57
Minimum	58	58	58	57	57	57	56	56	57	57	57	57	57	57	57	57	57	57	56	55	55	55	55	56	55	55	55	55	54	54	54	56
November																																
Maximum	55	55	55	55	55	55	54	54	54	54	54	53	53	52	52	52	52	52	50	50	50	50	49	49	48	48	48	48	47	46	--	52
Minimum	54	55	55	54	54	54	54	54	53	53	53	52	52	52	52	52	52	50	50	50	50	49	49	48	48	48	48	47	46	45	--	51
December																																
Maximum	43	43	43	42	42	42	42	42	42	41	41	41	41	41	40	40	40	40	39	39	39	38	38	37	37	37	38	38	38	37	37	40
Minimum	43	43	42	42	42	42	42	42	41	41	41	40	40	40	39	39	40	39	39	39	38	38	37	37	37	37	37	38	37	37	37	40
January																																
Maximum	37	36	36	36	36	37	37	37	36	36	36	36	36	36	36	36	36	36	37	37	37	37	37	37	37	37	37	37	37	37	37	37
Minimum	36	36	36	35	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	37	37	37	37	37	37	37	37	37	37	36
February																																
Maximum	37	37	37	37	37	37	37	37	37	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	--	--	--	38
Minimum	37	37	37	37	37	37	37	37	37	37	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	--	--	--	38
March																																
Maximum	38	38	38	38	38	39	39	40	40	40	40	41	40	41	42	42	42	42	43	43	43	43	43	43	43	45	46	47	47	48	--	42
Minimum	38	38	38	38	38	38	39	39	40	40	40	40	40	40	41	42	42	42	42	43	43	43	42	43	43	43	45	45	46	46	--	41
April																																
Maximum	49	48	49	48	48	49	49	52	52	49	49	52	52	52	52	52	54	53	53	53	53	53	55	55	57	56	55	56	55	56	--	52
Minimum	48	48	48	48	48	48	49	49	49	49	49	49	49	52	52	53	53	53	53	53	53	53	53	53	54	55	53	53	53	54	--	51
May																																
Maximum	56	56	56	58	58	56	58	59	60	60	60	60	61	60	59	59	58	59	60	60	61	61	59	60	60	62	62	61	61	61	60	59
Minimum	55	55	55	56	54	54	56	57	57	57	57	58	58	58	58	57	57	58	58	58	58	59	58	59	59	60	60	60	60	59	59	58
June																																
Maximum	60	59	59	59	59	60	60	62	64	64	64	64	66	68	67	67	67	67	67	66	65	64	63	62	62	63	63	65	65	64	--	64
Minimum	59	59	58	58	58	58	58	60	61	62	60	60	62	63	62	64	64	64	65	63	63	63	61	60	60	61	61	62	62	62	--	61
July																																
Maximum	64	62	63	62	63	64	63	62	62	63	63	64	65	63	63	64	65	67	68	67	67	67	68	68	67	67	67	68	68	68	68	65
Minimum	62	60	61	62	62	62	60	60	59	60	62	62	63	63	62	63	63	65	65	65	65	65	65	65	66	66	66	66	67	66	66	63
August																																
Maximum	68	68	69	70	69	69	69	70	69	70	69	69	70	69	70	70	69	70	70	70	69	69	68	67	66	66	67	67	67	67	66	69
Minimum	67	68	67	67	67	67	68	67	67	68	68	68	69	68	69	68	68	68	68	69	68	68	67	66	66	66	66	66	66	66	65	67
September																																
Maximum	66	66	65	65	65	65	65	65	65	66	66	65	64	64	64	64	63	63	63	63	63	63	62	62	63	63	63	63	62	63	--	64
Minimum	65	65	65	65	65	65	65	65	64	65	65	64	64	64	64	63	63	63	63	63	63	62	62	62	62	63	62	62	62	62	--	64

11-5166. COTTONWOOD CREEK AT HORNBROOK, CALIF.

LOCATION.--Lat 41°55'00", long 122°33'45", temperature recorder at gaging station on right bank 0.5 miles upstream from Rancheria Gulch, and 0.6 miles northwest of Hornbrook, Siskiyou County.
DRAINAGE AREA.--89.8 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1964 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Minimum, freezing point on several days during December.
EXTREMES, 1964-66.--Water temperatures: Maximum (1964-65), 84°F July 17; minimum, freezing point on several days during December 1965.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	67	66	66	16	66	66	66	65	65	65	66	64	66	60	56	58	61	60	60	59	58	58	59	59	59	58	57	61	59	58	56	63
Minimum	49	49	49	50	54	50	51	51	51	51	52	50	51	51	50	46	50	50	53	51	49	47	48	48	48	48	49	54	50	49	47	50
November																																
Maximum	55	56	57	58	53	53	51	54	53	51	49	51	51	51	52	49	51	49	48	50	47	45	46	46	44	41	40	39	37	40	--	49
Minimum	46	49	52	53	47	46	48	48	49	47	48	48	50	47	47	46	48	47	44	46	44	42	44	44	41	40	38	35	35	37	--	45
December																																
Maximum	41	42	42	43	44	42	42	42	41	40	41	40	39	37	34	33	33	33	33	33	33	33	33	32	32	32	32	33	33	34	34	37
Minimum	37	39	39	40	42	41	40	40	38	38	39	38	37	34	33	33	33	33	33	33	33	33	33	32	32	32	32	32	33	32	32	35
January																																
Maximum	--	--	--	36	38	39	42	42	43	43	44	44	44	43	43	43	43	43	43	44	43	43	43	43	43	43	43	42	42	42	42	42
Minimum	--	--	--	36	36	35	39	41	42	43	43	43	43	43	43	43	42	42	43	43	42	43	43	43	43	43	42	42	41	41	42	42
February																																
Maximum	42	43	42	42	42	42	42	42	42	42	43	42	42	42	41	40	40	39	39	40	40	41	41	40	40	40	40	40	--	--	--	41
Minimum	42	42	42	41	41	41	42	42	41	41	42	41	41	40	40	39	38	38	39	39	40	40	40	40	40	40	39	40	--	--	--	40
March																																
Maximum	40	39	39	37	37	38	38	40	40	41	41	42	43	44	44	44	45	45	46	47	47	47	48	48	48	48	48	49	49	49	49	44
Minimum	39	38	37	36	36	37	37	39	39	40	40	41	42	43	44	44	44	45	46	46	46	46	47	47	47	47	46	48	48	48	48	43
April																																
Maximum	50	50	50	51	52	52	53	53	53	54	54	54	55	55	55	56	57	57	58	58	57	58	58	59	59	60	60	60	62	62	--	56
Minimum	49	49	49	50	50	50	52	52	53	54	54	53	53	53	54	55	56	56	57	57	57	57	57	57	59	59	59	60	61	61	--	55
May																																
Maximum	62	62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	61	62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
June																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
July																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
August																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	89	86	84	82	83	81	82	79	80	80	81	82	79	77	78	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	79	76	74	73	73	73	71	69	71	71	70	73	70	70	67	--
September																																
Maximum	72	70	72	72	72	70	69	69	70	71	67	64	65	67	67	69	68	65	69	68	70	68	67	70	70	72	68	68	68	69	--	69
Minimum	--	60	62	64	65	64	63	62	63	64	62	57	58	59	60	62	62	62	60	62	62	63	62	62	62	64	60	60	60	62	--	62

11-5175. SHASTA RIVER NEAR YREKA, CALIF.

LOCATION.--Lat 41°49'30", long 122°35'40", at gaging station 0.5 mile upstream from mouth, and 7 miles north of Yreka, Siskiyou County.
DRAINAGE AREA.--793 square miles.
RECORDS AVAILABLE.--Chemical analyses: December 1958 to September 1966.
Water temperatures: June 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 86°F Aug. 2, 3; minimum, 35°F Dec. 24.
EXTREMES, June 1965 to September 1966.--Water temperatures: Maximum, 86°F Aug. 2, 3, 1966; minimum, 35°F Dec. 24, 1965.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 5, 1965.....	138	--		--	--	38	--	280	19	--	22		--	0.5	--	--		208	0	1.1	529	8.7
Nov. 2.....	182	--		--	--	36	--	274	11	--	21		--	.5	--	--		199	0	1.1	498	8.6
Nov. 30.....	231	--		--	--	40	--	297	11	--	22		--	.5	--	--		216	0	1.2	520	8.5
Jan. 4, 1966.....	744	--		--	--	27	--	225	2	--	16		--	.3	--	--		160	0	.9	417	8.3
Feb. 8.....	242	--		--	--	40	--	285	12	--	22		--	.4	--	--		210	0	1.2	526	8.5
Mar. 9.....	218	--		--	--	34	--	248	15	--	18		--	.4	--	--		193	0	1.1	466	8.7
Apr. 4.....	96	--		--	--	30	--	249	17	--	16		--	.4	--	--		200	0	.9	463	8.1
May 2.....	72	39		38	39	44	4.1	347	13	11	25		0.4	.5	388	0.53		256	0	1.2	612	8.5
June 8.....	62	--		--	--	48	--	326	22	--	25		--	.5	--	--		248	0	1.3	601	8.7
July 12.....	11	--		--	--	56	--	394	24	--	36		--	.6	--	--		298	0	1.4	719	8.7
Aug. 8.....	9.5	--		--	--	59	--	398	16	--	36		--	.7	--	--		294	0	1.5	726	8.6
Sept. 12.....	36	49		44	48	63	5.0	420	20	11	38		.9	.7	512	.70		308	0	1.6	755	8.6

11-5175. SHASTA RIVER NEAR YREKA, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	63	63	63	60	63	64	64	64	64	63	64	62	62	57	57	56	58	56	58	58	57	57	57	57	57	56	56	59	58	57	56	60
Minimum	55	56	55	55	56	56	56	56	56	56	56	55	55	53	52	50	52	53	52	52	52	51	52	52	52	51	52	54	54	53	51	54
November																																
Maximum	54	54	55	58	56	54	53	54	55	53	52	53	52	52	51	52	53	52	50	50	49	49	49	49	47	46	44	42	42	44	--	51
Minimum	50	51	53	54	52	52	51	52	52	51	51	51	51	50	49	50	51	50	48	48	48	47	48	47	45	44	42	40	40	42	--	49
December																																
Maximum	45	45	45	46	48	48	47	48	47	46	46	45	44	42	40	38	38	38	38	38	39	39	39	39	38	39	40	40	37	38	39	42
Minimum	42	44	43	44	47	47	47	46	46	45	45	44	42	40	38	37	36	36	36	36	38	37	36	35	38	37	39	36	36	36	37	40
January																																
Maximum	39	39	40	40	42	45	46	45	43	42	41	42	42	43	46	44	42	42	41	40	41	42	43	45	45	43	41	42	42	43	43	42
Minimum	36	38	39	38	38	42	44	43	42	40	41	41	41	42	44	42	40	39	38	38	37	40	41	42	42	41	38	38	42	40	40	40
February																																
Maximum	45	44	44	45	45	46	46	44	45	46	44	45	44	42	45	46	46	47	46	48	48	48	50	49	46	48	50	48	--	--	--	46
Minimum	42	40	42	42	43	43	42	41	42	42	42	42	40	39	39	40	41	42	44	43	44	46	45	45	45	44	44	45	--	--	--	42
March																																
Maximum	46	44	46	44	45	46	48	48	49	51	50	53	54	53	49	51	48	51	52	51	52	53	55	57	59	60	61	62	62	62	63	52
Minimum	42	41	40	40	41	44	45	46	46	46	45	46	48	47	47	46	43	45	47	46	47	45	46	48	49	51	52	52	53	54	53	46
April																																
Maximum	64	63	61	64	64	65	66	63	58	57	54	58	61	64	66	68	65	61	60	58	59	62	65	67	68	63	63	64	66	66	--	63
Minimum	53	53	52	53	53	55	56	56	54	52	50	49	49	52	55	57	56	52	49	51	50	51	52	54	56	52	50	51	50	53	--	53
May																																
Maximum	68	70	66	66	65	70	70	69	69	70	70	71	70	66	62	68	70	72	74	76	74	70	73	76	77	72	73	70	74	65	66	70
Minimum	53	56	56	58	57	56	56	58	60	58	55	56	56	53	54	53	54	57	59	59	61	56	56	59	62	62	60	60	61	58	55	57
June																																
Maximum	64	59	63	68	68	64	68	73	75	75	74	75	79	81	80	79	78	79	75	73	74	73	73	74	77	78	80	79	78	78	--	74
Minimum	54	55	52	54	57	60	60	60	63	62	60	59	61	65	67	70	69	65	65	60	61	61	63	60	60	63	65	67	65	62	--	62
July																																
Maximum	72	70	76	80	83	81	78	73	75	78	79	76	76	76	78	78	80	82	82	81	82	83	82	81	81	81	83	84	85	82	83	79
Minimum	64	60	60	62	66	66	65	66	63	63	65	66	65	65	64	63	67	67	67	65	67	67	68	67	65	66	68	69	70	77	70	66
August																																
Maximum	84	86	86	83	83	83	83	82	82	83	82	82	--	--	84	84	--	84	82	79	81	75	75	74	75	74	75	74	71	68	73	80
Minimum	69	71	73	70	69	68	69	70	68	70	69	68	--	--	70	71	--	71	69	68	68	68	65	63	63	63	64	65	62	62	60	67
September																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

11-5178.2. KLAMATH RIVER AT KLAMATH RIVER SCHOOL, NEAR HAMBURG, CALIF.

LOCATION.--Lat 41°49'37", long 122°58'35", at State Highway 96 bridge, 0.9 mile downstream from Klamath River School, 1.8 miles upstream from Horse Creek, and approximately 5.5 miles northeast of Hamburg, Siskiyou County.
RECORDS AVAILABLE.--Chemical analyses: December 1958 to September 1966 (discontinued).
REMARKS.--No discharge records available.

Chemical analyses, in partspper million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 5, 1965.....		--		--	--	26	--	101	4	--	6.3		3.7	0.1	--	--		84	0	1.2	292	8.4
Nov. 2.....		--		--	--	18	--	98	0	--	4.5		5.7	.1	--	--		66	0	1.0	212	8.0
Nov. 30.....		--		--	--	17	--	89	0	--	4.4		6.7	.0	--	--		62	0	.9	189	8.2
Jan. 4, 1966.....		--		--	--	18	--	109	0	--	5.4		5.3	.1	--	--		75	0	.9	232	7.6
Feb. 8.....		--		--	--	17	--	114	0	--	6.4		4.7	.1	--	--		75	0	.9	224	8.1
Mar. 9.....		--		--	--	22	--	119	0	--	5.5		3.7	.1	--	--		98	0	1.0	287	8.1
Apr. 4.....		--		--	--	17	--	108	2	--	4.9		2.4	.2	--	--		95	3	.8	260	8.4
May 2.....		19		18	8.0	18	2.3	116	0	18	4.4		.5	.1	150	0.20		78	0	.9	227	8.2
June 8.....		--		--	--	28	--	144	3	--	5.9		.7	.1	--	--		81	0	1.4	269	8.5
July 12.....		--		--	--	28	--	143	0	--	6.0		1.5	.0	--	--		79	0	1.4	269	7.9
Sept. 12.....		26		15	9.8	26	3.3	111	0	31	7.0		4.2	.1	178	.24		78	0	1.3	260	7.5

11-5195. SCOTT RIVER NEAR FORT JONES, CALIF.

LOCATION.--Lat 41°38'28", long 123°00'54", at gaging station 1.7 miles upstream from Snow Creek, and 10.8 miles downstream from Fort Jones, Siskiyou County.
DRAINAGE AREA.--653 square miles.
RECORDS AVAILABLE.--Chemical analyses: November 1958 to September 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 4, 1965.....	74	--		--	--	5.1	--	163	10	--	3.4		--	0.0	--	--		152	0	0.2	292	8.7
Nov. 1.....	76	--		--	--	5.3	--	168	6	--	3.6		--	.0	--	--		149	1	.2	288	8.6
Nov. 29.....	214	--		--	--	4.0	--	141	3	--	2.4		--	.0	--	--		120	0	.2	236	8.4
Jan. 3, 1966.....	308	--		--	--	3.7	--	121	2	--	2.6		--	.1	--	--		104	2	.2	212	8.4
Feb. 7.....	454	--		--	--	4.7	--	129	0	--	1.9		--	.0	--	--		107	1	.2	216	8.2
Mar. 9.....	724	--		--	--	3.1	--	110	1	--	.6		--	.0	--	--		95	3	.1	188	8.3
Apr. 4.....	1790	--		--	--	2.2	--	73	1	--	.6		--	.1	--	--		62	0	.1	127	8.3
May 2.....	1000	13		12	6.8	2.5	0.7	71	0	3.0	.6		0.7	.0	76	0.10		58	0	.1	121	7.8
June 8.....	584	--		--	--	4.6	--	98	0	--	3.4		--	.0	--	--		79	0	.2	160	8.0
July 12.....	119	--		--	--	5.2	--	153	5	--	3.4		--	.0	--	--		136	2	.2	263	8.5
Aug. 8.....	49	--		--	--	5.3	--	161	0	--	4.5		--	.0	--	--		138	6	.2	274	8.1
Sept. 12.....	45	19		28	15	5.4	.7	159	0	7.0	5.8		2.4	.0	A 161	.22		132	2	.2	271	8.2

A Calculated from sum of determined constituents.

11-5205. KLAMATH RIVER NEAR SEIAD VALLEY, CALIF.

LOCATION.--Lat 41°51'20", long 123°13'50", at gaging station 0.4 mile upstream from Bittenbender Creek, 1.4 miles downstream from Grider Creek, and 2.2 miles west of Seiad Valley, Siskiyou County.
DRAINAGE AREA.--6,980 square miles, approximately, not including Lost River or Lower Klamath Lake basins.
RECORDS AVAILABLE.--Chemical analyses: December 1958 to September 1966 (discontinued).
Water temperatures: October 1963 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 77°F July 29, Aug. 17.
EXTREMES, 1963-66.--Water temperatures: Maximum, 78°F July 26, 1964; minimum (1963-64), 37°F Feb. 7, 1964.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 5, 1965.....	2770	--		--	--	26	--	117	0	--	6.7		3.1	0.1	--	--		90	0	1.2	304	8.2
Nov. 2.....	3510	--		--	--	18	--	100	0	--	4.0		5.5	.1	--	--		71	0	.9	216	8.1
Nov. 30.....	5040	--		--	--	16	--	95	0	--	4.1		6.4	.0	--	--		66	0	.9	201	7.6
Jan. 4, 1966.....	5180	--		--	--	14	--	100	0	--	5.0		3.9	.1	--	--		70	0	.7	209	8.1
Feb. 8.....	3210	--		--	--	13	--	117	0	--	5.1		3.4	.1	--	--		84	0	.6	220	8.1
Mar. 9.....	4430	--		--	--	13	--	110	0	--	3.1		2.3	.0	--	--		88	0	.6	225	8.2
Apr. 4.....	6170	--		--	--	8.7	--	89	1	--	2.9		1.4	.1	--	--		38	3	.4	188	8.3
May 2.....	3540	16		15	7.9	9.8	1.3	94	0	10	2.4		1.0	.0	110	0.15		70	0	.5	176	8.0
June 8.....	2160	--		--	--	15	--	123	0	--	3.9		.5	.1	--	--		79	0	.7	218	8.2
July 12.....	1150	--		--	--	21	--	132	4	--	5.4		1.1	.0	--	--		87	0	1.0	254	8.4
Sept. 12.....	1400	26		15	10	24	3.0	107	0	29	6.0		3.4	.0	173	.24		78	0	1.2	261	7.9

11-5205. KLAMATH RIVER NEAR SEIAD VALLEY, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	59	60	58	56	56	57	57	58	57	57	57	57	56	56	56	55	57	56	56	55	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	58	57	56	54	53	55	56	56	54	54	54	54	54	54	53	53	54	54	53	53	--
November																																
Maximum	53	54	54	56	54	54	54	54	54	54	52	52	52	52	51	52	--	--	49	47	47	47	47	47	45	46	45	45	44	--	--	50
Minimum	52	52	54	54	53	53	54	54	54	52	52	52	52	51	51	51	--	--	47	47	46	47	46	45	44	45	44	44	44	--	--	50
December																																
Maximum	--	--	--	--	--	--	44	44	43	42	42	40	38	36	36	36	36	36	36	37	36	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	44	43	42	42	40	38	36	36	34	35	36	35	36	35	36	--	--	--	--	--	--	--	--	--	--	--
January																																
Maximum	--	--	--	--	--	38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
February																																
Maximum	--	40	40	40	40	40	40	40	40	40	40	40	40	39	39	39	41	41	42	43	43	43	43	44	44	44	44	44	--	--	--	41
Minimum	--	40	40	40	40	40	40	40	40	40	40	40	39	38	38	38	38	40	41	41	43	43	43	43	43	43	44	43	--	--	--	41
March																																
Maximum	43	42	42	42	45	45	45	46	46	47	46	47	49	48	47	45	43	46	47	47	47	47	48	50	50	51	51	51	51	51	50	47
Minimum	42	41	39	40	42	44	44	45	46	46	45	46	47	47	45	43	41	43	45	45	45	44	45	46	47	48	48	48	49	49	49	45
April																																
Maximum	49	49	48	48	49	49	49	49	49	48	47	47	50	51	53	53	53	51	49	49	51	53	54	55	55	53	52	53	53	54	--	51
Minimum	48	48	48	48	48	49	49	49	48	47	47	47	47	49	51	52	51	49	48	48	49	50	51	52	52	50	48	49	48	50	--	49
May																																
Maximum	56	57	56	57	56	55	56	57	58	56	56	57	57	55	53	55	58	61	62	63	62	59	61	63	63	62	63	63	62	60	57	59
Minimum	51	52	53	53	54	53	52	54	55	54	52	52	53	52	51	50	52	55	56	57	58	55	54	57	59	59	57	59	59	55	54	54
June																																
Maximum	57	55	56	60	61	61	61	64	66	64	64	65	68	70	71	70	68	70	67	65	66	67	67	67	68	69	71	72	72	70	--	66
Minimum	53	53	51	53	57	59	58	60	62	62	59	59	62	65	66	65	64	64	64	61	61	61	63	60	60	61	64	65	62	62	--	61
July																																
Maximum	64	62	65	69	72	72	70	68	68	69	69	69	70	69	69	69	70	72	72	72	74	74	74	72	73	73	74	76	77	76	75	71
Minimum	59	53	56	60	64	64	64	63	62	62	62	64	63	62	62	61	61	63	64	63	64	65	65	64	64	64	66	67	68	69	66	63
August																																
Maximum	75	76	75	74	74	75	74	74	74	75	74	74	73	74	76	76	77	76	75	73	73	72	69	69	68	68	69	68	65	65	66	72
Minimum	66	69	69	69	68	68	68	68	68	69	68	67	67	68	69	70	70	70	69	67	67	65	63	62	62	62	63	62	61	60	60	66
September																																
Maximum	68	69	70	71	70	69	66	66	67	66	65	63	64	63	64	66	65	64	64	63	66	66	66	65	65	66	64	64	64	65	--	66
Minimum	61	62	64	64	63	63	63	62	63	62	59	57	60	60	59	61	61	60	59	61	62	63	62	61	62	61	60	60	60	60	--	61

11-5225. SALMON RIVER AT SOMESBAR, CALIF.

LOCATION.--Lat 41°22'40", long 123°28'35", temperature recorder at gaging station on left bank at Somesbar, Siskiyou County, and 1.0 mile upstream from mouth.
DRAINAGE AREA.--751 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 90°F Sept. 4, 5; minimum, 33°F on several days during December.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																														Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	61	61	61	58	62	62	62	61	61	61	60	59	59	57	56	55	55	56	57	57	56	56	56	55	55	55	53	57	56	55	56	58
Minimum	56	56	56	56	57	57	57	57	57	57	56	55	55	55	53	52	51	53	54	53	53	52	52	52	52	52	52	53	53	51	50	54
November																																
Maximum	53	53	54	55	54	54	53	53	54	52	51	51	51	50	51	50	50	50	49	50	50	48	48	48	45	43	43	43	42	42	--	50
Minimum	49	49	53	54	52	51	52	52	52	51	50	50	50	49	50	49	49	49	48	48	48	48	48	48	45	43	42	42	41	41	42	--	48
December																																
Maximum	42	42	42	43	45	45	45	45	45	45	44	43	41	39	37	35	33	33	33	33	35	34	34	36	35	36	37	38	38	37	36	39
Minimum	41	42	41	42	43	45	44	45	44	44	43	41	39	37	35	33	33	33	33	33	33	34	33	34	34	34	36	37	37	35	35	38
January																																
Maximum	36	36	39	41	43	42	43	43	43	42	42	41	41	42	42	41	39	39	38	37	38	39	40	41	41	40	40	39	40	41	41	40
Minimum	34	36	36	39	41	40	42	43	42	41	41	41	41	41	41	39	38	37	37	36	36	37	39	40	39	39	39	37	39	40	40	39
February																																
Maximum	42	41	42	43	43	43	42	40	42	42	41	41	39	38	39	38	39	41	43	43	42	42	44	44	43	42	43	43	--	--	--	42
Minimum	40	39	40	42	43	42	40	39	40	40	39	39	37	36	37	36	36	37	40	42	41	41	41	42	41	40	41	41	--	--	--	40
March																																
Maximum	42	39	40	39	43	43	44	44	46	46	45	47	47	47	45	43	41	45	45	45	46	46	47	48	49	49	49	49	49	48	49	45
Minimum	39	37	37	37	39	42	42	43	44	44	43	44	45	45	43	40	39	41	43	43	42	43	43	43	44	45	44	44	44	44	44	42
April																																
Maximum	49	48	49	50	50	50	50	50	48	46	45	48	49	50	52	52	50	48	48	48	50	51	52	52	52	49	50	50	50	50	--	50
Minimum	44	44	44	43	45	45	46	46	46	45	43	44	44	45	46	47	46	44	43	43	44	46	46	47	47	45	44	45	45	46	--	45
May																																
Maximum	53	54	53	52	52	51	51	54	55	54	53	54	54	51	51	54	55	56	58	58	57	55	57	59	60	56	59	58	59	56	55	55
Minimum	47	48	48	49	48	46	48	49	49	48	48	48	49	48	47	48	49	50	51	52	52	50	50	53	53	53	52	54	54	52	50	50
June																																
Maximum	54	52	54	56	55	55	58	62	62	60	60	62	64	66	64	65	64	65	63	62	63	63	63	64	64	65	67	68	67	68	--	62
Minimum	50	50	48	50	53	54	54	55	57	57	55	56	58	60	61	60	60	60	61	58	58	58	59	58	58	60	61	62	62	62	--	57
July																																
Maximum	64	61	64	66	68	67	66	65	64	66	67	64	68	68	67	65	68	69	70	70	71	72	71	71	71	71	72	72	74	72	74	68
Minimum	61	58	58	60	62	63	63	62	62	61	62	63	64	63	62	61	61	63	65	64	65	66	65	65	64	65	66	66	68	68	67	63
August																																
Maximum	74	75	74	75	75	76	76	75	73	77	78	78	77	79	80	82	83	83	83	86	82	78	78	80	77	74	76	74	73	71	74	77
Minimum	67	68	68	68	68	68	68	67	67	69	68	68	67	67	68	68	69	68	68	68	68	64	62	62	63	62	63	60	60	59	61	66
September																																
Maximum	78	83	87	90	90	88	76	83	83	83	76	73	77	76	79	83	77	65	66	66	75	75	79	76	77	77	82	86	89	89	--	79
Minimum	61	62	63	63	63	62	60	60	60	60	56	55	55	54	67	58	59	60	59	62	60	61	69	60	62	60	68	58	58	59	--	60

11-5230. KLAMATH RIVER AT ORLEANS, CALIF.
(Formerly published as Klamath River at Somesbar)

LOCATION.--Lat 41°18'13", long 123°32'00", at gaging station at Orleans, Siskiyou County, 25 feet upstream from highway bridge, and 0.2 mile downstream from Cheenitch Creek. Prior to Oct. 1, 1965 at site 6.7 miles upstream.
DRAINAGE AREA.--8,500 square miles, approximately, not including Lost River or Lower Klamath Lake basins.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
Water temperatures: October 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 78°F on several days during July and August.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 11, 1965....						22		108	3		5.5			0.0				88	0	1.0	275	8.4
Nov. 8.....						13		92	0		3.7			.1				68	0	.7	195	7.8
Dec. 6.....						11		79	0		3.0			.0				60	0	.6	165	8.1
Jan. 10, 1966....						6.1		77	0		2.0			.0				61	0	.3	148	8.0
Feb. 14.....						7.8		88	2		2.3			.0				71	0	.4	171	8.3
Mar. 25.....						6.7		82	0		1.9			.0				68	1	.4	157	8.0
Apr. 15.....						6.2		68	0		1.0			.0				58	2	.4	143	8.2
May 11.....		12		11	6.0	4.9	0.8	68	0	5.0	1.9		0.6	.0	78	0.11		52	0	.3	122	7.7
June 15.....						7.3		80	0		2.5			.0				58	0	.4	146	8.2
July 18.....						12		110	3		4.0			.0				82	0	.6	207	8.5
Aug. 15.....						24		130	0		6.0			.0				98	0	1.1	297	8.2

11-5230. KLAMATH RIVER AT ORLEANS, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	59	59	59	58	58	57	57	57	55	58	59	58	56	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	57	56	55	55	55	55	55	55	55	55	56	56	54	---
November																																
Maximum	56	54	55	57	56	54	53	55	56	54	52	52	52	51	52	51	51	50	50	50	50	49	49	48	45	44	44	43	42	42	---	51
Minimum	53	52	54	55	53	53	53	53	54	53	52	51	51	51	51	51	50	49	48	49	49	49	48	45	43	43	43	42	41	41	---	49
December																																
Maximum	46	47	47	47	49	50	49	49	47	47	45	45	43	41	38	37	36	36	36	36	37	38	37	38	36	37	38	39	39	39	38	42
Minimum	45	46	46	46	47	49	49	47	46	45	44	43	41	37	36	35	35	34	35	35	35	36	36	36	34	34	37	38	39	37	36	40
January																																
Maximum	37	37	40	42	43	43	44	44	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	36	37	37	40	42	43	43	43	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
February																																
Maximum	43	43	43	44	45	44	44	42	43	44	42	43	40	39	40	40	40	41	43	44	43	41	44	44	43	44	45	44	---	---	---	43
Minimum	42	41	41	41	43	42	41	41	41	41	40	39	37	36	36	36	37	38	41	42	41	41	41	42	42	41	42	43	---	---	---	40
March																																
Maximum	43	40	42	40	42	43	45	44	46	47	46	47	48	48	47	44	42	45	46	46	47	48	48	50	51	51	51	51	---	---	---	46
Minimum	39	38	39	39	40	42	43	44	44	44	44	43	46	46	44	42	40	42	44	44	43	44	44	45	47	47	48	48	---	---	---	43
April																																
Maximum	---	---	---	---	---	52	52	53	52	50	48	46	49	51	53	53	55	53	52	51	51	53	55	56	56	52	51	51	52	52	---	52
Minimum	---	---	---	---	---	50	49	49	49	48	46	46	46	47	48	51	51	50	48	48	48	48	50	52	52	51	46	48	48	48	---	49
May																																
Maximum	54	55	54	53	53	54	54	56	56	55	54	56	56	54	52	55	57	59	60	60	60	58	59	51	62	50	61	60	62	57	59	56
Minimum	49	50	51	52	50	50	50	52	52	52	51	51	52	51	50	49	51	53	56	56	54	54	54	56	58	56	56	58	57	54	52	53
June																																
Maximum	56	53	56	58	58	58	60	64	65	64	63	65	67	70	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	52	51	50	52	55	56	56	58	60	61	58	59	61	64	65	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
July																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	70	70	70	70	68	71	72	72	74	75	75	74	74	74	74	75	76	78	77	77	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	65	66	66	65	65	64	66	67	68	69	70	70	69	69	70	70	71	73	73	72	---
August																																
Maximum	77	78	78	78	78	78	78	76	78	75	74	74	73	74	75	75	75	76	75	74	74	72	70	68	67	68	68	68	66	64	66	73
Minimum	72	73	73	73	74	73	73	72	70	70	70	70	70	69	70	70	71	71	71	71	70	69	66	64	64	63	62	66	62	60	62	69
September																																
Maximum	67	68	70	70	70	69	66	65	66	66	64	63	61	62	63	64	63	63	63	62	65	65	65	65	65	65	64	64	65	64	---	65
Minimum	62	63	64	65	66	65	64	62	61	63	63	58	56	57	59	60	61	60	58	60	60	62	61	62	62	62	60	59	59	60	---	61

11-5255. TRINITY RIVER AT LEWISTON, CALIF.

LOCATION (revised).--Lat 40°43'10", long 122°48'09", at gaging station 400 feet upstream from Deadwood Creek, and 0.8 mile northeast of Lewiston, Trinity County.
DRAINAGE AREA.--728 square miles.
RECORDS AVAILABLE.--Chemical analyses: December 1953 to September 1966.
Water temperatures: September 1951 to September 1955, October 1957 to September 1958, July 1959 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 52°F on several days during May to July; minimum, 40°F Jan. 4-6.
EXTREMES, 1951-55, 1957-58, 1959-66.--Water temperatures: Maximum (1951-55, 1957-58, 1959-63, 1964-66), 79°F July 20, 21, 28, 29, 1960; minimum, 33°F on several days in January 1952.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 11, 1965....	208	--		--	--	2.4	--	51	0	--	1.1		0.7	0.0	--	--		42	0	0.2	92	7.7
Nov. 8.....	242	--		--	--	1.9	--	50	0	--	.9		1.9	.0	--	--		49	8	.1	90	8.0
Dec. 6.....	210	--		--	--	3.4	--	51	0	--	.3		.6	.0	--	--		43	1	.2	91	8.1
Jan. 10, 1966....	168	--		--	--	2.3	--	48	0	--	1.4		.5	.0	--	--		42	3	.2	94	8.0
Feb. 14.....	164	--		--	--	3.2	--	57	0	--	1.0		.6	.0	--	--		46	0	.2	101	8.1
Mar. 25.....	159	--		--	--	3.1	--	56	0	--	1.6		.6	.0	--	--		45	0	.2	99	8.1
Apr. 15.....	161	--		--	--	3.1	--	54	0	--	.8		.2	.0	--	--		45	1	.2	98	8.0
May 19.....	698	12		7.2	6.0	2.9	0.7	52	0	3.0	1.4		1.0	.0	60	0.08		42	0	.2	94	7.6
June 15.....	159	--		--	--	3.1	--	52	0	--	1.9		--	.0	--	--		46	3	.2	96	8.0
July 18.....	161	--		--	--	2.2	--	53	0	--	1.2		.8	.0	--	--		43	0	.2	94	8.0
Aug. 15.....	153	--		--	--	2.6	--	53	0	--	1.5		.8	.0	--	--		44	1	.2	95	7.8
Sept. 12.....	148	16		5.1	7.4	2.6	.5	52	0	1.0	1.2		1.5	.0	64	.08		43	0	.2	94	7.5

11-5255. TRINITY RIVER AT LEWISTON, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	47	47	47	47	47	47	47	47	47	47	47	47	48	47	48	48	47	47	47	47	47	47	47	47	47	47	47	48	48	48	48	47
Minimum	47	47	47	46	46	46	46	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	48	48	48	47
November																																
Maximum	48	48	48	48	47	47	47	47	47	47	47	46	46	46	46	46	46	45	45	45	45	45	45	45	45	45	45	45	44	44	--	46
Minimum	48	48	48	47	47	47	47	47	46	46	46	46	46	46	46	46	45	45	45	45	45	45	45	45	45	45	45	44	44	44	--	46
December																																
Maximum	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	43	43	43	42	42	41	41	41	41	41	41	41	43
Minimum	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	43	43	43	42	42	41	41	41	41	41	41	41	41	43
January																																
Maximum	41	41	41	41	40	41	41	41	41	41	41	41	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
Minimum	41	41	41	40	40	40	41	41	41	41	41	41	41	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	41
February																																
Maximum	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	43	43	43	43	43	43	43	43	44	44	--	--	--	42
Minimum	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	43	43	43	43	43	43	43	43	43	43	--	--	--	42
March																																
Maximum	44	44	44	44	43	43	43	43	43	44	44	45	45	45	45	45	45	45	46	46	46	47	47	48	48	48	48	49	49	49	49	46
Minimum	43	43	43	43	43	43	43	43	43	43	44	44	44	44	45	45	45	45	45	45	45	45	45	46	46	46	47	47	47	47	47	45
April																																
Maximum	49	49	50	50	50	50	51	50	48	48	47	48	48	49	49	50	49	49	48	47	48	48	48	48	48	48	48	48	48	48	--	49
Minimum	48	48	48	47	47	48	48	48	48	47	46	46	46	46	46	46	46	46	46	46	45	45	46	46	46	46	46	46	46	46	--	46
May																																
Maximum	48	48	47	48	49	50	50	50	48	49	49	49	50	49	50	50	50	50	50	50	51	52	51	51	51	50	51	50	51	50	51	50
Minimum	46	46	46	46	46	47	47	47	48	48	49	49	49	49	49	49	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	49
June																																
Maximum	51	50	50	50	48	48	48	50	50	51	51	51	51	52	50	51	51	52	52	50	51	50	51	52	52	51	52	51	51	52	--	51
Minimum	49	49	48	48	48	47	47	47	47	47	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	--	48
July																																
Maximum	51	51	51	51	51	52	52	50	50	51	51	51	51	51	51	51	51	51	52	52	52	52	52	51	51	52	52	51	51	50	50	51
Minimum	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
August																																
Maximum	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	50	49	51	51	51	51	51	50	51	51	50	50	50	49	48	49	51
Minimum	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	47	48
September																																
Maximum	50	50	50	49	50	50	49	51	51	51	50	51	50	50	50	50	50	50	51	50	51	51	51	51	49	49	49	49	49	49	--	50
Minimum	47	47	47	47	47	47	47	48	48	48	48	48	48	48	48	48	48	49	49	49	48	48	48	48	48	48	48	47	47	47	--	48

11-5270. TRINITY RIVER NEAR BURNT RANCH, CALIF.

LOCATION.--Lat 40°47'20", long 123°26'20", at gaging station 500 feet upstream from Cedar Flat Creek, 700 feet upstream from highway bridge at Cedar Flat, and 2.3 miles southeast of Burnt Ranch, Trinity County.
DRAINAGE AREA.--1,439 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1958 to September 1966 (discontinued).
Water temperatures: October 1961 to September 1964.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 11, 1965....	298	--		--	--	4.6	--	86	0	--	5.3		0.3	0.0	--	--		74	3	0.2	164	8.2
Nov. 8.....	670	--		--	--	4.0	--	81	0	--	4.8		1.0	.0	--	--		71	5	.2	154	8.2
Dec. 6.....	1400	--		--	--	3.6	--	62	0	--	2.4		.2	.0	--	--		53	2	.2	116	8.2
Jan. 10, 1966....	2740	--		--	--	3.2	--	82	0	--	1.9		.5	.0	--	--		70	3	.2	151	8.2
Feb. 14.....	1300	--		--	--	3.7	--	95	1	--	2.2		.2	.0	--	--		84	4	.2	177	8.3
Mar. 25.....	2030	--		--	--	3.5	--	85	0	--	1.7		.4	.0	--	--		72	2	.2	152	8.2
Apr. 15.....	2280	--		--	--	2.5	--	65	0	--	.9		.1	.0	--	--		55	2	.1	115	8.2
May 19.....	1950	9.7		10	4.6	3.5	1.0	53	0	4.0	2.6		1.1	.0	64	0.09		44	1	.2	101	7.6
June 15.....	984	--		--	--	3.3	--	53	0	--	2.2		--	.0	--	--		44	1	.2	100	8.0
July 18.....	375	--		--	--	3.5	--	74	2	--	4.0		.7	.0	--	--		67	3	.2	146	8.3
Sept. 12.....	223	11		17	7.8	5.0	.7	88	0	5.0	5.8		1.3	.0	A 97	.13		74	2	.3	169	7.7

11-5285. HAYFORK CREEK NEAR HYAMPOM, CALIF.

LOCATION.--Lat 40°37'35", long 123°26'00", temperature recorder at gaging station 1.2 miles upstream from mouth, and 1.3 miles northeast of Hyampom, Trinity County.
DRAINAGE AREA.--378 square miles.
RECORDS AVAILABLE.--Water temperatures: December 1960 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 74°F on several days during August; minimum, 35°F on several days during December.
EXTREMES, 1960-66.--Water temperatures: Maximum (1960-61, 1962-66), 83°F July 13, 1961; minimum, freezing point several days during January 1962.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	58	57	57	56	58	58	58	58	57	57	56	55	55	55	54	53	52	52	53	53	52	52	51	51	51	51	51	52	52	52	51	54
Minimum	56	56	55	55	55	56	56	56	56	56	54	54	54	54	53	51	51	51	52	52	51	51	50	50	51	50	51	51	52	51	50	53
November																																
Maximum	50	49	50	52	52	51	50	50	50	50	50	50	50	50	50	50	50	50	50	48	48	48	48	48	45	43	43	43	43	42	---	48
Minimum	49	49	49	50	51	50	50	50	50	50	50	50	50	50	50	50	50	50	48	48	48	48	48	45	43	43	43	43	42	42	---	48
December																																
Maximum	42	42	42	42	43	44	44	44	44	44	44	44	44	42	40	38	36	35	35	35	35	35	35	36	36	36	36	37	38	38	38	39
Minimum	42	42	42	41	42	43	44	44	44	44	44	44	42	40	38	36	35	35	35	35	35	35	35	35	35	35	36	36	37	38	38	39
January																																
Maximum	38	38	39	39	41	43	43	43	43	42	42	42	42	41	41	41	39	38	38	37	37	39	40	40	40	40	40	40	40	42	42	40
Minimum	38	38	38	38	39	41	43	43	42	42	42	42	40	40	41	38	37	37	36	36	36	37	39	40	40	40	40	40	40	40	41	39
February																																
Maximum	41	41	41	41	42	42	42	41	42	42	42	42	42	40	41	41	41	42	43	44	44	43	44	44	44	43	44	44	---	---	---	42
Minimum	41	41	41	41	41	42	40	40	41	41	41	41	40	39	39	40	40	41	42	43	43	43	43	44	43	42	42	44	---	---	---	41
March																																
Maximum	44	42	40	40	40	42	43	43	44	45	45	47	47	47	47	46	44	46	46	46	46	46	46	48	48	49	49	50	50	50	50	46
Minimum	42	39	39	39	39	40	42	43	43	44	43	44	46	46	46	43	42	43	45	43	44	44	44	45	46	46	46	46	46	46	47	44
April																																
Maximum	50	50	50	50	51	50	51	51	50	49	49	48	49	51	52	54	54	54	52	50	51	52	53	54	55	55	54	53	53	54	---	52
Minimum	48	47	47	48	46	48	49	50	49	49	48	47	48	49	51	53	54	52	50	49	50	51	52	53	54	54	52	52	51	52	---	50
May																																
Maximum	55	57	57	60	60	58	58	58	58	60	59	60	59	58	57	58	59	62	62	64	63	62	62	63	64	66	66	66	65	65	62	61
Minimum	53	54	56	57	58	56	56	57	57	57	56	56	56	55	54	55	55	57	58	60	60	58	58	59	61	62	63	63	63	62	60	58
June																																
Maximum	62	60	60	63	62	61	62	66	67	67	66	66	69	71	71	70	69	70	69	68	67	66	66	67	68	68	70	70	69	68	---	67
Minimum	60	58	57	58	60	61	60	62	64	65	63	62	64	66	68	66	66	66	66	65	64	63	64	63	64	64	65	66	66	65	---	63
July																																
Maximum	68	65	66	69	70	70	70	69	67	67	67	69	69	69	70	69	70	71	71	71	72	73	72	72	71	72	72	72	73	73	73	70
Minimum	65	63	62	64	66	67	66	66	66	64	64	65	66	62	66	66	66	67	68	67	68	69	69	68	67	68	68	68	70	70	69	66
August																																
Maximum	74	74	74	74	74	74	74	73	73	74	74	74	74	74	74	74	73	74	74	73	73	72	70	69	68	68	68	68	68	67	66	72
Minimum	70	70	71	70	70	70	70	70	69	71	71	71	71	70	71	71	71	71	70	70	70	70	68	66	66	65	66	67	65	65	64	69
September																																
Maximum	68	68	69	69	69	68	68	69	69	68	67	65	63	63	63	64	64	64	65	62	65	65	65	65	65	65	64	64	64	64	---	66
Minimum	65	66	66	66	66	66	65	63	64	64	62	61	60	56	59	59	60	62	61	61	61	61	61	61	61	60	60	60	60	60	---	62

11-5287. SOUTH FORK TRINITY RIVER BELOW HYAMPOM, CALIF.

LOCATION.--Lat 40°39'00", long 123°29'35", temperature recorder at gaging station on left bank 0.3 mile downstream from Big Creek, 3.0 miles northeast of Hyampom, Trinity County, and 3.5 miles downstream from Hayfork Creek.
DRAINAGE AREA.--764 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1965 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 82°F Aug. 2, 10, 12, 14, 15.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	68	69	61	69	68	70	69	68	67	67	66	67	58	59	60	62	59	64	63	63	64	65	63	63	64	60	64	64	64	63	64
Minimum	--	53	51	53	58	55	54	55	55	55	54	54	54	55	54	52	51	54	56	53	53	53	52	52	52	52	52	57	54	53	52	54
November																																
Maximum	62	60	60	64	57	60	56	58	56	54	55	54	53	52	54	55	54	51	49	50	53	50	49	48	44	43	45	44	43	44	--	53
Minimum	51	51	56	57	55	54	55	54	52	52	53	53	52	51	51	52	51	49	49	49	49	49	48	44	43	43	43	43	43	43	--	50
December																																
Maximum	43	43	43	--	--	--	--	--	--	--	--	--	--	--	--	--	40	39	39	39	38	38	38	38	37	37	38	38	40	38	40	--
Minimum	43	42	42	--	--	--	--	--	--	--	--	--	--	--	--	--	33	33	33	32	32	33	33	31	35	32	33	36	38	36	37	--
January																																
Maximum	38	40	40	40	43	45	44	45	43	41	42	43	42	44	45	42	40	40	39	38	39	41	42	43	42	42	42	43	40	42	42	42
Minimum	36	38	38	39	40	43	43	43	41	40	41	40	40	41	41	38	37	36	35	34	34	37	39	39	38	38	37	36	39	38	39	39
February																																
Maximum	42	42	42	43	44	43	43	43	43	45	43	43	40	41	43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	39	40	41	41	42	41	40	39	39	40	38	38	36	35	37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
March																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
April																																
Maximum	--	--	--	--	--	50	52	50	47	47	44	47	49	53	54	55	53	51	50	50	52	54	56	57	57	54	54	53	56	--	--	52
Minimum	--	--	--	--	--	44	45	46	44	44	42	42	42	42	44	46	46	43	42	41	43	44	43	46	47	45	43	43	44	--	--	44
May																																
Maximum	58	59	58	60	56	59	59	59	59	60	60	60	60	57	59	59	62	64	65	66	64	62	65	66	68	64	66	66	66	58	61	61
Minimum	44	48	48	42	40	49	49	49	50	50	48	48	48	47	46	46	47	60	51	52	52	50	49	52	53	54	54	53	54	51	50	49
June																																
Maximum	58	53	60	64	60	57	64	68	69	68	67	69	72	75	75	73	72	73	73	68	68	70	70	70	72	64	66	66	66	58	--	67
Minimum	48	47	47	47	50	54	53	53	55	54	53	53	55	58	60	58	56	58	58	56	56	55	57	55	54	54	54	53	54	51	--	54
July																																
Maximum	67	69	71	75	76	75	72	70	66	73	74	74	74	73	76	75	76	76	76	78	78	75	72	75	76	79	78	80	81	78	80	75
Minimum	54	54	54	56	59	59	58	59	58	69	69	60	60	59	56	58	58	60	62	60	61	62	60	61	58	60	61	61	63	63	62	60
August																																
Maximum	81	82	79	78	79	79	79	77	80	82	79	82	79	82	82	80	79	81	80	81	80	78	78	77	77	75	77	74	70	70	74	78
Minimum	60	63	63	61	63	62	62	61	62	64	63	64	63	62	64	64	65	65	62	63	63	62	60	58	60	60	61	60	58	60	61	62
September																																
Maximum	75	77	77	77	75	74	69	77	75	74	70	70	71	71	73	74	75	72	74	65	75	73	74	74	73	72	73	74	73	74	--	73
Minimum	58	58	59	59	58	57	57	56	60	59	59	57	55	56	56	57	58	60	60	61	60	60	58	61	61	60	57	57	58	58	--	58

11-5290. SOUTH FORK TRINITY RIVER NEAR SALYER, CALIF.

LOCATION.--Lat 40°50'30", long 123°34'00", at gaging station 4 miles south of Salyer, Humboldt County, and 8 miles upstream from mouth.
DRAINAGE AREA.--898 square miles.
RECORDS AVAILABLE.--Water temperatures: November 1956 to September 1966.
Sediment records: November 1956 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 81°F Aug. 10; minimum, 36°F Dec. 21, 23, Feb. 14, 16.
Sediment concentrations: Maximum daily, 5,400 ppm Jan. 5; minimum daily, 1 ppm on several days.
Sediment loads: Maximum daily, 394,000 tons Jan. 5; minimum daily, 0.3 ton on several days.
EXTREMES, 1956-66.--Water temperatures: Maximum (1962-66), 81°F Aug. 10, 1966; minimum (1963-66), 35°F Jan. 2, 3, 1965.
Sediment concentrations: Maximum daily, 20,400 ppm Dec. 23, 1964; minimum daily, 1 ppm on many days during 1956-66.
Sediment loads: Maximum daily, 3,020,000 tons Dec. 22, 1964; minimum daily, 0.2 ton on many days in 1957, 1960-62, 1964.
REMARKS.--Where no maximum or minimum is shown, temperature is once-daily reading.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	67	67	67	67	67	67	67	67	67	66	65	64	65	59	59	59	60	60	61	61	60	60	60	60	60	60	58	61	60	60	58	63
Minimum	56	56	55	56	59	58	58	58	58	59	56	56	56	57	54	53	52	55	56	54	54	53	53	53	53	53	53	56	55	54	52	55
November	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	56	56	57	60	57	57	55	56	55	53	54	54	53	53	53	53	53	53	51	50	50	50	50	49	44	44	44	44	43	43	---	52
Minimum	51	51	54	56	54	54	54	55	53	52	52	53	53	52	52	53	53	51	50	50	50	50	49	44	43	44	44	43	43	43	---	50
December	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	43	45	46	47	49	49	49	49	49	48	47	46	45	43	41	39	39	39	39	38	38	38	38	40	39	39	42	42	40	41	41	43
Minimum	43	43	43	46	47	49	49	48	47	47	45	45	43	41	38	37	37	37	37	37	36	37	36	38	37	37	39	39	39	40	39	41
January	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	39	41	42	43	45	46	46	46	45	43	45	42	42	43	43	42	40	39	39	37	39	41	42	42	41	42	41	42	42	42	42	42
Minimum	39	39	41	42	43	45	46	45	43	42	42	39	41	42	42	39	38	38	37	37	37	39	41	41	40	42	39	38	41	40	41	41
February	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	43	42	43	44	45	45	43	42	42	43	42	41	40	40	40	40	41	44	43	45	45	44	45	44	43	43	44	43	---	---	---	43
Minimum	42	41	42	43	44	43	42	41	40	42	40	40	37	36	38	36	37	39	41	43	44	43	43	43	41	40	41	42	---	---	---	41
March	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	42	39	40	39	40	42	43	44	44	43	42	43	44	43	42	49	47	50	50	50	51	51	51	52	52	53	52	52	52	52	53	47
Minimum	38	37	37	37	38	40	42	43	43	42	40	40	43	42	49	46	45	47	48	47	48	47	47	48	48	49	49	49	49	49	49	44
April	---	---	---	---	---	---	---	---	---	---	---	---	---	47	47	46	50	47	47	51	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	53	53	52	53	53	54	53	54	52	52	49	48	50	---	---	---	---	---	---	---	55	57	58	59	59	56	56	56	57	57	---	---
Minimum	50	49	49	49	50	50	51	51	50	49	47	46	46	---	---	---	---	---	---	---	49	50	51	53	53	52	49	51	50	51	---	---
May	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	59	60	61	62	60	62	62	62	63	62	61	62	61	58	59	60	58	58	60	60	60	60	59	60	60	60	59	58	58	57	56	60
Minimum	51	53	55	58	57	56	56	57	57	57	56	56	56	54	54	55	56	56	57	58	59	58	57	59	60	58	58	57	57	56	56	56
June	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	56	56	57	58	58	58	58	60	61	62	62	63	66	68	70	71	70	72	72	68	70	69	70	71	72	72	74	74	73	72	---	66
Minimum	56	56	55	56	57	58	57	58	60	61	60	60	62	65	68	69	67	67	68	65	64	64	66	64	64	65	65	67	66	65	---	62
July	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	67	70	72	75	77	76	74	73	68	74	75	74	74	72	73	73	74	75	76	76	78	78	77	76	78	77	78	78	70	78	78	75
Minimum	63	62	62	65	67	68	66	65	65	64	67	68	67	64	63	64	63	64	66	64	66	66	66	64	63	64	65	66	67	68	66	65
August	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	80	80	80	79	80	80	79	78	79	81	80	80	79	80	80	80	79	80	79	79	78	74	73	74	73	73	75	72	69	68	73	77
Minimum	66	68	68	66	68	68	67	66	66	69	68	69	68	67	68	69	69	70	68	68	68	67	65	62	63	64	64	64	63	62	64	67
September	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum	74	75	76	76	76	74	70	72	73	72	68	68	67	68	68	70	70	70	71	67	71	71	71	72	70	70	69	70	70	71	---	71
Minimum	63	64	65	65	65	64	64	62	63	62	62	60	58	59	59	60	62	63	63	74	62	63	62	63	63	63	60	66	61	61	---	63

11-5290. SOUTH FORK TRINITY RIVER NEAR SALYER, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	97	1	0.3	108	--	0.3	876	60	142
2	97	--	.3	104	1	.3	759	60	123
3	97	2	.5	107	1	.3	692	50	93
4	96	--	.5	157	46 S	21	765	96 S	201
5	96	1	.3	154	16	6.7	1020	277 S	764
6	97	--	.5	141	8	3.0	1440	315	1220
7	100	4	1.1	147	12	4.8	1350	325	1180
8	100	1	.3	280	100	76	1210	130	425
9	99	--	.3	349	75	71	1110	100	300
10	99	1	.3	218	19	11	932	65	164
11	99	--	.3	189	15	7.7	730	52	102
12	99	1	.3	372	160	161	630	49	83
13	99	--	.3	676	488 S	971	590	45	72
14	100	5	1.3	1160	947 S	2990	550	49	73
15	117	4	1.3	1140	363 S	1150	510	38	52
16	123	--	1.0	944	125	319	470	35	44
17	117	2	.6	642	202 S	352	450	42	51
18	115	2	.6	1350	954 S	3510	410	--	31
19	114	--	.6	2510	669 S	4600	380	17	17
20	114	2	.6	1780	275	1320	360	17	17
21	114	--	.6	1330	150	539	340	18	17
22	114	5	1.5	908	95	233	360	18 B	17
23	113	--	.9	685	70	129	330	18 B	16
24	111	2	.6	1570	527 S	2430	472	42 K	59
25	110	--	.6	1750	320	1510	557	28 B	42
26	110	--	.3	1510	200	815	507	20 B	27
27	107	1	.3	1370	140	518	469	20 B	25
28	106	--	.3	1170	100	316	4190	814 K	13000
29	106	1	.3	1040	75	211	4610	608 K	7900
30	106	1	.3	1020	65	179	2950	360 B	2870
31	108	1	.3	--	--	--	2370	280 B	1790
Total	3280	--	17.3	24881	--	22455.1	32389	--	30917

Day	JANUARY			FEBRUARY			MARCH		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	1810	200 B	977	2370	295	1890	2080	175	983
2	1560	160 B	674	2190	310	1830	2030	180	987
3	3380	448 K	4900	2120	250	1430	1920	145	752
4	25000	5280	356000	2750	849 S	6710	1810	155	757
5	27000	5400	394000	3470	860	8060	1810	155	757
6	19000	3850	198000	3640	785	7710	2110	350 S	2090
7	13000	4100	144000	3280	460	4070	3110	668 S	5520
8	9400	2000	50800	2880	330	2570	4960	1350 S	19000
9	7700	1100	22900	2620	260	1840	7120	1590	30600
10	6300	950	16200	2380	--	1400	9020	1490	36300
11	5200	1400	19700	2300	215	1340	6240	960	16200
12	4300	750	8710	2140	185	1070	5960	760	12200
13	3400	510	4680	1980	155	829	5400	710	10400
14	3060	640	5290	1850	150	749	5500	660	9800
15	2860	790	6100	1740	128	601	5360	580	8390
16	2780	400	3000	1650	130	579	5060	530	7240
17	2620	315	2230	1510	315	1280	4360	420	4940
18	2400	360	2330	1510	325	1330	4000	360	3890
19	2290	270	1670	1820	305	1500	4100	380	4210
20	2060	330	1840	2180	255	1500	3780	370	3780
21	1920	330	1710	2180	--	1500	3640	345	3390
22	1880	310	1570	2400	380	2460	3370	270	2460
23	1740	300	1410	2960	305	2440	3200	220	1900
24	1510	275	1120	3100	225	1880	3110	220	1850
25	1390	240	901	2830	203	1550	3260	290	2550
26	1250	200	675	2580	250	1740	3620	380	3710
27	1210	150	490	2210	188	1120	4050	423	4630
28	1150	150	466	2010	165	895	4360	420	4940
29	1640	681 S	3420	--	--	--	4390	385	4560
30	2860	460	3550	--	--	--	4640	360	4510
31	2580	320	2230	--	--	--	4700	372	4720
Total	164250	--	1261543	66650	--	61873	128070	--	218016

S Computed by subdividing day.
B Computed from estimated-concentration graph.
K Computed from estimated-concentration graph and subdividing day.

11-5290. SOUTH FORK TRINITY RIVER NEAR SALYER, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	4920	455	6040	1450	64	251	661	14	25
2	4860	410	5380	1420	--	220	640	16	28
3	4460	308	3710	1430	58	224	612	13	21
4	4280	300	3470	1420	74	284	555	--	18
5	4160	--	3400	1400	76	287	539	12	17
6	4050	295	3230	1320	74	264	549	--	22
7	4000	295	3190	1270	58	199	580	33	52
8	3850	312	3240	1220	65	214	553	--	42
9	3740	278	2810	1210	63	206	523	22	31
10	3920	630	6670	1180	46	147	490	--	21
11	4280	765	8840	1110	42	126	465	10	13
12	4280	485	5600	1050	38	108	444	--	11
13	3830	398	4120	1040	32	90	426	9	10
14	3440	272	2530	990	50	134	408	--	9.9
15	3240	240	2100	976	37	98	394	37	39
16	3230	241	2100	971	31	81	388	--	10
17	3200	255	2200	942	36	92	376	7	7.1
18	2690	195	1420	870	35	82	358	--	5.8
19	2700	167	1220	846	28	64	352	5	4.8
20	2400	140	907	849	28	64	334	--	6.3
21	2200	125	743	813	33	72	328	11	9.7
22	2050	120	664	800	24	52	321	--	5.2
23	1980	118	631	771	22	46	316	3	2.6
24	1920	105	544	768	22	46	315	--	2.6
25	1880	97	492	755	20	41	298	3	2.4
26	1820	--	450	748	18	36	291	--	3.1
27	1730	88	411	721	17	33	284	4	3.1
28	1600	91	393	717	16	31	265	--	2.9
29	1550	90	377	724	21	41	260	5	3.5
30	1470	80	318	730	34	67	255	--	3.4
31	--	--	--	693	17	32	--	--	--
Total	93730	--	77200	31204	--	3732	12580	--	432.4
	JULY			AUGUST			SEPTEMBER		
1	255	4	2.8	132	4	1.4	106	--	1.1
2	255	--	2.8	129	--	1.4	104	4	1.1
3	250	5	3.4	126	3	1.0	98	--	1.1
4	243	--	3.3	123	--	1.0	97	6	1.6
5	230	4	2.5	120	3	1.0	93	--	1.3
6	227	--	1.8	118	--	.6	91	4	1.0
7	222	3	1.8	116	2	.6	88	--	1.0
8	214	--	1.2	114	--	.6	88	5	1.2
9	220	2	1.2	114	3	.9	88	--	1.2
10	235	--	1.9	110	--	.9	88	4	1.0
11	229	4	2.5	110	3	.9	88	--	1.2
12	265	--	7.2	108	--	.9	91	--	1.7
13	239	--	13	106	3	.9	94	--	2.5
14	219	10	5.9	104	--	.8	94	14	3.6
15	215	--	4.6	104	4	1.1	94	--	2.5
16	206	6	3.3	100	--	1.1	94	7	1.8
17	196	--	4.2	99	4	1.1	93	--	1.8
18	185	10	5.0	97	--	1.0	108	6	1.7
19	178	--	4.3	97	--	.8	120	--	1.6
20	174	8	3.8	96	3	.8	120	4	1.3
21	169	--	3.7	95	--	.8	116	--	1.3
22	166	7	3.1	94	2	.5	108	4	1.2
23	158	--	3.8	94	--	.5	100	--	.8
24	154	11	4.6	93	--	.5	99	3	.8
25	150	--	2.8	93	--	.5	97	--	.8
26	147	3	1.2	93	--	.8	95	2	.5
27	144	--	1.2	93	3	.8	95	--	.5
28	144	4	1.6	93	--	.8	95	2	.5
29	141	--	1.5	93	4	1.0	94	--	.5
30	138	4	1.5	98	--	1.1	93	--	.5
31	135	--	1.5	105	4	1.1	--	--	--
Total	6103	--	103.0	3267	--	27.2	2929	--	38.7

Total discharge for year (cfs-days)..... 569333
Total load for year (tons)..... 1676354.7

11-5290. SOUTH FORK TRINITY RIVER NEAR SALYER, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment											Method of analysis
							Percent finer than size indicated, in millimeters											
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Jan. 4, 1966.....	1305	--		25000	4500			25		52		73	87	99	100	--	--	VPWC
Jan. 8.....	1030	45		9430	3310		11	18	24	31	39	44	55	70	86	99	100	VPWC
Jan. 14.....	1150	45		3020	621			--		--		73	80	88	94	100	--	V
Feb. 3.....	1440	43		2240	313			--		--		79	88	98	100	--	--	V
Mar. 30.....	0925	49		4550	618			--		--		65	76	89	95	99	100	V

11-5300. TRINITY RIVER AT HOOPA, CALIF.

LOCATION.--Lat 41°03'00", long 123°40'15", at gaging station in Hoopa Indian Reservation, on left bank at Hoopa, Humboldt County, and 0.4 mile upstream from Supply Creek.
DRAINAGE AREA.--2,865 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
Water temperatures: November 1956 to September 1966.
Sediment records: November 1956 to September 1966.
EXTREMES, 1965-66.--Water temperatures: Maximum, 78°F Aug. 10; minimum, 35°F Dec. 21.
Sediment concentrations: Maximum daily, 10,100 ppm Jan. 4; minimum daily, 2 ppm on several days.
Sediment loads: Maximum daily, 840,000 tons Jan. 4; minimum daily, 2.5 tons Oct. 1.
EXTREMES, 1956-66.--Water temperatures (1963-66): Maximum, 80°F July 16, 1965; minimum (1964-66), 37°F Dec. 17-20, 1965.
Sediment concentrations: Maximum daily, 20,000 ppm Dec. 23, 1964; minimum daily, 1 ppm on many days during 1957-64.
Sediment loads: Maximum daily, 8,900,000 tons Dec. 23, 1964; minimum daily, (revised) 1.0 ton on several days in 1960.
REMARKS.--Measurement of suspended sediment made at bridge on State Highway 96, 1.0 mile downstream from gaging station. No appreciable inflow between sampling point and gaging station except during period of heavy runoff.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (residue at 180°C)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 11, 1965....	530	--		--	--	4.9	--	127	6	--	4.9		0.3	0.0	--	--		122	8	0.2	249	8.4
Nov. 8.....	994	--		--	--	4.7	--	115	2	--	5.2		1.8	.0	--	--		110	12	.2	227	8.4
Dec. 6.....	3510	--		--	--	4.5	--	92	0	--	2.7		.3	.0	--	--		84	9	.2	178	8.2
Jan. 10, 1966....	15800	--		--	--	3.1	--	88	0	--	1.4		.6	.0	--	--		81	9	.1	169	8.1
Feb. 14.....	4330	--		--	--	3.5	--	99	2	--	1.4		.3	.0	--	--		92	8	.2	190	8.3
Mar. 25.....	7900	--		--	--	3.1	--	91	0	--	1.6		.4	.1	--	--		85	10	.1	162	8.2
Apr. 15.....	7250	--		--	--	2.5	--	74	0	--	.6		.2	.0	--	--		65	4	.1	133	8.1
May 19.....	3850	12		15	6.4	2.7	0.6	73	0	10	1.8		.6	.0	88	0.12		64	4	.2	135	8.2
June 15.....	1950	--		--	--	4.1	--	85	0	--	2.3		--	.0	--	--		74	4	.2	159	8.0
July 18.....	820	--		--	--	3.4	--	110	2	--	3.2		1.0	.0	--	--		102	9	.1	210	8.4
Aug. 15.....	426	--		--	--	4.6	--	123	0	--	4.0		.6	.0	--	--		111	10	.2	230	8.0
Sept. 12.....	418	13		29	9.9	4.8	.9	126	0	15	4.6		.7	.0	A 140	.19		113	10	.2	239	7.7

A Calculated from sum of determined constituents.

KLAMATH RIVER BASIN--Continued

11-5300. TRINITY RIVER AT HOOPA, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October	67	--	--	64	--	68	65	--	--	64	--	--	64	--	58	--	64	--	64	--	62	--	62	--	60	--	57	--	62	--	--	--
November	57	--	57	--	57	--	55	--	55	52	53	54	53	52	53	54	53	51	51	53	53	51	49	46	46	44	46	46	44	46	--	51
December	46	46	45	45	49	48	47	48	48	47	46	--	45	43	40	42	37	37	37	37	35	39	37	38	38	38	40	42	42	41	40	42
January	39	40	41	41	43	45	45	46	45	43	43	45	44	45	47	46	44	--	41	40	40	41	42	40	40	39	42	43	39	39	39	42
February	43	44	40	40	40	40	43	44	43	45	45	45	45	44	45	45	45	45	45	46	46	45	46	44	44	46	45	46	--	--	--	44
March	44	41	44	42	45	45	45	45	45	46	47	46	46	46	47	45	45	45	46	47	48	50	52	53	54	54	54	54	55	54	55	48
April	55	54	55	54	--	55	55	53	51	49	48	50	53	56	58	60	58	57	56	55	55	58	60	60	53	--	--	59	59	59	--	55
May	60	62	62	62	61	61	61	61	61	61	62	62	62	59	59	60	62	62	62	62	60	59	60	64	65	63	59	64	64	58	59	61
June	--	--	62	--	--	60	--	67	--	68	--	--	68	--	70	--	--	--	--	69	--	66	--	--	70	--	73	--	71	--	--	--
July	67	--	--	74	--	70	--	69	--	--	73	--	70	--	74	--	--	75	--	76	--	76	--	--	76	--	--	--	77	--	--	--
August	77	--	76	--	76	--	--	76	--	78	--	77	--	--	77	--	77	--	77	--	--	77	--	74	--	73	--	--	--	71	--	--
September	76	--	--	--	76	--	76	--	75	--	--	71	--	70	--	--	71	--	71	--	73	--	72	--	--	72	--	71	--	72	--	--

11-5300. TRINITY RIVER NEAR HOOPA, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966
(Where no concentrations are reported, loads are estimated)

Day	OCTOBER			NOVEMBER			DECEMBER		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	458	2	2.5	562	40	61	2000	280	1510
2	482	--	9.1	558	--	62	1940	210	1100
3	506	--	27	585	35	55	1920	220	1140
4	506	23	31	741	--	92	2160	330	1920
5	522	--	47	830	58	130	3000	1110	S 9200
6	547	57	84	749	--	120	3510	930	8810
7	548	11	16	736	69	137	3360	840	7620
8	546	--	2.9	994	--	260	3020	600	4890
9	546	--	2.9	1210	114	372	2690	370	2690
10	530	2	2.9	1000	119	321	2370	295	1890
11	530	--	2.9	986	104	277	2130	265	1520
12	530	--	2.9	1530	390	1610	1960	--	1300
13	530	8	11	2180	610	3590	1840	--	1100
14	558	--	38	3590	950	9210	1730	--	1100
15	674	77	140	3430	610	5650	1640	260	1150
16	668	--	43	2660	385	2770	1540	295	1230
17	617	8	13	2010	230	1250	1450	245	959
18	602	--	13	3080	412 S	3900	1390	145	544
19	602	16	26	5470	1330 S	19700	1360	180	661
20	586	--	52	3840	510	5290	1300	240	842
21	578	53	83	2820	300	2280	1290	145	505
22	583	--	74	2260	270	1650	1290	230	801
23	583	37	58	1990	255	1370	1260	180	612
24	578	--	53	3050	770 S	6990	1510	517 S	2280
25	572	39	60	3690	1190	11900	1810	715	3490
26	570	--	57	3320	700	6270	1640	280	1240
27	570	25	38	2870	445	3450	1550	180	753
28	566	--	29	2520	320	2180	5170	2680 S	51900
29	554	24	36	2260	300	1830	8060	2000 S	46000
30	560	--	45	2120	240	1370	5470	1010	14900
31	562	--	55	--	--	--	4660	1300	16400
Total	17364	--	1155.1	63641	--	94147	76020	--	190057
	JANUARY			FEBRUARY			MARCH		
1	3700	900	8990	5900	1450	23100	5020	--	13000
2	3370	1270	11600	5380	1550	22500	4990	--	13000
3	8220	2840 S	74400	4910	1540	20400	4620	1100	13700
4	32200	10100 S	840000	6460	2850 S	52800	4360	1090	12800
5	40500	5740 S	641000	9320	5110	129000	4380	1090	12900
6	37700	4920 S	503000	9780	3850	102000	5220	1990	28000
7	29300	2920	231000	8620	2400	55900	7360	3220	64000
8	24400	2490	164000	7520	2050	41600	10600	4540	130000
9	20600	2010	112000	6640	1980	35500	15900	4370	188000
10	15800	2320	99000	6100	1900	31300	19400	4050	212000
11	12000	2260	73200	5490	1720	25500	17400	3650	171000
12	9320	2000	49800	5040	1490	20300	14700	2260	89700
13	7540	2500	50900	4630	1640	20500	14700	2520	100000
14	6610	2580	46000	4330	950	11100	15300	2190	90500
15	6210	2250	37700	4130	1000	11200	14500	2430	95100
16	6300	2200	37400	3920	850	9000	13400	2010	72700
17	6230	--	35000	3810	930	9570	11100	1740	52100
18	5780	--	25000	3780	860	8780	9730	1880	49400
19	5290	1300	18600	4360	860	10100	9970	1910	51400
20	4900	1750	23200	5040	1440	19600	9200	1300	32300
21	4550	1250	15400	4880	1950	25700	8640	--	28000
22	4390	870	10300	4950	1850	24700	7960	1400	30100
23	4050	1040	11400	5850	1650	26100	7620	1710	35200
24	3770	1120	11400	6170	1600	26700	7460	1700	34200
25	3580	640	6190	6120	1300	21500	7900	1450	30900
26	3420	490	4520	5890	1150	18300	8820	1560	37100
27	3300	590	5260	5400	1070	15600	10100	1950	53200
28	3170	770	6590	5090	930	12800	11100	1350	40500
29	4380	1900 S	24800	--	--	--	12000	1300	42100
30	7980	2000	43100	--	--	--	12800	1590	55000
31	6710	1300	23600	--	--	--	13100	1400	49500
Total	335270	--	3244350	159510	--	831150	319350	--	1927400

S Computed by subdividing day.

11-5300. TRINITY RIVER NEAR HOOPA, CALIF.--Continued

Suspended sediment, water year October 1965 to September 1966--Continued

Day	APRIL			MAY			JUNE		
	Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment		Mean discharge (cfs)	Suspended sediment	
		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day		Mean concentration (ppm)	Tons per day
1	13800	1620	60400	4180	650	7340	2420	--	1600
2	13800	1480	55100	4310	825	9600	2150	--	1300
3	12400	1490	49900	4550	795	9770	2050	--	1200
4	11400	1520	46800	4930	935	12400	1930	--	1100
5	11000	--	42000	5540	1190	17800	1860	--	1100
6	10800	1260	36700	5010	682	9230	1890	215	1100
7	10500	940	26600	4350	575	6750	2030	--	1200
8	10200	850	23400	4160	610	6850	1980	--	1100
9	9740	960	25200	4210	--	7000	2010	--	1100
10	10200	1120	30800	4580	770	9520	2050	--	1200
11	10900	1450	42700	5040	540	7350	1970	--	1100
12	10400	1500	42100	4690	320	4050	1850	--	1000
13	8840	980	23400	4520	340	4150	1800	--	970
14	7670	800	16600	4320	400	4670	1890	--	1000
15	7250	1090	21300	4120	380	4230	1950	--	1100
16	7900	1390	29600	3990	420	4520	1950	--	950
17	8370	1280	28900	3920	450	4760	1810	--	780
18	7640	830	17100	3800	--	4400	1670	--	590
19	6620	--	14000	3850	410	4260	1630	--	530
20	5970	960	15500	3890	470	4940	1570	110	466
21	5580	900	13600	3880	540	5660	1460	--	430
22	5340	850	12300	3680	590	5860	1360	115	422
23	5280	700	9980	3400	--	5200	1320	--	360
24	5390	590	8590	3330	440	3960	1290	60	209
25	5540	580	8680	3380	390	3560	1270	--	170
26	5540	--	9300	3410	440	4050	1220	--	160
27	5050	620	8450	3260	410	3610	1210	--	150
28	4590	590	7310	3130	380	3210	1230	--	140
29	4390	650	7700	3020	290	2360	1240	--	130
30	4230	650	7420	2930	230	1820	1220	--	120
31	--	--	--	2810	230	1750	--	--	--
Total	246330	--	741430	124190	--	184630	51280	--	22777

Day	JULY			AUGUST			SEPTEMBER		
1	1160	35	110	803	27	59	570	17	26
2	1160	--	94	689	--	48	562	--	24
3	1120	--	91	608	20	33	530	--	20
4	1060	--	86	587	--	27	498	--	16
5	1010	--	82	575	16	25	474	8	10
6	1010	--	82	570	--	23	442	--	8.4
7	996	--	81	551	--	19	426	9	10
8	976	25	66	528	11	16	426	--	12
9	957	--	65	520	--	13	426	10	12
10	1010	--	55	522	8	11	426	--	12
11	937	20	51	500	--	9.4	426	--	13
12	943	--	51	480	4	5.2	418	11	12
13	929	--	50	466	--	6.3	434	--	14
14	885	--	48	442	--	7.2	474	--	15
15	906	20	49	426	8	9.2	466	--	15
16	875	--	47	418	--	11	466	--	13
17	843	--	46	402	9	9.8	450	9	11
18	820	20	44	410	--	14	578	--	20
19	799	--	43	410	22	24	666	19	34
20	786	20	42	386	--	21	626	--	30
21	763	--	47	378	--	9.2	570	17	26
22	739	30	60	370	7	7.0	538	--	26
23	720	--	60	363	--	12	506	22	30
24	702	--	53	356	19	18	490	--	25
25	686	24	44	356	--	13	474	--	13
26	670	--	34	370	7	7.0	458	5	6.2
27	668	--	29	378	--	6.1	458	--	6.2
28	650	--	42	378	--	9.2	458	10	12
29	646	24	42	370	--	13	442	--	12
30	634	--	29	450	17	21	426	11	13
31	662	--	39	562	--	26	--	--	--
Total	26722	--	1762	14624	--	532.6	14604	--	496.8

Total discharge for year (cfs-days)..... 1448905
Total load for year (tons)..... 7239887.5

11-5300. TRINITY RIVER NEAR HOOPA, CALIF.--Continued

Particle-size analyses of suspended sediment, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
Nov. 19, 1965.....	1620	51		5630	1350							66	75	87	100	--		V
Nov. 21.....	1455	53		2690	239							49	56	77	98	100		V
Dec. 15.....	1120	40		1640	41							54	59	88	100	--		V
Jan. 6, 1966.....	1335	46		38900	5250		14	18	25	33	41	48	63	87	97	100		VPWC
Jan. 31.....	1540	44		6570	747							44	54	73	96	100		V
Jan. 31.....	1650	44		6570	1230							24	31	50	100	--		V
Feb. 24.....	1230	44		6170	514							45	52	67	98	100		V
Mar. 28.....	1620	47		11500	837							44	54	69	92	100		V
Apr. 25.....	1430	53		5560	240							50	57	67	92	100		V
May 31.....	1545	59		2770	102							28	34	43	83	100		V

11-5303. BLUE CREEK NEAR KLAMATH, CALIF.

LOCATION.--Lat 41°27'00", long 123°53'40", temperature recorder at gaging station on left bank 600 feet downstream from West Fork, 3.0 miles upstream from mouth, and 9.2 miles southeast of Klamath, Del Norte County.
DRAINAGE AREA.--120 square miles.
RECORDS AVAILABLE.--Water temperatures: October 1965 to September 1966.

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	63	61	62	59	61	62	62	60	61	59	60	60	59	57	56	56	58	58	59	59	58	59	59	59	59	58	56	59	58	58	57	59
Minimum	55	55	55	55	57	55	55	56	56	57	55	55	55	55	53	51	52	54	55	54	54	54	54	54	54	54	54	56	54	54	53	55
November																																
Maximum	56	57	57	56	56	56	56	56	56	54	54	53	54	54	54	54	54	52	52	52	52	52	52	50	49	49	48	47	48	48	--	53
Minimum	54	54	55	54	53	52	55	55	54	53	53	52	53	52	52	52	52	52	51	52	50	50	50	48	46	46	45	45	45	46	--	51
December																																
Maximum	49	48	49	49	50	49	51	50	49	48	49	47	45	43	43	42	42	43	42	43	44	43	44	44	43	45	45	47	38	37	36	45
Minimum	46	47	47	48	49	48	49	49	47	46	45	43	43	41	41	40	40	41	41	41	41	41	41	41	41	43	44	37	36	36	36	43
January																																
Maximum	37	37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	36	37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
February																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
March																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
April																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
May																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
June																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
July																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
August																																
Maximum	--	--	--	68	68	67	64	66	66	66	65	63	64	64	64	65	62	63	64	62	66	65	65	64	65	66	65	66	66	67	68	65
Minimum	--	--	--	60	60	59	59	59	59	60	58	57	57	58	58	58	59	58	58	60	60	59	59	59	60	59	59	61	60	60	60	59
September																																
Maximum	67	67	68	68	69	69	69	68	69	69	68	68	68	69	69	68	68	68	68	68	68	66	65	66	65	67	68	66	66	66	--	68
Minimum	60	60	60	60	60	60	59	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	59	60	60	--	60

KLAMATH RIVER BASIN--Continued

11-5305. KLAMATH RIVER NEAR KLAMATH, CALIF.

LOCATION.--Lat 41°30'45", long 123°58'30", at gaging station, 2.8 miles upstream from Turwar Creek, and 3.3 miles east of Klamath, Del Norte County.
DRAINAGE AREA.--12,100 square miles, approximately, not including Lost River or Lower Klamath Lake basins.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
Water temperatures: November 1965 to September 1966.
EXTREMES, November 1965 to September 1966.--Water temperatures: Minimum, 42°F Jan. 20, 27, 28.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 12, 1965....	4340	--	--	--	--	18	--	110	5	--	5.4	--	--	0.0	--	--		95	0	0.8	270	8.4
Nov. 9.....	7440	--	--	--	--	11	--	100	0	--	3.4	--	--	.1	--	--		78	0	.5	204	8.2
Dec. 7.....	12800	--	--	--	--	7.4	--	81	0	--	3.0	--	--	.0	--	--		69	3	.4	166	8.2
Jan. 11, 1966....	31200	---	--	--	--	4.2	--	83	0	--	2.0	--	--	.0	--	--		73	5	.2	161	8.1
Feb. 15.....	13800	--	--	--	--	5.0	--	88	0	--	1.8	--	--	.0	--	--		75	3	.3	167	8.2
Mar. 14.....	39000	--	--	--	--	3.6	--	70	0	--	1.1	--	--	.0	--	--		60	3	.2	130	8.1
Apr. 14.....	30900	13	0.12	13	5.5	4.3	0.9	64	0	8.0	1.2	0.0	0.6	.0	79	0.11		55	3	.3	128	7.9
May 18.....	14900	12	.01	12	6.1	3.9	.8	68	0	6.0	1.4	.1	.4	.0	A 85	.12		55	0	.2	125	8.1
June 11.....	8480	13	.01	17	5.7	5.7	1.0	86	0	8.0	1.6	.2	.8	.0	95	.13		66	0	.3	154	8.0
July 18.....	3450	15	.00	22	8.0	8.3	1.5	112	0	12	3.2	.2	.8	.0	126	.17		88	0	.4	205	8.2
Aug. 16.....	2570	15	.02	24	10	18	2.4	129	0	31	5.0	.1	.8	.0	202	.27		103	0	.8	274	8.2
Sept. 13.....	2560	18	.00	22	9.6	15	2.2	121	0	23	4.9	.2	1.1	.0	156	.21		94	0	.7	246	8.1

A Residue at 180°C.

KLAMATH RIVER BASIN--Continued

11-5305. KLAMATH RIVER NEAR KLAMATH, CALIF.--Continued

Temperature (°F) of water, November 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
November																																
Maximum	--	--	--	--	57	57	57	56	56	55	55	55	54	54	54	54	54	54	54	54	54	54	54	54	54	52	52	52	51	51	--	54
Minimum	--	--	--	--	56	57	56	55	55	55	55	54	54	54	53	53	53	54	53	54	53	53	54	54	52	52	51	50	50	50	--	53
December																																
Maximum	50	49	48	47	47	47	47	47	47	48	47	48	48	48	47	47	46	46	45	44	45	45	44	44	43	43	43	43	43	44	45	46
Minimum	50	48	46	47	45	46	46	47	47	47	47	47	46	45	46	45	44	44	43	43	44	43	44	43	43	43	43	43	43	43	44	45
January																																
Maximum	45	45	45	45	46	46	46	47	47	46	45	46	46	46	47	47	46	45	45	44	44	43	43	44	44	43	43	43	43	43	43	45
Minimum	45	45	45	44	44	45	45	45	46	45	44	45	45	45	45	45	44	43	43	42	43	43	43	43	43	43	42	42	43	43	43	44
February																																
Maximum	44	44	44	45	45	46	46	46	46	45	45	45	45	45	45	45	45	45	45	45	45	46	46	46	46	46	46	46	--	--	--	45
Minimum	43	43	44	44	45	45	45	45	45	44	44	44	44	45	44	43	44	44	45	44	44	45	45	45	45	45	46	46	--	--	--	44
March																																
Maximum	46	47	47	47	46	45	45	45	45	46	46	47	47	47	47	47	47	46	47	47	47	48	47	48	48	48	48	49	49	--	49	47
Minimum	46	46	45	46	45	45	45	45	45	45	45	46	47	47	47	47	46	44	46	47	47	46	46	46	47	48	48	48	48	--	48	46
April																																
Maximum	49	49	50	50	50	50	50	51	50	50	49	48	49	50	52	53	53	53	52	51	51	52	52	53	54	54	54	52	52	52	--	51
Minimum	49	48	47	47	50	50	50	50	50	49	48	48	47	48	50	52	53	52	50	50	50	50	51	52	53	53	52	51	52	52	--	50
May																																
Maximum	52	54	54	54	54	54	54	54	55	55	55	55	55	55	55	55	55	55	54	56	57	58	58	58	58	--	--	--	--	--	--	55
Minimum	52	52	52	54	54	54	54	54	54	54	54	54	54	54	54	54	53	53	55	57	58	57	57	56	58	--	--	--	--	--	--	54
June																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
July																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
August																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
September																																
Maximum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	73	73	72	72	72	--	--
Minimum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	69	69	68	68	70	--	--

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
11-5258. WEAVER CREEK NEAR DOUGLAS CITY, CALIF. (404015 1225630)																		
Oct. 7, 1965	1520	73		2.5	3	T		--		--		--	--	--	--	--		
Nov. 15	1230	56		41	282	31		--		--		99	100	--	--	--		S
Nov. 22	1210	48		14	26	1.0		--		--		--	--	--	--	--		
Nov. 23	1145	42		43	34	3.9		--		--		--	--	--	--	--		
Nov. 25	1130	43		39	31	3.3		--		--		98	100	--	--	--		S
Nov. 26	1030	40		31	18	1.5		--		--		--	--	--	--	--		
Dec. 16	0835	32		80	3	.1		--		--		--	--	--	--	--		
Jan. 6, 1966	1100	40		183	70	35		--		--		--	--	--	--	--		
Jan. 6	1235	42		270	98	71		--		--		43	52	72	98	100		V
Jan. 12	1400	43		39	48	5.1		--		--		--	--	--	--	--		
Jan. 20	1225	38		50	22	30		--		--		--	--	--	--	--		
Jan. 29	1615	38		290	694	543		--		--		--	--	--	--	--		
Jan. 30	0930	39		185	51	25		--		--		--	--	--	--	--		
Jan. 30	1645	42		168	62	28		--		--		--	--	--	--	--		
Jan. 31	1315	45		130	34	12		--		--		--	--	--	--	--		
Feb. 4	1110	41		340	647	594	22	26	39	50	60	70	85	93	99	100		VPWC
Feb. 8	1400	43		12	14	.5		--		--		--	--	--	--	--		
Feb. 18	0725	39		93	7	1.8		--		--		--	--	--	--	--		
Feb. 18	1415	46		45	10	1.2		--		--		--	--	--	--	--		
Feb. 20	0805	39		93	22	5.5		--		--		--	--	--	--	--		
Mar. 4	1145	41		55	20	3.0		--		--		--	--	--	--	--		
Mar. 11	1615	48		177	214	102		--		--		--	--	--	--	--		
Mar. 31	1225	55		133	50	18		--		--		62	81	92	100	--		V
Apr. 6	0700	50		92	30	7.5		--		--		--	--	--	--	--		
Apr. 8	0700	50		92	14	3.5		--		--		--	--	--	--	--		
Apr. 9	0850	48		124	170	57		--		--		--	--	--	--	--		
Apr. 10	1600	50		160	510	220		--		--		--	--	--	--	--		
Apr. 11	1300	52		107	212	61		--		--		--	--	--	--	--		
Apr. 11	1430	50		120	1840	596		56		82		97	98	99	100	--		VPWC
Apr. 13	1700	54		92	52	13		--		--		--	--	--	--	--		
Apr. 15	1250	55		92	1280	318		--		--		--	--	--	--	--		
Apr. 18	1440	58		124	1740	583		--		--		--	--	--	--	--		
Apr. 20	1400	60		92	132	33		--		--		--	--	--	--	--		
Apr. 22	1500	58		92	102	25		--		--		--	--	--	--	--		
Apr. 25	1000	50		92	129	32		--		--		--	--	--	--	--		
Apr. 27	1120	54		92	64	16		--		--		--	--	--	--	--		
Apr. 29	1310	62		79	58	12		--		--		--	--	--	--	--		
May 2	1025	62		72	205	40		--		--		--	--	--	--	--		
June 2	1015	51		28	6	.5		--		--		--	--	--	--	--		
Sept. 16	1015	63		5.1	2	T		--		--		--	--	--	--	--		

T Less than 0.05 ton.

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966--Continued
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
11-5265. NORTH FORK TRINITY RIVER AT HELENA, CALIF. (404655 1230740)																	
Oct. 2, 1965	2100	57		24	1	0.1						--	--	--	--	--	
Oct. 5	1600	60		24	5	.3						--	--	--	--	--	
Oct. 7	0945	55		24	1	.1						--	--	--	--	--	
Oct. 13	1500	61		21	2	.1						--	--	--	--	--	
Oct. 19	1600	52		26	24	1.7						--	--	--	--	--	
Nov. 3	1600	53		23	6	.4						--	--	--	--	--	
Nov. 11	1000	--		68	4	.7						--	--	--	--	--	
Nov. 13	1400	49		226	56	34						--	--	--	--	--	
Nov. 14	1515	49		453	70	86						--	--	--	--	--	
Nov. 20	1600	49		577	23	36						--	--	--	--	--	
Nov. 21	1600	46		209	23	13						--	--	--	--	--	
Nov. 22	1650	45		170	11	5.0						--	--	--	--	--	
Nov. 23	1415	46		153	11	4.5						--	--	--	--	--	
Nov. 24	0915	43		253	20	14						--	--	--	--	--	
Nov. 25	1600	39		260	11	7.7						--	--	--	--	--	
Nov. 26	1415	38		250	6	4.0						--	--	--	--	--	
Nov. 27	1400	43		207	5	2.8						--	--	--	--	--	
Nov. 28	1600	42		183	3	1.5						--	--	--	--	--	
Nov. 29	1530	41		174	2	.9						--	--	--	--	--	
Nov. 30	1500	42		163	3	1.3						--	--	--	--	--	
Dec. 1	1500	43		158	2	.9						--	--	--	--	--	
Dec. 2	1330	42		160	2	.9						--	--	--	--	--	
Dec. 3	1545	43		182	3	1.5						--	--	--	--	--	
Dec. 4	1445	43		217	11	6.4						--	--	--	--	--	
Dec. 5	1000	45		533	46	66						55	79	99	100	--	V
Dec. 5	1600	45		540	40	58						--	--	--	--	--	
Dec. 6	1530	44		526	25	36						--	--	--	--	--	
Dec. 7	1500	46		415	27	30						40	59	80	100	--	V
Dec. 8	1415	44		341	26	24						--	--	--	--	--	
Dec. 9	1310	45		291	32	25						--	--	--	--	--	
Dec. 10	1345	44		237	21	13						--	--	--	--	--	
Dec. 11	1100	42		207	8	4.5						--	--	--	--	--	
Dec. 12	153C	43		178	12	5.8						--	--	--	--	--	
Dec. 13	1515	40		158	2	.9						--	--	--	--	--	
Dec. 14	1515	38		145	3	1.2						--	--	--	--	--	
Dec. 15	1445	36		129	5	1.7						--	--	--	--	--	
Dec. 15	1630	36		129	2	.7						--	--	--	--	--	
Dec. 16	1530	34		115	3	.9						--	--	--	--	--	
Dec. 17	1230	34		110	3	.9						--	--	--	--	--	
Dec. 18	1300	35		106	2	.6						--	--	--	--	--	
Dec. 19	1130	33		100	3	.8						--	--	--	--	--	
Dec. 20	1210	32		255	8	5.5						--	--	--	--	--	

Dec. 21, 1965.....	1230	35		D	101	2	0.5						--	--	--	--	--	
Dec. 22.....	1210	34			93	2	.5						--	--	--	--	--	
Dec. 23.....	1415	33			84	2	.5						--	--	--	--	--	
Dec. 24.....	1410	33			95	3	.8						--	--	--	--	--	
Dec. 25.....	1530	35			96	1	.3						--	--	--	--	--	
Dec. 26.....	1600	37			88	1	.2						--	--	--	--	--	
Dec. 27.....	1545	36			95	2	.5						--	--	--	--	--	
Dec. 28.....	1020	36			721	187	364						--	--	--	--	--	
Dec. 28.....	1610	37			825	107	238						79	84	94	100	--	V
Dec. 29.....	1600	39			384	130	135						--	--	--	--	--	
Dec. 30.....	1325	41			294	24	19						--	--	--	--	--	
Dec. 31.....	1100	37			257	15	10						--	--	--	--	--	
Jan. 1, 1966.....	1415	37			209	11	6.2						--	--	--	--	--	
Jan. 2.....	1410	39			189	10	5.1						--	--	--	--	--	
Jan. 3.....	1600	37			262	18	13						--	--	--	--	--	
Jan. 4.....	1315	33			504	34	46						--	--	--	--	--	
Jan. 5.....	1500	38			747	47	95						--	--	--	--	--	
Jan. 6.....	1040	41			1700	1080	4960						30	41	62	82	96	100 V
Jan. 6.....	1600	39			1710	546	2520						--	--	--	--	--	
Jan. 7.....	1530	43			1340	156	564						--	--	--	--	--	
Jan. 8.....	1545	45			1110	113	339						--	--	--	--	--	
Jan. 9.....	1430	42			886	68	163						--	--	--	--	--	
Jan. 10.....	1115	41			703	49	93						--	--	--	--	--	
Jan. 11.....	1000	42			551	19	28						--	--	--	--	--	
Jan. 12.....	1630	42			431	13	15						--	--	--	--	--	
Jan. 13.....	1630	43			377	18	18						--	--	--	--	--	
Jan. 14.....	1700	44			363	13	13						--	--	--	--	--	
Jan. 15.....	1600	44			463	17	21						--	--	--	--	--	
Jan. 16.....	1430	42			554	25	37						--	--	--	--	--	
Jan. 17.....	1730	42			519	12	17						--	--	--	--	--	
Jan. 18.....	1525	41			479	22	28						--	--	--	--	--	
Jan. 19.....	1430	41			437	11	13						--	--	--	--	--	
Jan. 20.....	1115	38			398	10	11						--	--	--	--	--	
Jan. 20.....	1430	40			389	8	8.4						--	--	--	--	--	
Jan. 21.....	1300	39			349	4	3.8						--	--	--	--	--	
Jan. 22.....	1445	41			330	6	5.3						--	--	--	--	--	
Jan. 23.....	1230	40			297	3	2.4						--	--	--	--	--	
Jan. 24.....	1545	43			282	6	4.6						--	--	--	--	--	
Jan. 25.....	1140	42			267	3	2.2						--	--	--	--	--	
Jan. 26.....	1315	43			256	2	1.4						--	--	--	--	--	
Jan. 27.....	1130	40			246	1	.7						--	--	--	--	--	
Jan. 28.....	1730	41			242	5	3.3						--	--	--	--	--	

D Daily mean discharge.

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966--Continued
(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters										Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
11-5265. NORTH FORK TRINITY RIVER AT HELENA, CALIF.--Continued																	
Jan. 29, 1966	1100	41		314	40	34						--	--	--	--	--	
Jan. 30	1230	44		613	20	33						--	--	--	--	--	
Jan. 31	1730	44		482	14	18						--	--	--	--	--	
Feb. 1	1430	44		416	8	9.0						--	--	--	--	--	
Feb. 2	1430	44		355	13	12						--	--	--	--	--	
Feb. 3	1600	43		333	2	1.8						--	--	--	--	--	
Feb. 4	1005	43		472	25	32						--	--	--	--	--	
Feb. 4	1600	44		572	90	139						--	--	--	--	--	
Feb. 5	1500	45		728	26	51						--	--	--	--	--	
Feb. 6	1500	45		699	23	43						--	--	--	--	--	
Feb. 7	1115	43		761	20	41						--	--	--	--	--	
Feb. 8	1200	43		667	18	32						--	--	--	--	--	
Feb. 9	1045	43		410	20	22						--	--	--	--	--	
Feb. 10	1600	44		357	7	6.7						--	--	--	--	--	
Feb. 11	1045	39		341	5	4.6						--	--	--	--	--	
Feb. 12	1340	45		320	4	3.5						--	--	--	--	--	
Feb. 13	1500	42		294	4	3.2						--	--	--	--	--	
Feb. 14	1210	42		287	5	3.9						--	--	--	--	--	
Feb. 15	1515	44		274	1	.7						--	--	--	--	--	
Feb. 16	1440	44		272	3	2.2						--	--	--	--	--	
Feb. 17	1645	43		284	2	1.5						--	--	--	--	--	
Feb. 18	1520	44		294	2	1.6						--	--	--	--	--	
Feb. 19	1345	42		346	6	5.6						--	--	--	--	--	
Feb. 20	1715	45		363	4	3.9						--	--	--	--	--	
Feb. 21	1605	45		363	5	4.9						--	--	--	--	--	
Feb. 22	1320	45		380	3	3.1						--	--	--	--	--	
Feb. 23	1645	46		516	9	13						--	--	--	--	--	
Feb. 24	1340	44		791	11	23						--	--	--	--	--	
Feb. 25	1055	43		476	5	6.4						--	--	--	--	--	
Feb. 26	1630	44		422	5	5.7						--	--	--	--	--	
Feb. 27	1655	46		395	4	4.3						--	--	--	--	--	
Feb. 28	1715	45		392	3	3.2						--	--	--	--	--	
Mar. 1	1350	41		386	16	17						--	--	--	--	--	
Mar. 2	1730	41		374	3	3.0						--	--	--	--	--	
Mar. 4	1040	41		317	5	4.3						--	--	--	--	--	
Mar. 4	1645	41		309	9	7.5						--	--	--	--	--	
Mar. 5	1655	42		297	6	4.8						--	--	--	--	--	
Mar. 6	1550	43		314	5	4.2						--	--	--	--	--	
Mar. 7	1830	45		395	4	4.3						--	--	--	--	--	
Mar. 8	1330	46		787	104	221						--	--	--	--	--	
Mar. 9	0930	44		1350	203	740						--	--	--	--	--	
Mar. 9	1730	45		1590	279	1200						--	--	--	--	--	

Mar. 10, 1966.....	1015	45	1850	301	1500	---	---	---	---	---			
Mar. 11.....	1040	44	1380	121	451	---	---	---	---	---			
Mar. 12.....	1310	48	1050	68	193	---	---	---	---	---			
Mar. 13.....	1415	48	1860	157	788	---	---	---	---	---			
Mar. 14.....	1155	48	1480	159	635	---	---	---	---	---			
Mar. 15.....	1500	45	1320	117	417	---	---	---	---	---			
Mar. 16.....	1415	44	1110	73	219	---	---	---	---	---			
Mar. 17.....	1445	43	890	68	163	---	---	---	---	---			
Mar. 18.....	1400	42	783	30	63	---	---	---	---	---			
Mar. 19.....	1615	45	719	22	43	---	---	---	---	---			
Mar. 20.....	1150	45	671	19	34	---	---	---	---	---			
Mar. 21.....	1510	46	609	16	26	---	---	---	---	---			
Mar. 22.....	1155	46	572	12	19	---	---	---	---	---			
Mar. 23.....	1255	48	565	11	17	---	---	---	---	---			
Mar. 24.....	1050	46	613	11	18	---	---	---	---	---			
Mar. 25.....	1755	49	770	28	58	---	---	---	---	---			
Mar. 26.....	1215	49	923	53	142	---	---	---	---	---			
Mar. 27.....	1100	47	1230	93	309	---	---	---	---	---			
Mar. 28.....	1030	47	1360	158	580	---	---	---	---	---			
Mar. 29.....	1315	50	1390	187	702	---	---	---	---	---			
Mar. 30.....	1040	47	1560	294	1240	---	---	---	---	---			
Mar. 31.....	1055	45	1600	607	2620	68	75	83	95	100			V
Mar. 31.....	1110	45	1600	376	1620	---	---	---	---	---			
Mar. 31.....	1400	50	1570	343	1450	---	---	---	---	---			
Apr. 1.....	1745	50	1780	389	1870	---	---	---	---	---			
Apr. 2.....	1630	52	1650	404	1800	---	---	---	---	---			
Apr. 3.....	1715	52	1540	296	1230	---	---	---	---	---			
Apr. 4.....	1700	52	1540	299	1240	---	---	---	---	---			
Apr. 5.....	1530	52	1540	269	1120	---	---	---	---	---			
Apr. 6.....	1645	52	1580	326	1390	---	---	---	---	---			
Apr. 7.....	1620	52	1520	256	1050	---	---	---	---	---			
Apr. 8.....	1700	50	1390	224	841	---	---	---	---	---			
Apr. 9.....	1645	47	1410	238	906	---	---	---	---	---			
Apr. 10.....	1645	46	1300	188	660	---	---	---	---	---			
Apr. 11.....	1405	45	1140	223	686	48	59	75	90	100			V
Apr. 11.....	1850	45	1180	153	487	---	---	---	---	---			
Apr. 12.....	1445	48	1050	135	383	---	---	---	---	---			
Apr. 13.....	1750	50	890	85	204	---	---	---	---	---			
Apr. 14.....	1740	52	818	62	137	---	---	---	---	---			
Apr. 15.....	1850	52	981	114	302	---	---	---	---	---			
Apr. 16.....	1710	53	1190	126	405	---	---	---	---	---			
Apr. 17.....	1715	51	1110	107	321	---	---	---	---	---			

Periodic determinations of suspended-sediment discharge and particle-size analyses, water year October 1965 to September 1966--Continued

(Methods of analysis: B, bottom withdrawal tube; C, chemically dispersed; D, decantation; N, in native water; P, pipet; S, sieve; V, visual accumulation tube; W, in distilled water)

Date of collection	Time (24 hour)	Water temperature (°F)	Sampling point	Discharge (cfs)	Sediment concentration (ppm)	Sediment discharge (tons per day)	Suspended sediment: Percent finer than size indicated, in millimeters											Method of analysis
							0.002	0.004	0.008	0.016	0.031	0.062	0.125	0.250	0.500	1.000	2.000	
11-5265. NORTH FORK TRINITY RIVER AT HELENA, CALIF.--Continued																		
Apr. 18, 1966.....	1745	48		962	78	203						--	--	--	--	--		
Apr. 19.....	1745	48		778	58	122						--	--	--	--	--		
Apr. 20.....	1845	47		683	37	68						--	--	--	--	--		
Apr. 21.....	1800	51		632	24	41						--	--	--	--	--		
Apr. 22.....	1030	47		628	20	34						--	--	--	--	--		
Apr. 23.....	1000	47		651	20	35						--	--	--	--	--		
Apr. 24.....	1110	48		736	27	54						--	--	--	--	--		
Apr. 25.....	0515	55		736	34	68						--	--	--	--	--		
Apr. 26.....	1015	44		783	52	110						--	--	--	--	--		
Apr. 27.....	1140	45		632	13	22						--	--	--	--	--		
May 2.....	0900	46		602	20	32						--	--	--	--	--		
May 3.....	1745	55		667	20	36						--	--	--	--	--		
May 4.....	1745	56		918	128	317						--	--	--	--	--		
May 5.....	1720	52		863	66	154						--	--	--	--	--		
May 6.....	1740	53		679	31	57						--	--	--	--	--		
May 7.....	1725	55		609	17	28						--	--	--	--	--		
May 8.....	1825	55		605	13	21						--	--	--	--	--		
May 9.....	1115	52		643	14	24						--	--	--	--	--		
May 10.....	0845	49		691	20	37						--	--	--	--	--		
May 11.....	0900	47		617	14	23						--	--	--	--	--		
May 12.....	1000	49		540	12	17						--	--	--	--	--		
May 13.....	1730	55		499	9	12						--	--	--	--	--		
May 14.....	1400	52		469	9	11						--	--	--	--	--		
May 15.....	1520	55		404	9	9.8						--	--	--	--	--		
May 16.....	1530	56		392	3	3.2						--	--	--	--	--		
May 17.....	1810	56		386	6	6.3						--	--	--	--	--		
May 18.....	1650	58		404	4	4.4						--	--	--	--	--		
May 19.....	1700	60		453	11	13						--	--	--	--	--		
May 20.....	1825	60		523	13	18						--	--	--	--	--		
May 21.....	1725	58		482	14	18						--	--	--	--	--		
May 22.....	1620	57		437	14	16						--	--	--	--	--		
May 23.....	1720	59		360	8	7.8						--	--	--	--	--		
May 24.....	1650	61		389	6	6.3						--	--	--	--	--		
May 25.....	1820	62		434	9	11						--	--	--	--	--		
May 26.....	1730	59		431	10	12						--	--	--	--	--		
May 27.....	1800	59		398	7	7.5						--	--	--	--	--		
May 28.....	1555	61		413	11	12						--	--	--	--	--		
May 29.....	1800	58		366	9	8.9						--	--	--	--	--		
May 30.....	1845	53		392	14	15						--	--	--	--	--		
May 31.....	1620	57		325	25	22						--	--	--	--	--		
June 1.....	1855	53		258	48	33						--	--	--	--	--		
June 2.....	0850	47		242	24	16						--	--	--	--	--		

June 2, 1966.....	1805	50		231	64	40						--	--	--	--	--			
June 3.....	1830	54		201	23	12						--	--	--	--	--			
June 4.....	1730	58		191	15	7.7						--	--	--	--	--			
June 5.....	1750	55		199	12	6.4						--	--	--	--	--			
June 6.....	1655	53		210	7	4.0						--	--	--	--	--			
June 7.....	1815	57		218	9	5.3						--	--	--	--	--			
June 8.....	1620	61		242	10	6.5						--	--	--	--	--			
June 9.....	1830	61		260	8	5.6						--	--	--	--	--			
June 10.....	1740	--		267	7	5.0						--	--	--	--	--			
June 11.....	1925	58		237	5	3.2						--	--	--	--	--			
June 13.....	1845	64		246	5	3.3						--	--	--	--	--			
June 14.....	2000	61		287	5	3.9						--	--	--	--	--			
June 15.....	1900	62		307	6	5.0						--	--	--	--	--			
June 16.....	1825	64		260	6	4.2						--	--	--	--	--			
June 19.....	1810	64		212	4	2.3						--	--	--	--	--			
June 20.....	1730	60		193	4	2.1						--	--	--	--	--			
June 21.....	2020	59		163	3	1.3						--	--	--	--	--			
June 22.....	1825	60		156	2	.8						--	--	--	--	--			
June 24.....	1930	62		131	2	.7						--	--	--	--	--			
June 26.....	1900	64		139	1	.4						--	--	--	--	--			
June 27.....	1915	67		144	5	1.9						--	--	--	--	--			
June 29.....	1850	65		149	2	.8						--	--	--	--	--			
June 30.....	1615	67		141	2	.8						--	--	--	--	--			
July 2.....	1940	67		122	1	.3						--	--	--	--	--			
July 5.....	1800	68		110	1	.3						--	--	--	--	--			
July 7.....	1615	68		108	1	.3						--	--	--	--	--			
July 10.....	1820	--		89	2	.5						--	--	--	--	--			
July 12.....	1845	65		86	1	.2						--	--	--	--	--			
July 15.....	1825	67		83	1	.2						--	--	--	--	--			
July 18.....	1955	68		79	1	.2						--	--	--	--	--			
Sept. 16.....	---	64		25	2	.1						--	--	--	--	--			
Sept. 19.....	1645	63		31	2	.2						--	--	--	--	--			

SMITH RIVER BASIN

11-5325. SMITH RIVER NEAR CRESCENT CITY, CALIF.

LOCATION.--Lat 41°47'20", long 124°03'20", at gaging station, 0.5 mile downstream from South Fork, and 8 miles east of Crescent City, Del Norte County.
DRAINAGE AREA.--609 square miles.
RECORDS AVAILABLE.--Chemical analyses: October 1953 to September 1966.
Water temperatures: October 1965 to September 1966.

Chemical analyses, in parts per million, water year October 1965 to September 1966

Date of collection	Mean discharge (cfs)	Silica (SiO_2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Boron (B)	Dissolved solids (calculated)			Hardness as $CaCO_3$		Sodium adsorption ratio	Specific conductance (micromhos at 25°C)	pH
															Parts per million	Tons per acre-foot	Tons per day	Calcium, Magnesium	Noncarbonate			
Oct. 12, 1965....	242	--		--	--	3.1	--	93	8	--	2.5		--	0.0	--	--		93	4	0.1	191	8.4
Nov. 9.....	993	--		--	--	2.5	--	83	1	--	2.0		--	.1	--	--		77	7	.1	153	8.3
Dec. 6.....	2810	--		--	--	3.4	--	65	0	--	1.8		--	.0	--	--		57	4	.2	113	8.1
Jan. 11, 1966....	8700	--		--	--	1.8	--	50	0	--	1.4		--	.0	--	--		42	1	.1	91	8.2
Feb. 15.....	3240	--		--	--	2.1	--	55	0	--	1.1		--	.0	--	--		47	2	.1	99	8.1
Mar. 14.....	10200	--		--	--	1.8	--	49	0	--	1.1		--	.0	--	--		42	2	.1	89	8.2
Apr. 14.....	5940	--		--	--	1.8	--	55	0	--	1.0		--	.1	--	--		48	3	.1	97	8.2
May 18.....	1360	11		7.6	7.5	1.8	0.7	59	0	4.0	1.0		0.5	.0	63	0.09		50	2	.1	103	8.0
June 14.....	686	--		--	--	2.3	--	71	0	--	1.6		--	.0	--	--		61	3	.1	125	8.2
July 19.....	356	--		--	--	1.8	--	86	0	--	1.9		--	.0	--	--		77	6	.1	153	8.2
Aug. 16.....	248	--		--	--	2.9	--	98	0	--	2.2		--	.0	--	--		88	8	.1	176	8.2
Sept. 13.....	243	12		13	14	2.8	.9	100	0	9.0	2.2		.2	.0	103	.14		90	8	.1	178	8.1

11-5325. SMITH RIVER NEAR CRESCENT CITY, CALIF.--Continued

Temperature (°F) of water, water year October 1965 to September 1966

Month	Day																													Average
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
October																																
Maximum	58	58	58	58	61	60	60	60	59	59	59	58	57	57	56	54	53	---	---	---	57	57	56	55	56	56	56	---	---	---	---	---
Minimum	57	57	57	56	57	57	58	58	57	58	57	56	56	56	53	52	51	---	---	---	55	55	55	55	55	55	55	---	---	---	---	---
November																																
Maximum	55	54	57	56	54	54	54	54	54	53	52	53	53	52	53	52	52	51	51	51	51	50	50	49	48	48	47	---	---	---	---	52
Minimum	53	53	54	55	53	51	53	53	53	52	51	52	52	51	52	51	51	50	50	50	50	49	49	48	47	47	46	---	---	---	---	51
December																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	42	42	42	43	45	46	46	45	44	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	40	41	41	42	43	45	45	44	43	---
January																																
Maximum	44	46	47	47	49	48	49	49	47	47	47	47	47	47	47	46	45	44	43	42	43	44	45	46	46	46	45	45	45	45	45	46
Minimum	43	44	46	47	47	47	48	47	46	46	46	45	45	47	46	44	43	43	42	41	41	42	44	45	44	44	43	43	45	45	43	45
February																																
Maximum	46	46	47	47	47	46	46	45	46	46	46	45	44	44	45	44	45	46	47	47	47	47	47	47	46	45	47	46	---	---	---	46
Minimum	45	44	45	47	46	44	45	44	45	44	43	44	42	41	43	42	42	44	45	45	44	45	45	45	43	43	45	45	---	---	---	44
March																																
Maximum	45	43	43	43	45	45	46	47	48	48	48	49	48	47	46	44	45	46	46	46	48	48	48	48	49	49	49	49	50	50	49	47
Minimum	41	40	41	41	43	45	45	46	46	46	45	47	47	46	44	43	42	44	44	45	45	45	45	45	46	47	47	47	47	48	47	45
April																																
Maximum	49	49	49	49	50	50	50	50	50	49	49	49	49	48	48	49	50	50	49	50	49	50	50	50	50	51	54	54	52	52	---	50
Minimum	48	48	47	48	49	50	50	50	49	49	49	49	48	48	48	48	49	49	49	49	48	49	48	49	49	50	50	52	49	49	---	49
May																																
Maximum	52	53	53	54	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	53	53	54	53	53	56	56	56	56	56	56	53
Minimum	52	52	52	51	52	52	52	52	51	52	51	51	51	52	52	52	51	50	50	52	52	52	52	52	52	54	56	56	56	56	56	52
June																																
Maximum	56	56	56	56	56	56	56	56	56	57	58	58	58	58	58	60	61	62	61	61	61	61	61	61	61	56	56	56	56	56	---	58
Minimum	56	56	56	55	55	55	55	56	56	56	57	57	57	56	57	57	60	60	60	60	60	60	60	60	60	54	56	56	56	56	---	57
July																																
Maximum	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	60	60	60	60	60	61	62	62	62	62	61	62	62	62	62	62	61	61	61	---	---	---	---	---	---	---	---	---	---	---	---	---
August																																
Maximum	---	---	71	71	72	73	72	72	73	75	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	64	65	65	65	64	64	65	66	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
September																																
Maximum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Minimum	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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